

**AMERICAN TOWER®**  
CORPORATION

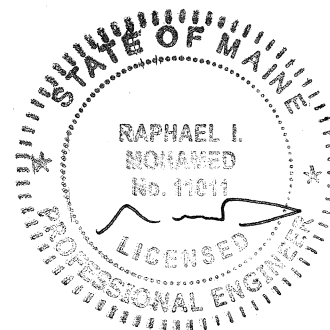
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## Structural Analysis Report

**Structure** : 275 ft. Guyed Tower  
**ATC Site Name** : Portland ME, ME  
**ATC Site Number** : 10047  
**Proposed Carrier** : U.S. Customs and Border Protection  
**Carrier Site Name** : N/A  
**Carrier Site Number** : N/A  
**County** : Cumberland  
**Eng. Number** : 45668921  
**Date** : August 20, 2010  
**Usage** : 90% Legs, 94% Diagonals,  
72% Horizontals, and 82% Guys

Submitted by:  
Robert Keith  
Project Engineer

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



8/23/10

## Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 275 ft. guyed tower located at Portland ME, ME, Cumberland County (ATC site #10047). The tower was originally designed and manufactured by Pirod (Drawing #87-07-131 dated July 18, 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 mph (Fastest Mile)  
 Radial Ice: 69 mph (Fastest Mile) with ½" radial ice concurrent  
 Standard/Code: ANSI/TIA-222-F / 2003 IBC Section 1609.1.1, Exception (5) and Section 3108.4

## Antenna Loads

The following antenna loads were used in the tower analysis.

### Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
271.0	6	Antel LPA-185080/8CF	(3) Sector Frames	(12) 1-5/8"	Verizon Wireless
	6	Antel WPA-80080/4CF			
258.0	1	Radio Waves G3-2.4	(3) Sector Frames	(12) 1-5/8" (1) 1/2"	T-Mobile
	6	RFS APX16DWV-16DWV-S-E			
	3	Ericsson KRY 112 144/1			
	3	RFS ATMAA1412D-1A20			
255.0	1	8' HP MW Dish	Dish Mount	(2) EW52	Verizon Wireless
241.0	1	8' HP MW Dish	Dish Mount	(3) 1/2"	
220.0	1	8' HP MW Dish	Dish Mount	(2) EW52	
193.0	3	KMW HB-X-WM-17-65-00T	Clearwire Mount (Side Arms)	(6) 1-5/8"	Clearwire Corporation
	3	KMW HB-X-WM-17-65-00T-TLNA			
190.0	1	10' Omni	Standoff Mount	(1) 1-1/4"	City of Portland
180.0	6	Antel BSA-185065/10CF	(3) Sector Frames	(6) 1-5/8"	US Cellular
170.0	1	10' Omni	Standoff Mount	(1) 7/8"	City of Portland
	1	TTA		(1) 1/2"	
155.0	1	4' HP MW Dish	Dish Mount	(2) EW90	Verizon Wireless
120.0	2	2' Omni	(2) Standoff Mounts	(1) 7/8, (1) 1/2"	City of Portland
96.0	1	10' Omni	Standoff Mount	(1) 1-5/8"	Ron Dorler
36.0	1	GPS	Standoff Mount	(1) 1/2"	(landlord)

**Antenna Loads (Continued)**

**Proposed Antennas**

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
250.0	1	Bird BA40-41-DIN	Leg Mount	(1) 7/8"	U.S. Customs and Border Protection
225.0	1	Bird BA40-41-DIN		(1) 7/8"	
	1	Radio Waves HPD6-4.7NS		(1) 7/8"	
75.0	1	Radio Waves HPD4-4.7		(1) 7/8"	

The proposed coax is to be installed on the tower face with the least number of existing exposed lines.

**Results**

The existing 275 ft. Pirod guyed tower with the existing and the proposed antennas is structurally acceptable per TIA/EIA-222-F and the 2003 IBC. The maximum structure usage is: 90% legs, 94% diagonals, 72% horizontals, and 82% guys.

Foundation (Location)	Reactions (kips)	Original Design Reaction (kips)	Current Analysis Reactions (kips)	% Of Original Design
Tower Base	Compression	256.4	259.4	101.2
	Horizontal	4.8	0.7	14.6
Inner Anchor (115 ft. Radius)	Uplift	122.7	108.2	88.2
	Horizontal	83.3	71.4	85.7

The structure foundation reactions resulting from the current analysis do not exceed the ones shown on the original structural drawings. No modification to the existing foundations will be required.

**Conclusion**

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

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

### 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.

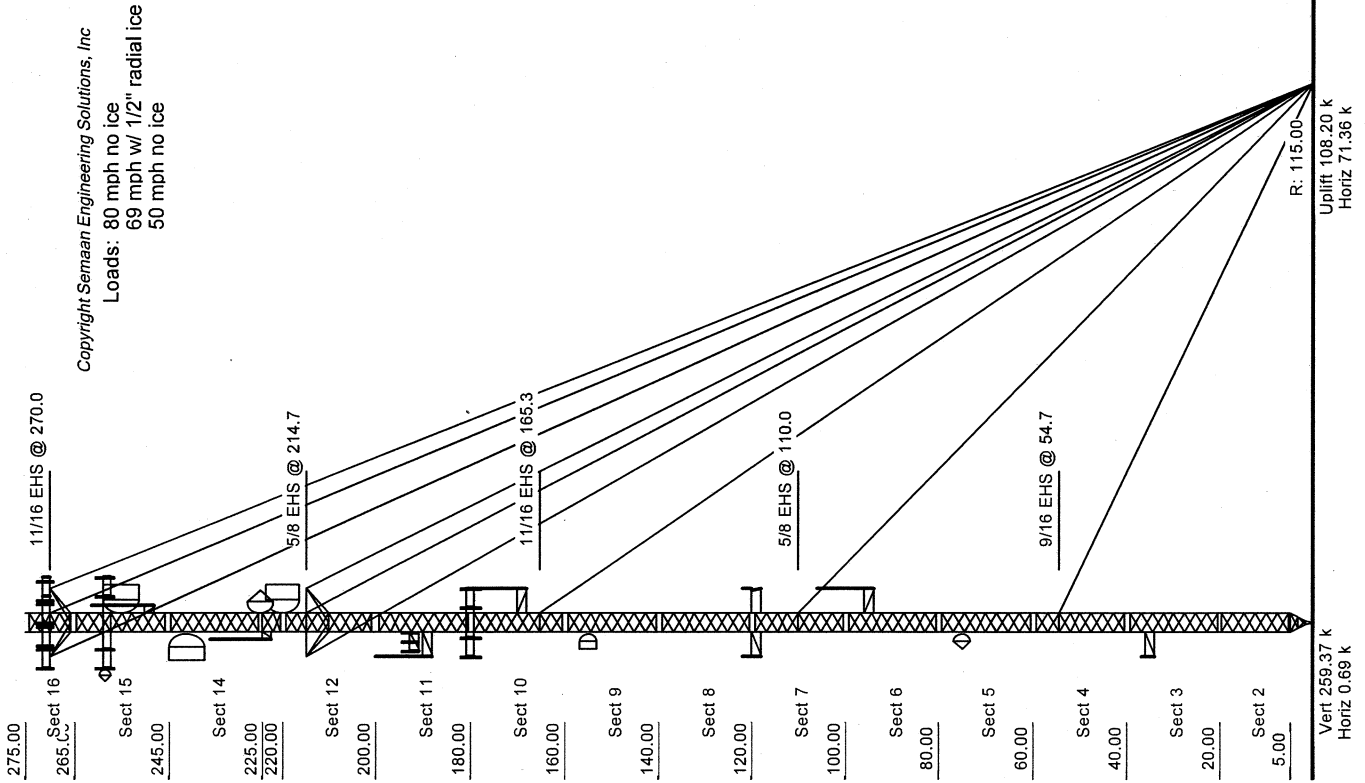
All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Engineering Services is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Job Information		
Tower : 10047	Location : Portland ME, ME	Base Width : 3.50 ft
Code : TIA/EIA-222 Rev F	Shape : Triangle	
Client : US Customs and Border Protecti		

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

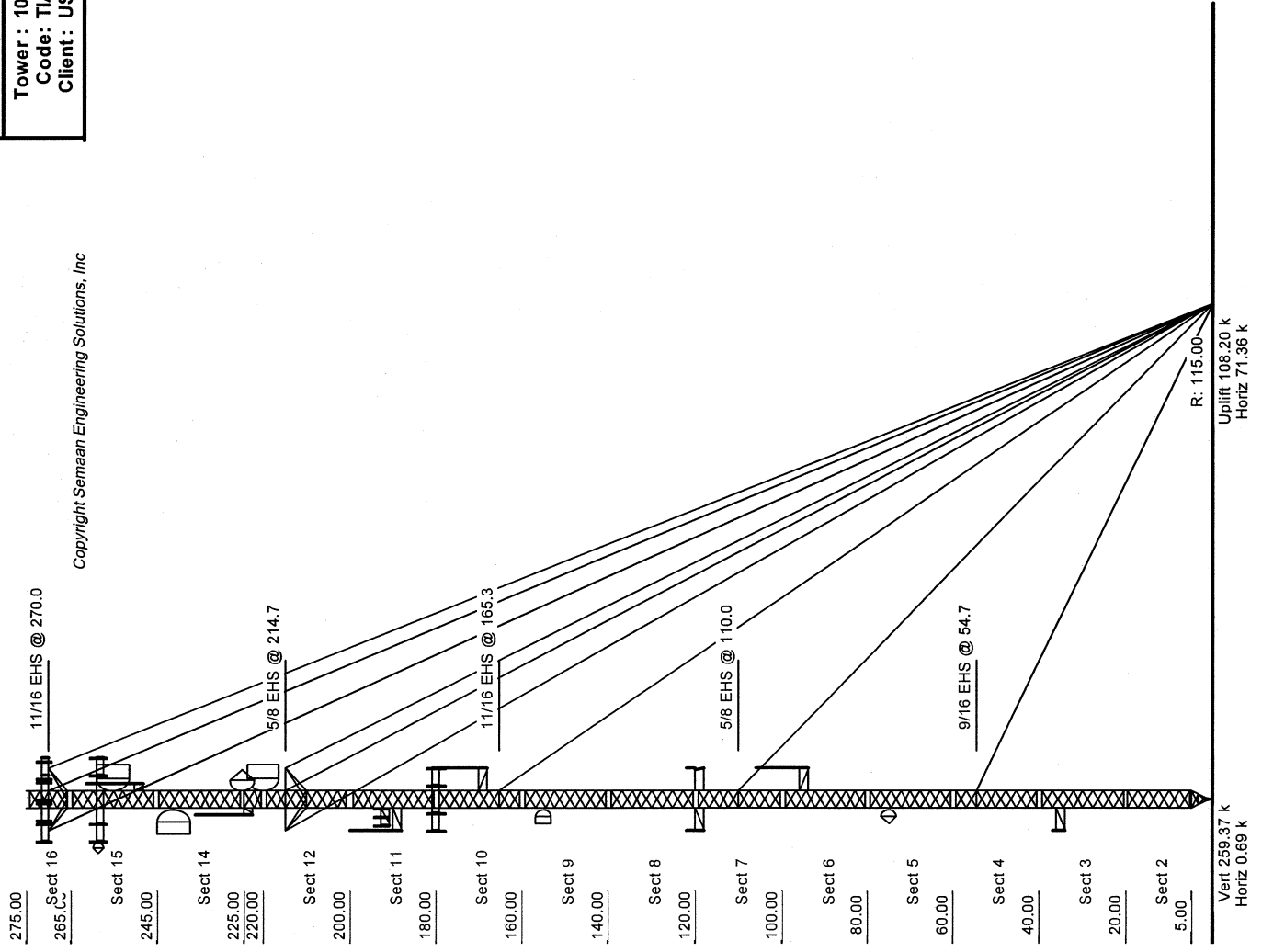
Discrete Appurtenance		
Elev (ft)	Type	Qty Description
271.00	Panel	6 Antel WPA-80080/4CF
271.00	Panel	6 Antel LPA-185080/8CF
271.00	Mounting Frame	3 Flat Light Sector Frame
260.00	Other	1 Ice Shield
258.00	Mounting Frame	3 Round Sector Frame
258.00	Dish	1 Radio Waves G3-2.4
258.00	Panel	6 RFS APX16DWV-16DWV-S-E-ACU
258.00	Panel	3 Ericsson KRY 112 144/1
255.00	Dish	1 RFS ATMAA1412D-1A20
250.00	Whip	1 Bird BA40-41-DIN
244.00	Other	1 Ice Shield
241.00	Dish	1 8' HP MW Dish
225.00	Dish	1 Radio Waves HPD6-4.7NS
225.00	Whip	1 Bird BA40-41-DIN
225.00	Other	1 Ice Shield
220.00	Dish	1 8' HP MW Dish
193.00	Panel	3 KMW HB-X-WM-17-65-00T-TLNA
193.00	Straight Arm	1 Clearwire Mount
190.00	Whip	1 10' Omni
180.00	Panel	6 Antel BSA-185065/10CF
180.00	Mounting Frame	3 Round Sector Frame
170.00	Whip	1 TTA
170.00	Straight Arm	1 Standoff Mount
155.00	Dish	1 4' HP MW Dish
120.00	Whip	2 2' Omni
120.00	Straight Arm	2 Standoff Mount
96.00	Whip	1 10' Omni
75.00	Straight Arm	1 Standoff Mount
36.00	Whip	1 Radio Waves HPD4-4.7
36.00	Straight Arm	1 GPS
		1 Standoff Mount

Linear Appurtenance			
Elev (ft)	From	To	Qty Description
10,000	271.00	271.00	2 1 5/8" Coax
10,000	271.00	10	1 5/8" Coax
10,000	260.00	1	1/2" Coax
10,000	260.00	12	1 5/8" Coax
10,000	255.00	2	EW52
0,000	250.00	1	7/8" Coax
10,000	241.00	3	1/2" Coax
0,000	225.00	2	7/8" Coax
10,000	220.00	2	EW52
10,000	193.00	6	1 5/8" Coax
10,000	190.00	1	1 1/4" Coax
10,000	180.00	6	1 5/8" Coax
0,000	170.00	1	1/2" Coax
10,000	170.00	1	7/8" Coax
10,000	155.00	2	EW90



Job Information		
Tower : 10047	Location : Portland ME, ME	Base Width : 3.50 ft
Code: TIA/EIA-222 Rev F	Shape : Triangle	
Client: US Customs and Border Protecti		
10.000	120.00	1 7/8" Coax
0.000	120.00	1 1/2" Coax
10.000	96.000	1 1 5/8" Coax
0.000	75.000	1 7/8" Coax
10.000	36.000	1 1/2" Coax

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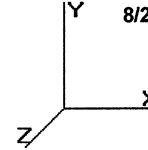
275.00  
 Sect 16  
 265.00  
 Sect 15  
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 Sect 14  
 225.00  
 220.00  
 Sect 12  
 200.00  
 Sect 11  
 180.00  
 Sect 10  
 160.00  
 Sect 9  
 140.00  
 Sect 8  
 120.00  
 Sect 7  
 100.00  
 Sect 6  
 80.00  
 Sect 5  
 60.00  
 Sect 4  
 40.00  
 Sect 3  
 20.00  
 Sect 2  
 5.00  
 Vert 259.37 k  
 Horiz 0.69 k

R: 115.00  
 Uplift 108.20 k  
 Horiz 71.36 k

Site Number: 10047  
 Location: Portland ME, ME

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Code: TIA/EIA-222 Rev F



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	Wind Height		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
	(ft)	qz																	
16	270.0	29.87	0.00	11.13	0.00	0.32	2.25	1.00	1.00	0.62	6.92	0.00	0.00	484.7	0.0	508.24	0.00	508.24	3
15	255.0	29.39	0.00	30.73	0.00	0.44	1.99	1.00	1.00	0.67	20.54	0.00	0.00	1,239.1	0.0	1,314.21	0.00	1,314.21	3
14	235.0	28.71	0.00	32.09	0.00	0.46	1.96	1.00	1.00	0.68	21.73	0.00	0.00	1,313.1	0.0	1,336.81	0.00	1,336.81	3
13	222.5	28.26	0.00	9.45	0.00	0.54	1.85	1.00	1.00	0.72	6.79	0.00	0.00	391.6	0.0	388.76	0.00	388.76	3
12	210.0	27.80	0.00	36.56	0.00	0.52	1.87	1.00	1.00	0.71	25.93	0.00	0.00	1,502.0	0.0	1,475.57	0.00	1,475.57	3
11	190.0	27.02	0.00	36.56	0.00	0.52	1.87	1.00	1.00	0.71	25.93	1.29	0.00	1,572.5	0.0	1,433.97	45.78	1,479.74	3
10	170.0	26.17	0.00	39.36	0.00	0.56	1.83	1.00	1.00	0.73	28.78	17.22	0.00	1,929.3	0.0	1,508.91	591.10	2,100.01	1
9	150.0	25.25	0.00	39.14	0.00	0.56	1.83	1.00	1.00	0.73	28.56	21.95	0.00	1,928.0	0.0	1,446.46	727.13	2,173.59	1
8	130.0	24.24	0.00	39.14	0.00	0.56	1.83	1.00	1.00	0.73	28.56	23.05	0.00	1,931.2	0.0	1,388.51	732.98	2,121.50	1
7	110.0	23.11	0.00	39.36	0.00	0.56	1.83	1.00	1.00	0.73	28.78	25.92	0.00	1,956.5	0.0	1,332.44	785.72	2,118.16	1
6	90.00	21.82	0.00	40.03	0.00	0.57	1.82	1.00	1.00	0.74	29.50	25.92	0.00	1,953.9	0.0	1,283.67	741.94	2,025.60	3
5	70.00	20.31	0.00	42.06	0.00	0.60	1.80	1.00	1.00	0.75	31.71	25.92	0.00	1,962.1	0.0	1,270.02	690.53	1,960.55	3
4	50.00	18.45	0.00	42.73	0.00	0.61	1.80	1.00	1.00	0.76	32.48	25.92	0.00	1,979.5	0.0	1,177.64	627.24	1,804.87	3
3	30.00	16.38	0.00	43.35	0.00	0.62	1.79	1.00	1.00	0.77	33.19	25.92	0.00	1,966.2	0.0	1,066.04	557.02	1,623.07	3
2	12.50	16.38	0.00	26.77	0.00	0.51	1.89	1.00	1.00	0.70	18.80	13.67	0.00	1,288.7	0.0	635.74	293.91	929.66	3
1	2.50	16.38	0.00	5.00	0.00	0.57	1.82	1.00	1.00	0.74	3.69	0.72	0.00	311.9	0.0	120.45	15.40	135.85	3
														23,710.3	0.0			23,496.20	

**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

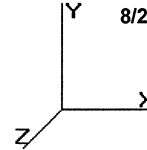
Sect Seq	Wind Height		Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
	(ft)	qz																	
16	270.0	29.87	0.00	11.13	0.00	0.32	2.25	0.80	1.00	0.62	6.92	0.00	0.00	484.7	0.0	508.24	0.00	508.24	3
15	255.0	29.39	0.00	30.73	0.00	0.44	1.99	0.80	1.00	0.67	20.54	0.00	0.00	1,239.1	0.0	1,314.21	0.00	1,314.21	3
14	235.0	28.71	0.00	32.09	0.00	0.46	1.96	0.80	1.00	0.68	21.73	0.00	0.00	1,313.1	0.0	1,336.81	0.00	1,336.81	3
13	222.5	28.26	0.00	9.45	0.00	0.54	1.85	0.80	1.00	0.72	6.79	0.00	0.00	391.6	0.0	388.76	0.00	388.76	3
12	210.0	27.80	0.00	36.56	0.00	0.52	1.87	0.80	1.00	0.71	25.93	0.00	0.00	1,502.0	0.0	1,475.57	0.00	1,475.57	3
11	190.0	27.02	0.00	36.56	0.00	0.52	1.87	0.80	1.00	0.71	25.93	1.29	0.00	1,572.5	0.0	1,433.97	45.78	1,479.74	3
10	170.0	26.17	0.00	39.36	0.00	0.56	1.83	0.80	1.00	0.73	28.78	17.22	0.00	1,929.3	0.0	1,508.91	591.10	2,100.01	1
9	150.0	25.25	0.00	39.14	0.00	0.56	1.83	0.80	1.00	0.73	28.56	21.95	0.00	1,928.0	0.0	1,446.46	727.13	2,173.59	1
8	130.0	24.24	0.00	39.14	0.00	0.56	1.83	0.80	1.00	0.73	28.56	23.05	0.00	1,931.2	0.0	1,388.51	732.98	2,121.50	1
7	110.0	23.11	0.00	39.36	0.00	0.56	1.83	0.80	1.00	0.73	28.78	25.92	0.00	1,956.5	0.0	1,332.44	785.72	2,118.16	1
6	90.00	21.82	0.00	40.03	0.00	0.57	1.82	0.80	1.00	0.74	29.50	25.92	0.00	1,953.9	0.0	1,283.67	741.94	2,025.60	3
5	70.00	20.31	0.00	42.06	0.00	0.60	1.80	0.80	1.00	0.75	31.71	25.92	0.00	1,962.1	0.0	1,270.02	690.53	1,960.55	3
4	50.00	18.45	0.00	42.73	0.00	0.61	1.80	0.80	1.00	0.76	32.48	25.92	0.00	1,979.5	0.0	1,177.64	627.24	1,804.87	3
3	30.00	16.38	0.00	43.35	0.00	0.62	1.79	0.80	1.00	0.77	33.19	25.92	0.00	1,966.2	0.0	1,066.04	557.02	1,623.07	3
2	12.50	16.38	0.00	26.77	0.00	0.51	1.89	0.80	1.00	0.70	18.80	13.67	0.00	1,288.7	0.0	635.74	293.91	929.66	3
1	2.50	16.38	0.00	5.00	0.00	0.57	1.82	0.80	1.00	0.74	3.69	0.72	0.00	311.9	0.0	120.45	15.40	135.85	3
														23,710.3	0.0			23,496.20	

Site Number: 10047  
 Location: Portland ME, ME

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8/20/2010 2:09:37 PM

Code: TIA/EIA-222 Rev F



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		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			
	(ft)	qz																				
16	270.0	29.87	0.00	11.13	0.00	0.32	2.25	0.85	1.00	0.62	6.92	0.00	0.00	484.7	0.0	508.24	0.00	508.24	3			
15	255.0	29.39	0.00	30.73	0.00	0.44	1.99	0.85	1.00	0.67	20.54	0.00	0.00	1,239.1	0.0	1,314.21	0.00	1,314.21	3			
14	235.0	28.71	0.00	32.09	0.00	0.46	1.96	0.85	1.00	0.68	21.73	0.00	0.00	1,313.1	0.0	1,336.81	0.00	1,336.81	3			
13	222.5	28.26	0.00	9.45	0.00	0.54	1.85	0.85	1.00	0.72	6.79	0.00	0.00	391.6	0.0	388.76	0.00	388.76	3			
12	210.0	27.80	0.00	36.56	0.00	0.52	1.87	0.85	1.00	0.71	25.93	0.00	0.00	1,502.0	0.0	1,475.57	0.00	1,475.57	3			
11	190.0	27.02	0.00	36.56	0.00	0.52	1.87	0.85	1.00	0.71	25.93	1.29	0.00	1,572.5	0.0	1,433.97	45.78	1,479.74	3			
10	170.0	26.17	0.00	39.36	0.00	0.56	1.83	0.85	1.00	0.73	28.78	17.22	0.00	1,929.3	0.0	1,508.91	591.10	2,100.01	1			
9	150.0	25.25	0.00	39.14	0.00	0.56	1.83	0.85	1.00	0.73	28.56	21.95	0.00	1,928.0	0.0	1,446.46	727.13	2,173.59	1			
8	130.0	24.24	0.00	39.14	0.00	0.56	1.83	0.85	1.00	0.73	28.56	23.05	0.00	1,931.2	0.0	1,388.51	732.98	2,121.50	1			
7	110.0	23.11	0.00	39.36	0.00	0.56	1.83	0.85	1.00	0.73	28.78	25.92	0.00	1,956.5	0.0	1,332.44	785.72	2,118.16	1			
6	90.00	21.82	0.00	40.03	0.00	0.57	1.82	0.85	1.00	0.74	29.50	25.92	0.00	1,953.9	0.0	1,283.67	741.94	2,025.60	3			
5	70.00	20.31	0.00	42.06	0.00	0.60	1.80	0.85	1.00	0.75	31.71	25.92	0.00	1,962.1	0.0	1,270.02	690.53	1,960.55	3			
4	50.00	18.45	0.00	42.73	0.00	0.61	1.80	0.85	1.00	0.76	32.48	25.92	0.00	1,979.5	0.0	1,177.64	627.24	1,804.87	3			
3	30.00	16.38	0.00	43.35	0.00	0.62	1.79	0.85	1.00	0.77	33.19	25.92	0.00	1,966.2	0.0	1,066.04	557.02	1,623.07	3			
2	12.50	16.38	0.00	26.77	0.00	0.51	1.89	0.85	1.00	0.70	18.80	13.67	0.00	1,288.7	0.0	635.74	293.91	929.66	3			
1	2.50	16.38	0.00	5.00	0.00	0.57	1.82	0.85	1.00	0.74	3.69	0.72	0.00	311.9	0.0	120.45	15.40	135.85	3			
														23,710.3	0.0			23,496.20				

**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		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			
	(ft)	qz																				
16	270.0	22.40	0.00	18.84	7.70	0.54	1.86	1.00	1.00	0.72	13.52	0.00	0.00	718.5	233.8	614.24	0.00	614.24	3			
15	255.0	22.04	0.00	50.67	19.94	0.72	1.78	1.00	1.00	0.84	42.43	0.00	0.00	1,948.7	709.5	1,818.85	0.00	1,818.85	3			
14	235.0	21.53	0.00	54.15	26.09	0.77	1.80	1.00	1.00	0.88	47.40	0.00	0.00	2,122.2	809.1	2,006.70	0.00	2,006.70	2			
13	222.5	21.20	0.00	15.98	6.54	0.91	1.94	1.00	1.00	1.00	15.91	0.00	0.00	619.2	227.6	716.71	0.00	716.71	3			
12	210.0	20.85	0.00	61.09	24.53	0.87	1.89	1.00	1.00	0.96	58.54	0.00	0.00	2,434.6	932.6	2,518.95	0.00	2,518.95	3			
11	190.0	20.26	0.00	61.09	24.53	0.87	1.89	1.00	1.00	0.96	58.54	1.29	0.83	2,635.8	1,063.3	2,447.94	56.48	2,504.42	3			
10	170.0	19.63	0.00	64.18	24.82	0.92	1.95	1.00	1.00	1.00	64.10	17.22	10.00	3,284.4	1,355.0	2,680.49	700.78	3,003.89	1 **			
9	150.0	18.94	0.00	63.67	24.53	0.91	1.94	1.00	1.00	0.99	63.16	21.95	14.17	3,324.9	1,397.0	2,533.92	897.27	2,898.36	1 **			
8	130.0	18.18	0.00	63.67	24.53	0.91	1.94	1.00	1.00	0.99	63.16	23.05	15.00	3,339.2	1,408.1	2,432.40	907.43	2,782.25	1 **			
7	110.0	17.33	0.00	64.18	24.82	0.92	1.95	1.00	1.00	1.00	64.10	25.92	18.33	3,405.9	1,449.3	2,367.00	1,006.1	2,652.57	1 **			
6	90.00	16.37	0.00	65.89	25.86	0.94	1.99	1.00	1.00	1.00	65.89	25.92	18.33	3,419.4	1,465.6	2,344.34	950.04	2,504.77	3 **			
5	70.00	15.23	0.00	69.50	27.44	0.99	2.09	1.00	1.00	1.00	69.50	25.92	18.33	3,448.3	1,486.2	2,413.16	884.21	2,331.22	3 **			
4	50.00	13.84	0.00	70.88	28.15	1.00	2.10	1.00	1.00	1.00	70.88	25.92	18.33	3,478.6	1,499.1	2,251.42	803.17	2,117.54	3 **			
3	30.00	12.29	0.00	72.54	29.19	1.00	2.10	1.00	1.00	1.00	72.54	25.92	18.33	3,468.2	1,502.1	2,046.30	713.26	1,880.50	3 **			
2	12.50	12.29	0.00	45.75	18.99	0.87	1.89	1.00	1.00	0.96	43.80	13.67	10.00	2,141.4	852.8	1,109.86	381.61	1,410.38	3 **			
1	2.50	12.29	0.00	9.12	4.12	1.00	2.10	1.00	1.00	1.00	9.12	0.72	0.83	409.5	97.6	257.31	24.98	235.07	3 **			
														40,198.8	16,488.4			31,996.41				

\*\* = 2QzGhAg Controls

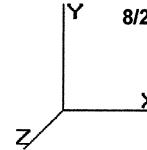


Site Number: 10047  
 Location: Portland ME, ME

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8/20/2010 2:09:37 PM

Code: TIA/EIA-222 Rev F



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)		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			Area	Area								Weight (lb)	Weight Ice (lb)					
16	270.0	22.40	0.00	18.84	7.70	0.54	1.86	0.80	1.00	0.72	13.52	0.00	0.00	718.5	233.8	614.24	0.00	614.24	3	
15	255.0	22.04	0.00	50.67	19.94	0.72	1.78	0.80	1.00	0.84	42.43	0.00	0.00	1,948.7	709.5	1,818.85	0.00	1,818.85	3	
14	235.0	21.53	0.00	54.15	26.09	0.77	1.80	0.80	1.00	0.88	47.40	0.00	0.00	2,122.2	809.1	2,006.70	0.00	2,006.70	2	
13	222.5	21.20	0.00	15.98	6.54	0.91	1.94	0.80	1.00	1.00	15.91	0.00	0.00	619.2	227.6	716.71	0.00	716.71	3	
12	210.0	20.85	0.00	61.09	24.53	0.87	1.89	0.80	1.00	0.96	58.54	0.00	0.00	2,434.6	932.6	2,518.95	0.00	2,518.95	3	
11	190.0	20.26	0.00	61.09	24.53	0.87	1.89	0.80	1.00	0.96	58.54	1.29	0.83	2,635.8	1,063.3	2,447.94	56.48	2,504.42	3	
10	170.0	19.63	0.00	64.18	24.82	0.92	1.95	0.80	1.00	1.00	64.10	17.22	10.00	3,284.4	1,355.0	2,680.49	700.78	3,003.89	1 **	
9	150.0	18.94	0.00	63.67	24.53	0.91	1.94	0.80	1.00	0.99	63.16	21.95	14.17	3,324.9	1,397.0	2,533.92	897.27	2,898.36	1 **	
8	130.0	18.18	0.00	63.67	24.53	0.91	1.94	0.80	1.00	0.99	63.16	23.05	15.00	3,339.2	1,408.1	2,432.40	907.43	2,782.25	1 **	
7	110.0	17.33	0.00	64.18	24.82	0.92	1.95	0.80	1.00	1.00	64.10	25.92	18.33	3,405.9	1,449.3	2,367.00	1,006.1	2,652.57	1 **	
6	90.00	16.37	0.00	65.89	25.86	0.94	1.99	0.80	1.00	1.00	65.89	25.92	18.33	3,419.4	1,465.6	2,344.34	950.04	2,504.77	3 **	
5	70.00	15.23	0.00	69.50	27.44	0.99	2.09	0.80	1.00	1.00	69.50	25.92	18.33	3,448.3	1,486.2	2,413.16	884.21	2,331.22	3 **	
4	50.00	13.84	0.00	70.88	28.15	1.00	2.10	0.80	1.00	1.00	70.88	25.92	18.33	3,478.6	1,499.1	2,251.42	803.17	2,117.54	3 **	
3	30.00	12.29	0.00	72.54	29.19	1.00	2.10	0.80	1.00	1.00	72.54	25.92	18.33	3,468.2	1,502.1	2,046.30	713.26	1,880.50	3 **	
2	12.50	12.29	0.00	45.75	18.99	0.87	1.89	0.80	1.00	0.96	43.80	13.67	10.00	2,141.4	852.8	1,109.86	381.61	1,410.38	3 **	
1	2.50	12.29	0.00	9.12	4.12	1.00	2.10	0.80	1.00	1.00	9.12	0.72	0.83	409.5	97.6	257.31	24.98	235.07	3 **	
														40,198.8	16,488.4			31,996.41		

\*\* = 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)		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			Area	Area								Weight (lb)	Weight Ice (lb)					
16	270.0	22.40	0.00	18.84	7.70	0.54	1.86	0.85	1.00	0.72	13.52	0.00	0.00	718.5	233.8	614.24	0.00	614.24	3	
15	255.0	22.04	0.00	50.67	19.94	0.72	1.78	0.85	1.00	0.84	42.43	0.00	0.00	1,948.7	709.5	1,818.85	0.00	1,818.85	3	
14	235.0	21.53	0.00	54.15	26.09	0.77	1.80	0.85	1.00	0.88	47.40	0.00	0.00	2,122.2	809.1	2,006.70	0.00	2,006.70	2	
13	222.5	21.20	0.00	15.98	6.54	0.91	1.94	0.85	1.00	1.00	15.91	0.00	0.00	619.2	227.6	716.71	0.00	716.71	3	
12	210.0	20.85	0.00	61.09	24.53	0.87	1.89	0.85	1.00	0.96	58.54	0.00	0.00	2,434.6	932.6	2,518.95	0.00	2,518.95	3	
11	190.0	20.26	0.00	61.09	24.53	0.87	1.89	0.85	1.00	0.96	58.54	1.29	0.83	2,635.8	1,063.3	2,447.94	56.48	2,504.42	3	
10	170.0	19.63	0.00	64.18	24.82	0.92	1.95	0.85	1.00	1.00	64.10	17.22	10.00	3,284.4	1,355.0	2,680.49	700.78	3,003.89	1 **	
9	150.0	18.94	0.00	63.67	24.53	0.91	1.94	0.85	1.00	0.99	63.16	21.95	14.17	3,324.9	1,397.0	2,533.92	897.27	2,898.36	1 **	
8	130.0	18.18	0.00	63.67	24.53	0.91	1.94	0.85	1.00	0.99	63.16	23.05	15.00	3,339.2	1,408.1	2,432.40	907.43	2,782.25	1 **	
7	110.0	17.33	0.00	64.18	24.82	0.92	1.95	0.85	1.00	1.00	64.10	25.92	18.33	3,405.9	1,449.3	2,367.00	1,006.1	2,652.57	1 **	
6	90.00	16.37	0.00	65.89	25.86	0.94	1.99	0.85	1.00	1.00	65.89	25.92	18.33	3,419.4	1,465.6	2,344.34	950.04	2,504.77	3 **	
5	70.00	15.23	0.00	69.50	27.44	0.99	2.09	0.85	1.00	1.00	69.50	25.92	18.33	3,448.3	1,486.2	2,413.16	884.21	2,331.22	3 **	
4	50.00	13.84	0.00	70.88	28.15	1.00	2.10	0.85	1.00	1.00	70.88	25.92	18.33	3,478.6	1,499.1	2,251.42	803.17	2,117.54	3 **	
3	30.00	12.29	0.00	72.54	29.19	1.00	2.10	0.85	1.00	1.00	72.54	25.92	18.33	3,468.2	1,502.1	2,046.30	713.26	1,880.50	3 **	
2	12.50	12.29	0.00	45.75	18.99	0.87	1.89	0.85	1.00	0.96	43.80	13.67	10.00	2,141.4	852.8	1,109.86	381.61	1,410.38	3 **	
1	2.50	12.29	0.00	9.12	4.12	1.00	2.10	0.85	1.00	1.00	9.12	0.72	0.83	409.5	97.6	257.31	24.98	235.07	3 **	
														40,198.8	16,488.4			31,996.41		

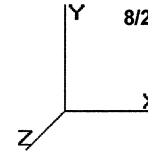
\*\* = 2QzGhAg Controls

Site Number: 10047  
 Location: Portland ME, ME

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8/20/2010 2:09:37 PM

Code: TIA/EIA-222 Rev F



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	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 Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face			
	Height (ft)	qz																				
16	270.0	11.67	0.00	11.13	0.00	0.32	2.25	1.00	1.00	0.62	6.92	0.00	0.00	484.7	0.0	198.53	0.00	198.53	3			
15	255.0	11.48	0.00	30.73	0.00	0.44	1.99	1.00	1.00	0.67	20.54	0.00	0.00	1,239.1	0.0	513.37	0.00	513.37	3			
14	235.0	11.21	0.00	32.09	0.00	0.46	1.96	1.00	1.00	0.68	21.73	0.00	0.00	1,313.1	0.0	522.19	0.00	522.19	3			
13	222.5	11.04	0.00	9.45	0.00	0.54	1.85	1.00	1.00	0.72	6.79	0.00	0.00	391.6	0.0	151.86	0.00	151.86	3			
12	210.0	10.86	0.00	36.56	0.00	0.52	1.87	1.00	1.00	0.71	25.93	0.00	0.00	1,502.0	0.0	576.39	0.00	576.39	3			
11	190.0	10.55	0.00	36.56	0.00	0.52	1.87	1.00	1.00	0.71	25.93	1.29	0.00	1,572.5	0.0	560.14	17.88	578.03	3			
10	170.0	10.22	0.00	39.36	0.00	0.56	1.83	1.00	1.00	0.73	28.78	17.22	0.00	1,929.3	0.0	589.42	230.90	820.32	1			
9	150.0	9.86	0.00	39.14	0.00	0.56	1.83	1.00	1.00	0.73	28.56	21.95	0.00	1,928.0	0.0	565.02	284.04	849.06	1			
8	130.0	9.47	0.00	39.14	0.00	0.56	1.83	1.00	1.00	0.73	28.56	23.05	0.00	1,931.2	0.0	542.39	286.32	828.71	1			
7	110.0	9.03	0.00	39.36	0.00	0.56	1.83	1.00	1.00	0.73	28.78	25.92	0.00	1,956.5	0.0	520.48	306.92	827.41	1			
6	90.00	8.52	0.00	40.03	0.00	0.57	1.82	1.00	1.00	0.74	29.50	25.92	0.00	1,953.9	0.0	501.43	289.82	791.25	3			
5	70.00	7.93	0.00	42.06	0.00	0.60	1.80	1.00	1.00	0.75	31.71	25.92	0.00	1,962.1	0.0	496.10	269.74	765.84	3			
4	50.00	7.21	0.00	42.73	0.00	0.61	1.80	1.00	1.00	0.76	32.48	25.92	0.00	1,979.5	0.0	460.01	245.02	705.03	3			
3	30.00	6.40	0.00	43.35	0.00	0.62	1.79	1.00	1.00	0.77	33.19	25.92	0.00	1,966.2	0.0	416.42	217.59	634.01	3			
2	12.50	6.40	0.00	26.77	0.00	0.51	1.89	1.00	1.00	0.70	18.80	13.67	0.00	1,288.7	0.0	248.34	114.81	363.15	3			
1	2.50	6.40	0.00	5.00	0.00	0.57	1.82	1.00	1.00	0.74	3.69	0.72	0.00	311.9	0.0	47.05	6.02	53.07	3			
														23,710.3	0.0			9,178.20				

\*\* = 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	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 Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face			
	Height (ft)	qz																				
16	270.0	11.67	0.00	11.13	0.00	0.32	2.25	0.80	1.00	0.62	6.92	0.00	0.00	484.7	0.0	198.53	0.00	198.53	3			
15	255.0	11.48	0.00	30.73	0.00	0.44	1.99	0.80	1.00	0.67	20.54	0.00	0.00	1,239.1	0.0	513.37	0.00	513.37	3			
14	235.0	11.21	0.00	32.09	0.00	0.46	1.96	0.80	1.00	0.68	21.73	0.00	0.00	1,313.1	0.0	522.19	0.00	522.19	3			
13	222.5	11.04	0.00	9.45	0.00	0.54	1.85	0.80	1.00	0.72	6.79	0.00	0.00	391.6	0.0	151.86	0.00	151.86	3			
12	210.0	10.86	0.00	36.56	0.00	0.52	1.87	0.80	1.00	0.71	25.93	0.00	0.00	1,502.0	0.0	576.39	0.00	576.39	3			
11	190.0	10.55	0.00	36.56	0.00	0.52	1.87	0.80	1.00	0.71	25.93	1.29	0.00	1,572.5	0.0	560.14	17.88	578.03	3			
10	170.0	10.22	0.00	39.36	0.00	0.56	1.83	0.80	1.00	0.73	28.78	17.22	0.00	1,929.3	0.0	589.42	230.90	820.32	1			
9	150.0	9.86	0.00	39.14	0.00	0.56	1.83	0.80	1.00	0.73	28.56	21.95	0.00	1,928.0	0.0	565.02	284.04	849.06	1			
8	130.0	9.47	0.00	39.14	0.00	0.56	1.83	0.80	1.00	0.73	28.56	23.05	0.00	1,931.2	0.0	542.39	286.32	828.71	1			
7	110.0	9.03	0.00	39.36	0.00	0.56	1.83	0.80	1.00	0.73	28.78	25.92	0.00	1,956.5	0.0	520.48	306.92	827.41	1			
6	90.00	8.52	0.00	40.03	0.00	0.57	1.82	0.80	1.00	0.74	29.50	25.92	0.00	1,953.9	0.0	501.43	289.82	791.25	3			
5	70.00	7.93	0.00	42.06	0.00	0.60	1.80	0.80	1.00	0.75	31.71	25.92	0.00	1,962.1	0.0	496.10	269.74	765.84	3			
4	50.00	7.21	0.00	42.73	0.00	0.61	1.80	0.80	1.00	0.76	32.48	25.92	0.00	1,979.5	0.0	460.01	245.02	705.03	3			
3	30.00	6.40	0.00	43.35	0.00	0.62	1.79	0.80	1.00	0.77	33.19	25.92	0.00	1,966.2	0.0	416.42	217.59	634.01	3			
2	12.50	6.40	0.00	26.77	0.00	0.51	1.89	0.80	1.00	0.70	18.80	13.67	0.00	1,288.7	0.0	248.34	114.81	363.15	3			
1	2.50	6.40	0.00	5.00	0.00	0.57	1.82	0.80	1.00	0.74	3.69	0.72	0.00	311.9	0.0	47.05	6.02	53.07	3			
														23,710.3	0.0			9,178.20				

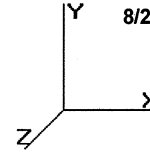
\*\* = 2QzGhAg Controls

Site Number: 10047  
 Location: Portland ME, ME

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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

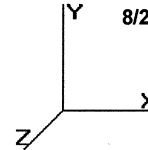
Sect Seq	Wind		Total Flat	Total Round	Ice Round	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice		Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face				
	Height (ft)	qz	Area (sqft)	Area (sqft)	Area (sqft)								Linear Area (sqft)	Total Weight (lb)					Weight Ice (lb)			
16	270.0	11.67	0.00	11.13	0.00	0.32	2.25	0.85	1.00	0.62	6.92	0.00	0.00	484.7	0.0	198.53	0.00	198.53	3			
15	255.0	11.48	0.00	30.73	0.00	0.44	1.99	0.85	1.00	0.67	20.54	0.00	0.00	1,239.1	0.0	513.37	0.00	513.37	3			
14	235.0	11.21	0.00	32.09	0.00	0.46	1.96	0.85	1.00	0.68	21.73	0.00	0.00	1,313.1	0.0	522.19	0.00	522.19	3			
13	222.5	11.04	0.00	9.45	0.00	0.54	1.85	0.85	1.00	0.72	6.79	0.00	0.00	391.6	0.0	151.86	0.00	151.86	3			
12	210.0	10.86	0.00	36.56	0.00	0.52	1.87	0.85	1.00	0.71	25.93	0.00	0.00	1,502.0	0.0	576.39	0.00	576.39	3			
11	190.0	10.55	0.00	36.56	0.00	0.52	1.87	0.85	1.00	0.71	25.93	1.29	0.00	1,572.5	0.0	560.14	17.88	578.03	3			
10	170.0	10.22	0.00	39.36	0.00	0.56	1.83	0.85	1.00	0.73	28.78	17.22	0.00	1,929.3	0.0	589.42	230.90	820.32	1			
9	150.0	9.86	0.00	39.14	0.00	0.56	1.83	0.85	1.00	0.73	28.56	21.95	0.00	1,928.0	0.0	565.02	284.04	849.06	1			
8	130.0	9.47	0.00	39.14	0.00	0.56	1.83	0.85	1.00	0.73	28.56	23.05	0.00	1,931.2	0.0	542.39	286.32	828.71	1			
7	110.0	9.03	0.00	39.36	0.00	0.56	1.83	0.85	1.00	0.73	28.78	25.92	0.00	1,956.5	0.0	520.48	306.92	827.41	1			
6	90.00	8.52	0.00	40.03	0.00	0.57	1.82	0.85	1.00	0.74	29.50	25.92	0.00	1,953.9	0.0	501.43	289.82	791.25	3			
5	70.00	7.93	0.00	42.06	0.00	0.60	1.80	0.85	1.00	0.75	31.71	25.92	0.00	1,962.1	0.0	496.10	269.74	765.84	3			
4	50.00	7.21	0.00	42.73	0.00	0.61	1.80	0.85	1.00	0.76	32.48	25.92	0.00	1,979.5	0.0	460.01	245.02	705.03	3			
3	30.00	6.40	0.00	43.35	0.00	0.62	1.79	0.85	1.00	0.77	33.19	25.92	0.00	1,966.2	0.0	416.42	217.59	634.01	3			
2	12.50	6.40	0.00	26.77	0.00	0.51	1.89	0.85	1.00	0.70	18.80	13.67	0.00	1,288.7	0.0	248.34	114.81	363.15	3			
1	2.50	6.40	0.00	5.00	0.00	0.57	1.82	0.85	1.00	0.74	3.69	0.72	0.00	311.9	0.0	47.05	6.02	53.07	3			
														23,710.3	0.0			9,178.20				

\*\* = 2QzGhAg Controls

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### Tower Loading

#### Discrete Appurtenance Properties

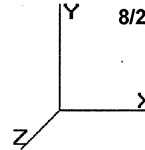
Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	X Angle (deg)	Vert Ecc (ft)
271.0	Antel WPA-80080/4CF	6	10.00	5.160	0.71	25.00	5.570	0.71	0.000	0.00	0.000
271.0	Antel LPA-185080/8CF	6	7.00	2.790	1.00	25.00	3.250	1.00	0.000	0.00	0.000
271.0	Flat Light Sector Frame	3	400.00	17.900	0.75	510.00	22.200	0.75	0.000	0.00	0.000
260.0	Ice Shield	1	150.00	6.000	1.00	350.00	7.500	1.00	0.000	0.00	0.000
258.0	Round Sector Frame	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
258.0	Radio Waves G3-2.4	1	40.00	4.200	1.00	80.00	11.760	1.00	0.000	0.00	0.000
258.0	RFS APX16DWV-16DWV-S-E-	6	39.60	6.700	0.67	69.38	7.350	0.67	0.000	0.00	0.000
258.0	Ericsson KRY 112 144/1	3	11.00	0.410	0.67	14.10	0.550	0.67	0.000	0.00	0.000
258.0	RFS ATMAA1412D-1A20	3	13.00	1.170	0.67	20.60	1.390	0.67	0.000	0.00	0.000
255.0	8' HP MW Dish	1	470.00	63.420	1.00	1010.00	64.750	1.00	0.000	0.00	0.000
250.0	Bird BA40-41-DIN	1	32.00	5.050	1.00	108.00	7.870	1.00	0.000	0.00	5.750
244.0	Ice Shield	1	150.00	6.000	1.00	350.00	7.500	1.00	0.000	0.00	0.000
241.0	8' HP MW Dish	1	470.00	63.420	1.00	1010.00	64.750	1.00	0.000	0.00	0.000
225.0	Radio Waves HPD6-4.7NS	1	281.00	35.670	1.00	484.50	36.670	1.00	0.000	0.00	0.000
225.0	Bird BA40-41-DIN	1	32.00	5.050	1.00	108.00	7.870	1.00	0.000	0.00	5.750
225.0	Ice Shield	1	150.00	6.000	1.00	350.00	7.500	1.00	0.000	0.00	0.000
220.0	8' HP MW Dish	1	470.00	63.420	1.00	1010.00	64.750	1.00	0.000	0.00	0.000
193.0	KMW HB-X-WM-17-65-00T-	3	15.90	1.140	0.76	23.30	1.370	0.76	0.000	0.00	0.000
193.0	KMW HB-X-WM-17-65-00T	3	30.00	1.950	1.00	50.90	2.260	1.00	0.000	0.00	0.000
193.0	Clearwire Mount	1	350.00	8.500	1.00	450.00	10.500	1.00	0.000	0.00	0.000
190.0	10' Omni	1	25.00	3.000	1.00	40.00	4.000	1.00	0.000	0.00	5.000
190.0	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
180.0	Antel BSA-185065/10CF	6	9.10	3.910	0.67	27.95	4.490	0.67	0.000	0.00	0.000
180.0	Round Sector Frame	3	300.00	14.400	0.75	415.00	19.200	0.75	0.000	0.00	0.000
170.0	TTA	1	10.00	1.400	1.00	20.34	1.640	1.00	0.000	0.00	0.000
170.0	10' Omni	1	25.00	3.000	1.00	40.00	4.000	1.00	0.000	0.00	5.000
170.0	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
155.0	4' HP MW Dish	1	170.00	15.860	1.00	280.00	16.520	1.00	0.000	0.00	0.000
120.0	2' Omni	2	10.00	0.680	1.00	19.00	0.940	1.00	0.000	0.00	1.500
120.0	Standoff Mount	2	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
96.00	10' Omni	1	25.00	3.000	1.00	40.00	4.000	1.00	0.000	0.00	5.000
96.00	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
75.00	Radio Waves HPD4-4.7	1	170.00	15.860	1.00	261.70	16.520	1.00	0.000	0.00	0.000
36.00	GPS	1	10.00	1.000	1.00	18.24	1.210	1.00	0.000	0.00	0.500
36.00	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
<b>Totals</b>		<b>71</b>	<b>7553.90</b>			<b>12779.46</b>			<b>Number of Appurtenances : 35</b>		

#### Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Wind	Spread On Faces	Bundling Arrangement
10.00	271.0	1 5/8" Coax	10	1.98	1.04	60.00	3	Separate
10.00	271.0	1 5/8" Coax	2	1.98	1.04	100.00	2	Separate
10.00	260.0	1 5/8" Coax	12	1.98	0.82	66.60	2	Bundled
10.00	260.0	1/2" Coax	1	0.65	0.16	100.00	2	Separate
10.00	255.0	EW52	2	2.25	0.59	100.00	1	Separate
0.00	250.0	7/8" Coax	1	1.09	0.33	100.00	3	Separate

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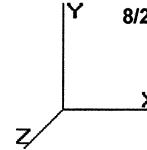
**Tower Loading**

10.00	241.0	1/2" Coax	3	0.63	0.15	66.60	1	Separate
0.00	225.0	7/8" Coax	2	1.09	0.33	100.00	3	Separate
10.00	220.0	EW52	2	2.25	0.59	100.00	1	Separate
10.00	193.0	1 5/8" Coax	6	1.98	0.82	50.00	1	Separate
10.00	190.0	1 1/4" Coax	1	1.55	0.66	100.00	Lin App	Separate
10.00	180.0	1 5/8" Coax	6	1.98	1.04	66.60	Lin App	Separate
0.00	170.0	7/8" Coax	1	1.09	0.33	100.00	Lin App	Separate
10.00	170.0	1/2" Coax	1	0.63	0.15	100.00	Lin App	Separate
10.00	155.0	EW90	2	1.32	0.32	100.00	Lin App	Separate
0.00	120.0	1/2" Coax	1	0.63	0.15	100.00	Lin App	Separate
10.00	120.0	7/8" Coax	1	1.09	0.33	100.00	Lin App	Separate
10.00	96.00	1 5/8" Coax	1	1.98	0.82	100.00	3	Separate
0.00	75.00	7/8" Coax	1	1.09	0.33	100.00	3	Separate
10.00	36.00	1/2" Coax	1	0.63	0.15	100.00	3	Separate

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**Force/Stress Summary**

**Section: 1 PIROD42B Bot Elev (ft): 0.00 Height (ft): 5.000**

		Force		Len	Bracing %			Fa	Member		Shear Bear		Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	Cap (kip)	Num Bolts	Num Holes	Cap (kip)	Cap (kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-95.38	Normal Ice	1.80	100	100	100	38.3	34.7	138.15	0	0	0.00	0.00	69	Member X
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	-4.23	Normal Ice	2.440	50	50	50	78.1	25.9	11.42	0	0	0.00	0.00	37	Member X

Max Tension Member		Force		Fy	Cap Num		Num	Shear	Bear	Use	Controls
		(kip)	Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%	
LEG		0.00		0	0.00	0	0	0.00	0.00	0	
HORIZ SOL - 3/4" SOLID		12.79	Normal Ice	50	17.67	0	0	0.00	0.00	72	Member
DIAG SOL - 3/4" SOLID		2.01	Normal Ice	50	17.67	0	0	0.00	0.00	11	Member

**Section: 2 PIROD42 Bot Elev (ft): 5.00 Height (ft): 15.000**

		Force		Len	Bracing %			Fa	Member		Shear Bear		Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	Cap (kip)	Num Bolts	Num Holes	Cap (kip)	Cap (kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-87.34	Normal Ice	2.39	100	100	100	51.0	32.3	128.28	0	0	0.00	0.00	68	Member X
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	-0.83	Normal Ice	4.238	50	50	50	135.6	10.8	4.78	0	0	0.00	0.00	17	Member X

Max Tension Member		Force		Fy	Cap Num		Num	Shear	Bear	Use	Controls
		(kip)	Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%	
LEG		0.00		0	0.00	0	0	0.00	0.00	0	
HORIZ SOL - 3/4" SOLID		5.68	Normal Ice	50	17.67	0	0	0.00	0.00	32	Member
DIAG SOL - 3/4" SOLID		0.54	60 deg Ice	50	17.67	0	0	0.00	0.00	3	Member

**Section: 3 1 Bot Elev (ft): 20.00 Height (ft): 20.000**

		Force		Len	Bracing %			Fa	Member		Shear Bear		Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	Cap (kip)	Num Bolts	Num Holes	Cap (kip)	Cap (kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-93.18	Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	72	Member X
HORIZ SOL - 3/4" SOLID		-0.21	Normal Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	11	Member X
DIAG	SOL - 3/4" SOLID	-1.78	Normal Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	36	Member X

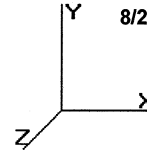
Max Tension Member		Force		Fy	Cap Num		Num	Shear	Bear	Use	Controls
		(kip)	Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%	
LEG		0.00		0	0.00	0	0	0.00	0.00	0	
HORIZ SOL - 3/4" SOLID		0.88	90 deg Ice	50	17.67	0	0	0.00	0.00	5	Member
DIAG SOL - 3/4" SOLID		0.92	Normal Ice	50	17.67	0	0	0.00	0.00	5	Member

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### Force/Stress Summary

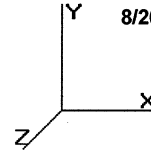
Section: 4    1		Bot Elev (ft): 40.00		Height (ft): 20.000								Shear Bear				
		Force	Len	Bracing %			Fa	Member		Num	Num	Cap	Cap	Use		
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID	-109.06 Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	84	Member X	
HORIZ	SOL - 3/4" SOLID	-0.27 60 deg No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	15	Member X	
DIAG	SOL - 3/4" SOLID	-2.19 90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	45	Member X	
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use							
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%					Controls		
LEG		0.00	0	0.00	0	0	0.00	0.00	0							
HORIZ	SOL - 3/4" SOLID	1.11 Normal Ice	50	17.67	0	0	0.00	0.00	6					Member		
DIAG	SOL - 3/4" SOLID	1.42 90 deg Ice	50	17.67	0	0	0.00	0.00	8					Member		
Section: 5    1		Bot Elev (ft): 60.00		Height (ft): 20.000								Shear Bear				
		Force	Len	Bracing %			Fa	Member		Num	Num	Cap	Cap	Use		
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID	-102.50 Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	79	Member X	
HORIZ	SOL - 3/4" SOLID	-0.24 Normal Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	13	Member X	
DIAG	SOL - 3/4" SOLID	-1.92 90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	39	Member X	
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use							
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%					Controls		
LEG		0.00	0	0.00	0	0	0.00	0.00	0							
HORIZ	SOL - 3/4" SOLID	0.92 60 deg Ice	50	17.67	0	0	0.00	0.00	5					Member		
DIAG	SOL - 3/4" SOLID	1.07 90 deg Ice	50	17.67	0	0	0.00	0.00	6					Member		
Section: 6    1		Bot Elev (ft): 80.00		Height (ft): 20.000								Shear Bear				
		Force	Len	Bracing %			Fa	Member		Num	Num	Cap	Cap	Use		
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID	-94.06 Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	72	Member X	
HORIZ	SOL - 3/4" SOLID	-0.15 Normal No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	8	Member X	
DIAG	SOL - 3/4" SOLID	-1.48 60 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	30	Member X	
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use							
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%					Controls		
LEG		0.00	0	0.00	0	0	0.00	0.00	0							
HORIZ	SOL - 3/4" SOLID	0.95 60 deg Ice	50	17.67	0	0	0.00	0.00	5					Member		
DIAG	SOL - 3/4" SOLID	0.90 60 deg No Ice	50	17.67	0	0	0.00	0.00	5					Member		

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 Location: Portland ME, ME

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### 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			Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
				X	Y	Z	KL/R		Cap (kip)	Num Bolts	Num Holes				
LEG SOL - 2 1/4" SOLID	-102.74	Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	79	Member X
HORIZ SOL - 3/4" SOLID	-0.62	60 deg Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	35	Member X
DIAG SOL - 3/4" SOLID	-3.17	90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	65	Member X

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	1.47	Normal Ice	50	17.67	0	0	0.00	0.00	8	Member
DIAG SOL - 3/4" SOLID	2.35	90 deg Ice	50	17.67	0	0	0.00	0.00	13	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			Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
				X	Y	Z	KL/R		Cap (kip)	Num Bolts	Num Holes				
LEG SOL - 2 1/4" SOLID	-81.10	Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	62	Member X
HORIZ SOL - 3/4" SOLID	-0.71	Normal Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	40	Member X
DIAG SOL - 3/4" SOLID	-2.84	90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	58	Member X

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	1.15	60 deg Ice	50	17.67	0	0	0.00	0.00	6	Member
DIAG SOL - 3/4" SOLID	2.11	90 deg Ice	50	17.67	0	0	0.00	0.00	11	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			Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
				X	Y	Z	KL/R		Cap (kip)	Num Bolts	Num Holes				
LEG SOL - 2 1/4" SOLID	-74.26	Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	57	Member X
HORIZ SOL - 3/4" SOLID	-0.01	Normal No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	0	Member X
DIAG SOL - 3/4" SOLID	-1.62	60 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	33	Member X

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	0.72	60 deg Ice	50	17.67	0	0	0.00	0.00	4	Member
DIAG SOL - 3/4" SOLID	1.00	60 deg No Ice	50	17.67	0	0	0.00	0.00	5	Member

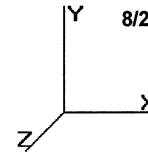


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### Force/Stress Summary

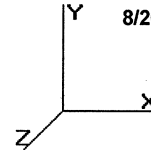
Section: 10    1		Bot Elev (ft): 160.0		Height (ft): 20.000								Shear Bear				
		Force	Len	Bracing %			Fa	Member				Cap	Bear	Use		
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID	-71.15 Normal Ice	2.33	100	100	100	49.8	32.5	129.27	0	0	0.00	0.00	55	Member X	
HORIZ	SOL - 3/4" SOLID	-0.63 60 deg Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	36	Member X	
DIAG	SOL - 3/4" SOLID	-2.76 90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	56	Member X	
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use							
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%					Controls		
LEG		0.00	0	0.00	0	0	0.00	0.00	0							
HORIZ	SOL - 3/4" SOLID	1.23 Normal Ice	50	17.67	0	0	0.00	0.00	6					Member		
DIAG	SOL - 3/4" SOLID	2.50 90 deg Ice	50	17.67	0	0	0.00	0.00	14					Member		
Section: 11    2		Bot Elev (ft): 180.0		Height (ft): 20.000								Shear Bear				
		Force	Len	Bracing %			Fa	Member				Cap	Bear	Use		
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2" SOLID	-67.70 Normal Ice	2.33	100	100	100	56.0	31.2	97.96	0	0	0.00	0.00	69	Member X	
HORIZ	SOL - 3/4" SOLID	-0.07 Normal Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	2	Member X	
DIAG	SOL - 3/4" SOLID	-1.62 90 deg Ice	4.206	47	47	47	126.5	12.4	5.49	0	0	0.00	0.00	29	Member X	
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use							
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%					Controls		
LEG		0.00	0	0.00	0	0	0.00	0.00	0							
HORIZ	SOL - 3/4" SOLID	0.67 60 deg Ice	50	17.67	0	0	0.00	0.00	3					Member		
DIAG	SOL - 3/4" SOLID	0.96 60 deg Ice	50	17.67	0	0	0.00	0.00	5					Member		
Section: 12    2		Bot Elev (ft): 200.0		Height (ft): 20.000								Shear Bear				
		Force	Len	Bracing %			Fa	Member				Cap	Bear	Use		
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	KL/R	(ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2" SOLID	-65.07 Normal Ice	2.33	100	100	100	56.0	31.2	97.96	0	0	0.00	0.00	66	Member X	
HORIZ	SOL - 3/4" SOLID	-1.86 60 deg Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	68	Member X	
DIAG	SOL - 3/4" SOLID	-5.19 60 deg Ice	4.206	47	47	47	126.5	12.4	5.49	0	0	0.00	0.00	94	Member X	
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use							
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%					Controls		
LEG	SOL - 2" SOLID	6.39 60 deg No Ice	50	125.65	0	0	0.00	0.00	5					Member		
HORIZ	SOL - 3/4" SOLID	2.00 Normal Ice	50	17.67	0	0	0.00	0.00	11					Member		
DIAG	SOL - 3/4" SOLID	5.08 60 deg No Ice	50	17.67	0	0	0.00	0.00	28					Member		

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### Force/Stress Summary

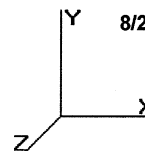
Section: 13		2 - 5'		Bot Elev (ft): 220.0				Height (ft): 5.000						
		Force	Len	Bracing %			Fa	Member		Shear Bear		Use		
Max Compression Member		(kip) Load Case	(ft)	X	Y	Z	(ksi)	Cap Num	Num	Cap	Cap	%	Controls	
								Bolts	Holes	(kip)	(kip)			
LEG	SOL - 2" SOLID	-34.40 90 deg Ice	2.17	100	100	100	52.0	32.0	100.67	0	0	0.00	0.00	34 Member X
HORIZ	SOL - 3/4" SOLID	-1.17 60 deg Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	42 Member X
DIAG	SOL - 3/4" SOLID	-4.21 60 deg Ice	4.117	50	50	50	131.7	11.5	5.07	0	0	0.00	0.00	83 Member X
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use					
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%	Controls				
LEG		0.00	0	0.00	0	0	0.00	0.00	0					
HORIZ	SOL - 3/4" SOLID	1.30 Normal Ice	50	17.67	0	0	0.00	0.00	7	Member				
DIAG	SOL - 3/4" SOLID	4.08 60 deg No Ice	50	17.67	0	0	0.00	0.00	23	Member				
Section: 14		3		Bot Elev (ft): 225.0				Height (ft): 20.000						
Max Compression Member		Force	Len	Bracing %			Fa	Member		Shear Bear		Use		
		(kip) Load Case	(ft)	X	Y	Z	(ksi)	Cap Num	Num	Cap	Cap	%	Controls	
								Bolts	Holes	(kip)	(kip)			
LEG	SOL - 1 3/4" SOLID	-57.90 60 deg Ice	2.33	100	100	100	64.0	29.4	70.62	0	0	0.00	0.00	81 Member X
HORIZ	SOL - 3/4" SOLID	-1.13 Normal Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	41 Member X
DIAG	SOL - 3/4" SOLID	-3.24 60 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	66 Member X
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use					
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%	Controls				
LEG	SOL - 1 3/4" SOLID	12.29 Normal No Ice	50	96.20	0	0	0.00	0.00	12	Member				
HORIZ	SOL - 3/4" SOLID	1.43 60 deg Ice	50	17.67	0	0	0.00	0.00	8	Member				
DIAG	SOL - 3/4" SOLID	3.11 60 deg No Ice	50	17.67	0	0	0.00	0.00	17	Member				
Section: 15		3		Bot Elev (ft): 245.0				Height (ft): 20.000						
Max Compression Member		Force	Len	Bracing %			Fa	Member		Shear Bear		Use		
		(kip) Load Case	(ft)	X	Y	Z	(ksi)	Cap Num	Num	Cap	Cap	%	Controls	
								Bolts	Holes	(kip)	(kip)			
LEG	SOL - 1 3/4" SOLID	-63.62 60 deg Ice	2.33	100	100	100	64.0	29.4	70.62	0	0	0.00	0.00	90 Member X
HORIZ	SOL - 3/4" SOLID	-1.13 Normal Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	41 Member X
DIAG	SOL - 3/4" SOLID	-2.87 60 deg No Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	59 Member X
Max Tension Member		Force	Fy	Cap Num		Num	Shear	Bear	Use					
		(kip) Load Case	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%	Controls				
LEG	SOL - 1 3/4" SOLID	16.36 Normal No Ice	50	96.20	0	0	0.00	0.00	17	Member				
HORIZ	SOL - 3/4" SOLID	1.17 60 deg No Ice	50	17.67	0	0	0.00	0.00	6	Member				
DIAG	SOL - 3/4" SOLID	2.62 60 deg No Ice	50	17.67	0	0	0.00	0.00	14	Member				

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### Force/Stress Summary

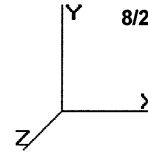
Section: 16 Top		Bot Elev (ft): 265.0		Height (ft): 10.000								Shear Bear			
		Force	Len	Bracing %			Fa	Member		Num	Cap	Cap	Use		
Max Compression Member		(kip)	(ft)	X	Y	Z	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls	
LEG SOL - 1 3/4" SOLID		-53.19	0.67	100	100	100	18.3	38.0	91.32	0	0	0.00	0.00	58	Member X
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		-3.69	4.116	50	50	50	131.7	11.5	5.07	0	0	0.00	0.00	72	Member X
Max Tension Member		Force	Fy	Cap	Num	Num	Shear	Bear	Use						
		(kip)	(ksi)	(kip)	Bolts	Holes	Cap (kip)	Cap (kip)	%						
LEG SOL - 1 3/4" SOLID		5.74	50	96.20	0	0	0.00	0.00	5			Member			
HORIZ SOL - 3/4" SOLID		0.04	50	17.67	0	0	0.00	0.00	0			Member			
DIAG SOL - 3/4" SOLID		3.36	50	17.67	0	0	0.00	0.00	19			Member			

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### Support Forces Summary

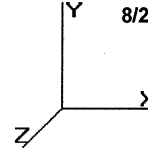
Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
90 deg	A1b	5.62	-10.52	-3.58	
	A1a	-23.37	-40.85	-13.14	
	A1	-0.69	-25.64	16.73	
	1	-0.36	113.52	-0.01	
60 deg	A1b	9.25	-17.21	-5.98	
	A1a	-24.64	-43.47	-14.24	
	A1	-0.57	-17.15	11.00	
	1	-0.32	114.30	-0.18	
Normal	A1b	18.92	-33.68	-11.59	
	A1a	-18.92	-33.68	-11.59	
	A1	0.00	-7.61	4.90	
	1	0.00	111.53	-0.38	
90 deg Ice	A1b	4.21	-14.14	-4.08	
	A1a	-62.75	-108.20	-33.98	
	A1	-3.64	-61.20	38.68	
	1	0.08	246.16	-0.63	
60 deg Ice	A1b	11.18	-26.81	-9.64	
	A1a	-61.64	-108.16	-35.63	
	A1	-2.78	-26.70	14.58	
	1	-0.56	224.01	-0.37	
Normal Ice	A1b	50.63	-92.72	-33.08	
	A1a	-50.62	-92.72	-33.08	
	A1	0.00	-11.03	3.59	
	1	0.00	259.37	0.49	
90 deg No Ice	A1b	2.81	-8.70	-2.48	
	A1a	-48.76	-86.44	-26.96	
	A1	-1.95	-47.57	29.80	
	1	-0.23	179.24	-0.36	
60 deg No Ice	A1b	7.90	-18.18	-6.21	
	A1a	-47.56	-85.44	-27.51	
	A1	-1.45	-18.11	10.02	
	1	-0.59	158.12	-0.37	
Normal No Ice	A1b	39.97	-73.80	-25.14	
	A1a	-39.97	-73.80	-25.14	
	A1	0.00	-6.63	2.32	
	1	0.00	190.91	0.01	

Max Reactions (kip)

	<u>Base</u>	<u>Anch1</u>
Vertical	259.37	-108.20
Horizontal	0.69	71.36

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**Cable Forces Summary**

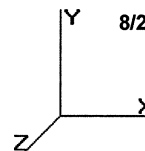
Load Case	Elevation (ft)	Cable	Node 1	Node 2	Allow Tension (kip)	Applied Tension (kip)	Use %	
Normal No Ice	54.67	9/16 EHS	A1	29	17.50	0.32	1	
		9/16 EHS	A1b	29a	17.50	6.93	39	
		9/16 EHS	A1a	29b	17.50	6.93	39	
	110.00	5/8 EHS	A1	57	21.20	0.10	0	
		5/8 EHS	A1b	57a	21.20	10.41	49	
		5/8 EHS	A1a	57b	21.20	10.40	49	
	165.33	11/16 EHS	A1	85	25.00	0.52	2	
		11/16 EHS	A1b	85a	25.00	13.20	52	
		11/16 EHS	A1a	85b	25.00	13.20	52	
	214.67	5/8 EHS	A1	109	21.20	0.94	4	
		5/8 EHS	A1b	109a	21.20	10.39	49	
		5/8 EHS	A1a	109b	21.20	10.40	49	
		5/8 EHS	A1	T5	21.20	0.94	4	
		5/8 EHS	A1a	T5b	21.20	10.37	48	
		5/8 EHS	A1b	T5a	21.20	10.32	48	
		5/8 EHS	A1b	T5	21.20	10.44	49	
		5/8 EHS	A1a	T5a	21.20	10.41	49	
		5/8 EHS	A1	T5b	21.20	0.95	4	
		270.00	11/16 EHS	A1	139	25.00	1.70	6
			11/16 EHS	A1b	139a	25.00	10.95	43
			11/16 EHS	A1a	139b	25.00	10.94	43
	5/8 EHS		A1	T7	21.20	1.60	7	
	5/8 EHS		A1a	T7b	21.20	9.78	46	
	5/8 EHS		A1b	T7a	21.20	8.59	40	
	5/8 EHS		A1b	T7	21.20	9.68	45	
	5/8 EHS		A1a	T7a	21.20	8.48	39	
	5/8 EHS		A1	T7b	21.20	1.59	7	
	60 deg No Ice	54.67	9/16 EHS	A1	29	17.50	1.59	9
9/16 EHS			A1b	29a	17.50	1.53	8	
9/16 EHS			A1a	29b	17.50	7.92	45	
110.00		5/8 EHS	A1	57	21.20	1.59	7	
		5/8 EHS	A1b	57a	21.20	1.51	7	
		5/8 EHS	A1a	57b	21.20	11.76	55	
165.33		11/16 EHS	A1	85	25.00	2.14	8	
		11/16 EHS	A1b	85a	25.00	2.06	8	
		11/16 EHS	A1a	85b	25.00	15.20	60	
214.67		5/8 EHS	A1	109	21.20	2.44	11	
		5/8 EHS	A1b	109a	21.20	2.43	11	
		5/8 EHS	A1a	109b	21.20	12.19	57	
		5/8 EHS	A1	T5	21.20	2.60	12	
		5/8 EHS	A1a	T5b	21.20	12.68	59	
		5/8 EHS	A1b	T5a	21.20	2.51	11	
		5/8 EHS	A1b	T5	21.20	2.36	11	
		5/8 EHS	A1a	T5a	21.20	11.67	55	
		5/8 EHS	A1	T5b	21.20	2.28	10	
		270.00	11/16 EHS	A1	139	25.00	3.58	14
			11/16 EHS	A1b	139a	25.00	3.69	14
			11/16 EHS	A1a	139b	25.00	12.72	50
5/8 EHS			A1	T7	21.20	3.55	16	
5/8 EHS			A1a	T7b	21.20	10.79	50	
5/8 EHS			A1b	T7a	21.20	3.24	15	

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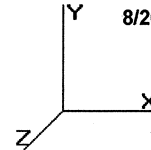


		5/8 EHS	A1b	T7	21.20	3.42	16
		5/8 EHS	A1a	T7a	21.20	10.17	47
		5/8 EHS	A1	T7b	21.20	2.96	13
90 deg No Ice	54.67	9/16 EHS	A1	29	17.50	4.52	25
		9/16 EHS	A1b	29a	17.50	0.43	2
		9/16 EHS	A1a	29b	17.50	8.11	46
	110.00	5/8 EHS	A1	57	21.20	6.50	30
		5/8 EHS	A1b	57a	21.20	0.44	2
	165.33	5/8 EHS	A1a	57b	21.20	12.28	57
		11/16 EHS	A1	85	25.00	8.11	32
		11/16 EHS	A1b	85a	25.00	0.81	3
	214.67	11/16 EHS	A1a	85b	25.00	15.62	62
		5/8 EHS	A1	109	21.20	6.58	31
		5/8 EHS	A1b	109a	21.20	1.19	5
		5/8 EHS	A1a	109b	21.20	12.28	57
		5/8 EHS	A1	T5	21.20	7.05	33
		5/8 EHS	A1a	T5b	21.20	12.73	60
		5/8 EHS	A1b	T5a	21.20	1.19	5
		5/8 EHS	A1b	T5	21.20	1.20	5
		5/8 EHS	A1a	T5a	21.20	11.80	55
		5/8 EHS	A1	T5b	21.20	6.09	28
	270.00	11/16 EHS	A1	139	25.00	7.35	29
		11/16 EHS	A1b	139a	25.00	2.06	8
		11/16 EHS	A1a	139b	25.00	12.67	50
		5/8 EHS	A1	T7	21.20	7.11	33
		5/8 EHS	A1a	T7b	21.20	10.31	48
		5/8 EHS	A1b	T7a	21.20	1.88	8
		5/8 EHS	A1b	T7	21.20	1.94	9
		5/8 EHS	A1a	T7a	21.20	10.61	50
5/8 EHS		A1	T7b	21.20	5.57	26	
Normal Ice	54.67	9/16 EHS	A1	29	17.50	0.56	3
		9/16 EHS	A1b	29a	17.50	8.65	49
		9/16 EHS	A1a	29b	17.50	8.65	49
	110.00	5/8 EHS	A1	57	21.20	0.20	0
		5/8 EHS	A1b	57a	21.20	13.53	63
	165.33	5/8 EHS	A1a	57b	21.20	13.52	63
		11/16 EHS	A1	85	25.00	0.85	3
		11/16 EHS	A1b	85a	25.00	17.28	69
	214.67	11/16 EHS	A1a	85b	25.00	17.28	69
		5/8 EHS	A1	109	21.20	1.59	7
		5/8 EHS	A1b	109a	21.20	13.22	62
		5/8 EHS	A1a	109b	21.20	13.23	62
		5/8 EHS	A1	T5	21.20	1.60	7
		5/8 EHS	A1a	T5b	21.20	13.39	63
		5/8 EHS	A1b	T5a	21.20	12.92	60
		5/8 EHS	A1b	T5	21.20	13.44	63
		5/8 EHS	A1a	T5a	21.20	12.99	61
		5/8 EHS	A1	T5b	21.20	1.61	7
	270.00	11/16 EHS	A1	139	25.00	2.75	10
		11/16 EHS	A1b	139a	25.00	13.55	54
		11/16 EHS	A1a	139b	25.00	13.54	54
		5/8 EHS	A1	T7	21.20	2.70	12
		5/8 EHS	A1a	T7b	21.20	12.29	57
		5/8 EHS	A1b	T7a	21.20	10.84	51
		5/8 EHS	A1b	T7	21.20	12.23	57
		5/8 EHS	A1a	T7a	21.20	10.76	50
5/8 EHS		A1	T7b	21.20	2.69	12	

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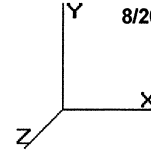


60 deg Ice	54.67	9/16 EHS	A1	29	17.50	2.41	13	
		9/16 EHS	A1b	29a	17.50	2.32	13	
	110.00	9/16 EHS	A1a	29b	17.50	10.01	57	
		5/8 EHS	A1	57	21.20	2.35	11	
		5/8 EHS	A1b	57a	21.20	2.25	10	
	165.33	5/8 EHS	A1a	57b	21.20	15.42	72	
		11/16 EHS	A1	85	25.00	3.05	12	
		11/16 EHS	A1b	85a	25.00	2.97	11	
	214.67	11/16 EHS	A1a	85b	25.00	20.14	80	
		5/8 EHS	A1	109	21.20	3.71	17	
		5/8 EHS	A1b	109a	21.20	3.70	17	
		5/8 EHS	A1a	109b	21.20	15.59	73	
		5/8 EHS	A1	T5	21.20	3.89	18	
		5/8 EHS	A1a	T5b	21.20	15.94	75	
		5/8 EHS	A1b	T5a	21.20	3.70	17	
		5/8 EHS	A1b	T5	21.20	3.70	17	
		5/8 EHS	A1a	T5a	21.20	15.16	71	
		270.00	5/8 EHS	A1	T5b	21.20	3.53	16
			11/16 EHS	A1	139	25.00	5.23	20
			11/16 EHS	A1b	139a	25.00	5.35	21
	11/16 EHS		A1a	139b	25.00	15.88	63	
	5/8 EHS		A1	T7	21.20	5.24	24	
	5/8 EHS		A1a	T7b	21.20	13.49	63	
	5/8 EHS		A1b	T7a	21.20	4.88	23	
	5/8 EHS		A1b	T7	21.20	5.19	24	
	5/8 EHS		A1a	T7a	21.20	13.06	61	
	5/8 EHS		A1	T7b	21.20	4.62	21	
	90 deg Ice	54.67	9/16 EHS	A1	29	17.50	5.86	33
			9/16 EHS	A1b	29a	17.50	0.76	4
		110.00	9/16 EHS	A1a	29b	17.50	10.12	57
5/8 EHS			A1	57	21.20	8.56	40	
5/8 EHS			A1b	57a	21.20	0.71	3	
165.33		5/8 EHS	A1a	57b	21.20	15.96	75	
		11/16 EHS	A1	85	25.00	10.55	42	
		11/16 EHS	A1b	85a	25.00	1.27	5	
214.67		11/16 EHS	A1a	85b	25.00	20.51	82	
		5/8 EHS	A1	109	21.20	8.59	40	
		5/8 EHS	A1b	109a	21.20	1.99	9	
		5/8 EHS	A1a	109b	21.20	15.55	73	
		5/8 EHS	A1	T5	21.20	9.15	43	
		5/8 EHS	A1a	T5b	21.20	15.73	74	
		5/8 EHS	A1b	T5a	21.20	1.97	9	
		5/8 EHS	A1b	T5	21.20	2.02	9	
		5/8 EHS	A1a	T5a	21.20	15.28	72	
		270.00	5/8 EHS	A1	T5b	21.20	7.99	37
			11/16 EHS	A1	139	25.00	9.40	37
			11/16 EHS	A1b	139a	25.00	3.28	13
11/16 EHS			A1a	139b	25.00	15.60	62	
5/8 EHS			A1	T7	21.20	9.15	43	
5/8 EHS			A1a	T7b	21.20	12.74	60	
5/8 EHS			A1b	T7a	21.20	3.14	14	
5/8 EHS			A1b	T7	21.20	3.23	15	
5/8 EHS			A1a	T7a	21.20	13.40	63	
5/8 EHS			A1	T7b	21.20	7.56	35	
Normal		54.67	9/16 EHS	A1	29	17.50	1.61	9
			9/16 EHS	A1b	29a	17.50	4.13	23

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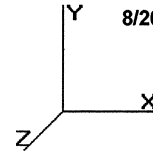
		9/16 EHS	A1a	29b	17.50	4.13	23
	110.00	5/8 EHS	A1	57	21.20	1.05	4
		5/8 EHS	A1b	57a	21.20	4.90	23
		5/8 EHS	A1a	57b	21.20	4.90	23
	165.33	11/16 EHS	A1	85	25.00	0.66	2
		11/16 EHS	A1b	85a	25.00	5.58	22
		11/16 EHS	A1a	85b	25.00	5.58	22
	214.67	5/8 EHS	A1	109	21.20	0.78	3
		5/8 EHS	A1b	109a	21.20	4.62	21
		5/8 EHS	A1a	109b	21.20	4.62	21
		5/8 EHS	A1	T5	21.20	0.81	3
		5/8 EHS	A1a	T5b	21.20	4.63	21
		5/8 EHS	A1b	T5a	21.20	4.54	21
		5/8 EHS	A1b	T5	21.20	4.65	21
		5/8 EHS	A1a	T5a	21.20	4.57	21
		5/8 EHS	A1	T5b	21.20	0.83	3
	270.00	11/16 EHS	A1	139	25.00	1.76	7
		11/16 EHS	A1b	139a	25.00	5.34	21
		11/16 EHS	A1a	139b	25.00	5.34	21
		5/8 EHS	A1	T7	21.20	1.74	8
		5/8 EHS	A1a	T7b	21.20	4.73	22
		5/8 EHS	A1b	T7a	21.20	4.35	20
		5/8 EHS	A1b	T7	21.20	4.70	22
		5/8 EHS	A1a	T7a	21.20	4.32	20
		5/8 EHS	A1	T7b	21.20	1.70	8
60 deg	54.67	9/16 EHS	A1	29	17.50	2.44	13
		9/16 EHS	A1b	29a	17.50	2.43	13
		9/16 EHS	A1a	29b	17.50	4.89	27
	110.00	5/8 EHS	A1	57	21.20	2.25	10
		5/8 EHS	A1b	57a	21.20	2.22	10
		5/8 EHS	A1a	57b	21.20	6.23	29
	165.33	11/16 EHS	A1	85	25.00	2.40	9
		11/16 EHS	A1b	85a	25.00	2.37	9
		11/16 EHS	A1a	85b	25.00	7.46	29
	214.67	5/8 EHS	A1	109	21.20	2.28	10
		5/8 EHS	A1b	109a	21.20	2.28	10
		5/8 EHS	A1a	109b	21.20	6.08	28
		5/8 EHS	A1	T5	21.20	2.42	11
		5/8 EHS	A1a	T5b	21.20	6.20	29
		5/8 EHS	A1b	T5a	21.20	2.32	10
		5/8 EHS	A1b	T5	21.20	2.23	10
		5/8 EHS	A1a	T5a	21.20	5.92	27
		5/8 EHS	A1	T5b	21.20	2.13	10
	270.00	11/16 EHS	A1	139	25.00	3.09	12
		11/16 EHS	A1b	139a	25.00	3.14	12
		11/16 EHS	A1a	139b	25.00	6.68	26
		5/8 EHS	A1	T7	21.20	2.98	14
		5/8 EHS	A1a	T7b	21.20	5.68	26
		5/8 EHS	A1b	T7a	21.20	2.66	12
		5/8 EHS	A1b	T7	21.20	2.88	13
		5/8 EHS	A1a	T7a	21.20	5.50	25
		5/8 EHS	A1	T7b	21.20	2.49	11
90 deg	54.67	9/16 EHS	A1	29	17.50	3.29	18
		9/16 EHS	A1b	29a	17.50	1.81	10
		9/16 EHS	A1a	29b	17.50	4.70	26
	110.00	5/8 EHS	A1	57	21.20	3.62	17
		5/8 EHS	A1b	57a	21.20	1.28	6



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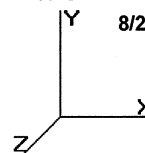
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	5/8 EHS	A1a	57b	21.20	5.90	27
165.33	11/16 EHS	A1	85	25.00	4.06	16
	11/16 EHS	A1b	85a	25.00	1.17	4
	11/16 EHS	A1a	85b	25.00	6.98	27
214.67	5/8 EHS	A1	109	21.20	3.49	16
	5/8 EHS	A1b	109a	21.20	1.30	6
	5/8 EHS	A1a	109b	21.20	5.69	26
	5/8 EHS	A1	T5	21.20	3.69	17
	5/8 EHS	A1a	T5b	21.20	5.83	27
	5/8 EHS	A1b	T5a	21.20	1.35	6
	5/8 EHS	A1b	T5	21.20	1.27	5
	5/8 EHS	A1a	T5a	21.20	5.51	25
	5/8 EHS	A1	T5b	21.20	3.27	15
270.00	11/16 EHS	A1	139	25.00	4.22	16
	11/16 EHS	A1b	139a	25.00	2.19	8
	11/16 EHS	A1a	139b	25.00	6.31	25
	5/8 EHS	A1	T7	21.20	3.95	18
	5/8 EHS	A1a	T7b	21.20	5.26	24
	5/8 EHS	A1b	T7a	21.20	1.98	9
	5/8 EHS	A1b	T7	21.20	2.06	9
	5/8 EHS	A1a	T7a	21.20	5.32	25
	5/8 EHS	A1	T7b	21.20	3.33	15

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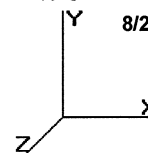
**Deflections and Rotations**

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
50.00 mph Wind Normal To Face with No Ice	37.00	0.0377	-0.0027	0.0520
	74.67	0.0729	-0.0001	0.0609
	97.00	0.0938	-0.0002	0.0674
	120.00	0.1161	0.0000	0.1361
	154.67	0.1555	0.0000	0.0516
	170.00	0.1687	0.0000	0.0752
	180.00	0.1800	0.0000	0.1033
	190.00	0.1897	0.0000	0.0713
	192.33	0.1917	0.0000	0.0481
	220.00	0.2158	0.0002	0.2933
	225.00	0.2251	0.0002	0.2980
	242.00	0.2481	0.0001	0.0233
	244.33	0.2492	0.0001	0.1098
	250.33	0.2547	0.0001	0.0340
	255.00	0.2539	0.0000	0.0261
50.00 mph Wind at 60 deg From Face with No Ice	257.33	0.2526	0.0001	0.0444
	259.67	0.2492	0.0000	0.0665
	270.00	0.2305	0.0001	0.1010
	37.00	0.0436	0.1594	0.0492
	74.67	0.0776	0.0903	0.0599
	97.00	0.0992	0.0595	0.0553
	120.00	0.1247	0.0383	0.1402
	154.67	0.1741	0.0207	0.0718
	170.00	0.1926	0.0173	0.0893
	180.00	0.2077	0.0154	0.1536
	190.00	0.2218	0.0138	0.0661
	192.33	0.2248	0.0134	0.0756
	220.00	0.2607	0.0113	0.3362
	225.00	0.2728	0.0113	0.3032
	242.00	0.3034	0.0073	0.0489
50.00 mph Wind at 90 deg From Face with No Ice	244.33	0.3052	0.0069	0.1007
	250.33	0.3105	0.0060	0.0312
	255.00	0.3107	0.0054	0.0149
	257.33	0.3100	0.0051	0.0321
	259.67	0.3081	0.0049	0.0579
	270.00	0.2893	0.0045	0.0885
	37.00	0.0480	0.2701	0.0510
	74.67	0.0834	0.2158	0.0628
	97.00	0.1057	0.1793	0.0503
	120.00	0.1316	0.1504	0.1370
	154.67	0.1796	0.1146	0.0668
	170.00	0.1965	0.1050	0.0820
	180.00	0.2102	0.0976	0.1440
	190.00	0.2225	0.0841	0.0421
	192.33	0.2251	0.0849	0.0673
220.00	0.2555	0.0599	0.3274	
225.00	0.2665	0.0607	0.2739	
242.00	0.2929	0.0440	0.0428	

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69.28 mph Wind Normal To Face with Ice

244.33	0.2940	0.0426	0.0620
250.33	0.2969	0.0432	0.0333
255.00	0.2958	0.0412	0.0346
257.33	0.2943	0.0403	0.0518
259.67	0.2919	0.0361	0.0752
270.00	0.2702	0.0370	0.1040
37.00	0.1811	-0.0123	0.3131
74.67	0.4267	-0.0071	0.4796
97.00	0.6233	-0.0069	0.5861
120.00	0.8652	-0.0050	1.0180
154.67	1.2798	-0.0023	0.6317
170.00	1.4443	-0.0011	0.6682
180.00	1.5549	-0.0004	0.8242
190.00	1.6534	0.0007	0.5757
192.33	1.6750	0.0010	0.5027
220.00	1.8843	0.0041	1.0386
225.00	1.9305	0.0050	1.0508
242.00	2.0507	0.0048	0.2365
244.33	2.0608	0.0050	0.4388
250.33	2.0912	0.0049	0.2456
255.00	2.1004	0.0048	0.0798
257.33	2.1026	0.0048	0.0283
259.67	2.0988	0.0047	0.0559
270.00	2.0675	0.0045	0.1588
37.00	0.1450	0.7539	0.1913
74.67	0.2859	0.8667	0.2668
97.00	0.3918	0.9339	0.2916
120.00	0.5246	0.9925	0.6435
154.67	0.7692	1.0771	0.3680
170.00	0.8650	1.1151	0.4109
180.00	0.9360	1.1320	0.6382
190.00	1.0013	1.1594	0.3176
192.33	1.0149	1.1637	0.3351
220.00	1.1590	1.2110	0.9963
225.00	1.1991	1.2199	0.9197
242.00	1.3043	1.2187	0.1927
244.33	1.3125	1.2186	0.4096
250.33	1.3360	1.2183	0.1482
255.00	1.3422	1.2158	0.0553
257.33	1.3429	1.2144	0.0515
259.67	1.3407	1.2130	0.1008
270.00	1.3007	1.2095	0.1935
37.00	0.1861	0.6890	0.2750
74.67	0.4027	0.7253	0.4274
97.00	0.5763	0.6185	0.4629
120.00	0.7896	0.5981	0.8682
154.67	1.1504	0.5713	0.5386
170.00	1.2887	0.7147	0.5479
180.00	1.3825	0.7139	0.7651
190.00	1.4659	0.5477	0.3754
192.33	1.4830	0.7137	0.4274
220.00	1.6532	0.6383	1.0192
225.00	1.6940	0.7127	0.8684
242.00	1.7951	0.5305	0.1967
244.33	1.8022	0.5301	0.3076

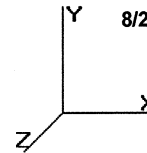
69.28 mph Wind at 60 deg From Face with Ice

69.28 mph Wind at 90 deg From Face with Ice

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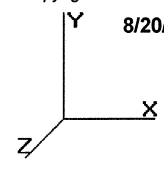


	250.33	1.8194	0.7110	0.0532
	255.00	1.8227	0.7098	0.0372
	257.33	1.8218	0.7093	0.0581
	259.67	1.8181	0.5260	0.1241
	270.00	1.7710	0.7064	0.2148
80.00 mph Wind Normal To Face with No Ice	37.00	0.1501	-0.0131	0.2433
	74.67	0.3314	-0.0037	0.3354
	97.00	0.4651	-0.0036	0.4073
	120.00	0.6269	-0.0019	0.6817
	154.67	0.9160	-0.0004	0.4552
	170.00	1.0371	0.0001	0.5169
	180.00	1.1228	0.0003	0.6308
	190.00	1.2025	0.0007	0.4906
	192.33	1.2206	0.0008	0.4270
	220.00	1.4180	0.0023	1.0074
	225.00	1.4634	0.0030	1.0114
	242.00	1.5875	0.0017	0.2674
	244.33	1.5989	0.0019	0.4590
	250.33	1.6328	0.0014	0.2746
	255.00	1.6457	0.0012	0.1262
	257.33	1.6498	0.0011	0.0780
	259.67	1.6480	0.0009	0.0107
	270.00	1.6292	0.0004	0.0880
80.00 mph Wind at 60 deg From Face with No Ice	37.00	0.1221	0.8258	0.1446
	74.67	0.2253	0.9069	0.1868
	97.00	0.2965	0.9553	0.1902
	120.00	0.3838	0.9983	0.4320
	154.67	0.5514	1.0606	0.2572
	170.00	0.6193	1.0887	0.3061
	180.00	0.6722	1.1013	0.4827
	190.00	0.7225	1.1216	0.2505
	192.33	0.7334	1.1247	0.2742
	220.00	0.8638	1.1581	0.9578
	225.00	0.9019	1.1647	0.8787
	242.00	1.0019	1.1611	0.1913
	244.33	1.0095	1.1607	0.3490
	250.33	1.0305	1.1596	0.1330
	255.00	1.0364	1.1569	0.0467
	257.33	1.0368	1.1554	0.0459
	259.67	1.0347	1.1540	0.0979
	270.00	0.9958	1.1502	0.1774
80.00 mph Wind at 90 deg From Face with No Ice	37.00	0.1578	0.7345	0.2109
	74.67	0.3164	0.7633	0.2973
	97.00	0.4339	0.6674	0.3034
	120.00	0.5762	0.6463	0.5799
	154.67	0.8276	0.6169	0.3877
	170.00	0.9292	0.7412	0.4193
	180.00	1.0016	0.7393	0.5977
	190.00	1.0691	0.5887	0.3077
	192.33	1.0836	0.7361	0.3683
	220.00	1.2490	0.6549	1.0141
	225.00	1.2909	0.7273	0.8710
	242.00	1.4003	0.5587	0.2400
	244.33	1.4088	0.5577	0.2812
	250.33	1.4292	0.7200	0.0871

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255.00	1.4368	0.7190	0.0625
257.33	1.4379	0.7184	0.0309
259.67	1.4367	0.5520	0.0691
270.00	1.4014	0.7163	0.1483
	0.0000	0.0000	0.0000