



EM-T-MOBILE-052-090825

August 24, 2009

ORIGINAL

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051
Attn: Mr. S. Derek Phelps, Executive Director

RECEIVED
AUG 25 2009

CONNECTICUT
SITING COUNCIL

Re: T-Mobile Northeast LLC – exempt modification
40 Maple Ridge Drive, Farmington, Connecticut

Dear Mr. Phelps:

This letter and attachments are submitted on behalf of T-Mobile Northeast LLC (“T-Mobile”). T-Mobile is enhancing the capabilities of its wireless system in Connecticut by implementing UMTS technology. In order to do so, T-Mobile will modify antenna and equipment configurations at a number of its existing sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of Farmington.

T-Mobile plans to modify the existing wireless communications facility on the CL&P laminated wood structure # 8011 located at 40 Maple Ridge Drive, Farmington (coordinates 41°43’5.15” N, -72°46’05” W). The pole and underlying ground are owned by CL&P. Attached are a compound plan and elevation depicting the planned changes, and documentation of the structural sufficiency of the pole to accommodate the revised antenna configuration. Also included is a power density calculation reflecting the modification to T-Mobile’s operations at the site.

The changes to the facility do not constitute a modification as defined in Connecticut General Statutes (“C.G.S.”) Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the structure will not be increased. Both T-Mobile’s existing and proposed antennas will be located at their existing center lines of 82’ and 75’ AGL. The six existing panel antennas (three at each center line) will be replaced with six different panel antennas. No changes to coaxial cables or TMAs will be made. The proposed modifications will have no effect on the overall height of the structure.

Mr. S. Derek Phelps
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2. The proposed changes will not extend the site boundaries. One of T-Mobile's three existing equipment cabinets will be replaced. Thus, there will be no effect on the site compound.

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

4. The changes to the facility will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site. As indicated on the attached power density calculation, T-Mobile's operations at the site will result in a power density of 21.6422%.

Please feel free to call me at (860) 798-7454 with questions concerning this matter.
Thank you for your consideration.

Respectfully yours,



Jennifer Young Gaudet

cc: Michael Clark, Chair, Town Council, Town of Farmington
Kathleen Eagan, Town Manager, Town of Farmington
The Connecticut Light & Power Company (underlying property owner)

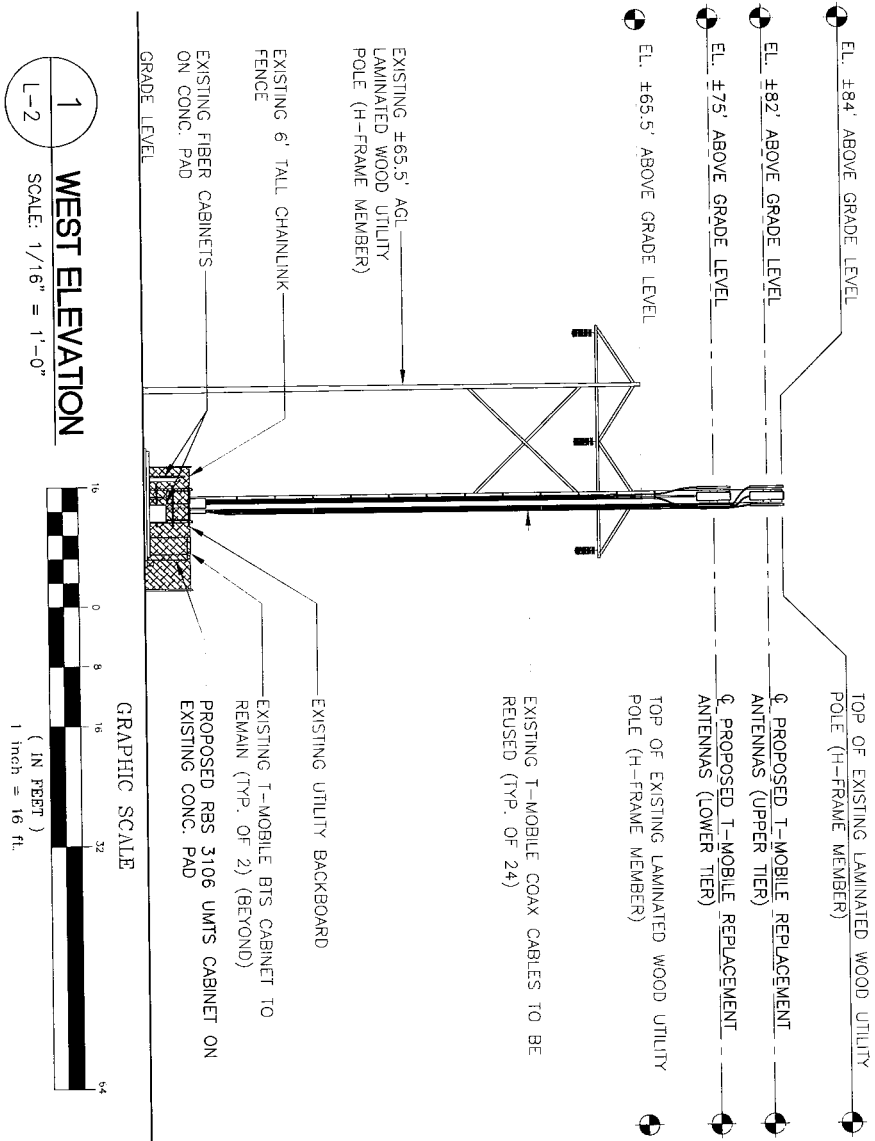
Attachments

LEASE EXHIBIT

THIS LEASE PLAN IS DIAGRAMMATIC IN NATURE AND IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING THE LOCATION AND SIZE OF THE PROPOSED WIRELESS COMMUNICATION FACILITY. THE SITE LAYOUT WILL BE FINALIZED UPON COMPLETION OF SITE SURVEY AND FACILITY DESIGN.

UMTS UPGRADE PROJECT SCOPE

EQUIPMENT TYPE	PROPOSED CHANGES
RADIO CABINET	REPLACE (1) OF THE (3) EXISTING CONC. PAD MOUNTED BTS CABINETS WITH (1) RBS 3106 UMTS CABINET AT THE SAME LOCATION
ANTENNAS/TMAS	THE SIX (6) EXISTING PANEL ANTENNAS ARE PROPOSED TO BE REPLACED WITH SIX (6) RFS APX16 SERIES ANTENNAS. THE PROPOSED REPLACEMENT ANTENNAS WILL UTILIZE THE EXISTING ANTENNA Q HEIGHTS, MOUNTS AND COAX CABLES.
COAX CABLES	NO CHANGES TO THE EXISTING TMA CONFIGURATION ARE PROPOSED.
COMPOUND LIMITS	NO CHANGES TO THE EXISTING COAX CABLE CONFIGURATION ARE PROPOSED. NO CHANGE TO THE LIMITS OF THE EXISTING FENCED COMPOUND IS PROPOSED.



STRUCTURE #8011

DESIGNED BY: CFC	DATE: 12/3/06	DEB	CFC	LEASE EXHIBIT - REVIEW
DRAWN BY: CFC	SCALE: AS SHOWN	NO	NO	DATE: 12/3/06
CHECKED BY: CFC	DATE: 12/3/06	NO	NO	BRN BY: CFC
PROJECT NO: L-2	DATE: 12/3/06	NO	NO	BY: CFC
SHEET NO: 2 OF 2	SCALE: AS SHOWN	NO	NO	DESCRIPTION: LEASE EXHIBIT - REVIEW
	APP NO: 08174.007	NO	NO	

T-MOBILE

PROPOSED WIRELESS COMMUNICATIONS FACILITY UMTS UPGRADE

CT11135J

WEST HARTFORD/I-84 X42/M

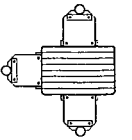
40 MAPLE RIDGE DRIVE
FARMINGTON, CT 06032

T Mobile

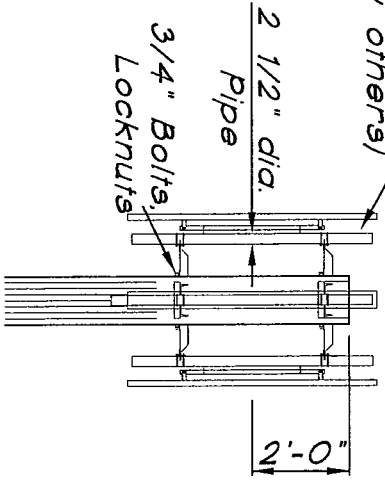
NATCOMM

1000 WEST HARTFORD AVENUE
FARMINGTON, CT 06032

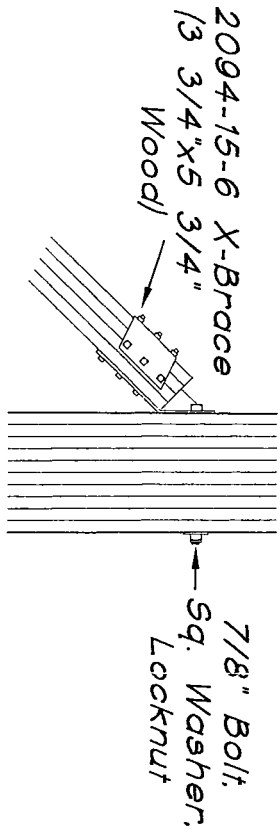
PROFESSIONAL ENGINEER SEAL



Antenna Mtg. Bracket
(by others)

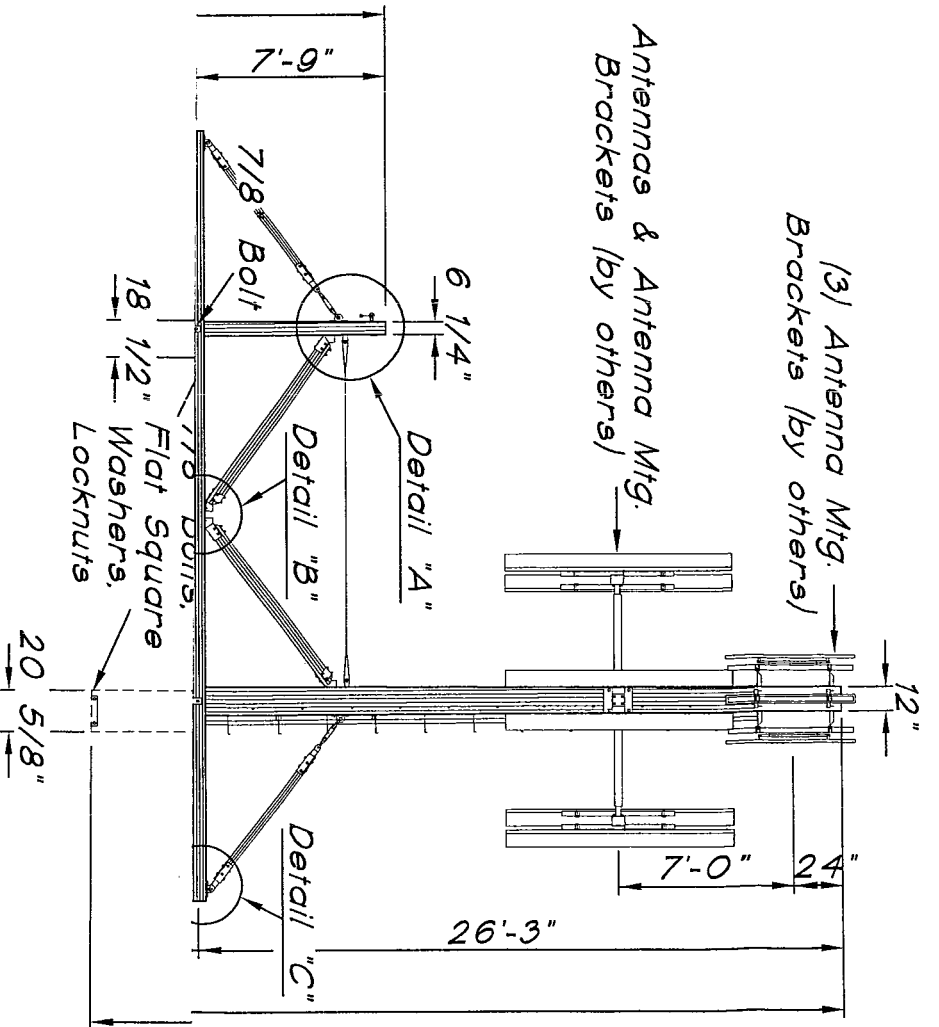


Antenna Mounting Detail



Detail "D"

(3) Antenna Mtg. Brackets (by others)



Type "NESC-0002.0444"
Re-Framed "Joint Use" H-Frame Tower
and Antenna Structure
Northeast Utilities Service Company

Laminated Wood Systems, Inc.

E-LAM

P.O. BOX 386, SEWARD, NE 68434

1-800-949-ELAM

© LWS 6/01

NO.	REVISION	DATE	CK.
1.		7-16-01	
2.		5-28-02	
3.		8-22-02	

ACAD DWG. FILE: NESC0020444

DRAWN	DATE	DWG. NO.
J. Boack	6-28-01	NESC-0002.0444

Upper Tier Antennas - (existing)

Site # CT-11-135J - Farmington Site

Wind Load Calculation

Ext. Wind Speed = 110 MPH					
Ext. Wind	Height Above Ground (ft.)	Kz	Grf-Str	Shape Factor	Wind Pressure (p.s.f.)
O.L.F.	82.00	1.12	0.89	1.6	49.04
				Projected Area (sq. ft.)	Equiv. Point Load (lbs.)
Flush-mounted panel antennas and brackets				7.5	368
NESC Zone		Basic Pressure (p.s.f.)	O.L.F.	Shape Factor	
		4.00	2.50	1.60	16.0
				Projected Area (sq. ft.)	Equiv. Point Load (lbs.)
Flush-mounted panel antennas and brackets				7.5	120

Lower Tier Antennas - (proposed Dec. 2008)

Site # CT-11-135J - Farmington Site

Wind Load Calculation

Ext. Wind Speed = 110 MPH					
Ext. Wind	Height Above Ground (ft.)	Kz	Grf-Str	Shape Factor	Wind Pressure (p.s.f.)
O.L.F.	75.00	1.09	0.89	1.6	48.52
				Projected Area (sq. ft.)	Equiv. Point Load (lbs.)
(6) RFS APX16 antennas and brackets				29.4	1,426
NESC Zone		Basic Pressure (p.s.f.)	O.L.F.	Shape Factor	
		4.00	2.50	1.60	16.0
				Projected Area (sq. ft.)	Equiv. Point Load (lbs.)
(6) RFS APX16 antennas and brackets				29.4	470

Project Name : NE Utilities Joint Use Str. - Farmington, CT Site
 Project Notes: Site # CT-11-135J
 Project File : c:\pls\pls_pole\projects\nesc\nesc_11_135j.pol
 Date run : 12:32:15 PM Monday, December 22, 2008
 by : PLS-POLE Version 9.28
 Licensed to : Laminated Wood Systems

Successfully performed nonlinear analysis

Loads from file: c:\pls\pls_pole\projects\nesc\nesc_11_135j.lca

*** Analysis Results:

Maximum element usage is 88.60% for Brace "X1" in load case "Ext. Wind (t)"
 Maximum insulator usage is 8.10% for Suspen "L1" in load case "Heavy Ice"

Summary of Joint Support Reactions For All Load Cases:

Load Case	Joint Label	Long. Force (kips)	Tran. Force (kips)	Vert. Force (kips)	Shear Force (kips)	Tran. Moment (ft-k)	Long. Moment (ft-k)	Vert. Moment (ft-k)	Bending Moment (ft-k)	Found. Usage %
NESC HEAVY	Left:g	-0.01	-2.25	-8.36	2.25	47.10	-0.21	-0.01	47.10	0.00
NESC HEAVY	Right:g	-0.02	-5.75	32.24	5.75	134.43	-0.82	-0.02	134.43	0.00
NESC HEAVY	aLeft:0	1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
NESC HEAVY	bLeft:0	-1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
NESC HEAVY	aRight:1	1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
NESC HEAVY	bRight:1	-1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (t)	Left:g	-0.01	-4.80	-23.95	4.80	92.44	-0.22	-0.02	92.44	0.00
Ext. Wind (t)	Right:g	-0.02	-11.47	42.49	11.47	261.06	-0.79	-0.03	261.06	0.00
Ext. Wind (t)	aLeft:0	1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (t)	bLeft:0	-1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (t)	aRight:1	1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (t)	bRight:1	-1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (l)	Left:g	-3.02	-0.04	4.56	3.02	0.29	-76.14	-3.07	76.14	0.00
Ext. Wind (l)	Right:g	-8.32	-0.01	14.03	8.32	0.25	-362.95	-4.87	362.95	0.00
Ext. Wind (l)	aLeft:0	0.76	-0.00	0.15	0.76	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (l)	bLeft:0	-1.71	-0.00	0.15	1.71	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (l)	aRight:1	0.71	-0.00	0.15	0.71	-0.00	-0.00	-0.00	0.00	0.00
Ext. Wind (l)	bRight:1	-2.40	-0.00	0.15	2.40	-0.00	-0.00	-0.00	0.00	0.00
Heavy Ice	Left:g	-0.01	0.06	12.70	0.06	-1.69	-0.23	-0.02	1.71	0.00
Heavy Ice	Right:g	-0.02	-0.09	22.40	0.10	-0.84	-1.03	-0.03	1.33	0.00
Heavy Ice	aLeft:0	1.00	0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Heavy Ice	bLeft:0	-1.00	0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Heavy Ice	aRight:1	1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Heavy Ice	bRight:1	-1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
L.T. Defl.	Left:g	-0.01	0.05	10.27	0.06	-1.52	-0.23	-0.02	1.54	0.00
L.T. Defl.	Right:g	-0.02	-0.09	19.92	0.09	-0.68	-0.99	-0.03	1.20	0.00
L.T. Defl.	aLeft:0	1.00	0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
L.T. Defl.	bLeft:0	-1.00	0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
L.T. Defl.	aRight:1	1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
L.T. Defl.	bRight:1	-1.00	-0.00	0.15	1.00	-0.00	-0.00	-0.00	0.00	0.00
Arms (l)	Left:g	-0.35	-0.03	2.87	0.35	0.19	-18.09	-5.85	18.09	0.00
Arms (l)	Right:g	-1.59	-0.00	8.70	1.59	0.08	-88.42	-3.63	88.42	0.00
Arms (l)	aLeft:0	0.89	-0.00	0.15	0.89	-0.00	-0.00	-0.00	0.00	0.00
Arms (l)	bLeft:0	-1.16	-0.00	0.15	1.16	-0.00	-0.00	-0.00	0.00	0.00
Arms (l)	aRight:1	0.89	-0.00	0.15	0.89	-0.00	-0.00	-0.00	0.00	0.00
Arms (l)	bRight:1	-1.15	-0.00	0.15	1.15	-0.00	-0.00	-0.00	0.00	0.00

Summary of Tip Deflections For All Load Cases:

Note: postive tip load results in positive rotation

Load Case	Joint Label	Long. Defl.	Tran. Defl.	Vert. Defl.	Resultant Defl.	Long. Rot.	Tran. Rot.	Twist Rot.
-----------	-------------	-------------	-------------	-------------	-----------------	------------	------------	------------

	(in)	(in)	(in)	(in)	(deg)	(deg)	(deg)
NESC HEAVY Left:t	0.08	2.88	0.00	2.88	0.01	0.29	0.00
NESC HEAVY Right:t	0.10	4.44	-0.04	4.44	0.01	-0.27	0.00
Ext. Wind (t) Left:t	0.08	5.51	-0.00	5.51	0.01	0.48	0.00
Ext. Wind (t) Right:t	0.10	8.42	-0.07	8.42	0.01	-0.55	0.00
Ext. Wind (l) Left:t	33.85	0.10	-0.82	33.86	2.72	0.09	0.71
Ext. Wind (l) Right:t	45.55	0.54	-1.18	45.57	3.29	-0.06	0.15
Heavy Ice Left:t	0.11	-0.40	-0.03	0.41	0.01	0.29	0.00
Heavy Ice Right:t	0.13	1.04	-0.02	1.04	0.01	-0.20	0.00
L.T. Defl. Left:t	0.10	-0.36	-0.03	0.37	0.01	0.26	0.00
L.T. Defl. Right:t	0.12	0.97	-0.02	0.97	0.01	-0.19	0.00
Arms (l) Left:t	12.19	0.06	-0.12	12.20	1.16	0.02	1.32
Arms (l) Right:t	11.73	0.07	-0.08	11.73	0.83	-0.01	0.11

*** Overall summary for all load cases - Usage = Maximum Stress / Allowable Stress

Summary of Laminated Wood Pole Usages:

Laminated Wood Pole Label	Maximum Usage %	Load Case	Segment Number	Weight (lbs)
Left	48.41	Ext. Wind (t)	6	3039.0
Right	48.06	Ext. Wind (l)	22	9671.7

Summary of X-Arm Usages:

X-Arm Label	Maximum Usage %	Load Case	Segment Number	Weight (lbs)
NESCARM	31.24	Arms (l)	9	393.0

Summary of Brace Usages:

Brace Label	Maximum Usage %	Load Case	Weight (lbs)
TENL	27.00	Heavy Ice	47.0
TENR	26.36	Heavy Ice	47.0
VEEL	33.25	Heavy Ice	58.0
VEER	38.73	NESC HEAVY	58.0
X1	88.60	Ext. Wind (t)	142.0
X2	44.37	Ext. Wind (t)	142.0

*** Maximum Stress Summary for Each Load Case

Summary of Maximum Usages by Load Case:

Load Case Label	Maximum Usage %	Element Label	Element Type
NESC HEAVY	77.38	X1	Brace
Ext. Wind (t)	88.60	X1	Brace
Ext. Wind (l)	48.06	Right Laminated	Wood
Heavy Ice	33.25	VEEL	Brace
L.T. Defl.	30.77	VEEL	Brace
Arms (l)	31.24	NESCARM	X-Arm

Summary of Laminated Wood Pole Usages by Load Case:

Load Case Maximum Laminated Wood Pole Segment

	Usage %	Label	Number
NESC HEAVY	28.03	Left	6
Ext. Wind (t)	48.41	Left	6
Ext. Wind (l)	48.06	Right	22
Heavy Ice	13.31	Left	4
L.T. Defl.	11.98	Left	4
Arms (l)	11.89	Right	22

Summary of X-Arm Usages by Load Case:

Load Case	Maximum Usage %	X-Arm Segment Label	Number
NESC HEAVY	11.78	NESCARM	6
Ext. Wind (t)	14.37	NESCARM	6
Ext. Wind (l)	21.39	NESCARM	9
Heavy Ice	8.16	NESCARM	6
L.T. Defl.	7.55	NESCARM	6
Arms (l)	31.24	NESCARM	9

Summary of Brace Usages by Load Case:

Load Case	Maximum Usage %	Brace Label
NESC HEAVY	77.38	X1
Ext. Wind (t)	88.60	X1
Ext. Wind (l)	8.24	VEEL
Heavy Ice	33.25	VEEL
L.T. Defl.	30.77	VEEL
Arms (l)	0.64	VEEL

Summary of Insulator Usages:

Insulator Label	Insulator Type	Maximum Usage %	Load Case	Weight (lbs)
SUSSWL	Suspension	4.54	Heavy Ice	3.0
SUSSWR	Suspension	4.54	Heavy Ice	3.0
L1	Suspension	8.10	Heavy Ice	50.0
L2	Suspension	8.10	Heavy Ice	50.0
L3	Suspension	8.10	Heavy Ice	50.0
ANT1	Suspension	0.91	Ext. Wind (t)	3.0
ANT2	Suspension	2.90	Ext. Wind (t)	3.0
cables	Suspension	3.72	Ext. Wind (t)	3.0

***** Weight of structure (lbs):**

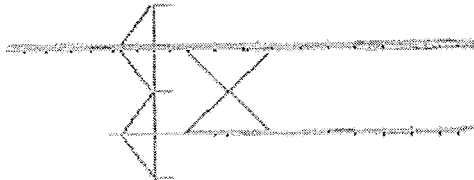
Weight of Braces:	494.0
Weight of X-Arms:	393.0
Weight of Laminated Wood Poles:	12710.7
Weight of Equipment:	200.0
Weight of Suspensions:	165.0
Total:	13962.7

*** End of Report

 * PLS-POLE
 * POLE AND FRAME ANALYSIS AND DESIGN
 * Copyright Power Line Systems, Inc. 1999-2006
 * *****

Project Name : NE Utilities Joint Use Str. - Farmington, CT Site
 Project Notes: Site # CT-11-135J
 Project File : c:\pls\pls_pole\projects\nesc\11_135j.pol
 Date run : 12:32:13 PM Monday, December 22, 2008
 by : PLS-POLE Version 9.28
 Licensed to : Laminated Wood Systems

Successfully performed nonlinear analysis



Modeling options:
 Offset Arms from Pole/Mast: Yes
 Offset Braces from Pole/Mast: Yes
 Offset Guys from Pole/Mast: Yes
 Offset Posts from Pole/Mast: Yes
 Offset Strains from Pole/Mast: No
 Use Alternate Convergence Process: No
 Use Longitudinal Frame Stability: Yes

Laminated Wood Pole Properties:

Laminated Pole Property Label	Stock Number	Pole Type	Pole Length (ft)	Default Embedded Length (ft)	Taper From Butt (ft)	Trans. Tip Dim. (in)	Trans. Base Dim. (in)	Long. Tip Dim. (in)	Long. Base Dim. (in)	Long. Default Drag Coef. (ksi)	Density (lbs/ft^3)	Modulus of Elasticity (ksi)	Trans. MOR (ksi)	Long. MOR (ksi)
PEL-1-75	SYP 75.00	9.5	0.00	14.00	6.25	10.25	18.5	10.25	18.25	1.60	46	2400	7.6	8
AP840G140T15P	SYP 98.00	14	14.00	14.00	12	18.25	20.63	18.25	18.25	1.60	46	2400	7.6	8

Laminated Wood Pole Connectivity:

Pole Label	Tip Base X (ft)	Y of Joint (ft)	Z of Base (ft)	Inclin. About X (deg)	Inclin. About Y (deg)	Property Set	Attach Labels	Base Embed Connect (ft)	Embed & Override (ft)
Left	0	-7.75	0	0	0	PEL-1-75	5 Labels	Fixed	0.00
Right	0	7.75	0	0	0	AP840G140T15P	8 Labels	Fixed	0.00

Relative Attachment Labels for Laminated Wood Pole "Left":

Joint Label	Distance From Origin/Top Joint (ft)	Global Z of Attach (ft)
Left:SW	0.50	0.00
Left:BRACES	2.00	0.00
Left:ARM	7.75	0.00
Left:XTP	13.75	0.00
Left:XBT	28.75	0.00

Relative Attachment Labels for Laminated Wood Pole "Right":

Joint Label	Distance From Origin/Top Joint (ft)	Global Z of Attach (ft)
Right:ANTI	3.00	0.00
Right:ANT2	11.25	0.00
Right:BRACES	20.50	0.00
Right:ARM	26.25	0.00
Right:XTP	32.25	0.00
Right:XBT	47.25	0.00
Right:SW	19.00	0.00
Right:cables	42.00	0.00

Detailed Laminated Wood Properties:

Element Label	Pole Feature	Dist. Above Ground (ft)	Dist. From Tip (ft)	Trans. Dim. (in)	Long. Dim. (in)	Area (in^2)	Trans. Section Modulus (in^3)	Long. Section Modulus (in^3)	Trans. Inertia (in^4)	Long. Inertia (in^4)	Trans. MOR (ksi)	Long. MOR (ksi)	Trans. Capacity (ft-k)	Long. Capacity (ft-k)
Left	Left:t	65.50	0.00	6.25	10.25	64.06	66.73	109.44	208.54	560.88	7.600	8.000	42.263	72.960
Left	Left:SW	65.00	0.50	6.33	10.25	64.90	68.49	110.87	216.82	568.21	7.600	8.000	43.375	73.913
Left	Left:BRACES	63.50	2.00	6.58	10.25	67.41	73.89	115.16	242.97	590.20	7.600	8.000	46.797	76.773
Left	Left:ARM	60.62	4.88	7.05	10.25	72.22	84.82	123.38	298.82	632.34	7.600	8.000	53.718	82.255
Left	Left:XTP	57.75	7.75	7.52	10.25	77.04	96.50	131.61	362.64	674.48	7.600	8.000	61.117	87.737
Left	Left:XBT	54.75	10.75	8.01	10.25	82.06	109.49	140.19	438.29	718.45	7.600	8.000	69.345	93.457
Left	Left:SW	51.75	13.75	8.50	10.25	87.08	123.31	148.17	523.79	762.42	7.600	8.000	78.094	99.177
Left	Left:cables	46.75	18.75	9.31	10.25	95.45	148.15	163.07	689.83	835.71	7.600	8.000	93.829	108.710
Left	Left:ANTI	41.75	23.75	10.13	10.25	103.82	175.28	177.37	887.69	909.00	7.600	8.000	111.007	118.244
Left	Left:ANT2	36.75	28.75	10.95	10.25	112.19	204.68	191.67	1120.18	982.29	7.600	8.000	129.629	127.777
Left	Left:BRACES	31.75	33.75	11.76	10.25	120.57	236.36	205.97	1390.09	1055.58	7.600	8.000	149.694	137.311
Left	Left:ARM	26.75	38.75	12.58	10.25	128.94	270.32	220.27	1700.19	1128.87	7.600	8.000	171.202	146.844
Left	Left:XTP	21.75	43.75	13.40	10.25	137.31	306.56	234.57	2053.30	1202.15	7.600	8.000	194.153	156.378
Left	Left:XBT	16.75	48.75	14.21	10.25	145.68	343.08	248.87	2452.19	1275.44	7.600	8.000	218.547	185.911
Left	Left:SW	11.75	53.75	15.03	10.25	154.05	385.87	263.17	2899.66	1348.73	7.600	8.000	244.385	175.444
Left	Left:cables	6.75	58.75	15.85	10.25	162.42	428.95	277.47	3398.50	1422.02	7.600	8.000	271.665	184.978
Left	Left:ANTI	3.37	62.13	16.40	10.25	168.07	459.31	287.12	3765.67	1471.49	7.581	8.000	290.184	191.413
Left	Left:ANT2	0.00	65.50	16.95	10.25	173.72	490.71	296.77	4158.37	1520.96	7.556	8.000	308.999	197.848
Right	Right:t	84.00	0.00	12.00	18.25	219.00	438.00	666.13	2628.00	6078.39	7.600	8.000	277.400	444.083
Right	Right:SW	81.00	3.00	12.31	18.25	224.62	460.78	683.22	2835.62	6234.42	7.600	8.000	291.824	455.482
Right	Right:BRACES	76.88	7.12	12.73	18.25	232.35	493.03	706.74	3138.55	6448.96	7.600	8.000	312.254	471.156
Right	Right:ARM	72.75	11.25	13.16	18.25	240.08	526.38	730.25	3462.32	6663.50	7.600	8.000	333.376	486.831
Right	Right:XTP	68.88	15.12	13.55	18.25	247.34	558.71	752.33	3786.08	6865.04	7.600	8.000	353.847	501.555
Right	Right:XBT	65.00	19.00	13.95	18.25	254.60	591.99	774.42	4129.41	7066.58	7.600	8.000	374.927	516.279
Right	Right:SW	61.50	20.50	14.30	18.25	257.41	605.14	782.97	4257.69	7144.60	7.600	8.000	383.252	521.979
Right	Right:cables	60.63	23.38	14.40	18.25	262.80	630.73	799.36	4541.29	7294.13	7.600	8.000	399.462	532.903
Right	Right:ANTI	57.75	26.25	14.70	18.25	268.19	656.85	815.74	4826.34	7443.65	7.600	8.000	416.007	543.828
Right	Right:ANT2	54.75	29.25	15.00	18.25	273.81	684.68	832.84	5136.25	7599.68	7.600	8.000	433.630	555.227
Right	Right:BRACES	46.87	37.13	15.81	18.25	279.43	713.08	849.94	5459.15	7755.71	7.600	8.000	451.619	566.627
Right	Right:ARM	39.38	44.63	16.58	18.25	288.57	760.38	905.51	6001.51	8026.81	7.585	8.000	481.630	585.151
Right	Right:XTP	36.75	47.25	16.85	18.25	292.62	786.35	920.48	6234.18	8262.62	7.573	8.000	527.797	613.649
Right	Right:XBT	31.75	52.25	17.16	18.25	300.08	833.76	935.44	6934.18	8535.86	7.561	8.000	544.216	623.624
Right	Right:SW	26.75	57.25	17.48	18.25	306.28	863.17	963.94	7277.83	8535.86	7.538	8.000	576.150	642.623
Right	Right:cables	21.75	62.25	18.39	18.25	326.28	972.22	992.43	8690.88	8795.92	7.516	8.000	608.944	661.622
Right	Right:ANTI	16.75	67.25	18.91	18.25	335.65	1028.86	1020.93	9461.29	9316.02	7.495	8.000	642.597	680.621
Right	Right:ANT2	11.75	72.25	19.42	18.25	345.02	1087.10	1049.43	10275.92	9576.07	7.474	8.000	677.106	699.620
Right	Right:BRACES	6.75	77.25	19.93	18.25	353.39	1146.95	1077.93	11136.03	9836.12	7.435	8.000	712.469	718.619
Right	Right:ARM	3.37	80.53	20.28	18.25	370.08	1208.40	1106.43	12042.84	10098.17	7.435	8.000	748.684	737.618
Right	Right:XTP	0.00	84.00	20.62	18.25	376.41	1293.90	1144.90	13343.31	10447.23	7.409	8.000	773.609	750.443
Right	Right:XBT													

Equipment Property Label	Stock Weight	Wind Area	Ice Area	Shape or EIA Antenna Area	Drag Diameter Height
Right:cables	0.00	84.00	20.62	18.25 376.41 1293.90 1144.90 13343.31 10447.23	7.409

NESARM:O 0.000
 NESARM:LI 0.500
 NESARM:PL 8.250 Left:ARM
 NESARM:RL 15.000
 NESARM:L2V 16.000
 NESARM:RR 17.000
 NESARM:PR 23.750 Right:ARM
 NESARM:L3 31.500
 NESARM:E 32.000

*** Insulator Data

Suspension Properties:

Label	Stock Length (ft)	Weight (lbs)	Wind Area (ft ²)	Tension (lbs)	Top Rect (ft)	Bot. Rect (ft)	Rect. Vert. Height (ft)	Rect. Width (ft)	Rect. Vert. Height (ft)
SUSSW	0.25	3	0.1	6e+004	0	0	0	0	0
SUS	3.5	50	2	6e+004	0	0	0	0	0

Suspension Insulator Connectivity:

Suspension Label	Structure	Attach Label	Tip Property	Cond. 1 Set	Cond. 1 Min	Cond. 1 Max	Cond. 2 Set	Cond. 2 Min	Cond. 2 Max	Cond. 3 Set	Cond. 3 Min	Cond. 3 Max	Cond. 4 Set	Cond. 4 Min	Cond. 4 Max	Required Vertical Load (uplift)
SUSSWL	Left:SW	SWL	SUSSW	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	
SUSSWR	Right:SW	SWR	SUSSW	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	
L1	NESARM:L1	L1	SUS	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	
L2	NESARM:L2V	L2	SUS	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	
L3	NESARM:L3	L3	SUS	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	
ANT1	Right:ANT1	ANT1	SUSSW	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	
ANT2	Right:ANT2	ANT2	SUSSW	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	
cabies	Right:cabies	cabies	SUSSW	-90.00	90.00	-90.00	90.00	-90.00	90.00	-90.00	90.00	-180.00	180.00	180.00	No Limit	

Right	Right:SW	Right:SW	68.88	65.00	56.94	13.752	6.51e+005	1.600	10.00	0.00	310.67	94.29	0.00	94.29	0.00
Right	Right:BRACES	Right:BRACES	63.50	63.50	64.25	14.028	6.64e+005	1.600	10.00	0.00	122.67	36.50	0.00	36.50	0.00
Right	Right:ARM	Right:ARM	60.63	60.63	62.06	14.253	6.75e+005	1.600	10.00	0.00	238.88	69.96	0.00	69.96	0.00
Right	Right:XTP	Right:XTP	57.75	54.75	59.19	14.548	6.89e+005	1.600	10.00	0.00	243.83	69.96	0.00	69.96	0.00
Right	Right:BRACES	Right:BRACES	54.75	54.75	56.25	14.849	7.03e+005	1.600	10.00	0.00	259.71	73.00	0.00	73.00	0.00
Right	Right:ARM	Right:ARM	51.75	51.75	53.25	15.157	7.18e+005	1.600	10.00	0.00	265.10	73.00	0.00	73.00	0.00
Right	Right:XTP	Right:XTP	49.31	46.88	49.31	15.562	7.37e+005	1.600	10.00	0.00	442.27	118.63	0.00	118.63	0.00
Right	Right:cables	Right:cables	46.88	42.00	44.44	16.062	7.6e+005	1.600	10.00	0.00	456.50	118.63	0.00	118.63	0.00
Right	Right:BRACES	Right:BRACES	42.00	39.38	40.69	16.447	7.79e+005	1.600	10.00	0.00	451.70	63.88	0.00	63.88	0.00
Right	Right:ARM	Right:ARM	36.75	36.75	38.06	16.717	7.91e+005	1.600	10.00	0.00	455.82	63.88	0.00	63.88	0.00
Right	Right:XTP	Right:XTP	31.75	28.75	34.25	17.108	8.1e+005	1.600	10.00	0.00	498.69	121.67	0.00	121.67	0.00
Right	Right:BRACES	Right:BRACES	26.75	26.75	29.25	17.622	8.34e+005	1.600	10.00	0.00	513.66	121.67	0.00	121.67	0.00
Right	Right:ARM	Right:ARM	21.75	16.75	24.25	18.135	8.59e+005	1.600	10.00	0.00	528.62	121.67	0.00	121.67	0.00
Right	Right:XTP	Right:XTP	16.75	11.75	19.25	18.250	8.64e+005	1.600	10.00	0.00	543.59	121.67	0.00	121.67	0.00
Right	Right:BRACES	Right:BRACES	11.75	6.75	14.25	18.250	8.64e+005	1.600	10.00	0.00	573.52	121.67	0.00	121.67	0.00
Right	Right:ARM	Right:ARM	6.75	3.37	9.06	18.250	8.64e+005	1.600	10.00	0.00	395.59	82.13	0.00	82.13	0.00
Right	Right:XTP	Right:XTP	3.37	0.00	1.69	18.250	8.64e+005	1.600	10.00	0.00	402.40	82.13	0.00	82.13	0.00

Point Loads for Load Case "Ext. Wind (t)":

Label	Top Joint	Bottom Joint	Section Z	Average Z	Outer Diameter	Reynolds Number	Coef.	Drag	Adjusted Pressure	Wind	Adjusted Ice Thickness	Pole Load	Ice Load	Pole Load	Ice Load	Wind Load	Long. Load
SM1	189	338	0														
SWR	189	338	0														
L1	1034	1158	0														
L2	1034	1158	0														
L3	1034	1158	0														
ANT1	400	368	0														
ANT2	1000	1426	0														
cables	2100	753	0														

Detailed Pole Loading Data for Load Case "Ext. Wind (t)":

Notes: Does not include loads from equipment, arms, guys, braces, etc. or user input loads.
Wind load is calculated for the undeformed shape of a pole.

Pole Label	Top Joint	Bottom Joint	Section Z	Average Z	Outer Diameter (in)	Reynolds Number	Coef.	Drag	Adjusted Pressure (psf)	Wind	Adjusted Ice Thickness (in)	Pole Load (lbs)	Ice Load (lbs)	Pole Load (lbs)	Ice Load (lbs)	Wind Load (lbs)	Long. Load (lbs)
Left	Left:SW	Left:SW	65.50	65.00	65.25	6.291	5.22e+005	1.600	30.74	0.00	10.30	21.01	0.00	21.01	0.00	21.01	0.00
Left	Left:BRACES	Left:BRACES	63.50	63.50	64.25	6.454	5.36e+005	1.600	30.74	0.00	31.70	63.02	0.00	63.02	0.00	63.02	0.00
Left	Left:ARM	Left:ARM	60.62	60.62	62.06	6.811	5.65e+005	1.600	30.74	0.00	64.12	120.78	0.00	120.78	0.00	120.78	0.00
Left	Left:XTP	Left:XTP	57.75	54.75	59.19	7.281	6.04e+005	1.600	30.74	0.00	68.54	120.78	0.00	120.78	0.00	120.78	0.00
Left	Left:BRACES	Left:BRACES	54.75	51.75	56.25	7.761	6.44e+005	1.600	30.74	0.00	76.23	126.03	0.00	126.03	0.00	126.03	0.00
Left	Left:ARM	Left:ARM	51.75	48.75	53.25	8.251	6.85e+005	1.600	30.74	0.00	81.05	126.03	0.00	126.03	0.00	126.03	0.00
Left	Left:XTP	Left:XTP	49.31	46.75	49.25	8.904	7.39e+005	1.600	30.74	0.00	145.77	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:BRACES	Left:BRACES	46.75	41.75	44.25	9.721	8.07e+005	1.600	30.74	0.00	159.14	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:ARM	Left:ARM	41.75	36.75	39.25	10.250	8.51e+005	1.600	30.74	0.00	172.51	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:XTP	Left:XTP	36.75	31.75	34.25	10.250	8.51e+005	1.600	30.74	0.00	185.89	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:BRACES	Left:BRACES	31.75	26.75	29.25	10.250	8.51e+005	1.600	30.74	0.00	199.26	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:ARM	Left:ARM	26.75	21.75	24.25	10.250	8.51e+005	1.600	30.74	0.00	212.63	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:XTP	Left:XTP	21.75	16.75	19.25	10.250	8.51e+005	1.600	30.74	0.00	226.00	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:BRACES	Left:BRACES	16.75	11.75	14.25	10.250	8.51e+005	1.600	30.74	0.00	239.37	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:ARM	Left:ARM	11.75	6.75	9.25	10.250	8.51e+005	1.600	30.74	0.00	252.74	210.06	0.00	210.06	0.00	210.06	0.00
Left	Left:XTP	Left:XTP	6.75	3.37	5.06	10.250	8.51e+005	1.600	30.74	0.00	178.15	141.79	0.00	141.79	0.00	141.79	0.00
Left	Left:BRACES	Left:BRACES	3.37	0.00	1.69	10.250	8.51e+005	1.600	30.74	0.00	212.57	224.40	0.00	224.40	0.00	224.40	0.00
Right	Right:ANT1	Right:ANT1	84.00	81.00	82.50	12.154	1.01e+006	1.600	30.74	0.00	184.25	141.79	0.00	141.79	0.00	141.79	0.00
Right	Right:ANT2	Right:ANT2	76.88	72.75	74.81	12.943	1.07e+006	1.600	30.74	0.00	301.08	308.55	0.00	308.55	0.00	308.55	0.00
Right	Right:BRACES	Right:BRACES	68.88	65.00	66.94	13.354	1.11e+006	1.600	30.74	0.00	311.26	308.55	0.00	308.55	0.00	308.55	0.00
Right	Right:ARM	Right:ARM	65.00	60.63	62.06	14.028	1.16e+006	1.600	30.74	0.00	310.67	289.85	0.00	289.85	0.00	289.85	0.00
Right	Right:XTP	Right:XTP	60.63	57.75	59.19	14.548	1.21e+006	1.600	30.74	0.00	122.67	112.20	0.00	112.20	0.00	112.20	0.00
Right	Right:BRACES	Right:BRACES	57.75	54.75	56.25	14.849	1.26e+006	1.600	30.74	0.00	238.88	115.05	0.00	115.05	0.00	115.05	0.00
Right	Right:ARM	Right:ARM	51.75	46.88	49.31	15.157	1.28e+006	1.600	30.74	0.00	243.83	115.05	0.00	115.05	0.00	115.05	0.00
Right	Right:XTP	Right:XTP	46.88	42.00	44.44	15.562	1.29e+006	1.600	30.74	0.00	259.71	124.40	0.00	124.40	0.00	124.40	0.00
Right	Right:BRACES	Right:BRACES	42.00	39.38	40.69	16.062	1.33e+006	1.600	30.74	0.00	265.10	124.40	0.00	124.40	0.00	124.40	0.00
Right	Right:ARM	Right:ARM	39.38	36.75	38.06	16.447	1.37e+006	1.600	30.74	0.00	442.27	164.65	0.00	164.65	0.00	164.65	0.00
Right	Right:XTP	Right:XTP	36.75	31.75	34.25	17.108	1.39e+006	1.600	30.74	0.00	456.50	164.65	0.00	164.65	0.00	164.65	0.00
Right	Right:BRACES	Right:BRACES	31.75	26.75	29.25	17.622	1.42e+006	1.600	30.74	0.00	255.82	196.35	0.00	196.35	0.00	196.35	0.00
Right	Right:ARM	Right:ARM	26.75	21.75	24.25	18.135	1.46e+006	1.600	30.74	0.00	498.69	196.35	0.00	196.35	0.00	196.35	0.00
Right	Right:XTP	Right:XTP	21.75	16.75	19.25	18.250	1.51e+006	1.600	30.74	0.00	513.66	196.35	0.00	196.35	0.00	196.35	0.00
Right	Right:BRACES	Right:BRACES	16.75	11.75	14.25	18.250	1.51e+006	1.600	30.74	0.00	528.62	196.35	0.00	196.35	0.00	196.35	0.00
Right	Right:ARM	Right:ARM	11.75	6.75	9.06	18.250	1.51e+006	1.600	30.74	0.00	395.59	82.13	0.00	82.13	0.00	82.13	0.00
Right	Right:XTP	Right:XTP	6.75	3.37	5.06	18.250	1.51e+006	1.600	30.74	0.00	402.40	82.13	0.00	82.13	0.00	82.13	0.00

	11.75	6.75	9.25	18.250	1.51e+006	1.600	30.74	0.00	573.52	374.01	0.00	0.00	374.01	0.00
Right														
Right	6.75	3.37	5.06	18.250	1.51e+006	1.600	30.74							
Right	3.37	0.00	1.69	18.250	1.51e+006	1.600	30.74							

Point Loads for Load Case "Ext. Wind (1)":

Label	Top Joint	Bottom Joint	Section Z	Section Top	Section Bottom	Section Z Elevation	Outer Diameter (in)	Reynolds Number	Adjusted Drag Coef.	Adjusted Wind Pressure (psf)	Pole Ice Vert. Load (lbs)	Pole Ice Pole Load (lbs)	Tran. Wind Load (lbs)	Long. Wind Load (lbs)
SWL	189													
SWR	189													
L1	1034													
L2	1034													
L3	1034													
ANT1	400													
ANT2	1000													
cables	2100													

Detailed Pole Loading Data for Load Case "Ext. Wind (1)":

Notes: Does not include loads from equipment, arms, guys, braces, etc. or user input loads.
Wind load is calculated for the undeformed shape of a pole.

Pole Label	Top Joint	Bottom Joint	Section Z	Section Top	Section Bottom	Section Z Elevation	Outer Diameter (in)	Reynolds Number	Adjusted Drag Coef.	Adjusted Wind Pressure (psf)	Pole Ice Vert. Load (lbs)	Pole Ice Pole Load (lbs)	Tran. Wind Load (lbs)	Long. Wind Load (lbs)
Left	Left:t	Left:SW	65.50	65.00	65.25	6.291	5.22e+005	1.600	30.74	0.00	10.30	12.89	0.00	0.00
Left	Left:SW	Left:BRACES	65.50	63.50	64.25	6.454	5.36e+005	1.600	30.74	0.00	31.70	39.68	0.00	0.00
Left	Left:BRACES	Left:ARM	63.50	60.62	62.06	6.811	6.65e+005	1.600	30.74	0.00	64.12	80.26	0.00	0.00
Left	Left:ARM	Left:XTP	57.75	54.75	56.25	7.281	6.44e+005	1.600	30.74	0.00	68.54	85.80	0.00	0.00
Left	Left:ARM	Left:XTP	57.75	54.75	56.25	7.281	6.44e+005	1.600	30.74	0.00	76.23	95.43	0.00	0.00
Left	Left:XTP	Left:XBT	51.75	46.75	49.25	8.251	6.85e+005	1.600	30.74	0.00	81.05	101.45	0.00	0.00
Left	Left:XTP	Left:XBT	51.75	46.75	49.25	8.251	6.85e+005	1.600	30.74	0.00	145.77	182.48	0.00	0.00
Left	Left:XBT	Left:ANT1	41.75	36.75	39.25	9.721	8.07e+005	1.600	30.74	0.00	159.14	199.21	0.00	0.00
Left	Left:XBT	Left:ANT1	41.75	36.75	39.25	9.721	8.07e+005	1.600	30.74	0.00	172.51	215.95	0.00	0.00
Left	Left:ANT1	Left:ANT2	36.75	31.75	34.25	10.250	8.51e+005	1.600	30.74	0.00	185.89	232.69	0.00	0.00
Left	Left:ANT1	Left:ANT2	36.75	31.75	34.25	10.250	8.51e+005	1.600	30.74	0.00	199.26	249.42	0.00	0.00
Left	Left:ANT2	Left:ANT3	26.75	21.75	24.25	10.250	8.51e+005	1.600	30.74	0.00	212.63	266.16	0.00	0.00
Left	Left:ANT2	Left:ANT3	26.75	21.75	24.25	10.250	8.51e+005	1.600	30.74	0.00	226.00	282.89	0.00	0.00
Left	Left:ANT3	Left:ANT4	16.75	11.75	14.25	10.250	8.51e+005	1.600	30.74	0.00	239.37	299.63	0.00	0.00
Left	Left:ANT3	Left:ANT4	16.75	11.75	14.25	10.250	8.51e+005	1.600	30.74	0.00	252.74	316.37	0.00	0.00
Left	Left:ANT4	Left:ANT5	6.75	1.75	4.25	10.250	8.51e+005	1.600	30.74	0.00	178.15	223.01	0.00	0.00
Left	Left:ANT4	Left:ANT5	6.75	1.75	4.25	10.250	8.51e+005	1.600	30.74	0.00	184.25	230.63	0.00	0.00
Left	Left:ANT5	Left:ANT6	3.37	0.00	1.69	10.250	8.51e+005	1.600	30.74	0.00	212.57	249.45	0.00	0.00
Right	Right:t	Right:ANT1	84.00	81.00	82.50	12.154	1.01e+006	1.600	30.74	0.00	301.08	311.67	0.00	0.00
Right	Right:ANT1	Right:ANT2	76.88	72.75	74.81	12.520	1.04e+006	1.600	30.74	0.00	311.26	318.84	0.00	0.00
Right	Right:ANT1	Right:ANT2	76.88	72.75	74.81	12.520	1.04e+006	1.600	30.74	0.00	301.66	312.10	0.00	0.00
Right	Right:ANT2	Right:BRACES	68.88	65.00	66.94	13.354	1.11e+006	1.600	30.74	0.00	310.67	318.41	0.00	0.00
Right	Right:ANT2	Right:BRACES	68.88	65.00	66.94	13.354	1.11e+006	1.600	30.74	0.00	310.67	318.41	0.00	0.00
Right	Right:BRACES	Right:ARM	63.50	60.63	62.06	14.028	1.14e+006	1.600	30.74	0.00	328.88	341.24	0.00	0.00
Right	Right:BRACES	Right:ARM	63.50	60.63	62.06	14.028	1.14e+006	1.600	30.74	0.00	328.88	341.24	0.00	0.00
Right	Right:ARM	Right:XTP	57.75	54.75	56.25	14.548	1.21e+006	1.600	30.74	0.00	243.83	243.83	0.00	0.00
Right	Right:ARM	Right:XTP	57.75	54.75	56.25	14.548	1.21e+006	1.600	30.74	0.00	259.71	259.71	0.00	0.00
Right	Right:XTP	Right:ANT1	51.75	46.88	49.31	15.157	1.26e+006	1.600	30.74	0.00	265.10	265.10	0.00	0.00
Right	Right:XTP	Right:ANT1	51.75	46.88	49.31	15.157	1.26e+006	1.600	30.74	0.00	265.10	265.10	0.00	0.00
Right	Right:ANT1	Right:cables	46.88	42.00	44.44	16.062	1.33e+006	1.600	30.74	0.00	442.27	442.27	0.00	0.00
Right	Right:ANT1	Right:cables	46.88	42.00	44.44	16.062	1.33e+006	1.600	30.74	0.00	442.27	442.27	0.00	0.00
Right	Right:cables	Right:XBT	42.00	39.38	40.69	16.447	1.37e+006	1.600	30.74	0.00	251.70	251.70	0.00	0.00
Right	Right:cables	Right:XBT	42.00	39.38	40.69	16.447	1.37e+006	1.600	30.74	0.00	251.70	251.70	0.00	0.00
Right	Right:XBT	Right:ANT2	36.75	31.75	34.25	17.108	1.42e+006	1.600	30.74	0.00	498.69	498.69	0.00	0.00
Right	Right:XBT	Right:ANT2	36.75	31.75	34.25	17.108	1.42e+006	1.600	30.74	0.00	498.69	498.69	0.00	0.00
Right	Right:ANT2	Right:ANT3	26.75	21.75	24.25	18.135	1.46e+006	1.600	30.74	0.00	513.66	513.66	0.00	0.00
Right	Right:ANT2	Right:ANT3	26.75	21.75	24.25	18.135	1.46e+006	1.600	30.74	0.00	513.66	513.66	0.00	0.00
Right	Right:ANT3	Right:ANT4	16.75	11.75	14.25	18.250	1.51e+006	1.600	30.74	0.00	543.59	543.59	0.00	0.00
Right	Right:ANT3	Right:ANT4	16.75	11.75	14.25	18.250	1.51e+006	1.600	30.74	0.00	543.59	543.59	0.00	0.00
Right	Right:ANT4	Right:ANT5	6.75	1.75	4.25	18.250	1.51e+006	1.600	30.74	0.00	573.52	573.52	0.00	0.00
Right	Right:ANT4	Right:ANT5	6.75	1.75	4.25	18.250	1.51e+006	1.600	30.74	0.00	573.52	573.52	0.00	0.00
Right	Right:ANT5	Right:ANT6	3.37	0.00	1.69	18.250	1.51e+006	1.600	30.74	0.00	402.40	402.40	0.00	0.00
Right	Right:ANT5	Right:ANT6	3.37	0.00	1.69	18.250	1.51e+006	1.600	30.74	0.00	402.40	402.40	0.00	0.00

Point Loads for Load Case "Heavy Ice":

Label	Top Joint	Bottom Joint	Section Z	Section Top	Section Bottom	Section Z Elevation	Outer Diameter (in)	Reynolds Number	Adjusted Drag Coef.	Adjusted Wind Pressure (psf)	Pole Ice Vert. Load (lbs)	Pole Ice Pole Load (lbs)	Tran. Wind Load (lbs)	Long. Wind Load (lbs)
SWL	2725													
SWR	2725													
L1	4862													
L2	4862													
L3	4862													

ANT1 400 0 0
 ANT2 1000 0 0
 cables 2100 0 0

Detailed Pole Loading Data for Load Case "Heavy Ice":

Notes: Does not include loads from equipment, arms, guys, braces, etc. or user input loads.
 Wind load is calculated for the undeformed shape of a pole.

Pole Label	Top Joint	Bottom Joint	Section Z (ft)	Section Average Z Elevation (ft)	Outer Diameter (in)	Reynolds Number	Drag Coef.	Adjusted Wind Pressure (psf)	Adjusted Ice Thickness (in)	Pole Vert. Load (lbs)	Pole Ice Load (lbs)	Pole Ice Tran. Load (lbs)	Long. Wind Load (lbs)
Left	Left:SW	65.50	65.50	65.25	6.291	3.62e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00
Left	Left:SW	63.50	63.50	64.25	6.454	3.71e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00
Left	Left:BRACES	63.50	60.62	62.06	6.811	3.92e+004	1.600	0.15	0.00	64.12	0.49	0.00	0.00
Left	Left:ARM	60.62	57.75	59.19	7.281	4.19e+004	1.600	0.15	0.00	69.54	0.50	0.00	0.50
Left	Left:ARM	57.75	54.75	56.25	7.761	4.47e+004	1.600	0.15	0.00	76.23	0.54	0.00	0.54
Left	Left:XTP	54.75	51.75	53.25	8.251	4.75e+004	1.600	0.15	0.00	81.05	0.55	0.00	0.55
Left	Left:XTP	51.75	46.75	49.25	8.904	5.12e+004	1.600	0.15	0.00	145.77	0.95	0.00	0.95
Left	Left:XFT	46.75	41.75	44.25	9.721	5.59e+004	1.600	0.15	0.00	159.14	0.98	0.00	0.98
Left	Left:XFT	41.75	36.75	39.25	10.250	5.9e+004	1.600	0.15	0.00	172.51	1.02	0.00	1.02
Left	Left:XBT	36.75	31.75	34.25	10.250	5.9e+004	1.600	0.15	0.00	195.89	1.06	0.00	1.06
Left	Left:XBT	31.75	26.75	29.25	10.250	5.9e+004	1.600	0.15	0.00	199.26	1.11	0.00	1.11
Left	Left:XBT	26.75	21.75	24.25	10.250	5.9e+004	1.600	0.15	0.00	212.63	1.15	0.00	1.15
Left	Left:XBT	21.75	16.75	19.25	10.250	5.9e+004	1.600	0.15	0.00	226.00	1.20	0.00	1.20
Left	Left:XBT	16.75	11.75	14.25	10.250	5.9e+004	1.600	0.15	0.00	239.37	1.24	0.00	1.24
Left	Left:XBT	11.75	6.75	9.25	10.250	5.9e+004	1.600	0.15	0.00	252.74	1.29	0.00	1.29
Left	Left:XBT	6.75	3.37	5.06	10.250	5.9e+004	1.600	0.15	0.00	178.15	0.90	0.00	0.90
Left	Left:XBT	3.37	0.00	1.69	10.250	5.9e+004	1.600	0.15	0.00	184.25	0.92	0.00	0.92
Right	Right:ANT1	84.00	81.00	82.50	12.154	6.99e+004	1.600	0.15	0.00	212.57	0.92	0.00	0.92
Right	Right:ANT1	81.00	76.88	78.94	12.520	7.2e+004	1.600	0.15	0.00	301.08	1.27	0.00	1.27
Right	Right:ANT2	76.88	72.75	74.81	12.943	7.45e+004	1.600	0.15	0.00	311.26	1.29	0.00	1.29
Right	Right:ANT2	72.75	68.88	70.81	13.354	7.68e+004	1.600	0.15	0.00	301.68	1.22	0.00	1.22
Right	Right:ANT2	68.88	65.00	66.94	13.752	7.91e+004	1.600	0.15	0.00	310.67	1.23	0.00	1.23
Right	Right:SW	65.00	63.50	64.25	14.028	8.07e+004	1.600	0.15	0.00	122.67	0.48	0.00	0.48
Right	Right:BRACES	63.50	60.63	62.06	14.253	8.2e+004	1.600	0.15	0.00	238.88	0.93	0.00	0.93
Right	Right:BRACES	60.63	57.75	59.19	14.548	8.37e+004	1.600	0.15	0.00	243.83	0.93	0.00	0.93
Right	Right:ARM	57.75	54.75	56.25	14.849	8.54e+004	1.600	0.15	0.00	259.71	0.98	0.00	0.98
Right	Right:ARM	54.75	51.75	53.25	15.157	8.72e+004	1.600	0.15	0.00	265.10	0.99	0.00	0.99
Right	Right:XTP	51.75	46.88	49.31	15.562	8.92e+004	1.600	0.15	0.00	442.27	1.63	0.00	1.63
Right	Right:XTP	46.88	42.00	44.44	16.062	9.24e+004	1.600	0.15	0.00	456.50	1.65	0.00	1.65
Right	Right:cables	42.00	39.38	40.69	16.447	9.46e+004	1.600	0.15	0.00	251.70	0.90	0.00	0.90
Right	Right:XBT	39.38	36.75	38.06	16.717	9.62e+004	1.600	0.15	0.00	255.82	0.90	0.00	0.90
Right	Right:XBT	36.75	31.75	34.25	17.108	9.84e+004	1.600	0.15	0.00	498.69	1.74	0.00	1.74
Right	Right:XBT	31.75	26.75	29.25	17.622	1.01e+005	1.600	0.15	0.00	513.66	1.77	0.00	1.77
Right	Right:XBT	26.75	21.75	24.25	18.135	1.04e+005	1.600	0.15	0.00	528.62	1.79	0.00	1.79
Right	Right:XBT	21.75	16.75	19.25	18.250	1.05e+005	1.600	0.15	0.00	543.59	1.82	0.00	1.82
Right	Right:XBT	16.75	11.75	14.25	18.250	1.05e+005	1.600	0.15	0.00	558.55	1.84	0.00	1.84
Right	Right:XBT	11.75	6.75	9.25	18.250	1.05e+005	1.600	0.15	0.00	573.52	1.87	0.00	1.87
Right	Right:XBT	6.75	3.37	5.06	18.250	1.05e+005	1.600	0.15	0.00	395.59	1.28	0.00	1.28
Right	Right:g	3.37	0.00	1.69	18.250	1.05e+005	1.600	0.15	0.00	402.40	1.29	0.00	1.29

Point Loads for Load Case "L.T. Defl.":

Joint Label	Vertical Load (lbs)	Transverse Load (lbs)	Longitudinal Load (lbs)
SWL	821	0	0
SWR	821	0	0
L1	4496	0	0
L2	4496	0	0
L3	4496	0	0
ANT1	400	0	0
ANT2	1000	0	0
cables	2100	0	0

Detailed Pole Loading Data for Load Case "L.T. Defl.":

Notes: Does not include loads from equipment, arms, guys, braces, etc. or user input loads.
 Wind load is calculated for the undeformed shape of a pole.

Pole Label	Top Joint	Bottom Joint	Section Z (ft)	Section Average Z Elevation (ft)	Outer Diameter (in)	Reynolds Number	Drag Coef.	Adjusted Wind Pressure (psf)	Adjusted Ice Thickness (in)	Pole Vert. Load (lbs)	Pole Ice Load (lbs)	Pole Ice Tran. Load (lbs)	Long. Wind Load (lbs)
Left	Left:t	65.50	65.00	65.25	6.291	3.62e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00

Pole Label	Top Joint	Bottom Joint	Section Z	Section Z (ft)	Section Z Elevation (ft)	Outer Diameter (in)	Reynolds Number	Drag Coef.	Adjusted Wind Pressure (psf)	Adjusted Ice Thickness (in)	Pole Vertical Load (lbs)	Pole Ice Load (lbs)	Pole Wind Load (lbs)	Ice Tran. Wind Load (lbs)	Long. Wind Load (lbs)
Left Left:SW			64.25	63.50	64.25	6.454	3.71e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:BRACES			62.06	63.50	62.06	6.811	3.92e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:ARM			59.19	63.50	59.19	7.281	4.19e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XP			56.25	63.50	56.25	7.761	4.47e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XTP			53.25	63.50	53.25	8.251	4.75e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XT			49.25	63.50	49.25	8.741	5.03e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			44.25	63.50	44.25	9.231	5.31e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			39.25	63.50	39.25	9.721	5.59e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			34.25	63.50	34.25	10.211	5.87e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			29.25	63.50	29.25	10.701	6.15e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			24.25	63.50	24.25	11.191	6.43e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			19.25	63.50	19.25	11.681	6.71e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			14.25	63.50	14.25	12.171	6.99e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			9.25	63.50	9.25	12.661	7.27e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Left Left:XB			4.25	63.50	4.25	13.151	7.55e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:SW			64.25	63.50	64.25	6.454	3.71e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:BRACES			62.06	63.50	62.06	6.811	3.92e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:ARM			59.19	63.50	59.19	7.281	4.19e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XP			56.25	63.50	56.25	7.761	4.47e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XTP			53.25	63.50	53.25	8.251	4.75e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XT			49.25	63.50	49.25	8.741	5.03e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			44.25	63.50	44.25	9.231	5.31e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			39.25	63.50	39.25	9.721	5.59e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			34.25	63.50	34.25	10.211	5.87e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			29.25	63.50	29.25	10.701	6.15e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			24.25	63.50	24.25	11.191	6.43e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			19.25	63.50	19.25	11.681	6.71e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			14.25	63.50	14.25	12.171	6.99e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			9.25	63.50	9.25	12.661	7.27e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25
Right Right:XB			4.25	63.50	4.25	13.151	7.55e+004	1.600	0.15	0.00	31.70	0.25	0.00	0.00	0.25

Point Loads for Load Case "Arms (1)":

Joint Label	Vertical Load (lbs)	Transverse Load (lbs)	Longitudinal Load (lbs)	Load Comment
L1	0	0	805	
L2	0	0	805	
L3	0	0	805	
SWL	1	0	0	
SWR	1	0	0	

Detailed Pole Loading Data for Load Case "Arms (1)":

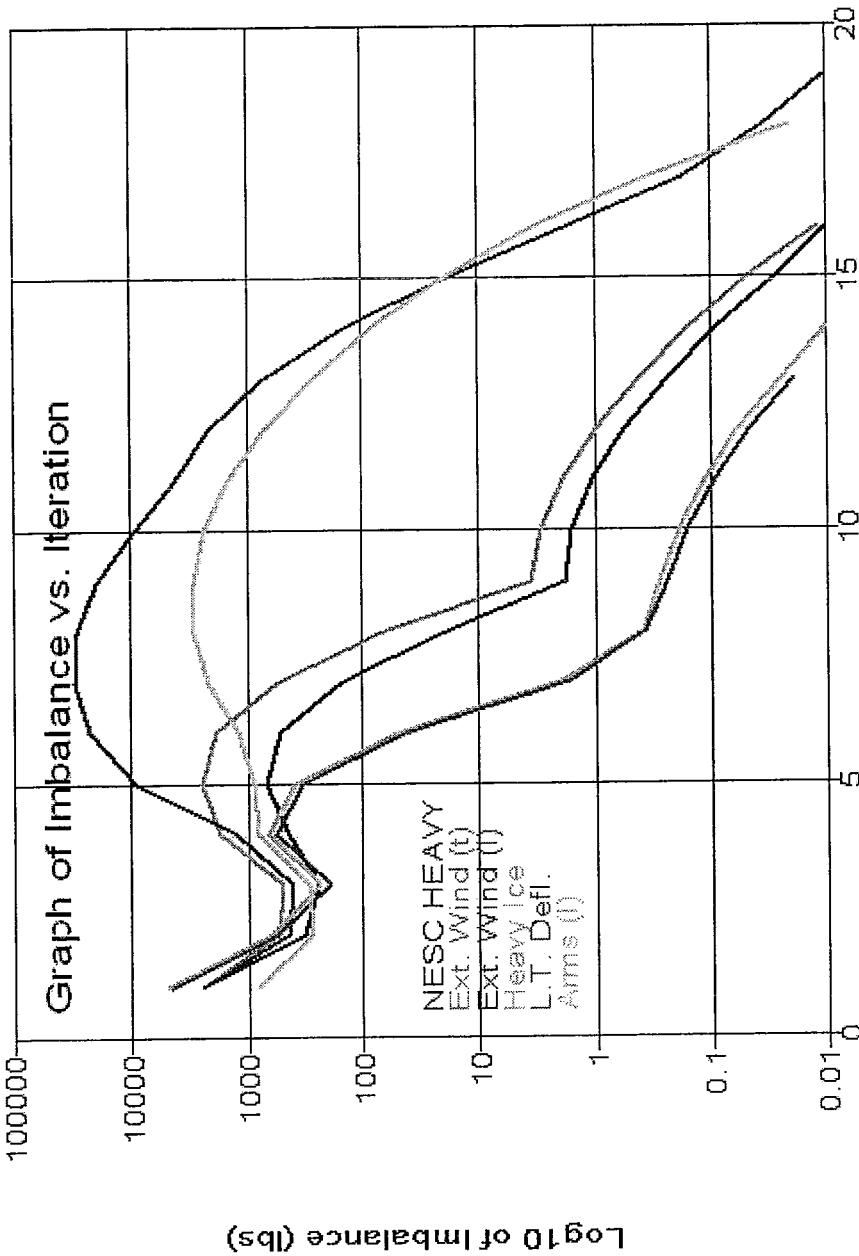
Notes: Does not include loads from equipment, arms, guys, braces, etc. or user input loads. Wind load is calculated for the undeformed shape of a pole.

Pole Label	Top Joint	Bottom Joint	Section Z	Section Z (ft)	Section Z Elevation (ft)	Outer Diameter (in)	Reynolds Number	Drag Coef.	Adjusted Wind Pressure (psf)	Adjusted Ice Thickness (in)	Pole Vertical Load (lbs)	Pole Ice Load (lbs)	Pole Wind Load (lbs)	Ice Tran. Wind Load (lbs)	Long. Wind Load (lbs)
Left Left:SW			64.25	65.00	64.25	6.291	3.62e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:BRACES			62.06	65.00	62.06	6.454	3.71e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:ARM			59.19	65.00	59.19	6.811	3.92e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XP			56.25	65.00	56.25	7.281	4.19e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XTP			53.25	65.00	53.25	7.761	4.47e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XT			49.25	65.00	49.25	8.251	4.75e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			44.25	65.00	44.25	8.741	5.03e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			39.25	65.00	39.25	9.231	5.31e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			34.25	65.00	34.25	9.721	5.59e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			29.25	65.00	29.25	10.211	5.87e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			24.25	65.00	24.25	10.701	6.15e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			19.25	65.00	19.25	11.191	6.43e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			14.25	65.00	14.25	11.681	6.71e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			9.25	65.00	9.25	12.171	6.99e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Left Left:XB			4.25	65.00	4.25	12.661	7.27e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:SW			64.25	65.00	64.25	6.291	3.62e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:BRACES			62.06	65.00	62.06	6.454	3.71e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:ARM			59.19	65.00	59.19	6.811	3.92e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XP			56.25	65.00	56.25	7.281	4.19e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XTP			53.25	65.00	53.25	7.761	4.47e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XT			49.25	65.00	49.25	8.251	4.75e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			44.25	65.00	44.25	8.741	5.03e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			39.25	65.00	39.25	9.231	5.31e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			34.25	65.00	34.25	9.721	5.59e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			29.25	65.00	29.25	10.211	5.87e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			24.25	65.00	24.25	10.701	6.15e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			19.25	65.00	19.25	11.191	6.43e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			14.25	65.00	14.25	11.681	6.71e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			9.25	65.00	9.25	12.171	6.99e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08
Right Right:XB			4.25	65.00	4.25	12.661	7.27e+004	1.600	0.15	0.00	10.30	0.08	0.00	0.00	0.08

Right	76.88	72.75	74.81	12.943	7.45e+004	1.600	0.15	0.00	311.26	1.29	0.00	0.00	1.29
Right	72.75	68.88	70.81	13.354	7.68e+004	1.600	0.15	0.00	301.68	1.22	0.00	0.00	1.22
Right	68.88	65.00	66.94	13.752	7.91e+004	1.600	0.15	0.00	310.67	1.23	0.00	0.00	1.23
Right	65.00	63.50	64.25	14.038	8.07e+004	1.600	0.15	0.00	122.67	0.48	0.00	0.00	0.48
Right	63.50	60.53	62.06	14.253	8.2e+004	1.600	0.15	0.00	238.88	0.93	0.00	0.00	0.93
Right	60.53	57.75	59.19	14.548	8.37e+004	1.600	0.15	0.00	243.83	0.93	0.00	0.00	0.93
Right	57.75	54.75	56.25	14.849	8.54e+004	1.600	0.15	0.00	259.71	0.98	0.00	0.00	0.98
Right	54.75	51.75	53.25	15.157	8.72e+004	1.600	0.15	0.00	265.10	0.99	0.00	0.00	0.99
Right	51.75	46.88	49.31	15.562	8.95e+004	1.600	0.15	0.00	442.27	1.63	0.00	0.00	1.63
Right	46.88	42.00	44.44	16.062	9.24e+004	1.600	0.15	0.00	456.50	1.65	0.00	0.00	1.65
Right	42.00	39.38	40.69	16.447	9.46e+004	1.600	0.15	0.00	251.70	0.90	0.00	0.00	0.90
Right	39.38	36.75	38.06	16.717	9.62e+004	1.600	0.15	0.00	255.82	0.90	0.00	0.00	0.90
Right	36.75	31.75	34.25	17.108	9.84e+004	1.600	0.15	0.00	498.69	1.74	0.00	0.00	1.74
Right	31.75	26.75	29.25	17.622	1.01e+005	1.600	0.15	0.00	513.66	1.77	0.00	0.00	1.77
Right	26.75	21.75	24.25	18.135	1.04e+005	1.600	0.15	0.00	528.62	1.79	0.00	0.00	1.79
Right	21.75	16.75	19.25	18.250	1.05e+005	1.600	0.15	0.00	543.59	1.82	0.00	0.00	1.82
Right	16.75	11.75	14.25	18.250	1.05e+005	1.600	0.15	0.00	558.55	1.84	0.00	0.00	1.84
Right	11.75	6.75	9.25	18.250	1.05e+005	1.600	0.15	0.00	573.52	1.87	0.00	0.00	1.87
Right	6.75	3.37	5.06	18.250	1.05e+005	1.600	0.15	0.00	355.55	1.28	0.00	0.00	1.28
Right	3.37	0.00	1.69	18.250	1.05e+005	1.600	0.15	0.00	402.40	1.29	0.00	0.00	1.29

*** Analysis Results:

Maximum element usage is 88.60% for Brace "X1" in load case "Ext. Wind (t)"
 Maximum insulator usage is 8.10% for Suspen "L1" in load case "Heavy Ice"



*** Analysis Results for Load Case No. 1 "NESC HEAVY" - Number of iterations in SAPS 16

Equilibrium Joint Positions and Rotations for Load Case "NESC HEAVY":

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (ft)	Y-Pos (ft)	Z-Pos (ft)	Iteration #
Left:g	0	0	0	0.0000	0.0000	0.0000	0	-7.75	0	
Left:t	0.006762	0.2401	3.2e-005	0.2927	0.0063	0.0028	0.006762	-7.51	65.5	
Left:sw	0.006707	0.2426	3.854e-005	0.2927	0.0063	0.0028	0.006707	-7.507	65	
Left:BRACES	0.006542	0.2503	6.598e-005	0.3020	0.0063	0.0028	0.006542	-7.5	63.5	
Left:ARM	0.005902	0.2625	0.0002036	-0.2228	0.0064	0.0029	0.005902	-7.488	57.75	
Left:XTP	0.005219	0.227	0.0004085	-0.1509	0.0067	0.0023	0.005219	-7.523	51.75	
Left:XBT	0.003351	0.246	5.872e-005	-0.1469	0.0074	0.0012	0.003351	-7.504	36.75	
Right:g	0	0	0	0.0000	0.0000	0.0000	0	7.75	0	
Right:t	0.008619	0.3701	-0.002962	-0.3687	0.0075	0.0007	0.008619	8.12	84	
Right:ANT1	0.008224	0.356	-0.002928	-0.3685	0.0075	0.0007	0.008224	8.106	81	

Right:ANT2	0.007137	0.3179	-0.002825	-0.2576	0.0076	0.0007	0.007137	8.068	72.75
Right:SW	0.006108	0.2854	-0.002721	-0.2144	0.0076	0.0007	0.006108	8.035	65
Right:BRACES	0.005909	0.28	-0.002702	-0.2005	0.0076	0.0007	0.005909	8.013	63.5
Right:ARM	0.005145	0.2629	-0.002586	-0.1367	0.0076	0.0007	0.005145	7.982	57.75
Right:XTP	0.004352	0.252	-0.002482	-0.0761	0.0075	0.0005	0.004352	7.967	51.75
Right:cables	0.003109	0.2364	-0.002325	-0.1504	0.0070	0.0004	0.003109	7.967	42
Right:XBT	0.002481	0.2173	-0.002082	-0.2771	0.0066	0.0004	0.002481	7.967	36.75
Right:ARM	0.006351	0.2629	-0.002158	-0.1339	0.0064	0.0032	0.006351	15.74	57.75
Right:PL	0.005302	0.2629	-0.002041	-0.1339	0.0064	0.0032	0.005302	15.74	57.75
Right:REL	0.005315	0.2629	-0.002023	-0.1339	0.0064	0.0032	0.005315	15.74	57.75
Right:12V	0.005457	0.2629	-0.001768	-0.0492	0.0070	0.0034	0.005457	7.371	57.75
Right:BR	0.0054	0.2629	-0.01807	-0.0071	0.0070	0.0033	0.005457	7.371	57.75
Right:FR	0.005145	0.2629	-0.01743	-0.0638	0.0071	0.0032	0.0054	1.263	57.77
Right:13	0.005084	0.2626	-0.002586	-0.2126	0.0076	0.0007	0.005145	8.013	57.75
Right:E	0.005081	0.2626	-0.02875	-0.1798	0.0076	0.0003	0.005084	15.76	57.72
Right:TEHL	0.006555	0.2503	-0.03032	-0.1798	0.0076	0.0003	0.005081	16.26	57.72
Right:TEHR	0.005902	0.2799	-0.001378	-0.3020	0.0063	0.0028	0.006555	7.774	63.5
Right:VEEL	0.006528	0.2503	-0.004758	-0.2005	0.0076	0.0007	0.005902	8.218	63.5
Right:VEER	0.005916	0.28	-0.006453	-0.2005	0.0076	0.0007	0.005204	7.442	63.5
Right:X1	0.005204	0.227	-0.005239	-0.1509	0.0076	0.0003	0.005204	7.169	63.75
Right:X1E	0.002486	0.2173	-0.001315	-0.2771	0.0066	0.0004	0.002486	7.268	57.75
Right:X2	0.004359	0.252	-0.001635	-0.0761	0.0075	0.0005	0.004359	7.364	51.75
Right:X2E	0.003342	0.245	-0.00111	-0.1465	0.0074	0.0012	0.003342	7.048	36.75
Right:aleft	0	0	0	0.0000	0.0000	0.0000	0	-7.75	65.5
Right:bleft	0	0	0	0.0000	0.0000	0.0000	0	-7.75	65.5
Right:1	0	0	0	0.0000	0.0000	0.0000	0	7.75	84
Right:1	0	0	0	0.0000	0.0000	0.0000	0	7.75	84

Joint Support Reactions for Load Case "NESC HEAVY":

Joint Label	X Force (Kips)	Y Force (Kips)	Z Comp. (Kips)	Uplift Result. (Kips)	Result. Force (Kips)	Long. Moment (ft-k)	Tors. Moment (ft-k)	Axial Trans. Shear (Kips)	Long. Moment Usage (%)	Trans. Shear Usage (%)	Z-Moment Usage (%)	Max. Usage (%)
Left:9	-0.01	0.0	-0.225	0.0	-8.36	0.0	0.0	47.10	0.0	-0.2	0.0	0.0
Right:9	-0.02	0.0	-5.75	0.0	32.74	0.0	134.43	0.0	-0.8	0.0	-0.01	0.0
aleft:0	1.00	0.0	-0.00	0.0	0.15	0.0	1.01	0.0	-0.00	0.0	-0.00	0.0
bleft:0	-1.00	0.0	-0.00	0.0	0.15	0.0	1.01	0.0	-0.00	0.0	-0.00	0.0
aright:1	1.00	0.0	-0.00	0.0	0.15	0.0	1.01	0.0	-0.00	0.0	-0.00	0.0
bright:1	-1.00	0.0	-0.00	0.0	0.15	0.0	1.01	0.0	-0.00	0.0	-0.00	0.0

Detailed Laminated Wood Pole Usages for Load Case "NESC HEAVY":

Element Label	Joint Label	Rel. Defl. (ft)	Trans. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	Trans. Moment (ft-k)	Long. Moment (ft-k)	Tors. Moment (ft-k)	Axial Force (Kips)	Trans. Shear (Kips)	Long. Shear (Kips)	Usage (%)
Left	Left:t	Origin	0.00	2.88	0.08	0.00	0.00	0.00	-0.01	0.00	0.00	0.0
	Left:l	End	0.50	2.91	0.08	0.00	0.00	0.00	-0.01	0.00	0.00	0.0
Left	Left:SW	Origin	0.50	2.91	0.08	0.00	0.00	0.00	-0.79	0.55	0.00	0.2
	Left:BRACES	End	2.00	3.00	0.08	0.00	0.83	0.00	-0.79	0.55	0.00	1.9
Left	Left:BRACES	Origin	2.00	3.00	0.08	0.00	0.08	0.00	-3.25	-2.94	0.00	0.8
	Left:t	End	4.88	3.15	0.07	0.00	-8.36	0.01	-0.0	-3.25	2.94	16.2
Left	Left:ARM	Origin	4.88	3.15	0.07	0.00	-8.36	0.01	-0.0	-3.33	-2.88	16.2
	Left:l	End	7.75	3.15	0.07	0.00	-16.65	0.01	-0.0	-3.33	-2.88	27.8
Left	Left:ARM	Origin	10.75	2.92	0.07	0.00	2.37	0.01	0.0	-3.22	6.34	0.00
	Left:l	End	10.75	2.92	0.07	0.00	2.37	0.01	0.0	-3.22	6.34	0.00
Left	Left:XTP	Origin	13.75	2.72	0.06	0.00	21.50	0.01	0.0	-3.30	6.38	0.00
	Left:l	End	18.75	2.72	0.06	0.00	18.14	0.01	0.0	-6.07	-2.75	24.1
Left	Left:XTP	Origin	18.75	2.72	0.06	0.00	4.39	0.01	0.0	5.92	-2.67	5.5
	Left:l	End	23.75	2.72	0.06	0.00	-8.95	0.01	0.0	5.92	-2.67	5.5
Left	Left:XBT	Origin	23.75	2.95	0.05	0.00	-8.95	0.01	0.0	5.75	-2.62	8.8
	Left:l	End	28.75	2.95	0.04	0.00	-22.04	0.00	0.0	9.95	1.73	19.7
Left	Left:XBT	Origin	28.75	2.95	0.04	0.00	-24.04	0.00	0.0	9.95	1.73	19.7
	Left:l	End	33.75	2.65	0.03	-0.00	-15.39	-0.01	0.0	9.77	1.77	11.3
Left	Left:ARM	Origin	38.75	2.14	0.02	-0.00	-6.55	-0.03	0.0	9.77	1.77	11.3
	Left:l	End	43.75	1.55	0.02	-0.00	2.58	-0.05	0.0	9.56	1.83	4.8
Left	Left:ARM	Origin	48.75	0.99	0.01	0.00	12.07	-0.08	0.0	9.34	1.90	2.2
	Left:l	End	53.75	0.52	0.01	0.00	21.99	-0.11	0.0	9.11	1.98	6.4
Left	Left:ARM	Origin	58.75	0.18	0.00	0.00	32.36	-0.15	0.0	8.86	2.07	9.8
	Left:l	End	58.75	0.18	0.00	0.00	32.36	-0.15	0.0	8.64	2.15	12.7

Left	Right	End	62.13	0.05	0.00	0.00	39.62	-0.18	0.0	8.64	2.15	-0.01	14.4
#Left:10	#Right:10	Origin	62.13	0.05	0.00	0.00	39.62	-0.18	0.0	8.45	2.22	-0.01	14.4
Left:	Right:	End	65.50	0.00	0.00	0.00	47.10	-0.21	0.0	8.45	2.22	-0.01	16.0
Right	Right	Origin	0.00	4.44	0.10	-0.04	0.00	-0.00	-0.0	-0.11	0.04	0.00	0.0
Right	Right:ANT1	End	3.00	4.27	0.10	-0.04	0.11	0.01	-0.0	-0.11	0.04	0.00	0.0
Right	Right:ANT1	Origin	3.00	4.27	0.10	-0.04	0.11	0.01	0.0	-0.86	0.25	0.00	0.1
Right	Right:ANT1	End	7.12	4.04	0.09	-0.03	1.13	0.01	0.0	-0.86	0.25	0.00	0.4
Right	Right:ANT1	Origin	7.12	4.04	0.09	-0.03	1.13	0.01	0.0	-1.17	0.35	0.00	0.4
Right	Right:ANT2	End	11.25	3.81	0.09	-0.03	2.56	0.01	0.0	-1.17	0.35	0.00	0.8
Right	Right:ANT2	Origin	11.25	3.81	0.09	-0.03	2.56	0.01	0.0	-2.57	0.92	0.00	0.9
Right	Right:ANT2	End	15.12	3.61	0.08	-0.03	6.13	0.01	0.0	-2.57	0.92	0.00	1.9
Right	Right:ANT2	Origin	15.12	3.61	0.08	-0.03	6.13	0.01	0.0	-2.88	1.02	0.00	1.9
Right	Right:SW	End	19.00	3.42	0.07	-0.03	10.07	0.01	0.0	-2.88	1.02	0.00	2.8
Right	Right:SW	Origin	19.00	3.42	0.07	-0.03	10.07	0.01	0.0	-3.86	1.62	0.00	2.9
Right	Right:BRACES	End	20.50	3.36	0.07	-0.03	12.50	0.00	0.0	-3.86	1.62	0.00	3.5
Right	Right:BRACES	Origin	20.50	3.36	0.07	-0.03	12.50	0.00	0.0	-9.75	0.89	0.00	3.6
Right	Right:BRACES	End	21.38	3.25	0.07	-0.03	14.66	0.01	0.0	-9.75	0.89	0.00	4.1
Right	Right:BRACES	Origin	21.38	3.25	0.07	-0.03	14.66	0.01	0.0	-9.89	0.95	0.00	4.2
Right	Right:ARM	End	26.25	3.15	0.06	-0.03	17.39	-0.02	0.0	-9.89	0.95	0.00	4.7
Right	Right:ARM	Origin	26.25	3.15	0.06	-0.03	17.39	-0.01	0.0	-10.14	0.80	0.00	4.7
Right	Right:ARM	End	29.25	3.08	0.06	-0.03	14.99	-0.04	0.0	-10.14	0.80	0.00	3.9
Right	Right:ARM	Origin	29.25	3.08	0.06	-0.03	14.99	-0.04	0.0	-10.40	0.73	0.00	4.0
Right	Right:XTP	End	32.25	3.02	0.05	-0.03	12.80	-0.06	0.0	-10.40	0.73	0.00	3.3
Right	Right:XTP	Origin	32.25	3.02	0.05	-0.03	12.80	-0.06	0.0	-10.40	0.73	0.00	3.3
Right	Right:XTP	End	37.13	2.95	0.04	-0.03	9.87	-0.06	0.0	-15.34	-4.90	-0.01	2.9
Right	Right:XTP	Origin	37.13	2.95	0.04	-0.03	9.87	-0.06	0.0	-15.34	-4.90	-0.01	2.9
Right	Right:XTP	End	42.00	2.84	0.04	-0.03	37.31	-0.16	0.0	-15.79	-4.77	-0.01	3.6
Right	Right:XTP	Origin	42.00	2.84	0.04	-0.03	37.31	-0.16	0.0	-15.79	-4.77	-0.01	3.6
Right	Right:cables	End	44.63	2.74	0.03	-0.03	48.89	-0.19	0.0	-18.25	-4.41	-0.01	8.1
Right	Right:cables	Origin	44.63	2.74	0.03	-0.03	48.89	-0.19	0.0	-18.25	-4.41	-0.01	8.1
Right	Right:XTB	End	47.25	2.61	0.03	-0.02	60.25	-0.23	0.0	-18.51	-4.33	-0.01	10.1
Right	Right:XTB	Origin	47.25	2.61	0.03	-0.02	60.25	-0.23	0.0	-18.51	-4.33	-0.01	10.1
Right	Right:XTB	End	47.25	2.51	0.03	-0.02	66.96	-0.23	0.0	-28.44	5.09	-0.01	13.5
Right	Right:XTB	Origin	47.25	2.51	0.03	-0.02	66.96	-0.23	0.0	-28.44	5.09	-0.01	13.5
Right	Right:XTB	End	52.25	2.55	0.02	-0.02	41.52	-0.29	0.0	-28.44	5.09	-0.01	8.4
Right	Right:XTB	Origin	52.25	2.55	0.02	-0.02	41.52	-0.29	0.0	-28.94	5.26	-0.01	8.4
Right	Right:XTB	End	57.25	1.79	0.02	-0.02	15.23	-0.37	0.0	-28.94	5.26	-0.01	3.7
Right	Right:XTB	Origin	57.25	1.79	0.02	-0.02	15.23	-0.37	0.0	-29.46	5.40	-0.02	3.7
Right	Right:XTB	End	62.25	1.31	0.01	-0.01	11.77	-0.44	0.0	-29.46	5.40	-0.02	3.0
Right	Right:XTB	Origin	62.25	1.31	0.01	-0.01	11.77	-0.44	0.0	-29.99	5.51	-0.02	3.1
Right	Right:XTB	End	67.25	0.84	0.01	-0.01	39.35	-0.52	0.0	-29.99	5.51	-0.02	7.0
Right	Right:XTB	Origin	67.25	0.84	0.01	-0.01	39.35	-0.52	0.0	-30.55	5.61	-0.02	7.0
Right	Right:XTB	End	72.25	0.44	0.00	-0.01	67.38	-0.61	0.0	-30.55	5.61	-0.02	10.7
Right	Right:XTB	Origin	72.25	0.44	0.00	-0.01	67.38	-0.61	0.0	-31.12	5.68	-0.02	10.7
Right	Right:XTB	End	77.25	0.16	0.00	-0.00	95.75	-0.70	0.0	-31.12	5.68	-0.02	14.0
Right	Right:XTB	Origin	77.25	0.16	0.00	-0.00	95.75	-0.70	0.0	-31.62	5.72	-0.02	14.0
Right	Right:XTB	End	80.63	0.04	0.00	-0.00	115.05	-0.76	0.0	-31.62	5.72	-0.02	16.1
Right	Right:XTB	Origin	80.63	0.04	0.00	-0.00	115.05	-0.76	0.0	-32.03	5.74	-0.02	16.1
Right	Right:XTB	End	84.00	0.00	0.00	0.00	134.43	-0.82	0.0	-32.03	5.74	-0.02	18.0
Right	Right:XTB	Origin	84.00	0.00	0.00	0.00	134.43	-0.82	0.0	-32.03	5.74	-0.02	18.0

Summary of Brace Forces and Usages for Load Case "NESC HEAVY":

Brace Label	Forces (kips)	Allowable (kips)	Usages (%)
TENL	4.16	16.50	30.00 21.35
TENR	4.00	16.50	30.00 20.52
VEEL	-0.29	20.28	20.00 2.19
VEER	5.03	20.28	20.00 38.73
X1	-13.27	26.38	25.00 77.38
X2	6.21	26.38	25.00 38.21

Detailed X-Arm Usages for Load Case "NESC HEAVY":

X-Arm Label	Joint Label	Joint Position (ft)	Rel. Defl. (in)	Tran. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	X Mem. (ft-k)	Z Mem. (ft-k)	Axial Mem. (kips)	Shear (kips)	X Shear (kips)	Z Shear (kips)	P/A (psi)	Mx/Sx (psi)	Mz/Sz (psi)	Max. Usage (%)
NESCARM	NESCARM:O	Origin	0.00	3.16	0.08	-0.26	0.00	0.00	0.0	0.00	-0.00	-0.00	0.00019	1.26e+005	4.28e+006	0.0
NESCARM	NESCARM:O	End	0.50	3.16	0.08	-0.24	0.00	0.00	0.0	0.00	-0.00	-0.00	0.00019	0.561	6.84e+005	2.2
NESCARM	NESCARM:O	Origin	0.50	3.16	0.08	-0.24	0.00	0.00	0.0	4.29	0.05	-0.00	1.1e+002	65.2	0.499	3.4
NESCARM	NESCARM:O	End	4.38	3.15	0.07	-0.13	0.18	0.00	0.0	4.29	0.05	-0.00	1.1e+002	65.2	0.499	3.4
NESCARM	NESCARM:O	Origin	4.38	3.15	0.07	-0.13	-0.18	-0.00	0.0	4.29	0.05	-0.00	1.1e+002	65.2	0.499	3.4
NESCARM	NESCARM:O	End	8.25	3.15	0.07	0.00	0.17	0.00	0.0	4.87	-0.00	0.00	1.3e+002	60.8	0.994	3.3
NESCARM	NESCARM:O	Origin	8.25	3.15	0.07	0.00	0.17	0.00	0.0	4.87	-0.00	0.00	1.3e+002	60.8	0.994	3.3
NESCARM	NESCARM:O	End	11.63	3.15	0.07	0.13	-0.38	-0.00	0.0	4.87	-0.16	-0.00	1.3e+002	139	0.781	5.1
NESCARM	NESCARM:O	Origin	11.63	3.15	0.07	0.13	-0.38	-0.00	0.0	4.87	-0.16	-0.00	1.3e+002	139	0.781	5.1
NESCARM	NESCARM:O	End	15.00	3.15	0.07	0.21	-1.08	0.00	0.0	4.87	-0.21	-0.00	1.3e+002	396	0.796	10.1
NESCARM	NESCARM:O	Origin	15.00	3.15	0.07	0.21	-1.08	0.00	0.0	4.87	-0.21	-0.00	1.3e+002	396	0.796	10.1

NESCARM	NESCARM:L2V	End 16.00	3.16	0.07	0.22	-1.33	0.01	0.0	4.87	-0.24	-0.00	1.36e+002	485	1.27	11.8
NESCARM	NESCARM:L2V	Origin 17.00	3.16	0.06	0.21	-1.10	-0.01	0.0	-0.30	0.22	-0.00	7.8	485	1.26	9.5
NESCARM	NESCARM:BR	End 17.00	3.16	0.06	0.21	-1.10	-0.01	0.0	-0.30	0.22	-0.00	7.8	403	1.96	7.9
NESCARM	NESCARM:BR	Origin 17.00	3.16	0.06	0.21	-1.10	-0.01	0.0	-0.30	0.20	-0.00	7.7	403	1.96	7.9
NESCARM	#NESCARM:2	End 20.38	3.15	0.06	0.11	-0.44	0.02	0.0	-0.30	0.20	-0.00	7.7	160	4.3	3.3
NESCARM	#NESCARM:2	Origin 20.38	3.15	0.06	0.11	-0.44	0.02	0.0	-0.30	0.16	-0.00	7.7	160	4.3	3.3
NESCARM	NESCARM:PR	End 23.75	3.15	0.06	-0.03	0.09	0.03	0.0	-0.30	0.16	-0.00	7.7	32.7	6.64	0.9
NESCARM	NESCARM:PR	Origin 23.75	3.15	0.06	-0.03	0.09	0.03	0.0	-0.30	0.01	0.00	55	32.7	1.01	1.7
NESCARM	#NESCARM:3	End 27.63	3.15	0.06	-0.20	0.14	0.00	0.0	-2.11	-0.04	0.00	55	50.3	0.501	2.0
NESCARM	#NESCARM:3	Origin 27.63	3.15	0.06	-0.20	0.14	0.00	0.0	-2.11	-0.04	0.00	55	50.3	0.501	2.0
NESCARM	NESCARM:L3	End 31.50	3.15	0.06	-0.35	0.00	0.00	-0.0	-2.11	-0.04	0.00	55	0.561	8.04e-005	1.1
NESCARM	NESCARM:L3	Origin 31.50	3.15	0.06	-0.35	0.00	0.00	-0.0	-2.11	-0.04	0.00	55	0.561	8.31e-005	1.1
NESCARM	NESCARM:E	End 32.00	3.15	0.06	-0.36	0.00	-0.00	-0.0	0.00	0.00	0.00	0.00025	0.561	8.31e-005	0.0
NESCARM	NESCARM:E	Origin 32.00	3.15	0.06	-0.36	0.00	-0.00	-0.0	0.00	0.00	0.00	0.00025	3.71e-007	1.31e-006	0.0

Summary of Suspension Capacities and Usages for Load Case "NESEC HEAVY":

Suspension Label	Tension (kips)	Input Capacity (kips)	Factored Tension Capacity (kips)	Usage %
SUSSNL	0.935	60.00	60.00	1.56
SUSSWR	0.935	60.00	60.00	1.56
L1	2.622	60.00	60.00	4.37
L2	2.622	60.00	60.00	4.37
L3	2.622	60.00	60.00	4.37
ANT1	0.418	60.00	60.00	0.70
ANT2	1.105	60.00	60.00	1.84
cables	2.114	60.00	60.00	3.52

*** Analysis Results for Load Case No. 2 "Ext. Wind (t)" - Number of iterations in SAPS 16

Equilibrium Joint Positions and Rotations for Load Case "Ext. Wind (t)":

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (ft)	Y-Pos (ft)	Z-Pos (ft)
Left:G	0	0	0	0.0000	0.0000	0.0000	0	-7.75	0
Left:t	0.006537	-2.1656	-0.005	0.4791	0.0060	0.0026	0.006537	-7.291	65.5
Left:SW	0.006485	-4.1466	-0.006	0.4791	0.0060	0.0026	0.006485	-7.287	65
Left:BRACES	0.006328	0.4759	5.0786	-0.005	0.4787	0.0060	0.006328	-7.274	63.5
Left:ARM	0.005722	0.4932	7.9548	-0.005	0.3981	0.0061	0.005722	-7.257	57.75
Left:XTP	0.005079	0.4334	0.0003311	-0.3285	0.0064	0.0021	0.005079	-7.317	51.75
Left:XBT	0.003294	0.4679	-0.0007286	-0.3928	0.0072	0.0011	0.003294	-7.282	36.75
Right:G	0	0	0	0.0000	0.0000	0.0000	0	7.75	0
Right:t	0.008414	0.7017	-0.006186	-0.5536	0.0074	0.0007	0.008414	8.452	83.99
Right:SW	0.008027	0.6727	-0.006642	-0.5530	0.0074	0.0007	0.008027	8.423	80.99
Right:ARM	0.006962	0.5847	-0.005862	-0.5138	0.0074	0.0007	0.006962	8.345	72.74
Right:SW	0.005955	0.5316	-0.005331	-0.3680	0.0075	0.0006	0.005955	8.282	64.99
Right:BRACES	0.005759	0.522	-0.005331	-0.3470	0.0075	0.0006	0.005759	8.272	63.49
Right:ARM	0.005011	0.4944	-0.005066	-0.1094	0.0073	0.0005	0.005011	8.244	57.74
Right:XTP	0.004236	0.4523	-0.004766	-0.2792	0.0069	0.0004	0.004236	8.202	42
Right:BRACES	0.003202	0.4523	-0.004484	-0.5263	0.0065	0.0003	0.003202	8.166	36.75
Right:XBT	0.002407	0.4162	-0.02777	-0.1550	0.0061	0.0029	0.002407	-15.51	57.72
Right:ARM	0.00125	0.4935	-0.02642	-0.1550	0.0061	0.0029	0.00125	-15.51	57.72
Right:SW	0.005722	0.4932	7.9548	-0.005	0.3981	0.0061	0.005722	-7.257	57.75
Right:ARM:REL	0.005364	0.4942	0.02827	0.0844	0.0067	0.0032	0.005364	-0.5058	57.78
Right:ARM:L2V	0.005309	0.4943	0.02895	-0.0106	0.0068	0.0031	0.005309	0.4943	57.78
Right:ARM:PER	0.005255	0.4943	0.02789	-0.1068	0.0069	0.0030	0.005255	1.494	57.78
Right:ARM:PR	0.005011	0.4944	-0.005177	-0.3376	0.0074	0.0006	0.005011	8.244	57.74
Right:ARM:IL	0.004943	0.4943	-0.04425	-0.2610	0.0074	0.0004	0.004943	15.99	57.71
Right:ARM:FE	0.00494	0.4943	-0.04657	-0.2610	0.0074	0.0004	0.00494	16.49	57.71
Right:ARM:TEMLU	0.00634	0.4759	-0.002272	0.4857	0.0060	0.0026	0.00634	-7.548	63.5
Right:ARM:TEMLU:O	0.005752	0.5219	-0.008889	-0.3470	0.0075	0.0006	0.005752	8.86	63.49
Right:ARM:VEER:O	0.005766	0.4758	-0.002374	0.4857	0.0060	0.0026	0.005766	-7	63.5
Right:ARM:VEER:O	0.005766	0.4758	-0.001772	0.3470	0.0075	0.0006	0.005766	7.684	63.5
Right:ARM:VEER:O	0.00566	0.4334	-0.001081	-0.2285	0.0064	0.0021	0.005666	-6.963	51.75
Right:ARM:VEER:O	0.002412	0.4162	-0.001965	-0.5263	0.0065	0.0003	0.002412	7.464	36.75
Right:ARM:VEER:O	0.004241	0.4784	-0.003847	-0.1094	0.0073	0.0005	0.004241	7.59	51.75
Right:ARM:VEER:O	0.003285	0.4679	-0.003030	-0.2928	0.0072	0.0011	0.003285	-6.826	36.75
Right:ARM:VEER:O	0	0	0	0.0000	0.0000	0.0000	0	-7.75	65.5
Right:ARM:VEER:O	0	0	0	0.0000	0.0000	0.0000	0	-7.75	65.5
Right:ARM:VEER:O	0	0	0	0.0000	0.0000	0.0000	0	7.75	84
Right:ARM:VEER:O	0	0	0	0.0000	0.0000	0.0000	0	7.75	84

Joint Support Reactions for Load Case "Ext. Wind (t)":

Joint Label	X Force (kips)	X Usage %	Y Force (kips)	Y Usage %	Z Comp. Usage %	Uplift Result. Force (kips)	Uplift Usage %	Result. Force (kips)	Result. Usage %	X-M. Moment (ft-k)	X-M. Usage %	Y-M. Moment (ft-k)	Y-M. Usage %	Z-M. Moment (ft-k)	Z-M. Usage %
Left:G	-0.01	0.0	-4.80	0.0	-23.95	0.0	0.0	24.42	0.0	92.44	0.0	-0.2	0.0	-0.02	0.0
Left:SW	0.02	0.0	-11.47	0.0	42.19	0.0	0.0	44.01	0.0	261.06	0.0	-0.8	0.0	-0.03	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:BRACES	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0
Left:ARM	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00					

Left	Left: XTP	Origin	13.75	5.20	0.06	0.00	31.67	0.02	0.0	18.20	-5.02	-0.00	43.3
Left	#Left:2	End	18.75	5.31	0.05	-0.00	6.59	0.02	0.0	18.20	-5.02	-0.00	9.5
Left	#Left:3	End	23.75	5.31	0.05	-0.00	17.13	0.01	0.0	18.07	-4.74	-0.00	9.5
Left	#Left:4	End	28.75	5.63	0.05	-0.00	17.13	0.01	0.0	18.07	-4.74	-0.00	17.7
Left	#Left:5	End	33.75	5.62	0.04	-0.01	40.29	0.01	0.0	17.87	-4.63	-0.00	33.1
Left	#Left:6	End	38.75	5.62	0.04	-0.01	43.88	0.01	0.0	25.56	3.11	-0.00	36.8
Left	#Left:7	End	43.75	5.03	0.03	-0.01	28.32	-0.01	0.0	25.39	3.16	-0.00	21.6
Left	#Left:8	End	48.75	5.03	0.03	-0.01	28.32	-0.01	0.0	25.39	3.16	-0.00	9.8
Left	#Left:9	End	53.75	4.07	0.02	-0.01	12.50	-0.02	0.0	25.20	3.32	-0.00	9.8
Left	#Left:10	End	58.75	4.07	0.02	-0.01	12.50	-0.02	0.0	25.20	3.32	-0.00	9.8
Left	#Left:11	End	63.75	2.97	0.02	-0.00	4.10	-0.04	0.0	24.98	3.55	-0.01	4.5
Left	#Left:12	End	68.75	1.91	0.01	0.00	21.84	-0.07	0.0	24.98	3.55	-0.01	12.2
Left	#Left:13	End	73.75	1.91	0.01	0.00	21.84	-0.07	0.0	24.98	3.55	-0.01	12.2
Left	#Left:14	End	78.75	1.91	0.01	0.00	40.98	-0.11	0.0	24.74	3.83	-0.01	18.9
Left	#Left:15	End	83.75	1.90	0.01	0.00	40.98	-0.11	0.0	24.88	4.14	-0.01	18.9
Left	#Left:16	End	88.75	1.00	0.01	0.00	61.71	-0.15	0.0	24.48	4.14	-0.01	24.7
Left	#Left:17	End	93.75	0.35	0.00	0.00	61.71	-0.15	0.0	34.25	4.43	-0.01	28.4
Left	#Left:18	End	98.75	0.35	0.00	0.00	76.67	-0.18	0.0	34.25	4.43	-0.01	28.4
Left	#Left:19	End	103.75	0.09	0.00	0.00	76.67	-0.18	0.0	24.05	4.67	-0.01	28.4
Left	#Left:20	End	108.75	0.09	0.00	0.00	92.44	-0.22	0.0	24.05	4.67	-0.01	31.8
Left	#Left:21	End	113.75	0.00	0.00	0.00	92.44	-0.22	0.0	24.05	4.67	-0.01	31.8
Right	Right:t	Origin	0.00	8.42	0.10	-0.07	0.00	0.00	-0.0	-0.11	0.11	0.00	0.0
Right	Right:AVT1	End	3.00	8.07	0.10	-0.07	0.34	0.01	-0.0	-0.11	0.11	0.00	0.1
Right	Right:AVT2	End	6.00	8.07	0.10	-0.07	0.34	0.01	0.0	-0.86	0.75	0.00	0.2
Right	Right:AVT3	End	9.00	7.60	0.09	-0.07	3.44	0.01	0.0	-0.86	0.75	0.00	1.2
Right	Right:AVT4	End	12.00	7.60	0.09	-0.07	3.44	0.01	0.0	-1.16	1.06	0.00	1.2
Right	Right:AVT5	End	15.00	7.14	0.08	-0.07	7.84	0.01	0.0	-1.16	1.06	0.00	2.4
Right	Right:AVT6	End	18.00	7.14	0.08	-0.07	7.84	0.01	0.0	-2.58	2.80	0.00	2.4
Right	Right:AVT7	End	21.00	6.73	0.08	-0.07	18.59	0.01	0.0	-2.58	2.80	0.00	5.4
Right	Right:AVT8	End	24.00	6.73	0.08	-0.07	18.59	0.01	0.0	-2.86	3.09	-0.00	5.4
Right	Right:AVT9	End	27.00	6.38	0.07	-0.06	30.67	0.00	0.0	-2.86	3.09	-0.00	8.3
Right	Right:AVT10	End	30.00	6.38	0.07	-0.06	30.67	0.00	0.0	-3.27	3.63	-0.00	8.3
Right	Right:AVT11	End	33.00	6.26	0.07	-0.06	36.11	0.00	0.0	-3.27	3.63	-0.00	9.6
Right	Right:AVT12	End	36.00	6.26	0.07	-0.06	36.11	0.00	0.0	-9.39	-0.69	-0.00	9.3
Right	Right:AVT13	End	39.00	6.08	0.06	-0.06	31.94	-0.01	0.0	-9.39	-0.69	-0.00	8.5
Right	Right:AVT14	End	42.00	6.08	0.06	-0.06	31.94	-0.01	0.0	-9.63	-0.49	-0.00	8.5
Right	Right:AVT15	End	45.00	5.93	0.06	-0.06	30.53	-0.02	0.0	-9.63	-0.49	-0.00	7.8
Right	Right:AVT16	End	48.00	5.93	0.06	-0.06	30.53	-0.02	0.0	-9.60	-2.16	-0.01	7.8
Right	Right:AVT17	End	51.00	5.82	0.06	-0.06	24.06	-0.04	0.0	-9.60	-2.16	-0.01	6.0
Right	Right:AVT18	End	54.00	5.82	0.06	-0.06	24.06	-0.04	0.0	-9.86	-1.94	-0.01	6.0
Right	Right:AVT19	End	57.00	5.74	0.05	-0.06	18.35	-0.06	0.0	-9.86	-1.94	-0.01	4.5
Right	Right:AVT20	End	60.00	5.74	0.05	-0.06	18.35	-0.06	0.0	-18.39	-3.23	-0.01	3.7
Right	Right:AVT21	End	63.00	5.63	0.04	-0.06	13.03	-0.06	0.0	-18.39	-3.23	-0.01	7.5
Right	Right:AVT22	End	66.00	5.63	0.04	-0.06	13.03	-0.06	0.0	-18.39	-3.23	-0.01	7.5
Right	Right:AVT23	End	69.00	5.43	0.04	-0.06	31.95	-0.11	0.0	-18.85	-8.83	-0.01	15.5
Right	Right:AVT24	End	72.00	5.43	0.04	-0.06	31.95	-0.11	0.0	-18.85	-8.83	-0.01	15.5
Right	Right:AVT25	End	75.00	5.24	0.03	-0.06	75.00	-0.16	0.0	-21.32	-7.74	-0.01	19.0
Right	Right:AVT26	End	78.00	5.24	0.03	-0.06	75.00	-0.16	0.0	-21.32	-7.74	-0.01	19.0
Right	Right:AVT27	End	81.00	4.63	0.03	-0.06	95.32	-0.19	0.0	-21.59	-7.50	-0.01	22.1
Right	Right:AVT28	End	84.00	4.63	0.03	-0.06	95.32	-0.19	0.0	-21.59	-7.50	-0.01	22.1
Right	Right:AVT29	End	87.00	4.99	0.03	-0.05	126.71	-0.23	0.0	-38.62	9.35	-0.01	15.5
Right	Right:AVT30	End	90.00	4.99	0.03	-0.05	126.71	-0.23	0.0	-39.10	9.85	-0.01	15.5
Right	Right:AVT31	End	93.00	4.31	0.02	-0.05	79.95	-0.29	0.0	-39.10	9.85	-0.01	6.6
Right	Right:AVT32	End	96.00	4.31	0.02	-0.05	79.95	-0.29	0.0	-39.60	10.27	-0.01	6.6
Right	Right:AVT33	End	99.00	3.44	0.02	-0.04	30.70	-0.36	0.0	-39.60	10.27	-0.01	4.8
Right	Right:AVT34	End	102.00	3.44	0.02	-0.04	30.70	-0.36	0.0	-40.14	10.63	-0.02	4.8
Right	Right:AVT35	End	105.00	2.51	0.01	-0.03	20.67	-0.43	0.0	-40.14	10.63	-0.02	12.5
Right	Right:AVT36	End	108.00	2.51	0.01	-0.03	20.67	-0.43	0.0	-40.71	10.93	-0.02	12.5
Right	Right:AVT37	End	111.00	1.62	0.01	-0.02	73.82	-0.51	0.0	-40.71	10.93	-0.02	19.6
Right	Right:AVT38	End	114.00	1.62	0.01	-0.02	73.82	-0.51	0.0	-41.31	11.16	-0.02	19.6
Right	Right:AVT39	End	117.00	0.86	0.00	-0.01	128.45	-0.59	0.0	-41.31	11.16	-0.02	26.2
Right	Right:AVT40	End	120.00	0.86	0.00	-0.01	128.45	-0.59	0.0	-41.83	11.33	-0.02	26.2
Right	Right:AVT41	End	123.00	0.30	0.00	0.00	184.27	-0.67	0.0	-41.83	11.33	-0.02	30.3
Right	Right:AVT42	End	126.00	0.30	0.00	0.00	184.27	-0.67	0.0	-42.27	11.43	-0.02	30.3
Right	Right:AVT43	End	129.00	0.08	0.00	-0.00	222.49	-0.73	0.0	-42.27	11.43	-0.02	34.2
Right	Right:AVT44	End	132.00	0.08	0.00	-0.00	222.49	-0.73	0.0	-42.27	11.43	-0.02	34.2

Summary of Brace Forces and Usages for Load Case "Ext. Wind (t)":

Brace Label	Forces (kips)	Allowable Compression (kips)	Allowable Tension (kips)	Usage %
TEN1	1.98	16.50	30.00	6.61
TEN2	1.79	16.50	30.00	5.98
VER1	-4.62	20.28	20.00	22.77
VER2	7.61	20.28	20.00	38.03
X1	-23.37	26.38	25.00	88.60

Detailed X-Arm Usages for Load Case "Ext. Wind (t)":

X-Arm Label	Joint Label	Joint Position (ft)	Rel. Defl. (in)	Tran. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	Mom. (ft-k)	Mem. (ft-k)	X Shear (kips)	Z Tors. (ft-k)	Mom. (ft-k)	Axial Force (kips)	X Shear (kips)	Z Shear (kips)	P/A (psi)	Mx/Sx (psi)	Mz/Sz (psi)	Max. Usage %
NESCARM	NESCARM:0	Origin 0.00	5.92	0.07	-0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	0.00022	9.4e-006	3.74e-006	0.0
NESCARM	NESCARM:L1	End 0.50	5.92	0.07	-0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	0.00022	0.561	4.74e-005	0.0
NESCARM	NESCARM:L1	Origin 0.50	5.92	0.07	-0.32	0.00	0.00	0.00	-2.75	0.09	0.00	0.00	0.09	0.00	72	0.561	4.11e-005	0.9
NESCARM	#NESCARM:0	End 4.38	5.92	0.07	-0.18	0.36	0.00	0.0	-2.75	0.09	0.00	0.0	0.04	-0.00	72	133	0.342	2.6
NESCARM	#NESCARM:0	Origin 4.38	5.92	0.07	-0.18	0.36	0.00	-0.0	-2.75	0.04	0.00	0.0	0.04	-0.00	72	133	0.342	2.6
NESCARM	NESCARM:PL	End 8.25	5.92	0.07	0.00	0.54	0.00	-0.0	2.75	0.04	0.00	0.0	0.04	-0.00	72	196	0.685	3.3
NESCARM	NESCARM:PL	Origin 8.25	5.92	0.07	0.00	0.54	0.00	0.0	2.75	0.04	0.00	0.0	0.04	-0.00	72	196	0.685	3.3
NESCARM	#NESCARM:1	End 11.63	5.92	0.07	0.20	0.54	-0.00	0.0	12.49	-0.32	0.00	0.0	-0.32	0.00	3.3e+002	196	0.858	6.5
NESCARM	#NESCARM:1	Origin 11.63	5.92	0.07	0.20	0.54	0.00	0.0	12.49	-0.32	0.00	0.0	-0.32	0.00	3.3e+002	196	0.858	6.5
NESCARM	NESCARM:BR1	End 15.00	5.93	0.06	0.34	1.81	0.00	0.0	12.49	-0.38	0.00	0.0	-0.38	0.00	3.3e+002	662	0.894	12.4
NESCARM	NESCARM:BR1	Origin 15.00	5.93	0.06	0.34	1.81	0.00	0.0	12.49	-0.44	0.00	0.0	-0.44	0.00	3.3e+002	662	0.894	12.4
NESCARM	NESCARM:L2V	End 16.00	5.93	0.06	0.35	2.25	0.00	0.0	12.49	-0.44	0.00	0.0	-0.44	0.00	3.3e+002	823	1.16	14.4
NESCARM	NESCARM:L2V	Origin 16.00	5.93	0.06	0.35	2.25	0.00	0.0	12.49	-0.44	0.00	0.0	-0.44	0.00	3.3e+002	823	1.16	14.4
NESCARM	NESCARM:BR2	End 17.00	5.93	0.06	0.33	1.87	-0.01	0.0	1.66	0.38	0.00	0.0	0.38	0.00	43	884	1.16	10.8
NESCARM	NESCARM:BR2	Origin 17.00	5.93	0.06	0.33	1.87	-0.01	0.0	1.66	0.38	0.00	0.0	0.38	0.00	43	884	1.16	10.8
NESCARM	#NESCARM:2	End 20.38	5.93	0.05	0.18	0.69	0.02	0.0	1.66	0.35	0.00	0.0	0.35	0.00	43	684	1.82	9.1
NESCARM	#NESCARM:2	Origin 20.38	5.93	0.05	0.18	0.69	0.02	0.0	1.66	0.35	0.00	0.0	0.35	0.00	43	684	1.82	9.1
NESCARM	NESCARM:PR	End 23.75	5.93	0.06	-0.06	0.33	0.03	0.0	1.66	0.30	0.00	0.0	0.30	0.00	43	254	4.09	3.8
NESCARM	NESCARM:PR	Origin 23.75	5.93	0.06	-0.06	0.33	0.03	0.0	1.66	0.30	0.00	0.0	0.30	0.00	43	254	4.09	3.8
NESCARM	#NESCARM:FR	End 23.75	5.93	0.06	-0.06	0.33	0.00	0.0	-0.21	-0.02	0.00	0.0	-0.02	0.00	5.6	121	6.39	2.1
NESCARM	#NESCARM:FR	Origin 23.75	5.93	0.06	-0.06	0.33	0.00	0.0	-0.21	-0.02	0.00	0.0	-0.02	0.00	5.6	121	6.39	2.1
NESCARM	#NESCARM:3	End 27.63	5.93	0.06	-0.31	0.26	0.00	0.0	-0.21	-0.07	0.00	0.0	-0.07	0.00	5.6	94.2	0.318	1.3
NESCARM	#NESCARM:3	Origin 27.63	5.93	0.06	-0.31	0.26	0.00	0.0	-0.21	-0.07	0.00	0.0	-0.07	0.00	5.6	94.2	0.318	1.3
NESCARM	NESCARM:L3	End 31.50	5.93	0.06	-0.53	0.00	0.00	-0.0	-0.21	-0.07	0.00	0.0	-0.07	0.00	5.6	0.561	6.24e-005	0.1
NESCARM	NESCARM:L3	Origin 31.50	5.93	0.06	-0.53	0.00	0.00	-0.0	-0.21	-0.07	0.00	0.0	-0.07	0.00	5.6	0.561	6.24e-005	0.1
NESCARM	NESCARM:E	End 32.00	5.93	0.06	-0.56	0.00	0.00	-0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00036	2.26e-007	1.84e-006	0.0

Summary of Suspension Capacities and Usages for Load Case "Ext. Wind (t)":

Suspension Label	Tension (kips)	Input Tension Capacity (kips)	Factored Tension Capacity (kips)	Usage %
SUSSWL	0.387	60.00	60.00	0.65
SUSSWR	0.387	60.00	60.00	0.65
L1	1.552	60.00	60.00	2.59
L2	1.552	60.00	60.00	2.59
L3	1.552	60.00	60.00	2.59
ANT1	0.544	60.00	60.00	0.91
ANT2	1.742	60.00	60.00	2.90
cables	2.231	60.00	60.00	3.72

Equilibrium Joint Positions and Rotations for Load Case "Ext. Wind (1)":

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (ft)	Y-Pos (ft)	Z-Pos (ft)
Left:G	0	0	0	0.0000	0.0000	0.0000	0	-7.75	0
Left:t	2.821	0.008182	-0.06825	0.0875	2.7165	0.7077	2.821	-7.742	65.43
Left:SW	2.797	0.008653	-0.06769	0.0875	2.7172	0.7077	2.797	-7.741	64.93
Left:BRACES	2.726	0.01007	-0.06599	0.0877	2.7275	0.7077	2.726	-7.74	63.43
Left:ARM	2.448	0.03442	-0.05916	0.0531	2.8404	0.7097	2.448	-7.736	57.69
Left:XTP	2.143	0.008966	-0.05134	0.0393	2.9852	0.5575	2.143	-7.741	51.7
Left:XBT	1.332	0.004715	-0.02921	0.0237	3.1364	0.2967	1.332	-7.745	36.72
Right:G	0	0	0	0.0000	0.0000	0.0000	0	7.75	0
Right:t	3.796	0.04524	-0.09847	-0.0631	3.2850	0.1496	3.796	7.795	83.9
Right:ANT1	3.624	0.04149	-0.09353	-0.0631	3.2891	0.1496	3.624	7.791	80.91
Right:ANT2	3.148	0.03117	-0.07978	-0.0629	3.3275	0.1495	3.148	7.781	72.67
Right:SW	2.698	0.02151	-0.06653	-0.0624	3.3601	0.1495	2.698	7.772	64.93
Right:BRACES	2.608	0.01965	-0.06394	-0.0623	3.3623	0.1495	2.608	7.777	63.44
Right:ARM	2.271	0.01301	-0.054	-0.0482	3.3545	0.1486	2.271	7.763	57.7
Right:XTP	1.922	0.007675	-0.04378	-0.0252	3.3073	0.1280	1.922	7.758	51.71
Right:XB1	1.374	0.003431	-0.02828	-0.0054	3.1070	0.0975	1.374	7.752	36.73
Right:XB2	1.097	0.002368	-0.0209	-0.0023	2.9277	0.0829	1.097	7.752	36.73
Right:XB3	0.821	0.001521	-0.01521	-0.0023	2.8391	0.0731	0.821	7.752	36.73
Right:XB4	0.545	0.001515	-0.01515	0.0242	2.8391	0.0731	0.545	15.48	57.68
Right:XB5	0.269	0.0142	-0.05916	0.1000	2.8404	0.7097	0.269	-7.736	57.69
Right:XB6	2.358	0.01351	-0.05052	0.0565	3.0649	0.7755	2.358	-0.9865	57.7
Right:XB7	2.345	0.01341	-0.04963	0.0774	3.0979	0.7623	2.345	-0.01341	57.7
Right:XB8	2.331	0.01332	-0.04911	0.0568	3.1309	0.7380	2.331	1.013	57.7
Right:XB9	2.317	0.01301	-0.054	-0.0361	3.3545	0.1486	2.317	7.763	57.7
Right:XB10	2.265	0.01287	-0.06394	-0.0520	3.3542	-0.0136	2.265	15.51	57.69
Right:XB11	2.265	0.01287	-0.06475	-0.0520	3.3542	-0.0136	2.265	16.01	57.69
Right:XB12	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB13	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB14	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB15	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB16	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB17	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB18	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB19	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB20	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB21	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB22	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB23	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB24	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB25	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB26	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB27	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB28	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB29	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB30	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB31	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB32	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB33	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB34	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB35	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB36	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB37	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB38	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB39	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB40	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB41	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB42	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB43	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB44	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB45	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB46	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB47	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB48	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB49	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB50	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB51	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB52	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB53	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB54	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB55	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB56	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB57	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB58	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB59	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB60	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB61	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB62	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB63	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB64	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB65	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB66	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB67	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB68	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB69	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB70	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB71	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB72	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB73	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB74	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB75	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB76	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB77	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB78	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB79	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB80	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB81	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB82	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB83	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB84	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB85	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB86	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB87	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB88	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB89	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB90	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB91	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB92	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB93	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	63.43
Right:XB94	2.229	0.01009	-0.06641	-0.0877	2.7275	0.7077	2.229	-8.014	

Left	Left:XTIP	Origin	13.75	0.11	25.71	-0.62	0.34	5.46	3.2	-2.51	-0.08	-0.29	6.3	
Left	End	18.75	0.08	22.53	-0.53	-0.08	4.00	3.2	-2.51	-0.08	-0.29	6.3		
Left	#Left:1	Origin	18.75	0.08	22.53	-0.53	4.00	3.2	-2.51	-0.08	-0.29	6.3		
Left	#Left:2	End	23.75	0.07	19.27	-0.44	-0.49	1.52	3.2	-2.65	-0.08	-0.49	4.1	
Left	#Left:3	Origin	23.75	0.07	19.27	-0.44	1.52	3.2	-2.65	-0.08	-0.49	4.1		
Left	#Left:4	End	28.75	0.06	15.98	-0.35	-0.90	-2.04	3.1	-2.81	-0.08	-0.71	2.6	
Left	#Left:5	Origin	28.75	0.06	15.98	-0.35	-0.90	-2.04	3.1	-2.81	-0.08	-0.71	2.6	
Left	#Left:6	End	33.75	0.04	12.73	-0.26	-0.78	-8.00	3.1	-2.92	0.03	-1.19	6.7	
Left	#Left:7	Origin	33.75	0.04	12.73	-0.26	-0.78	-8.00	3.1	-2.92	0.03	-1.19	6.7	
Left	#Left:8	End	38.75	0.03	9.62	-0.18	-0.63	-15.18	3.1	-3.10	0.03	-1.44	11.0	
Left	#Left:9	Origin	38.75	0.03	9.62	-0.18	-0.63	-15.18	3.1	-3.10	0.03	-1.44	11.0	
Left	#Left:10	End	43.75	0.02	6.76	-0.11	-0.46	-23.63	3.1	-3.30	0.03	-1.69	15.7	
Left	#Left:11	Origin	43.75	0.02	6.76	-0.11	-0.46	-23.63	3.1	-3.30	0.03	-1.69	15.7	
Left	#Left:12	End	48.75	0.01	4.25	-0.06	-0.29	-33.40	3.1	-3.51	0.03	-1.95	20.6	
Left	#Left:13	Origin	48.75	0.01	4.25	-0.06	-0.29	-33.40	3.1	-3.51	0.03	-1.95	20.6	
Left	#Left:14	End	53.75	0.01	2.21	-0.02	-0.14	-44.53	3.1	-3.75	0.03	-2.23	25.7	
Left	#Left:15	Origin	53.75	0.01	2.21	-0.02	-0.14	-44.53	3.1	-3.75	0.03	-2.23	25.7	
Left	#Left:16	End	58.75	0.00	0.77	-0.01	0.07	-57.04	3.1	-4.01	0.04	-2.50	25.8	
Left	#Left:17	Origin	58.75	0.00	0.77	-0.01	0.07	-57.04	3.1	-4.01	0.04	-2.50	25.8	
Left	#Left:18	End	62.13	0.00	0.20	-0.00	0.18	-66.27	3.1	-4.25	0.04	-2.73	31.2	
Left	#Left:19	Origin	62.13	0.00	0.20	-0.00	0.18	-66.27	3.1	-4.25	0.04	-2.73	31.2	
Left	#Left:20	End	65.50	0.00	0.00	0.00	0.16	-66.27	3.1	-4.45	0.04	-2.92	35.0	
Left	#Left:21	Origin	65.50	0.00	0.00	0.00	0.16	-66.27	3.1	-4.45	0.04	-2.92	35.0	
Left	#Left:22	End	65.50	0.00	0.00	0.00	0.31	-76.14	3.1	-4.45	0.04	-2.92	38.9	
Left	#Left:23	Origin	65.50	0.00	0.00	0.00	0.31	-76.14	3.1	-4.45	0.04	-2.92	38.9	
Right	Right:1	Origin	0.00	0.54	45.55	-1.18	0.00	0.00	-0.00	-0.20	0.00	1.61	0.0	
Right	Right:2	End	3.00	0.50	43.49	-1.12	0.01	4.82	0.0	-0.20	0.00	1.61	1.1	
Right	Right:3	Origin	3.00	0.50	43.49	-1.12	0.01	4.82	0.0	-0.20	0.00	1.61	1.1	
Right	Right:4	End	7.12	0.44	40.64	-1.04	0.03	9.01	0.0	-0.92	0.00	1.02	2.0	
Right	Right:5	Origin	7.12	0.44	40.64	-1.04	0.03	9.01	0.0	-0.92	0.00	1.02	2.0	
Right	Right:6	End	11.25	0.37	37.78	-0.96	0.06	12.23	0.0	-1.22	0.01	0.78	2.0	
Right	Right:7	Origin	11.25	0.37	37.78	-0.96	0.06	12.23	0.0	-1.22	0.01	0.78	2.0	
Right	Right:8	End	15.12	0.32	35.07	-0.88	0.07	8.59	0.0	-2.82	0.00	-1.17	1.0	
Right	Right:9	Origin	15.12	0.32	35.07	-0.88	0.07	8.59	0.0	-2.82	0.00	-1.17	1.0	
Right	Right:10	End	19.00	0.26	32.35	-0.80	0.09	4.05	0.0	-3.21	0.01	-1.35	1.0	
Right	Right:11	Origin	19.00	0.26	32.35	-0.80	0.09	4.05	0.0	-3.21	0.01	-1.35	1.0	
Right	Right:12	End	23.38	0.19	29.27	-0.71	3.28	-2.80	0.0	-4.78	0.95	-1.68	0.8	
Right	Right:13	Origin	23.38	0.19	29.27	-0.71	3.28	-2.80	0.0	-4.78	0.95	-1.68	0.8	
Right	Right:14	End	28.25	0.16	27.25	-0.65	6.01	-8.15	0.0	-5.01	0.95	-1.86	1.6	
Right	Right:15	Origin	28.25	0.16	27.25	-0.65	6.01	-8.15	0.0	-5.01	0.95	-1.86	1.6	
Right	Right:16	End	32.25	0.09	23.06	-0.53	5.11	-17.29	4.6	-5.33	-0.20	-3.34	4.7	
Right	Right:17	Origin	32.25	0.09	23.06	-0.53	5.11	-17.29	4.6	-5.33	-0.20	-3.34	4.7	
Right	Right:18	End	37.13	0.06	19.72	-0.43	3.44	-47.62	4.7	-6.55	-0.32	-4.38	9.1	
Right	Right:19	Origin	37.13	0.06	19.72	-0.43	3.44	-47.62	4.7	-6.55	-0.32	-4.38	9.1	
Right	Right:20	End	42.00	0.04	16.49	-0.34	1.90	-68.96	4.7	-8.95	-0.32	-5.50	12.1	
Right	Right:21	Origin	42.00	0.04	16.49	-0.34	1.90	-68.96	4.7	-8.95	-0.32	-5.50	12.1	
Right	Right:22	End	44.63	0.03	14.80	-0.29	1.07	-83.38	4.7	-9.20	-0.32	-5.67	14.2	
Right	Right:23	Origin	44.63	0.03	14.80	-0.29	1.07	-83.38	4.7	-9.20	-0.32	-5.67	14.2	
Right	Right:24	End	47.25	0.03	13.16	-0.25	0.25	-98.28	4.9	-9.97	-0.00	-6.17	16.2	
Right	Right:25	Origin	47.25	0.03	13.16	-0.25	0.25	-98.28	4.9	-9.97	-0.00	-6.17	16.2	
Right	Right:26	End	52.35	0.02	10.21	-0.18	-0.01	-129.15	4.9	-10.49	0.00	-6.51	20.5	
Right	Right:27	Origin	52.35	0.02	10.21	-0.18	-0.01	-129.15	4.9	-10.49	0.00	-6.51	20.5	
Right	Right:28	End	57.25	0.01	7.52	-0.12	0.01	-161.69	4.9	-11.03	0.00	-6.84	24.9	
Right	Right:29	Origin	57.25	0.01	7.52	-0.12	0.01	-161.69	4.9	-11.03	0.00	-6.84	24.9	
Right	Right:30	End	62.25	0.01	5.15	-0.07	0.03	-195.89	4.9	-11.59	0.00	-7.16	29.2	
Right	Right:31	Origin	62.25	0.01	5.15	-0.07	0.03	-195.89	4.9	-11.59	0.00	-7.16	29.2	
Right	Right:32	End	67.25	0.00	3.16	-0.03	0.07	-231.71	4.9	-12.19	0.01	-7.48	33.6	
Right	Right:33	Origin	67.25	0.00	3.16	-0.03	0.07	-231.71	4.9	-12.19	0.01	-7.48	33.6	
Right	Right:34	End	72.25	0.00	1.61	-0.01	0.12	-269.11	4.9	-12.81	0.01	-7.79	37.9	
Right	Right:35	Origin	72.25	0.00	1.61	-0.01	0.12	-269.11	4.9	-12.81	0.01	-7.79	37.9	
Right	Right:36	End	77.25	0.00	0.55	-0.00	0.08	-308.05	4.9	-13.35	0.01	-8.04	42.3	
Right	Right:37	Origin	77.25	0.00	0.55	-0.00	0.08	-308.05	4.9	-13.35	0.01	-8.04	42.3	
Right	Right:38	End	80.63	0.00	0.14	-0.00	0.22	-335.18	4.9	-13.80	0.01	-8.23	45.2	
Right	Right:39	Origin	80.63	0.00	0.14	-0.00	0.22	-335.18	4.9	-13.80	0.01	-8.23	45.2	
Right	Right:40	End	84.00	0.00	0.00	0.00	0.27	-362.95	4.9	-13.80	0.01	-8.23	48.1	
Right	Right:41	Origin	84.00	0.00	0.00	0.00	0.27	-362.95	4.9	-13.80	0.01	-8.23	48.1	

Summary of Brace Forces and Usages for Load Case "Ext. Wind (1)":

Brace Label	Forces (kips)	Allowable (kips)	Usage %
TEN1	1.89	30.00	6.28
TEN2	1.69	30.00	5.62
VEB1	1.65	20.28	8.24
VEB2	0.47	20.28	2.36
X1	-0.44	25.00	1.67

Detailed X-Arm Usages for Load Case "Ext. Wind (1)":

X-Arm Label	Joint Label	Joint Position (ft)	Rel. Defl. (in)	Long. Defl. (in)	Vest. Defl. (in)	Mom. (ft-k)	Mom. (ft-k)	Mom. (ft-k)	Z Tors. (ft-k)	Axial Force (kips)	Shear (kips)	X Shear (kips)	Z Shear (kips)	P/A (psi)	Mx/Sx (psi)	Mz/Sz (psi)	Max. Usage %
NESCARM	NESCARM:0	Origin	0.00	0.18	30.79	-0.87	0.00	0.00	0.00	0.00	0.00	-0.00	-0.01	9.4e-005	0.000927	1.35e-005	0.0
NESCARM	NESCARM:L1	End	0.50	0.18	30.70	-0.86	0.00	0.00	0.00	0.00	0.00	-0.00	-0.01	9.4e-005	0.49	0.977	0.0
NESCARM	NESCARM:R1	End	0.50	0.18	30.70	-0.86	0.00	0.00	0.00	0.00	0.00	-0.00	-0.21	39	0.491	0.978	0.5
NESCARM	#NESCARM:0	End	4.38	0.18	30.00	-0.80	0.27	0.83	-0.0	-1.49	0.07	-0.21	39	99.7	207	4.3	4.3
NESCARM	NESCARM:0	Origin	4.38	0.18	30.00	-0.80	0.27	0.83	-0.0	-1.49	0.03	-0.33	39	99.7	207	4.3	4.3
NESCARM	NESCARM:PL	End	8.25	0.17	29.37	-0.71	0.38	2.11	-0.0	-1.49	0.03	-0.33	39	139	58	8.8	8.8
NESCARM	NESCARM:PL	End	8.25	0.17	29.37	-0.71	0.38	2.11	0.9	-1.10	-0.07	-0.19	29	83.6	295	5.1	5.1
NESCARM	#NESCARM:1	End	11.63	0.17	28.84	-0.66	0.01	0.54	0.9	-1.10	-0.07	-0.19	29	2.87	134	2.1	2.1
NESCARM	NESCARM:1	Origin	11.63	0.17	28.84	-0.66	0.01	0.54	0.9	-1.10	-0.10	-0.30	29	3.06	134	2.1	2.1
NESCARM	NESCARM:BR1	End	15.00	0.16	28.30	-0.61	0.33	0.47	0.9	-1.10	-0.10	-0.30	29	121	117	3.3	3.3
NESCARM	NESCARM:BR1	End	15.00	0.16	28.30	-0.61	0.33	0.47	0.9	-1.10	-0.12	-0.37	29	121	117	3.3	3.3
NESCARM	NESCARM:L2V	End	16.00	0.16	28.13	-0.60	0.45	0.83	0.9	-1.10	-0.12	-0.37	29	166	208	5.0	5.0
NESCARM	NESCARM:L2V	End	16.00	0.16	28.13	-0.60	0.45	0.83	0.9	-1.10	-0.12	-0.37	29	166	208	5.0	5.0
NESCARM	NESCARM:BR2	End	17.00	0.16	27.98	-0.59	0.37	1.49	0.9	-0.16	0.08	-0.66	4.1	135	373	6.4	6.4
NESCARM	NESCARM:BR2	End	17.00	0.16	27.98	-0.59	0.37	1.49	0.9	-0.16	0.08	-0.66	4.1	135	373	6.4	6.4
NESCARM	#NESCARM:2	End	20.38	0.16	27.51	-0.60	0.16	3.94	0.9	-0.16	0.06	-0.73	4.1	57.9	985	13.1	13.1
NESCARM	NESCARM:2	Origin	20.38	0.16	27.51	-0.60	0.16	3.94	0.9	-0.16	0.03	-0.83	4.2	59.5	985	13.1	13.1
NESCARM	#NESCARM:2	End	23.75	0.16	27.25	-0.65	-0.06	6.75	0.9	-0.16	0.03	-0.83	4.2	21.5	1.69e+003	21.4	21.4
NESCARM	NESCARM:PR	End	23.75	0.16	27.25	-0.65	-0.06	6.75	0.9	-0.16	0.06	0.34	4.2	34	121	54.6	8.8
NESCARM	NESCARM:PR	End	23.75	0.16	27.25	-0.65	-0.06	6.75	0.9	-0.16	0.06	0.34	4.2	34	121	54.6	8.8
NESCARM	#NESCARM:3	End	27.63	0.16	27.19	-0.70	0.09	0.86	-0.0	-1.31	0.06	0.34	54	32.6	215	3.5	3.5
NESCARM	NESCARM:3	Origin	27.63	0.16	27.19	-0.70	0.09	0.86	-0.0	-1.31	0.02	0.22	34	0.478	0.981	0.4	0.4
NESCARM	NESCARM:L3	End	31.50	0.15	27.18	-0.77	0.00	0.00	0.0	-1.31	0.00	0.00	0.01	0.00013	0.478	0.981	0.4
NESCARM	NESCARM:L3	Origin	31.50	0.15	27.18	-0.77	0.00	0.00	0.0	-1.31	0.00	0.00	0.01	0.00013	0.478	0.981	0.4
NESCARM	NESCARM:E	End	32.00	0.15	27.18	-0.78	0.00	0.00	0.0	0.00	0.00	0.00	0.01	0.00013	0.000187	6.04e-006	0.0

Summary of Suspension Capacities and Usages for Load Case "Ext. Wind (1)":

Suspension Label	Tension (<kips)	Input Tension Capacity (kips)	Factored Tension Capacity (%)	Usage (%)
SUSSWL	3.189	60.00	0.32	
SUSSWR	3.189	60.00	0.32	
L1	1.034	60.00	1.72	
L2	1.034	60.00	1.72	
L3	1.034	60.00	1.72	
AWT1	0.544	60.00	0.91	
AWT2	1.742	60.00	2.90	
cables	2.231	60.00	3.72	

*** Analysis Results for Load Case No. 4 "Heavy Ice" - Number of iterations in SAPS 14

Equilibrium Joint Positions and Rotations for Load Case "Heavy Ice":

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (ft)	Y-Pos (ft)	Z-Pos (ft)
Left:G	0	0	0	0.0000	0.0000	0.0000	0	-7.75	0
Left:t	0.008894	-0.03305	-0.002807	0.2881	0.0091	0.0048	0.008894	-7.783	65.5
Left:SW	0.008815	-0.03054	-0.002801	0.2881	0.0091	0.0048	0.008815	-7.781	65
Left:BRACES	0.008577	-0.023	-0.002756	0.2878	0.0091	0.0048	0.008577	-7.773	63.5
Left:ARM	0.007655	-0.002321	-0.0057	0.0093	0.0049	0.007655	-7.752	57.75	
Left:XTIP	0.006673	-0.006719	-0.001955	0.0648	0.0095	0.0039	0.006673	-7.757	51.75
Left:XBIF	0.00411	-0.011	-0.00128	0.0143	0.0098	0.0021	0.00411	-7.761	36.75
Right:G	0	0	0	0.0000	0.0000	0.0000	0	7.75	0
Right:t	0.08628	-0.00168	-0.1999	0.0093	0.0010	0.01075	0.08628	7.836	84
Right:SW	0.01027	0.07581	-0.001661	-0.1999	0.0093	0.0010	0.01027	7.826	81
Right:BRACES	0.008917	0.04703	-0.001596	-0.1997	0.0094	0.0010	0.008917	7.797	72.75
Right:ARM	0.00764	0.02406	-0.001513	-0.1991	0.0095	0.0010	0.00764	7.777	65
Right:XTIP	0.006644	-0.002827	-0.001449	-0.1989	0.0095	0.0010	0.006644	7.765	63.5
Right:XBIF	0.003892	-0.0114	-0.001224	-0.1336	0.0095	0.0010	0.003892	7.739	51.75
Right:XTIP	0.003892	-0.01071	-0.001031	0.0306	0.0088	0.0007	0.003892	7.739	42
Right:XBIF	0.003106	-0.007589	-0.0009115	0.0336	0.0083	0.0006	0.003106	7.742	36.75
NESCARM:O	0.008433	-0.001667	-0.03921	0.2498	0.0093	0.0057	0.008433	-16	57.71
NESCARM:L1	0.003384	-0.001667	-0.03921	0.2498	0.0093	0.0057	0.003384	-15.5	57.71
NESCARM:PL	0.007655	-0.002321	-0.0057	0.0093	0.0049	0.007655	-7.752	57.75	
NESCARM:BR	0.007031	-0.002767	-0.002087	0.0647	0.0094	0.0054	0.007031	-1.003	57.77
NESCARM:L2V	0.006938	-0.002767	-0.002087	0.0647	0.0094	0.0054	0.006938	-0.002767	57.77
NESCARM:BR	0.006848	-0.002727	-0.002085	0.0654	0.0094	0.0053	0.006848	0.9972	57.77
NESCARM:FR	0.00644	-0.002827	-0.001348	-0.2397	0.0095	0.0010	0.00644	15.5	57.72
NESCARM:L3	0.006374	-0.003476	-0.03117	-0.2067	0.0095	0.0002	0.006374	16	57.72
NESCARM:E	0.003499	-0.003297	-0.004133	0.2878	0.0091	0.0048	0.003499	-8.047	63.5
TENR:O	0.007381	0.01485	-0.00353	-0.1989	0.0095	0.0010	0.007381	8.353	63.5
VEER:O	0.008554	-0.023	-0.001379	-0.2878	0.0091	0.0048	0.008554	-7.499	63.5
VEER:O	0.007403	0.01485	-0.00055	-0.1989	0.0095	0.0010	0.007403	7.177	63.5
X1:O	0.006649	-0.00672	-0.002356	-0.0648	0.0095	0.0039	0.006649	-7.403	51.75
X1:E	0.003113	-0.007589	-0.001323	0.0336	0.0083	0.0006	0.003113	7.04	51.75
X2:O	0.00546	-0.0114	-0.0008001	-0.0381	0.0094	0.0009	0.00546	-7.101	51.75
X2:E	0.004095	-0.011	-0.001166	0.0143	0.0098	0.0021	0.004095	-7.305	36.75
bleft:0	0	0	0	0.0000	0.0000	0.0000	0	-7.75	65.5
bleft:1	0	0	0	0.0000	0.0000	0.0000	0	-7.75	84
bright:1	0	0	0	0.0000	0.0000	0.0000	0	7.75	84

Joint Support Reactions for Load Case "Heavy Ice":

Joint Label	X Force (kips)	Y Force (kips)	Z Comp. Usage (%)	Uplift Result. Force Usage (%)	Force Usage (kips)	Trans. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	Trans. Moment (ft-k)	Long. Moment (ft-k)	Axial Force (kips)	Trans. Shear (kips)	Long. Shear (kips)	Z-M. Usage (%)
Left:G	-0.01	0.0	0.06	0.0	12.70	0.0	0.0	-1.69	0.0	-0.2	0.0	-0.02	0.0	0.0
Right:G	-0.02	0.0	-0.09	0.0	22.40	0.0	0.0	-0.84	0.0	-1.0	0.0	-0.03	0.0	0.0
bleft:0	1.00	0.0	0.00	0.0	0.15	0.0	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0	0.0
bleft:1	1.00	0.0	0.00	0.0	0.15	0.0	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0	0.0
bright:1	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	0.0	0.0	-0.00	0.0	0.0
bright:1	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	0.0	0.0	-0.00	0.0	0.0

Detailed Laminated Wood Pole Usages for Load Case "Heavy Ice":

Element Label	Joint Label	Joint Position (ft)	Rel. Defl. (in)	Trans. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	Trans. Moment (ft-k)	Long. Moment (ft-k)	Axial Force (kips)	Trans. Shear (kips)	Long. Shear (kips)	Z-M. Usage (%)
Left	Left:t	Origin	0.00	-0.40	0.11	-0.03	0.00	0.00	-0.0	0.01	0.00	0.0
Left	Left:SW	End	0.50	-0.37	0.11	-0.03	0.00	0.00	-0.0	-0.01	0.00	0.0
Left	Left:BRACES	Origin	2.00	-0.28	0.10	-0.03	0.00	0.00	-0.0	-2.75	-0.01	0.0
Left	Left:BRACES	End	2.00	-0.28	0.10	-0.03	0.00	0.00	-0.0	-2.75	-0.01	0.0
Left	#Left:0	Origin	4.88	-0.12	0.10	-0.03	-3.62	0.01	0.0	-11.85	-1.17	0.00
Left	#Left:0	End	4.88	-0.12	0.10	-0.03	-3.62	0.01	0.0	-11.85	-1.17	0.00
Left	#Left:ARM	Origin	7.75	-0.03	0.09	-0.03	-6.91	0.01	0.0	-11.92	-1.15	0.00
Left	#Left:ARM	End	7.75	-0.03	0.09	-0.03	-6.91	0.01	0.0	-11.92	-1.15	0.00
Left	#Left:1	Origin	10.75	-0.04	0.09	-0.03	-2.44	0.01	0.0	-11.88	1.49	0.00
Left	#Left:1	End	10.75	-0.04	0.09	-0.03	-2.44	0.01	0.0	-11.88	1.49	0.00
Left	Left:XP	Origin	13.75	-0.08	0.08	-0.02	2.07	0.01	0.0	-11.96	1.50	0.00
Left	Left:XP	End	13.75	-0.08	0.08	-0.02	2.07	0.01	0.0	-11.96	1.50	0.00

Left	Left:XTF	Origin	13.75	-0.08	0.08	-0.02	1.53	0.01	0.0	-10.54	-0.05	-0.00	3.5
Left	#Left:2	End	18.75	-0.13	0.07	-0.02	1.28	0.01	0.0	-10.54	-0.05	-0.00	2.8
Left	#Left:3	End	23.75	-0.14	0.06	-0.02	1.28	0.01	0.0	-10.54	-0.05	-0.00	2.2
Left	#Left:4	End	28.75	-0.13	0.05	-0.02	0.71	-0.01	0.0	-10.86	-0.06	-0.00	1.8
Left	#Left:5	End	33.75	-0.11	0.04	-0.01	0.40	-0.03	0.0	-11.12	-0.07	-0.00	1.5
Left	#Left:6	End	38.75	-0.09	0.03	-0.01	0.06	-0.05	0.0	-11.31	-0.07	-0.00	1.2
Left	#Left:7	End	43.75	-0.06	0.02	-0.01	-0.29	-0.08	0.0	-11.74	-0.07	-0.01	1.3
Left	#Left:8	End	48.75	-0.04	0.01	-0.01	-0.62	-0.10	0.0	-11.74	-0.07	-0.01	1.4
Left	#Left:9	End	53.75	-0.02	0.01	-0.00	-0.95	-0.14	0.0	-11.57	-0.07	-0.01	1.5
Left	#Left:10	End	58.75	-0.01	0.00	-0.00	-1.28	-0.17	0.0	-12.22	-0.06	-0.01	1.5
Left	#Left:11	End	62.13	-0.00	0.00	-0.00	-1.49	-0.20	0.0	-12.43	-0.06	-0.01	1.6
Left	#Left:12	End	65.50	0.00	0.00	-0.00	-1.69	-0.23	0.0	-12.61	-0.06	-0.01	1.6
Right	Right:t	Origin	0.00	1.04	0.13	-0.02	0.00	-0.00	-0.0	-0.11	0.00	0.00	0.0
Right	Right:ANT1	End	3.00	0.91	0.12	-0.02	0.00	0.01	-0.0	-0.11	0.00	0.00	0.0
Right	Right:ANT2	End	6.00	0.81	0.12	-0.02	0.00	0.01	-0.0	-0.86	0.00	0.00	0.1
Right	Right:11	End	7.12	0.74	0.12	-0.02	0.02	0.01	-0.0	-0.86	0.00	0.00	0.1
Right	Right:12	End	11.25	0.56	0.11	-0.02	0.04	0.02	-0.0	-1.17	0.01	0.00	0.1
Right	Right:13	End	15.12	0.40	0.10	-0.02	0.09	0.02	-0.0	-2.58	0.01	-0.00	0.2
Right	Right:14	End	19.00	0.24	0.09	-0.02	0.15	0.01	-0.0	-2.88	0.01	-0.00	0.2
Right	Right:15	End	23.00	0.18	0.09	-0.02	0.18	0.01	-0.0	-5.82	0.03	-0.00	0.3
Right	Right:16	End	27.00	0.18	0.09	-0.02	2.29	0.01	0.0	-12.38	4.49	-0.00	1.2
Right	Right:17	End	31.00	0.06	0.08	-0.02	15.19	0.00	0.0	-12.38	4.49	-0.00	4.4
Right	Right:18	End	35.00	0.06	0.08	-0.02	15.19	0.00	0.0	-12.62	4.48	-0.00	7.4
Right	Right:19	End	39.00	0.03	0.07	-0.02	28.08	-0.01	0.0	-12.62	4.48	-0.00	4.4
Right	Right:20	End	43.00	0.10	0.07	-0.02	23.72	-0.04	0.0	-12.74	-1.46	-0.01	7.4
Right	Right:21	End	47.00	0.10	0.07	-0.02	19.32	-0.07	0.0	-13.00	-1.47	-0.01	6.1
Right	Right:22	End	51.00	0.14	0.07	-0.01	19.28	-0.07	0.0	-13.42	-1.46	-0.01	4.9
Right	Right:23	End	55.00	0.14	0.07	-0.01	12.14	-0.13	0.0	-13.42	-1.46	-0.01	3.1
Right	Right:24	End	59.00	0.15	0.06	-0.01	4.97	-0.20	0.0	-13.87	-1.47	-0.01	3.2
Right	Right:25	End	63.00	0.13	0.05	-0.01	1.10	-0.24	0.0	-16.32	-1.47	-0.02	1.7
Right	Right:26	End	67.00	0.11	0.04	-0.01	1.10	-0.24	0.0	-16.32	-1.47	-0.02	0.9
Right	Right:27	End	71.00	0.04	0.04	-0.01	-3.95	-0.28	0.0	-16.57	-1.47	-0.02	1.0
Right	Right:28	End	75.00	0.09	0.04	-0.01	-3.57	-0.37	0.0	-18.63	0.08	-0.02	1.5
Right	Right:29	End	79.00	0.06	0.03	-0.01	-3.57	-0.37	0.0	-19.14	0.08	-0.02	1.4
Right	Right:30	End	83.00	0.04	0.02	-0.01	-3.18	-0.46	0.0	-19.66	0.08	-0.02	1.3
Right	Right:31	End	87.00	0.04	0.02	-0.01	-2.77	-0.56	0.0	-20.19	0.08	-0.02	1.3
Right	Right:32	End	91.00	0.01	0.01	-0.00	-2.35	-0.66	0.0	-20.19	0.08	-0.02	1.2
Right	Right:33	End	95.00	0.01	0.00	-0.00	-1.91	-0.76	0.0	-20.75	0.09	-0.02	1.1
Right	Right:34	End	99.00	0.00	0.00	-0.00	-1.91	-0.76	0.0	-21.31	0.09	-0.02	1.1
Right	Right:35	End	103.00	0.00	0.00	-0.00	-1.46	-0.87	0.0	-21.31	0.09	-0.02	1.1
Right	Right:36	End	107.00	0.00	0.00	-0.00	-1.46	-0.87	0.0	-21.80	0.09	-0.02	1.1
Right	Right:37	End	111.00	0.00	0.00	-0.00	-1.15	-0.95	0.0	-21.80	0.09	-0.02	1.0
Right	Right:38	End	115.00	0.00	0.00	-0.00	-0.84	-1.03	0.0	-22.20	0.09	-0.02	1.1
Right	Right:39	End	119.00	0.00	0.00	0.00	0.00	0.00	0.0	-22.20	0.09	-0.02	1.0

Summary of Brace Forces and Usages for Load Case "Heavy Ice".

Brace Label	Forces (kips)	Allowable Compression (kips)	Allowable Tension (kips)	Usage %
TENL	8.10	16.50	30.00	27.00
TENR	7.91	15.50	30.00	26.36
VEEL	6.65	20.28	20.00	33.25
VEER	2.18	20.28	20.00	10.92
XI	-2.23	26.28	25.00	8.46

Detailed X-Arm Usages for Load Case "Heavy Ice":

X-Arm Label	Joint Label	Joint Position (ft)	Rel. Defl. (in)	Tran. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	X Mom. (ft-k)	Z Mom. (ft-k)	Axial Force (kips)	Shear (kips)	X Shear (kips)	Z Shear (kips)	P/A (psi)	Mx/Sx (psi)	Mz/Sz (psi)	Max. Usage %
NESCARM	NESCARM:O	Origin	0.00	-0.02	0.10	-0.47	0.00	0.00	0.00	0.00	-0.00	-0.00	0.00035	0.000427	0.000148	0.0
NESCARM	NESCARM:L1	End	0.50	-0.02	0.10	-0.44	-0.00	0.00	0.00	0.00	-0.00	-0.00	0.00035	0.561	0.002	0.0
NESCARM	NESCARM:L1	Origin	0.50	-0.02	0.10	-0.44	0.00	0.00	0.0	-6.40	0.02	-0.00	1.7e+002	0.561	0.00172	2.1
NESCARM	#NESCARM:0	End	4.38	-0.02	0.10	-0.24	0.08	0.00	0.0	-6.40	0.02	-0.00	1.7e+002	29.6	1.18	2.5
NESCARM	#NESCARM:0	Origin	4.38	-0.02	0.10	-0.24	-0.08	-0.00	0.0	-6.40	-0.03	-0.00	1.7e+002	29.6	1.18	2.5
NESCARM	NESCARM:PL	End	8.25	-0.03	0.09	-0.03	0.02	0.01	0.0	-3.80	-0.17	-0.00	99	9.01	2.89	1.4
NESCARM	NESCARM:PL	Origin	8.25	-0.03	0.09	-0.03	0.02	0.01	0.0	-3.80	-0.17	-0.00	99	218	0.908	4.0
NESCARM	#NESCARM:1	End	11.63	-0.03	0.09	0.15	0.60	-0.00	0.0	-3.80	-0.20	-0.00	99	218	0.908	4.0
NESCARM	#NESCARM:1	Origin	11.63	-0.03	0.09	0.15	0.60	-0.00	0.0	-3.80	-0.20	-0.00	99	470	1.31	7.1
NESCARM	NESCARM:BR1	End	15.00	-0.03	0.08	0.25	-1.29	0.01	0.0	-3.80	-0.22	-0.00	99	470	1.31	7.1
NESCARM	NESCARM:BR1	Origin	15.00	-0.03	0.08	0.25	-1.29	0.01	0.0	-3.80	-0.22	-0.00	99	552	2	8.2
NESCARM	NESCARM:L2V	End	16.00	-0.03	0.08	0.26	-1.51	-0.01	0.0	-0.22	0.25	-0.00	5.8	552	2	7.0
NESCARM	NESCARM:L2V	Origin	16.00	-0.03	0.08	0.26	-1.51	-0.01	0.0	-0.22	0.25	-0.00	5.8	462	3.07	5.9
NESCARM	NESCARM:BR2	End	17.00	-0.03	0.08	0.25	-1.26	0.01	0.0	-0.22	0.22	-0.00	5.8	462	3.07	5.9
NESCARM	NESCARM:BR2	Origin	17.00	-0.03	0.08	0.25	-1.26	0.01	0.0	-0.22	0.22	-0.00	5.8	189	6.81	2.5
NESCARM	#NESCARM:2	End	20.38	-0.03	0.08	0.15	-0.52	0.03	0.0	-0.22	0.18	-0.00	5.7	189	6.81	2.5
NESCARM	#NESCARM:2	Origin	20.38	-0.03	0.08	0.15	-0.52	0.03	0.0	-0.22	0.18	-0.00	5.7	32.2	10.8	0.6
NESCARM	NESCARM:FR	End	23.75	-0.03	0.08	-0.02	0.09	0.04	0.0	-0.22	0.18	-0.00	5.7	32.2	2.65	2.4
NESCARM	NESCARM:FR	Origin	23.75	-0.03	0.08	-0.02	-0.09	-0.01	-0.0	-6.15	0.01	0.00	1.6e+002	32.2	1.2	2.7
NESCARM	#NESCARM:3	End	27.63	-0.04	0.08	-0.20	0.14	0.00	-0.0	-6.15	0.01	0.00	1.6e+002	51	1.2	2.7
NESCARM	#NESCARM:3	Origin	27.63	-0.04	0.08	-0.20	0.14	0.00	-0.0	-6.15	-0.04	0.00	1.6e+002	51	1.2	2.7
NESCARM	NESCARM:L3	End	31.50	-0.04	0.08	-0.37	0.00	0.00	-0.0	-6.15	-0.04	0.00	1.6e+002	0.561	0.00217	2.0
NESCARM	NESCARM:L3	Origin	31.50	-0.04	0.08	-0.37	0.00	0.00	-0.0	-6.15	-0.04	0.00	1.6e+002	0.561	0.00223	0.0
NESCARM	NESCARM:E	End	32.00	-0.04	0.08	-0.40	0.00	-0.00	-0.0	0.00	0.00	0.00	0.00029	1.04e-005	2.88e-005	0.0

Summary of Suspension Capacities and Usages for Load Case "Heavy Ice":

Suspension Label	Tension (kips)	Input Tension (kips)	Factored Tension (kips)	Usage %
SUSSWL	2.725	60.00	60.00	4.54
SUSSWR	2.725	60.00	60.00	4.54
L1	4.862	60.00	60.00	8.10
L2	4.862	60.00	60.00	8.10
L3	4.862	60.00	60.00	8.10
ANT1	0.400	60.00	60.00	0.67
ANT2	1.000	60.00	60.00	1.67
CABLES	2.100	60.00	60.00	3.50

Equilibrium Joint Positions and Rotations for Load Case "L.T. Defl.":

Joint Label	X-Disp (ft)	Y-Disp (ft)	Z-Disp (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (ft)	Y-Pos (ft)	Z-Pos (ft)
Left:G	0	0	0	0.000	0.000	0.000	0	0	0
Left:t	0.008423	-0.02978	-0.002196	-0.2638	0.0083	0.0044	0.008423	-7.775	0
Left:SM	0.00835	-0.02748	-0.002191	-0.2638	0.0083	0.0044	0.00835	-7.775	65.5
Left:BRACES	0.008132	-0.02057	-0.002167	-0.2637	0.0083	0.0044	0.008132	-7.771	65.5
Left:ARM	0.007284	-0.001459	-0.001824	-0.0544	0.0085	0.0044	0.007284	-7.752	57.75
Left:ATP	0.006374	-0.005725	-0.001537	-0.0601	0.0089	0.0035	0.006374	-7.756	51.75
Left:XT	0.003968	-0.009798	-0.001015	-0.0125	0.0093	0.0019	0.003968	-7.75	36.75
Right:G	0	0	0	0.000	0.000	0.000	0	0	0
Right:t	0.08048	0.001448	-0.001448	-0.1852	0.0089	0.0010	0.01029	7.83	84
Right:AVI	0.009856	0.07078	-0.004432	-0.1852	0.0089	0.0010	0.009856	7.821	81
Right:AMZ	0.006537	0.04412	-0.001374	-0.1850	0.0090	0.0010	0.006537	7.794	72.75
Right:SW	0.007317	0.01912	-0.001298	-0.1844	0.0090	0.0010	0.007317	7.769	65
Right:BRACES	0.00708	0.0143	-0.001128	-0.1842	0.0091	0.0010	0.00708	7.764	63.5
Right:ARM	0.006171	-0.002087	-0.001164	-0.1240	0.0091	0.0009	0.006171	7.748	57.75
Right:ATP	0.005225	-0.01007	-0.001062	-0.0359	0.0090	0.0008	0.005225	7.74	42
Right:ables	0.003736	-0.009567	-0.0009029	-0.0275	0.0084	0.0006	0.003736	7.743	36.75
Right:XT	0.002983	-0.006752	-0.0008002	-0.0303	0.0080	0.0005	0.002983	-16	57.71
NESCARM:O	0.007994	-0.00102	-0.003563	0.2284	0.0085	0.0052	0.007994	-15.5	57.72
NESCARM:1L	0.007949	-0.001024	-0.003364	0.2284	0.0085	0.0052	0.007949	-15.5	57.72
NESCARM:PL	0.007284	-0.001659	-0.001824	0.2406	0.0085	0.0044	0.007284	-7.752	57.75
NESCARM:RL	0.006713	-0.001989	-0.001824	0.0590	0.0088	0.0049	0.006713	-1.002	57.77
NESCARM:L2V	0.006538	-0.002033	0.011946	0.0590	0.0088	0.0049	0.006538	-0.002033	57.77
NESCARM:BR	0.006545	-0.002035	0.011998	-0.0014	0.0088	0.0048	0.006545	0.598	57.77
NESCARM:PR	0.006171	-0.002087	-0.001941	-0.0612	0.0088	0.0046	0.006171	7.748	57.75
NESCARM:H3	0.006109	-0.002683	-0.002879	-0.1911	0.0091	0.0002	0.006109	15.5	57.72
NESCARM:IE	0.008152	-0.02057	-0.003428	-0.1912	0.0091	0.0002	0.008152	16	57.72
TENL:O	0.008111	-0.02057	-0.003428	-0.1842	0.0091	0.0010	0.008111	-8.045	63.5
VEER:O	0.008111	-0.02057	-0.003057	-0.2637	0.0083	0.0044	0.008111	-7.497	63.5
VEER:O	0.00709	-0.0143	-0.0006095	-0.1842	0.0091	0.0010	0.00709	-7.177	63.5
X1:O	0.006352	-0.005726	-0.001908	-0.0601	0.0089	0.0035	0.006352	-7.402	51.75
X1:E	0.00299	-0.006752	-0.001171	-0.0303	0.0080	0.0005	0.00299	-7.041	36.75
X2:O	0.005234	-0.01007	-0.000663	-0.0359	0.0090	0.0008	0.005234	-7.102	51.75
X2:E	0.003953	-0.009798	-0.0009155	-0.0125	0.0093	0.0019	0.003953	-7.304	36.75
aLeft:0	0	0	0	0.000	0.000	0.000	1000	-7.75	65.5
bLeft:0	0	0	0	0.000	0.000	0.000	1000	-7.75	65.5
aRight:1	0	0	0	0.000	0.000	0.000	1000	7.75	84
bRight:1	0	0	0	0.000	0.000	0.000	1000	7.75	84

Joint Support Reactions for Load Case "L.T. Defl.":

Joint Label	X Force (kips)	X Usage %	Y Force (kips)	Y Usage %	Z Comp. Force (kips)	Z Usage %	Uplift Result. Force (kips)	Uplift Usage %	Result. Moment (ft-k)	Moment Usage %	X-M. Moment (ft-k)	X-M. Usage %	Y-M. Moment (ft-k)	Y-M. Usage %	Z-M. Moment (ft-k)	Z-M. Usage %	Max. Shear (kips)	Max. Usage %
Left:G	-0.01	0.0	0.05	0.0	0.0	0.0	0.0	0.0	10.37	0.0	-1.52	0.0	-0.2	0.0	-0.02	0.0	0.0	0.0
Right:G	-0.02	0.0	-0.09	0.0	0.0	0.0	0.0	0.0	19.92	0.0	-0.68	0.0	-1.0	0.0	-0.03	0.0	0.0	0.0
aLeft:0	1.00	0.0	0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	-0.0	-0.00	0.0	0.0	0.0	0.0
bLeft:0	1.00	0.0	0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	-0.0	-0.00	0.0	0.0	0.0	0.0
aRight:1	1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	-0.0	-0.00	0.0	0.0	0.0	0.0
bRight:1	-1.00	0.0	-0.00	0.0	0.15	0.0	0.0	1.01	0.0	-0.00	0.0	-0.0	-0.0	-0.00	0.0	0.0	0.0	0.0

Detailed Laminated Wood Pole Usages for Load Case "L.T. Defl.":

Element Label	Joint Label	Joint Position (ft)	Rel. Dist. (ft)	Trans. Defl. (in)	Trans. Defl. (in)	Long. Defl. (in)	Trans. Defl. (in)	Trans. Defl. (in)	Long. Defl. (in)	Tors. Defl. (ft-k)	Tors. Defl. (ft-k)	Mom. Defl. (ft-k)	Mom. Defl. (ft-k)	Axial Force (kips)	Trans. Shear (kips)	Long. Shear (kips)	Usage %
Left	Left:t	Origin	0.00	-0.36	0.10	-0.03	0.00	0.00	-0.0	-0.0	-0.0	-0.0	-0.0	-0.01	0.00	0.00	0.0
Left	Left:SW	End	0.50	-0.33	0.10	-0.03	0.00	0.00	-0.0	-0.0	-0.0	-0.0	-0.0	-0.01	0.00	0.00	0.0
Left	Left:SW	Origin	0.50	-0.33	0.10	-0.03	0.00	0.00	-0.0	-0.0	-0.0	-0.0	-0.0	-0.01	0.00	0.00	0.0
Left	Left:BRACES	End	2.00	-0.25	0.10	-0.03	0.01	0.00	-0.0	-0.0	-0.0	-0.0	-0.85	-0.00	0.00	0.2	
Left	Left:BRACES	Origin	2.00	-0.25	0.10	-0.03	0.01	0.00	-0.0	-0.0	-0.0	-0.0	-0.85	-0.00	0.00	0.2	
Left	#Left:0	End	4.88	-0.10	0.09	-0.02	-3.32	0.01	0.0	-9.28	-1.08	0.00	2.3	-1.08	0.00	7.8	7.8
Left	#Left:0	Origin	4.88	-0.10	0.09	-0.02	-3.32	0.01	0.0	-9.28	-1.08	0.00	2.3	-1.08	0.00	7.8	7.8
Left	Left:ARM	End	7.75	-0.02	0.09	-0.02	-6.36	0.01	0.0	-9.34	-1.06	0.00	12.0	-1.06	0.00	12.0	12.0
Left	Left:ARM	Origin	7.75	-0.02	0.09	-0.02	-6.36	0.01	0.0	-9.32	-1.37	0.00	12.0	-1.37	0.00	12.0	12.0
Left	#Left:1	End	10.75	-0.03	0.08	-0.02	-2.24	0.01	0.0	-9.32	1.37	0.00	4.7	1.37	0.00	4.7	4.7
Left	#Left:1	Origin	10.75	-0.03	0.08	-0.02	-2.24	0.01	0.0	-9.30	1.38	0.00	4.7	1.38	0.00	4.7	4.7
Left	Left:ATP	End	13.75	-0.07	0.08	-0.02	1.91	0.01	0.0	-9.40	1.98	0.00	3.8	1.98	0.00	3.8	3.8

Left	Left: XTP	Origin	13.75	-0.07	0.08	-0.02	1.41	0.01	0.0	-8.11	-0.05	-0.00	3.0
Left	#Left:2	End	18.75	-0.11	0.07	-0.02	1.17	0.01	0.0	-8.11	-0.05	-0.00	2.3
Left	#Left:2	Origin	18.75	-0.11	0.07	-0.02	1.17	0.01	0.0	-8.26	-0.05	-0.00	2.4
Left	#Left:3	End	23.75	-0.12	0.06	-0.01	0.91	0.00	0.0	-8.26	-0.05	-0.00	1.8
Left	#Left:3	Origin	23.75	-0.12	0.06	-0.01	0.91	0.00	0.0	-8.42	-0.05	-0.00	1.9
Left	Left: XBT	End	28.75	-0.12	0.05	-0.01	0.65	-0.01	0.0	-8.42	-0.05	-0.00	1.5
Left	Left: XBT	Origin	28.75	-0.12	0.05	-0.01	0.68	-0.01	0.0	-8.69	-0.06	-0.00	1.2
Left	#Left:4	End	33.75	-0.10	0.04	-0.01	0.37	-0.02	0.0	-8.69	-0.06	-0.00	1.2
Left	#Left:4	Origin	33.75	-0.10	0.04	-0.01	0.37	-0.02	0.0	-8.88	-0.06	-0.00	1.2
Left	#Left:5	End	38.75	-0.08	0.03	-0.01	0.06	-0.04	0.0	-8.88	-0.06	-0.00	0.9
Left	#Left:5	Origin	38.75	-0.08	0.03	-0.01	0.06	-0.04	0.0	-9.08	-0.06	-0.01	1.0
Left	#Left:6	End	43.75	-0.06	0.02	-0.01	-0.25	-0.07	0.0	-9.08	-0.06	-0.01	1.0
Left	#Left:6	Origin	43.75	-0.06	0.02	-0.01	-0.25	-0.07	0.0	-9.30	-0.06	-0.01	1.1
Left	#Left:7	End	48.75	-0.03	0.01	-0.01	-0.55	-0.10	0.0	-9.30	-0.06	-0.01	1.1
Left	#Left:7	Origin	48.75	-0.03	0.01	-0.01	-0.55	-0.10	0.0	-9.54	-0.06	-0.01	1.2
Left	#Left:8	End	53.75	-0.02	0.01	-0.00	-0.85	-0.13	0.0	-9.54	-0.06	-0.01	1.2
Left	#Left:8	Origin	53.75	-0.02	0.01	-0.00	-0.85	-0.13	0.0	-9.78	-0.06	-0.01	1.2
Left	#Left:9	End	58.75	-0.01	0.00	-0.00	-1.14	-0.17	0.0	-9.78	-0.06	-0.01	1.3
Left	#Left:9	Origin	58.75	-0.01	0.00	-0.00	-1.14	-0.17	0.0	-10.00	-0.06	-0.01	1.3
Left	#Left:10	End	62.13	-0.00	0.00	-0.00	-1.33	-0.20	0.0	-10.00	-0.06	-0.01	1.3
Left	#Left:10	Origin	62.13	-0.00	0.00	-0.00	-1.33	-0.20	0.0	-10.18	-0.06	-0.01	1.4
Left	Left:10	End	65.50	0.00	0.00	0.00	-1.52	-0.23	0.0	-10.18	-0.06	-0.01	1.4
Right	Right:t	Origin	0.00	0.97	0.12	-0.02	0.00	-0.00	-0.0	-0.11	0.00	0.00	0.0
Right	Right: ANTI1	End	3.00	0.85	0.12	-0.02	0.00	0.01	-0.0	-0.11	0.00	0.00	0.0
Right	Right: ANTI1	Origin	3.00	0.85	0.12	-0.02	0.00	0.01	-0.0	-0.86	0.00	0.00	0.1
Right	Right:11	End	7.12	0.69	0.11	-0.02	0.02	0.01	-0.0	-0.86	0.00	0.00	0.1
Right	Right:11	Origin	7.12	0.69	0.11	-0.02	0.02	0.01	-0.0	-1.17	0.01	0.00	0.1
Right	Right: ANI2	End	11.25	0.53	0.10	-0.02	0.04	0.02	-0.0	-1.17	0.01	0.00	0.1
Right	Right: ANI2	Origin	11.25	0.53	0.10	-0.02	0.04	0.02	-0.0	-2.58	0.01	-0.00	0.2
Right	Right:12	End	15.12	0.38	0.10	-0.02	0.09	0.02	-0.0	-2.58	0.01	-0.00	0.2
Right	Right:12	Origin	15.12	0.38	0.10	-0.02	0.09	0.02	-0.0	-2.88	0.01	-0.00	0.2
Right	Right: SW	End	19.00	0.23	0.09	-0.02	0.14	0.01	-0.0	-2.88	0.01	-0.00	0.2
Right	Right: SW	Origin	19.00	0.23	0.09	-0.02	0.14	0.01	-0.0	-3.92	0.02	-0.00	0.2
Right	Right: BRACES	End	20.50	0.17	0.08	-0.02	0.17	0.01	-0.0	-3.92	0.02	-0.00	0.2
Right	Right: BRACES	Origin	20.50	0.17	0.08	-0.02	0.17	0.01	-0.0	-10.01	4.14	-0.00	1.1
Right	Right:13	End	23.38	0.06	0.08	-0.01	14.02	0.00	0.0	-10.01	4.14	-0.00	4.0
Right	Right:13	Origin	23.38	0.06	0.08	-0.01	14.02	0.00	0.0	-10.25	4.14	-0.00	6.0
Right	Right: ARM	End	26.25	-0.03	0.07	-0.01	25.92	-0.01	-0.0	-10.25	4.14	-0.00	6.7
Right	Right: ARM	Origin	26.25	-0.03	0.07	-0.01	25.92	-0.01	-0.0	-10.39	-1.35	-0.01	6.7
Right	Right:14	End	29.25	-0.09	0.07	-0.01	21.88	-0.04	0.0	-10.39	-1.35	-0.01	5.5
Right	Right:14	Origin	29.25	-0.09	0.07	-0.01	21.88	-0.04	0.0	-10.65	-1.35	-0.01	5.6
Right	Right: XTP	End	32.25	-0.12	0.06	-0.01	17.83	-0.07	0.0	-10.65	-1.35	-0.01	4.4
Right	Right: XTP	Origin	32.25	-0.12	0.06	-0.01	17.79	-0.07	0.0	-11.07	-1.35	-0.01	4.5
Right	Right:15	End	37.13	-0.13	0.05	-0.01	11.20	-0.13	0.0	-11.07	-1.35	-0.01	2.8
Right	Right:15	Origin	37.13	-0.13	0.05	-0.01	11.20	-0.13	0.0	-11.52	-1.36	-0.01	2.9
Right	Right: cables	End	42.00	-0.11	0.04	-0.01	4.60	-0.13	0.0	-11.52	-1.36	-0.01	1.4
Right	Right: cables	Origin	42.00	-0.11	0.04	-0.01	4.60	-0.13	0.0	-13.97	-1.36	-0.01	1.5
Right	Right:16	End	44.63	-0.10	0.04	-0.01	1.03	-0.23	0.0	-13.97	-1.36	-0.01	0.8
Right	Right:16	Origin	44.63	-0.10	0.04	-0.01	1.03	-0.23	0.0	-14.23	-1.36	-0.01	0.8
Right	Right: XBT	End	47.25	-0.08	0.04	-0.01	-2.53	-0.27	0.0	-14.23	-1.36	-0.01	1.1
Right	Right: XBT	Origin	47.25	-0.08	0.04	-0.01	-2.53	-0.27	0.0	-16.16	0.07	-0.02	1.4
Right	Right:17	End	52.25	-0.05	0.03	-0.01	-3.26	-0.35	0.0	-16.16	0.07	-0.02	1.3
Right	Right:17	Origin	52.25	-0.05	0.03	-0.01	-3.26	-0.35	0.0	-16.67	0.07	-0.02	1.3
Right	Right:18	End	57.25	-0.03	0.02	-0.01	-2.89	-0.44	0.0	-16.67	0.07	-0.02	1.2
Right	Right:18	Origin	57.25	-0.03	0.02	-0.01	-2.89	-0.44	0.0	-17.19	0.08	-0.02	1.2
Right	Right:19	End	62.25	-0.02	0.01	-0.01	-2.50	-0.53	0.0	-17.19	0.08	-0.02	1.1
Right	Right:19	Origin	62.25	-0.02	0.01	-0.01	-2.50	-0.53	0.0	-17.72	0.08	-0.02	1.1
Right	Right:20	End	67.25	-0.01	0.01	-0.00	-2.10	-0.63	0.0	-17.72	0.08	-0.02	1.1
Right	Right:20	Origin	67.25	-0.01	0.01	-0.00	-2.10	-0.63	0.0	-18.27	0.08	-0.02	1.1
Right	Right:21	End	72.25	-0.00	0.00	-0.00	-1.69	-0.73	0.0	-18.27	0.08	-0.02	1.0
Right	Right:21	Origin	72.25	-0.00	0.00	-0.00	-1.69	-0.73	0.0	-18.84	0.08	-0.02	1.0
Right	Right:22	End	77.25	-0.00	0.00	-0.00	-1.27	-0.84	0.0	-18.84	0.08	-0.02	1.0
Right	Right:22	Origin	77.25	-0.00	0.00	-0.00	-1.27	-0.84	0.0	-19.32	0.09	-0.02	0.9
Right	Right:23	End	80.63	-0.00	0.00	-0.00	-0.98	-0.91	0.0	-19.32	0.09	-0.02	0.9
Right	Right:23	Origin	80.63	-0.00	0.00	-0.00	-0.98	-0.91	0.0	-19.72	0.09	-0.02	0.9
Right	Right:9	End	84.00	0.00	0.00	0.00	-0.68	-0.99	0.0	-19.72	0.09	-0.02	0.9

Summary of Brace Forces and Usages for Load Case "L.T. Defl.":

Brace Label	Forces (kips)	Allowable (kips)	Usages (%)
TEN1	7.50	16.50	30.00
TEN2	7.32	16.50	30.00
VEE1	6.15	20.28	20.00
VEE2	2.03	20.28	20.00
X1	-2.06	26.38	25.00

X-Arm Label	Joint Label	Joint Position (ft)	Rel. Defl. (in)	Tran. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	Mom. (ft-k)	X Mom. (ft-k)	Z Tors. (ft-k)	Axial Force (kips)	Shear (kips)	X Shear (kips)	Z Shear (kips)	P/A (psi)	Mx/Sx (psi)	Mz/Sz (psi)	Max. Usage %
NESCARM	NESCARM:O	Origin	0.00	-0.01	0.10	-0.43	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	0.00033	0.000909	0.000412	0.0
NESCARM	NESCARM:L1	End	0.50	-0.01	0.10	-0.40	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	0.00033	0.56	0.00127	0.0
NESCARM	NESCARM:L1	Origin	0.50	-0.01	0.10	-0.40	0.00	0.00	0.00	0.00	0.02	0.02	0.00	1.5e+002	0.561	0.000551	1.9
NESCARM	NESCARM:O	End	4.38	-0.02	0.09	-0.22	0.08	0.00	0.00	-5.93	0.02	0.00	0.00	1.5e+002	29.5	1.06	2.3
NESCARM	NESCARM:O	Origin	4.38	-0.02	0.09	-0.22	0.08	0.00	0.00	-5.93	0.03	-0.03	-0.00	1.5e+002	29.5	1.06	2.3
NESCARM	NESCARM:PL	End	8.25	-0.02	0.08	-0.02	-0.03	0.01	0.00	-5.93	-0.03	-0.00	-0.00	1.5e+002	9.23	2.35	2.1
NESCARM	NESCARM:PL	Origin	8.25	-0.02	0.08	-0.02	-0.03	0.01	0.00	-5.93	-0.03	-0.00	-0.00	1.5e+002	9.23	2.67	1.3
NESCARM	NESCARM:1	End	11.63	-0.02	0.08	0.14	-0.55	0.00	0.00	-3.52	-0.15	-0.00	-0.00	92	199	0.866	3.6
NESCARM	NESCARM:1	Origin	11.63	-0.02	0.08	0.14	-0.55	0.00	0.00	-3.52	-0.15	-0.00	-0.00	92	199	0.866	3.6
NESCARM	NESCARM:BR1	End	15.00	-0.02	0.08	0.23	-1.19	0.00	0.00	-3.52	-0.19	-0.00	-0.00	92	434	1.17	6.6
NESCARM	NESCARM:BR1	Origin	15.00	-0.02	0.08	0.23	-1.19	0.00	0.00	-3.52	-0.21	-0.00	-0.00	92	434	1.17	6.6
NESCARM	NESCARM:BR2	End	16.00	-0.02	0.08	0.24	-1.40	0.01	0.00	-3.52	-0.21	-0.00	-0.00	92	511	1.81	7.6
NESCARM	NESCARM:BR2	Origin	16.00	-0.02	0.08	0.24	-1.40	0.01	0.00	-3.52	-0.21	-0.00	-0.00	92	511	1.81	7.6
NESCARM	NESCARM:BR3	End	17.00	-0.02	0.08	0.23	-1.17	0.01	0.00	-0.22	0.23	-0.00	-0.00	5.7	426	2.79	5.4
NESCARM	NESCARM:BR3	Origin	17.00	-0.02	0.08	0.23	-1.17	0.01	0.00	-0.22	0.20	-0.00	-0.00	5.7	426	2.79	5.4
NESCARM	NESCARM:2	End	20.38	-0.02	0.08	0.14	-0.48	0.02	0.00	-0.22	0.20	-0.00	-0.00	5.7	174	6.23	2.3
NESCARM	NESCARM:2	Origin	20.38	-0.02	0.08	0.14	-0.48	0.02	0.00	-0.22	0.16	-0.00	-0.00	5.7	174	6.23	2.3
NESCARM	NESCARM:PR	End	23.75	-0.03	0.07	-0.01	0.08	0.04	0.00	-0.22	0.16	-0.00	-0.00	5.7	28.1	9.89	0.5
NESCARM	NESCARM:PR	Origin	23.75	-0.03	0.07	-0.01	0.08	0.04	0.00	-0.22	0.16	-0.00	-0.00	5.7	28.1	9.89	0.5
NESCARM	NESCARM:3	End	27.63	-0.03	0.07	-0.19	0.13	0.00	-0.00	-5.69	0.01	0.00	0.00	1.5e+002	48.7	1.1	2.5
NESCARM	NESCARM:3	Origin	27.63	-0.03	0.07	-0.19	0.13	0.00	-0.00	-5.69	0.01	0.00	0.00	1.5e+002	48.7	1.1	2.5
NESCARM	NESCARM:L3	End	31.50	-0.03	0.07	-0.35	0.00	0.00	-0.00	-5.69	-0.03	-0.00	-0.00	1.5e+002	0.561	0.0018	1.9
NESCARM	NESCARM:L3	Origin	31.50	-0.03	0.07	-0.35	0.00	0.00	-0.00	-5.69	-0.03	-0.00	-0.00	1.5e+002	0.561	0.0018	1.9
NESCARM	NESCARM:E	End	32.00	-0.03	0.07	-0.37	0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00027	0.561	0.00193	0.0
NESCARM	NESCARM:E	Origin	32.00	-0.03	0.07	-0.37	0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00027	1.84e-005	6.25e-005	0.0

Summary of Suspension Capacities and Usages for Load Case "L.T. Defl.":

Suspension Label	Tension (kips)	Input Capacity (kips)	Factored Tension Capacity (kips)	Usage %
SUSSWL	0.821	60.00	60.00	1.37
SUSSWR	0.821	60.00	60.00	1.37
L1	4.496	60.00	60.00	7.49
L2	4.496	60.00	60.00	7.49
L3	4.496	60.00	60.00	7.49
ANT1	0.400	60.00	60.00	0.67
ANT2	1.000	60.00	60.00	1.67
cables	2.100	60.00	60.00	3.50

*** Analysis Results for Load Case No. 6 "Arms (1)" - Number of iterations in SAPS 18

Equilibrium Joint Positions and Rotations for Load Case "Arms (1)":

Joint Label	X-Displ (ft)	Y-Displ (ft)	Z-Displ (ft)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (ft)	Y-Pos (ft)	Z-Pos (ft)	
Left:G	0	0	0	0.0000	0.0000	0.0000	0	-7.75	0	
Left:C	1.016	0.00537	-0.009591	0.0241	1.1640	1.3159	1.016	-7.745	65.49	
Left:SW	1.006	0.005315	-0.008487	0.0241	1.1642	1.3159	1.006	-7.745	64.99	
Left:BRACES	0.9756	0.005247	-0.009177	0.0242	1.1671	1.3159	0.9756	-7.745	63.49	
Left:ARM	0.8569	0.005189	-0.007941	0.0306	1.2068	1.3158	0.8569	-7.745	57.74	
Left:XTIP	0.7276	0.002533	-0.006531	0.0387	1.2520	1.0436	0.7276	-7.747	51.74	
Left:XB	0.4094	0.001734	-0.003095	0.0196	1.1304	0.5657	0.4094	-7.748	36.75	
Right:G	0	0	0	0.0000	0.0000	0.0000	0	7.75	0	
Right:C	0.9777	0.006145	-0.006942	0.0062	0.8290	0.1106	0.9777	7.756	83.99	
Right:ANT1	0.9343	0.005736	-0.006627	0.0062	0.8296	0.1106	0.9343	7.756	80.99	
Right:ANT2	0.8144	0.004615	-0.005747	0.0061	0.8374	0.1106	0.8144	7.755	72.74	
Right:SW	0.7003	0.00368	-0.004889	0.0059	0.8516	0.1106	0.7003	7.754	65	
Right:BRACES	0.6779	0.003383	-0.004718	0.0058	0.8551	0.1106	0.6779	7.753	63.5	
Right:ARM	0.5914	0.00295	-0.004047	0.0054	0.8701	0.1106	0.5914	7.753	57.75	
Right:XTIP	0.4999	0.002834	-0.003324	0.0040	0.8722	0.0953	0.4999	7.752	51.75	
Right:XB	0.3548	0.0009492	-0.002193	0.0021	0.8221	0.0727	0.3548	7.751	36.75	
Right:CB	0.2817	0.0006447	-0.001653	0.0014	0.7700	0.0616	0.2817	7.751	36.75	
Right:XT	1.099	0.008761	-0.01292	0.0037	1.2065	1.8439	1.099	-15.99	57.74	
Right:XTB	1.083	0.008502	-0.01261	0.0037	1.2068	1.8439	1.083	-15.49	57.74	
Right:XTM	0.8569	0.005189	-0.007941	0.0026	1.2068	1.3158	0.8569	-7.745	57.74	
Right:XTL	0.7093	0.003561	-0.004887	0.0023	1.0598	1.1556	0.7093	-0.9964	57.75	
Right:XTM	0.6895	0.003363	-0.004673	0.0024	1.0381	1.1143	0.6895	0.003363	57.75	
Right:XTL	0.6704	0.003181	-0.004519	0.0026	1.0163	1.0596	0.6704	1.003	57.75	
Right:XTM	0.5914	0.00265	-0.004047	0.0144	0.8701	0.1106	0.5914	7.753	57.75	
Right:XTL	0.5243	0.002552	-0.005639	0.0009	0.8699	-0.4177	0.5243	15.5	57.74	
Right:XTM	0.6279	0.002539	-0.005702	0.0009	0.8699	-0.4177	0.6279	16.57	74	
Right:XTL	0.9819	0.009232	-0.009293	0.0242	1.1671	1.3159	0.9819	-8.019	63.49	
Right:XTM	0.9618	0.003382	-0.004778	0.0058	0.8551	0.1106	0.9618	8.341	63.5	
Right:XTL	0.9693	0.005174	-0.009061	0.0242	1.1671	1.3159	0.9693	-7.471	63.49	
Right:XTM	0.6791	0.003365	-0.004658	0.0058	0.8551	0.1106	0.6791	7.166	63.5	
Right:XTL	0.7212	0.002478	-0.002822	0.0037	1.2520	1.0436	0.7212	-7.394	51.74	
Right:XTM	0.2825	0.0006451	-0.001653	0.0014	0.7700	0.0616	0.2825	7.048	36.75	
Right:XTL	X2:0	0.501	0.001835	-0.003279	-0.0040	0.8722	0.0953	0.501	7.114	51.75
Right:XTM	X2:1	0.4049	0.001711	-0.002939	-0.0196	1.1304	0.5657	0.4049	-7.292	36.75
Right:XTL	aLeft:0	0	0	0.0000	0.0000	0.0000	1000	-7.75	65.5	
Right:XTM	bLeft:0	0	0	0.0000	0.0000	0.0000	1000	-7.75	65.5	
Right:XTL	aRight:1	0	0	0.0000	0.0000	0.0000	1000	7.75	84	
Right:XTM	bRight:1	0	0	0.0000	0.0000	0.0000	1000	7.75	84	

Joint Support Reactions for Load Case "Arms (1)":

Joint Label	X (kips)	Y (kips)	Z (kips)	Comp. Usage %	Uplift Usage %	Result. Force %	X-Moment (ft-k)	Y-Moment (ft-k)	Z-Moment (ft-k)	Max. Usage %					
Left:G	-0.35	0.0	-0.03	0.0	2.87	0.0	2.89	0.0	0.19	0.0	-5.85	0.0	0.0	0.0	0.0
Right:G	-1.59	0.0	-0.00	0.0	8.70	0.0	8.84	0.0	0.08	0.0	-88.4	0.0	-3.63	0.0	0.0
aLeft:0	0.89	0.0	-0.00	0.0	0.15	0.0	0.90	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0	0.0
bLeft:0	-1.16	0.0	-0.00	0.0	0.15	0.0	1.17	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0	0.0
aRight:1	0.89	0.0	-0.00	0.0	0.15	0.0	0.91	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0	0.0
bRight:1	-1.15	0.0	-0.00	0.0	0.15	0.0	1.16	0.0	-0.00	0.0	-0.0	0.0	-0.00	0.0	0.0

Detailed Laminated Wood Pole Usages for Load Case "Arms (1)":

Element Label	Joint Position	Rel. Dist. (ft)	Trans. Defl. (in)	Long. Defl. (in)	Trans. Mom. (ft-k)	Vert. Defl. (in)	Trans. Mom. (ft-k)	Long. Defl. (ft-k)	Trans. Shear (kips)	Long. Defl. (kips)	Trans. Shear (kips)	Long. Defl. (kips)	
Left	Left:SW	Origin	0.00	0.06	12.19	-0.12	0.00	-0.00	0.0	-0.01	0.01	0.26	0.0
Left	Left:SW	End	0.50	0.06	12.07	-0.11	0.00	0.13	0.0	-0.01	0.01	0.26	0.2
Left	Left:SW	Origin	0.50	0.06	12.07	-0.11	0.00	0.13	0.0	-0.03	0.01	0.26	0.2
Left	Left:BRACES	End	2.00	0.06	11.71	-0.11	0.01	0.53	0.0	-0.03	0.01	0.26	0.7
Left	Left:BRACES	Origin	2.00	0.06	11.71	-0.11	0.02	0.53	0.0	-0.27	0.03	0.26	0.8
Left	#Left:0	End	4.88	0.06	11.00	-0.10	0.11	1.28	0.0	-0.27	0.03	0.26	1.8
Left	#Left:0	Origin	4.88	0.06	11.00	-0.10	0.11	1.28	0.0	-0.33	0.03	0.26	1.9
Left	Left:ARM	End	7.75	0.06	10.28	-0.10	0.21	2.02	0.0	-0.33	0.03	0.26	2.7
Left	Left:ARM	Origin	7.75	0.06	10.28	-0.10	0.35	2.59	5.9	-0.52	-0.05	-0.34	3.6
Left	#Left:1	End	10.75	0.04	9.51	-0.09	0.18	1.56	5.9	-0.52	-0.05	-0.34	2.0
Left	#Left:1	Origin	10.75	0.04	9.51	-0.09	0.19	1.56	5.9	-0.60	-0.05	-0.35	2.0
Left	Left:XTIP	End	13.75	0.03	8.73	-0.08	0.03	0.52	5.9	-0.60	-0.05	-0.35	0.6

Left	Left:XTP	Origin	13.75	0.03	8.73	-0.08	0.05	0.52	5.9	-0.78	-0.06	-0.35	0.7
Left	End	18.75	0.02	7.42	-0.06	-0.22	-1.24	0.52	5.9	-0.78	-0.06	-0.35	1.5
Left	#Left:2	Origin	18.75	0.02	7.42	-0.06	-0.22	-1.24	5.9	-0.78	-0.06	-0.35	1.5
Left	#Left:3	End	23.75	0.02	6.14	-0.05	-0.46	-3.02	5.9	-0.93	-0.05	-0.36	3.1
Left	#Left:4	Origin	23.75	0.02	6.14	-0.05	-0.49	-3.02	5.9	-1.10	-0.05	-0.36	3.1
Left	Left:XBT	End	28.75	0.02	4.91	-0.04	-0.74	-4.82	5.9	-1.10	-0.05	-0.36	4.5
Left	Left:XBT	Origin	28.75	0.02	4.91	-0.04	-0.75	-4.82	5.9	-1.28	0.02	-0.36	4.5
Left	#Left:4	End	33.75	0.02	3.78	-0.03	-0.63	-6.64	5.9	-1.28	0.02	-0.36	5.4
Left	#Left:5	Origin	33.75	0.02	3.78	-0.03	-0.64	-6.64	5.9	-1.47	0.02	-0.37	5.4
Left	#Left:6	End	38.75	0.01	2.75	-0.02	-0.51	-8.46	5.9	-1.47	0.02	-0.37	6.2
Left	#Left:7	Origin	38.75	0.01	2.75	-0.02	-0.52	-8.46	5.9	-1.68	0.02	-0.37	6.2
Left	#Left:8	End	43.75	0.01	1.87	-0.01	-0.39	-10.29	5.9	-1.68	0.02	-0.37	6.9
Left	#Left:9	Origin	43.75	0.01	1.87	-0.01	-0.40	-10.29	5.9	-1.90	0.03	-0.36	7.0
Left	Left:7	End	48.75	0.01	1.13	-0.01	-0.26	-12.12	5.9	-1.90	0.03	-0.36	7.6
Left	Left:8	Origin	48.75	0.01	1.13	-0.01	-0.28	-12.12	5.9	-2.13	0.03	-0.36	7.6
Left	Left:9	End	53.75	0.00	0.57	-0.00	-0.14	-13.93	5.9	-2.13	0.03	-0.36	8.2
Left	#Left:9	Origin	53.75	0.00	0.57	-0.00	-0.14	-13.93	5.9	-2.38	0.03	-0.36	8.2
Left	#Left:10	End	58.75	0.00	0.19	-0.00	0.01	-15.72	5.9	-2.38	0.03	-0.36	8.7
Left	#Left:11	Origin	58.75	0.00	0.19	-0.00	0.01	-15.72	5.9	-2.59	0.03	-0.35	9.1
Left	#Left:12	End	62.13	0.00	0.05	-0.00	0.10	-16.91	5.9	-2.59	0.03	-0.35	9.1
Left	#Left:13	Origin	62.13	0.00	0.05	-0.00	0.09	-16.91	5.9	-2.78	0.03	-0.35	9.1
Left	Left:9	End	65.50	0.00	0.00	0.00	0.20	-18.09	5.9	-2.78	0.03	-0.35	9.4
Right	Right:t	Origin	0.00	0.07	11.73	-0.08	0.00	-0.00	0.0	-0.11	0.00	0.25	0.0
Right	Right:AMT1	End	3.00	0.07	11.21	-0.08	0.00	0.76	0.0	-0.11	0.00	0.25	0.2
Right	Right:AMT1	Origin	3.00	0.07	11.21	-0.08	0.00	0.76	0.0	-0.47	0.00	0.25	0.2
Right	Right:11	End	7.12	0.06	10.49	-0.07	0.01	1.78	0.0	-0.47	0.00	0.25	0.4
Right	Right:AMT2	Origin	7.12	0.06	10.49	-0.07	0.01	1.78	0.0	-0.77	0.00	0.24	0.4
Right	Right:AMT2	End	11.25	0.06	9.77	-0.07	0.02	2.77	0.0	-0.77	0.00	0.24	0.6
Right	Right:12	Origin	11.25	0.06	9.77	-0.07	0.02	2.77	0.0	-1.18	0.00	0.23	0.6
Right	Right:12	End	15.12	0.05	9.09	-0.06	0.04	3.68	0.0	-1.18	0.00	0.23	0.8
Right	Right:SM	Origin	15.12	0.05	9.09	-0.06	0.04	3.68	0.0	-1.49	0.00	0.23	0.8
Right	Right:SM	End	19.00	0.04	8.40	-0.06	0.06	4.57	0.0	-1.49	0.00	0.23	1.0
Right	Right:BRACES	Origin	19.00	0.04	8.40	-0.06	0.06	4.57	0.0	-1.70	0.01	0.23	1.0
Right	Right:BRACES	End	20.50	0.04	8.14	-0.06	0.07	4.91	0.0	-1.70	0.01	0.23	1.1
Right	Right:13	Origin	20.50	0.04	8.14	-0.06	0.06	4.91	0.0	-2.07	0.01	0.22	1.1
Right	Right:13	End	23.38	0.04	7.62	-0.05	0.10	5.54	0.0	-2.07	0.01	0.22	1.2
Right	Right:ARM	Origin	23.38	0.04	7.62	-0.05	0.10	5.54	0.0	-2.31	0.01	0.21	1.2
Right	Right:ARM	End	26.25	0.03	7.10	-0.05	0.14	6.16	0.0	-2.31	0.01	0.21	1.3
Right	Right:ARM	Origin	26.25	0.03	7.10	-0.05	0.14	6.16	0.0	-2.64	0.05	-1.61	1.2
Right	Right:14	End	29.25	0.03	6.55	-0.04	0.19	5.60	3.6	-2.64	0.05	-1.61	1.2
Right	Right:14	Origin	29.25	0.03	6.55	-0.04	0.19	5.60	3.6	-2.90	0.05	-1.62	1.0
Right	Right:XTP	End	32.25	0.02	6.00	-0.04	0.31	-4.10	3.6	-2.90	0.05	-1.62	1.0
Right	Right:XTP	Origin	32.25	0.02	6.00	-0.04	0.31	-4.10	3.6	-3.40	-0.02	-1.63	1.0
Right	Right:15	End	37.13	0.02	5.12	-0.03	0.33	-12.02	3.6	-3.40	-0.02	-1.63	2.3
Right	Right:15	Origin	37.13	0.02	5.12	-0.03	0.33	-12.02	3.6	-3.85	-0.01	-1.63	2.3
Right	Right:cables	End	42.00	0.01	4.26	-0.03	0.27	-19.98	3.6	-3.85	-0.01	-1.63	3.5
Right	Right:cables	Origin	42.00	0.01	4.26	-0.03	0.27	-19.98	3.6	-4.20	-0.01	-1.64	3.5
Right	Right:16	End	44.63	0.01	3.81	-0.02	0.23	-24.27	3.6	-4.20	-0.01	-1.64	4.2
Right	Right:16	Origin	44.63	0.01	3.81	-0.02	0.23	-24.27	3.6	-4.46	-0.01	-1.64	4.2
Right	Right:XBT	End	47.25	0.01	3.38	-0.02	0.20	-28.57	3.6	-4.46	-0.01	-1.64	4.8
Right	Right:XBT	Origin	47.25	0.01	3.38	-0.02	0.20	-28.57	3.6	-4.91	-0.01	-1.64	4.8
Right	Right:17	End	52.25	0.01	2.61	-0.01	0.11	-36.78	3.6	-4.91	-0.01	-1.64	5.9
Right	Right:17	Origin	52.25	0.01	2.61	-0.01	0.11	-36.78	3.6	-5.42	-0.01	-1.64	6.0
Right	Right:18	End	57.25	0.00	1.91	-0.01	0.09	-44.99	3.6	-5.42	-0.01	-1.64	7.0
Right	Right:18	Origin	57.25	0.00	1.91	-0.01	0.08	-44.99	3.6	-5.94	-0.00	-1.64	7.0
Right	Right:19	End	62.25	0.00	1.30	-0.01	0.07	-53.20	3.6	-5.94	-0.00	-1.64	8.1
Right	Right:19	Origin	62.25	0.00	1.30	-0.01	0.07	-53.20	3.6	-6.48	-0.00	-1.64	8.1
Right	Right:20	End	67.25	0.00	0.79	-0.00	0.06	-61.38	3.6	-6.48	-0.00	-1.64	9.0
Right	Right:20	Origin	67.25	0.00	0.79	-0.00	0.06	-61.38	3.6	-7.04	-0.00	-1.63	9.0
Right	Right:21	End	72.25	0.00	0.40	-0.00	0.06	-69.53	3.6	-7.04	-0.00	-1.63	9.9
Right	Right:21	Origin	72.25	0.00	0.40	-0.00	0.06	-69.53	3.6	-7.61	0.00	-1.62	10.0
Right	Right:22	End	77.25	0.00	0.14	-0.00	0.07	-77.62	3.6	-7.61	0.00	-1.62	10.8
Right	Right:22	Origin	77.25	0.00	0.14	-0.00	0.06	-77.62	3.6	-8.09	0.00	-1.61	10.8
Right	Right:23	End	80.63	0.00	0.03	-0.00	0.07	-83.04	3.6	-8.09	0.00	-1.61	11.4
Right	Right:23	Origin	80.63	0.00	0.03	-0.00	0.07	-83.04	3.6	-8.50	0.00	-1.59	11.4
Right	Right:G	End	84.00	0.00	0.00	0.00	0.08	-88.42	3.6	-8.50	0.00	-1.59	11.5

Summary of Brace Forces and Usages for Load Case "Arms (1)":

Brace Label	Forces (kips)	Allowable (kips)	Usage (%)
TENL	0.09	16.50	0.31
TENR	0.11	16.50	0.36
VEEL	0.13	20.28	0.64
VEER	0.10	20.28	0.51
X1	-0.01	26.38	0.02

Detailed X-Arm Usages for Load Case "Arms (1)":

X-Arm Label	Joint Label	Joint Position (ft)	Rel. Defl. (in)	Tran. Defl. (in)	Long. Defl. (in)	Vert. Defl. (in)	X Mom. (ft-k)	Z Tors. Mom. (ft-k)	Axial Force (kips)	Shear (kips)	X Shear (kips)	Z Shear (kips)	F/A (psi)	Yx/Sx (psi)	Mz/Sz (psi)	Max. Usage %
NESCARM	NESCARM:0	Origin 0.00	0.11	13.18	-0.16	-0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	4.9e-005	0.0019	1.13e-005	0.0
NESCARM	NESCARM:L1	End 0.50	0.10	12.99	-0.15	-0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	4.9e-005	0.563	0.0105	0.0
NESCARM	NESCARM:R1	Origin 0.50	0.10	12.99	-0.15	-0.00	0.00	0.00	0.00	0.00	-0.00	-0.00	4.9e-005	0.563	0.0105	0.0
NESCARM	NESCARM:L2	End 1.00	0.08	11.53	-0.12	-0.08	3.12	0.0	-0.05	0.02	-0.81	-0.81	1.3	29.2	780	10.1
NESCARM	NESCARM:R2	Origin 1.00	0.08	11.53	-0.12	-0.08	3.12	0.0	-0.05	0.02	-0.81	-0.81	1.4	29.2	780	10.1
NESCARM	NESCARM:L3	End 1.50	0.06	10.28	-0.10	-0.02	6.25	0.0	-0.05	-0.03	-0.81	-0.81	1.4	8.41	1.56e+003	19.6
NESCARM	NESCARM:R3	Origin 1.50	0.06	10.28	-0.10	-0.02	6.25	0.0	-0.05	-0.03	-0.81	-0.81	1.7	58.2	97.4	2.0
NESCARM	NESCARM:L4	End 2.00	0.05	9.37	-0.07	-0.02	1.09	-0.6	-0.14	0.04	-0.21	-0.21	3.7	6.39	272	3.5
NESCARM	NESCARM:R4	Origin 2.00	0.05	9.37	-0.07	-0.02	1.09	-0.6	-0.14	0.04	-0.21	-0.21	3.7	6.11	272	3.5
NESCARM	NESCARM:L5	End 2.50	0.04	8.51	-0.06	-0.02	1.79	-0.6	-0.14	0.00	-0.21	-0.21	3.7	6.01	448	5.7
NESCARM	NESCARM:R5	Origin 2.50	0.04	8.51	-0.06	-0.02	1.79	-0.6	-0.14	0.00	-0.21	-0.21	3.8	5.73	448	5.7
NESCARM	NESCARM:L6	End 3.00	0.04	8.27	-0.06	-0.04	2.00	-0.6	-0.14	-0.03	-0.21	-0.21	3.8	15.6	500	6.5
NESCARM	NESCARM:R6	Origin 3.00	0.04	8.27	-0.06	-0.04	2.00	-0.6	-0.14	-0.03	-0.21	-0.21	3.8	15.6	500	6.5
NESCARM	NESCARM:L7	End 3.50	0.04	8.05	-0.05	-0.02	3.02	-0.6	-0.11	0.06	-1.02	-1.02	2.8	6.03	754	9.5
NESCARM	NESCARM:R7	Origin 3.50	0.04	8.05	-0.05	-0.02	3.02	-0.6	-0.11	0.06	-1.02	-1.02	2.9	6.68	754	9.5
NESCARM	NESCARM:L8	End 4.00	0.03	7.40	-0.05	-0.12	6.45	-0.6	-0.11	0.03	-1.02	-1.02	2.9	44.1	1.61e+003	20.7
NESCARM	NESCARM:R8	Origin 4.00	0.03	7.40	-0.05	-0.12	6.45	-0.6	-0.11	0.03	-1.02	-1.02	3.1	45.8	1.61e+003	20.7
NESCARM	NESCARM:L9	End 4.50	0.03	7.10	-0.05	-0.08	9.88	-0.6	-0.12	-0.01	-1.02	-1.02	3.1	28.8	2.47e+003	31.2
NESCARM	NESCARM:R9	Origin 4.50	0.03	7.10	-0.05	-0.08	9.88	-0.6	-0.12	-0.01	-1.02	-1.02	2.2	10.2	1.56e+003	19.7
NESCARM	NESCARM:L10	End 5.00	0.03	7.19	-0.06	-0.11	3.12	0.0	-0.08	0.02	0.81	0.81	2.1	38.5	780	10.3
NESCARM	NESCARM:R10	Origin 5.00	0.03	7.19	-0.06	-0.11	3.12	0.0	-0.08	0.02	0.81	0.81	2.1	38.5	780	10.3
NESCARM	NESCARM:L11	End 5.50	0.03	7.49	-0.07	-0.00	0.00	0.0	-0.08	-0.03	0.81	0.81	2.1	0.361	0.00811	0.0
NESCARM	NESCARM:R11	Origin 5.50	0.03	7.49	-0.07	-0.00	0.00	0.0	-0.08	-0.03	0.81	0.81	2.1	0.361	0.00811	0.0
NESCARM	NESCARM:L12	End 6.00	0.03	7.53	-0.07	-0.00	0.00	0.0	0.00	0.00	0.00	0.00	1e-005	0.56	0.00806	0.0
NESCARM	NESCARM:R12	Origin 6.00	0.03	7.53	-0.07	-0.00	0.00	0.0	0.00	0.00	0.00	0.00	1e-005	0.56	0.00806	0.0

Summary of Suspension Capacities and Usages for Load Case "Arms (1)":

Suspension Label	Tension Capacity (kips)	Input Tension Capacity (kips)	Factored Usage %
SUSSWL	0.001	60.00	0.00
SUSSWR	0.001	60.00	0.00
L1	0.805	60.00	1.34
L2	0.805	60.00	1.34
L3	0.805	60.00	1.34
ANT1	0.000	60.00	0.00
ANT2	0.000	60.00	0.00
cables	0.000	60.00	0.00

*** Overall summary for all load cases - Usage = Maximum Stress / Allowable Stress

Summary of Laminated Wood Pole Usages:

Laminated Wood Pole Maximum Load Case Segment Weight	Label Usage %	Label Usage %	Number	Weight (lbs)
Left 48.41 Ext. Wind (t)	6	3039.0		
Right 48.06 Ext. Wind (l)	22	9671.7		

Summary of X-Arm Usages:

X-Arm Maximum Load Case Segment Weight	Label Usage %	Label Usage %	Number	Weight (lbs)
NESCARM 31.24 Arms (l)	9	393.0		

Summary of Brace Usages:

Brace Maximum Load Case Weight	Label Usage %	Label Usage %	Weight (lbs)
TENL 27.00 Heavy Ice	47.0		
TENR 26.36 Heavy Ice	47.0		
VEEL 33.25 Heavy Ice	58.0		
VEER 38.73 NESC HEAVY	58.0		
X1 88.60 Ext. Wind (t)	142.0		
X2 44.37 Ext. Wind (t)	142.0		

*** Maximum Stress Summary for Each Load Case

Summary of Maximum Usages by Load Case:

Load Case Maximum Element Usage %	Label	Element Type
NESC HEAVY 77.38	X1	Brace
Ext. Wind (t) 88.60	X1	Brace
Ext. Wind (l) 48.06	Right	Laminated Wood
Heavy Ice 33.25	VEEL	Brace
L.T. Defl. 30.77	VEEL	Brace
Arms (l) 31.24	NESCARM	X-Arm

Summary of Laminated Wood Pole Usages by Load Case:

Load Case Maximum Laminated Wood Pole Segment Usage %	Label	Segment Number
NESC HEAVY 28.03	Left	6
Ext. Wind (t) 48.41	Left	6
Ext. Wind (l) 48.06	Right	22
Heavy Ice 13.31	Left	4
L.T. Defl. 11.98	Left	4
Arms (l) 11.89	Right	22

Summary of X-Arm Usages by Load Case:

Load Case Maximum X-Arm Segment Usage %	Label	Segment Number
NESC HEAVY 11.78	NESCARM	6
Ext. Wind (t) 14.37	NESCARM	6
Ext. Wind (l) 21.39	NESCARM	9
Heavy Ice 8.16	NESCARM	6
L.T. Defl. 7.55	NESCARM	6
Arms (l) 31.24	NESCARM	9

Summary of Brace Usages by Load Case:

Load Case Maximum Brace Usage %	Label
NESC HEAVY 77.38	X1
Ext. Wind (t) 88.60	X1

Ext. Wind (1) 6.24 VBEEL
 Heavy Ice 33.25 VBEEL
 L.T. Defl. 30.77 VBEEL
 Arms (1) 0.64 VBEEL

Summary of Insulator Usages:

Insulator Label	Insulator Type	Maximum Usage %	Load Case Weight (lbs)
SUSSWL Suspension	4.54	Heavy Ice	3.0
SUSSWR Suspension	4.54	Heavy Ice	3.0
L1 Suspension	8.10	Heavy Ice	50.0
L2 Suspension	8.10	Heavy Ice	50.0
L3 Suspension	8.10	Heavy Ice	50.0
ANT1 Suspension	0.91	Ext. Wind (t)	3.0
ANT2 Suspension	2.90	Ext. Wind (t)	3.0
cables Suspension	3.72	Ext. Wind (t)	3.0

Loads At Insulator Attachments For All Load Cases:

Case	Insulator Label	Insulator Type	Structure Label	Attach Label	Attach Load X (kips)	Attach Load Y (kips)	Structure Load X (kips)	Structure Load Y (kips)	Structure Load Z (kips)	Attach Res.
NESC HEAVY	SUSSWL Suspension	Suspension	Left:SW	Left:SW	0.000	0.539	0.000	0.764	0.935	0.935
			Right:SW	Right:SW	0.000	0.539	0.000	0.764	0.935	0.935
NESC HEAVY	SUSSWR Suspension	Suspension	Left:SW	Left:SW	0.000	0.991	0.000	2.428	2.622	2.622
			Right:SW	Right:SW	0.000	0.991	0.000	2.428	2.622	2.622
NESC HEAVY	L1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.991	0.000	2.428	2.622	2.622
			Right:ANT1	Right:ANT1	0.000	0.991	0.000	2.428	2.622	2.622
NESC HEAVY	L2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	0.470	0.000	1.000	1.105	1.105
			Right:ANT2	Right:ANT2	0.000	0.470	0.000	1.000	1.105	1.105
NESC HEAVY	cables Suspension	Right:cables	Left:SW	Left:SW	0.000	0.338	0.000	0.189	0.387	0.387
			Right:SW	Right:SW	0.000	0.338	0.000	0.189	0.387	0.387
Ext. Wind (t)	SUSSWL Suspension	Suspension	Left:SW	Left:SW	0.000	1.158	0.000	1.034	1.552	1.552
			Right:SW	Right:SW	0.000	1.158	0.000	1.034	1.552	1.552
Ext. Wind (t)	SUSSWR Suspension	Suspension	Left:SW	Left:SW	0.000	1.158	0.000	1.034	1.552	1.552
			Right:SW	Right:SW	0.000	1.158	0.000	1.034	1.552	1.552
Ext. Wind (t)	L1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.368	0.000	0.544	0.544	0.544
			Right:ANT1	Right:ANT1	0.000	0.368	0.000	0.544	0.544	0.544
Ext. Wind (t)	L2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	1.426	0.000	1.742	1.742	1.742
			Right:ANT2	Right:ANT2	0.000	1.426	0.000	1.742	1.742	1.742
Ext. Wind (t)	L3 Suspension	Suspension	Left:cables	Left:cables	0.000	0.753	0.000	2.231	2.231	2.231
			Right:cables	Right:cables	0.000	0.753	0.000	2.231	2.231	2.231
Ext. Wind (1)	SUSSWL Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	0.189	0.189	0.189
			Right:SW	Right:SW	0.000	0.000	0.000	0.189	0.189	0.189
Ext. Wind (1)	SUSSWR Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	0.189	0.189	0.189
			Right:SW	Right:SW	0.000	0.000	0.000	0.189	0.189	0.189
Ext. Wind (1)	L1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.000	0.000	1.034	1.034	1.034
			Right:ANT1	Right:ANT1	0.000	0.000	0.000	1.034	1.034	1.034
Ext. Wind (1)	L2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	0.000	0.000	1.034	1.034	1.034
			Right:ANT2	Right:ANT2	0.000	0.000	0.000	1.034	1.034	1.034
Ext. Wind (1)	L3 Suspension	Suspension	Left:cables	Left:cables	0.000	0.000	0.000	0.544	0.544	0.544
			Right:cables	Right:cables	0.000	0.000	0.000	0.544	0.544	0.544
Ext. Wind (1)	ANT1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.000	0.000	1.742	1.742	1.742
			Right:ANT1	Right:ANT1	0.000	0.000	0.000	1.742	1.742	1.742
Ext. Wind (1)	ANT2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	0.000	0.000	2.231	2.231	2.231
			Right:ANT2	Right:ANT2	0.000	0.000	0.000	2.231	2.231	2.231
Ext. Wind (1)	cables Suspension	Right:cables	Left:cables	Left:cables	0.000	0.000	0.000	2.725	2.725	2.725
			Right:cables	Right:cables	0.000	0.000	0.000	2.725	2.725	2.725
Heavy Ice	SUSSWL Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	4.862	4.862	4.862
			Right:SW	Right:SW	0.000	0.000	0.000	4.862	4.862	4.862
Heavy Ice	SUSSWR Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	4.862	4.862	4.862
			Right:SW	Right:SW	0.000	0.000	0.000	4.862	4.862	4.862
Heavy Ice	L1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.000	0.000	4.862	4.862	4.862
			Right:ANT1	Right:ANT1	0.000	0.000	0.000	4.862	4.862	4.862
Heavy Ice	L2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	0.000	0.000	1.000	1.000	1.000
			Right:ANT2	Right:ANT2	0.000	0.000	0.000	1.000	1.000	1.000
Heavy Ice	L3 Suspension	Suspension	Left:cables	Left:cables	0.000	0.000	0.000	0.821	0.821	0.821
			Right:cables	Right:cables	0.000	0.000	0.000	0.821	0.821	0.821
L.T. Defl.	SUSSWL Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	4.496	4.496	4.496
			Right:SW	Right:SW	0.000	0.000	0.000	4.496	4.496	4.496
L.T. Defl.	SUSSWR Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	4.496	4.496	4.496
			Right:SW	Right:SW	0.000	0.000	0.000	4.496	4.496	4.496
L.T. Defl.	L1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.000	0.000	1.000	1.000	1.000
			Right:ANT1	Right:ANT1	0.000	0.000	0.000	1.000	1.000	1.000
L.T. Defl.	L2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	0.000	0.000	1.000	1.000	1.000
			Right:ANT2	Right:ANT2	0.000	0.000	0.000	1.000	1.000	1.000
L.T. Defl.	L3 Suspension	Suspension	Left:cables	Left:cables	0.000	0.000	0.000	0.001	0.001	0.001
			Right:cables	Right:cables	0.000	0.000	0.000	0.001	0.001	0.001
Arms (1)	SUSSWL Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	0.000	0.000	0.000
			Right:SW	Right:SW	0.000	0.000	0.000	0.000	0.000	0.000
Arms (1)	SUSSWR Suspension	Suspension	Left:SW	Left:SW	0.000	0.000	0.000	0.000	0.000	0.000
			Right:SW	Right:SW	0.000	0.000	0.000	0.000	0.000	0.000
Arms (1)	L1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.000	0.000	0.000	0.000	0.000
			Right:ANT1	Right:ANT1	0.000	0.000	0.000	0.000	0.000	0.000
Arms (1)	L2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	0.000	0.000	0.000	0.000	0.000
			Right:ANT2	Right:ANT2	0.000	0.000	0.000	0.000	0.000	0.000
Arms (1)	L3 Suspension	Suspension	Left:cables	Left:cables	0.000	0.000	0.000	0.000	0.000	0.000
			Right:cables	Right:cables	0.000	0.000	0.000	0.000	0.000	0.000
Arms (1)	ANT1 Suspension	Suspension	Left:ANT1	Left:ANT1	0.000	0.000	0.000	0.000	0.000	0.000
			Right:ANT1	Right:ANT1	0.000	0.000	0.000	0.000	0.000	0.000
Arms (1)	ANT2 Suspension	Suspension	Left:ANT2	Left:ANT2	0.000	0.000	0.000	0.000	0.000	0.000
			Right:ANT2	Right:ANT2	0.000	0.000	0.000	0.000	0.000	0.000
Arms (1)	cables Suspension	Right:cables	Left:cables	Left:cables	0.000	0.000	0.000	0.000	0.000	0.000
			Right:cables	Right:cables	0.000	0.000	0.000	0.000	0.000	0.000

Overturning Moments For User Input Concentrated Loads:

Moments are static equivalents based on central axis of 0.

Load Case	Trans. Load (kips)	Total Long. Load (kips)	Total Vert. Load (kips)	Transverse Moment (ft-k)	Longitudinal Overturning Moment (ft-k)
-----	-----	-----	-----	-----	-----
NESC HEAVY	4.886	0.000	12.312	323.088	0.000
Ext. Wind (t)	6.697	0.000	6.980	436.854	0.000
Ext. Wind (l)	0.000	2.547	6.980	27.125	165.175
Heavy Ice	0.000	0.000	23.536	27.125	0.000
L.T. Defl.	0.000	0.000	18.630	27.125	0.000
Arms (l)	0.000	2.415	0.002	0.000	139.466

*** Weight of structure (lbs):
 Weight of Braces: 494.0
 Weight of X-Arms: 393.0
 Weight of Laminated Wood Poles: 12710.7
 Weight of Equipment: 200.0
 Weight of Suspensions: 165.0
 Total: 13962.7

*** End of Report

Technical Memo

To: Maxton
From: Farid Marbough - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11135J
Date: August 24, 2009

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile antenna installation on a Utility Monopole at 40 Maple Ridge Drive, Structure #8011, Farmington, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

- 1) The emissions from T-Mobile transmitters are in the (1935-1944.8), (2140-2145), (2110-2120)MHz frequency Band.
- 2) The antenna array consists of three sectors, with 3 antennas per sector.
- 3) The model number for GSM antenna is APX16DWV-16DWV.
- 3) The model number for UMTS antenna is APX16DWV-16DWV.
- 4) GSM antenna center line height is 82 ft.
- 4) UMTS antenna center line height is 75 ft.
- 5) The maximum transmit power from any GSM sector is 2334.1 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
- 5) The maximum transmit power from any UMTS sector is 2772.62 Watts Effective Radiated Power (EiRP) assuming 2 channels per sector.
- 6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
- 7) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 8) The average ground level of the studied area does not change significantly with respect to the transmitting location.

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile antenna installation on a Utility Monopole at 40 Maple Ridge Drive, Structure #8011, Farmington, CT, is 0.21642 mW/cm². This value represents 21.642% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm²) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.

Connecticut Market



Worst Case Power Density

Site: CT11135J
Site Address: 40 Maple Ridge Drive, Structure #8011
Town: Farmington
Tower Height: 62 ft.
Tower Style: Utility Monopole

GSM Data		UMTS Data	
Base Station TX output	20 W	Base Station TX output	40 W
Number of channels	8	Number of channels	2
Antenna Model	APX16DWV-16DWV	Antenna Model	APX16DWV-16DWV
Cable Size	7/8 in.	Cable Size	7/8 in.
Cable Length	100 ft.	Cable Length	95 ft.
Antenna Height	82.0 ft.	Antenna Height	75.0 ft.
Ground Reflection	1.6	Ground Reflection	1.6
Frequency	1945.0 MHz	Frequency	2.1 GHz
Jumper & Connector loss	4.50 dB	Jumper & Connector loss	1.50 dB
Antenna Gain	18.0 dBi	Antenna Gain	18.0 dBi
Cable Loss per foot	0.0186 dB	Cable Loss per foot	0.0116 dB
Total Cable Loss	1.8600 dB	Total Cable Loss	1.1020 dB
Total Attenuation	6.3600 dB	Total Attenuation	2.6020 dB
Total EIRP per Channel (In Watts)	54.65 dBm 291.76 W	Total EIRP per Channel (In Watts)	61.42 dBm 1386.31 W
Total EIRP per Sector (In Watts)	63.68 dBm 2334.10 W	Total EIRP per Sector (In Watts)	64.43 dBm 2772.62 W
nsg	11.6400	nsg	15.3980
Power Density (S) = 0.088657 mW/cm ²		Power Density (S) = 0.127765 mW/cm ²	
T-Mobile Worst Case % MPE =		21.6422%	
Equation Used : $S = \frac{(1000)(grf)^2 (Power)^{10^{(nsg10)}}}{4\pi (R)^2}$			
Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997			

Co-Location Total

Carrier	% of Standard
Verizon	
Cingular	
Sprint	
AT&T Wireless	
Nextel	
MetroPCS	
Other Antenna Systems	
Total Excluding T-Mobile	0.0000 %
T-Mobile	21.6422
Total % MPE for Site	21.6422%