



Structural Analysis Report

Structure : 480 ft Guyed Tower
ATC Asset Name : LEE S SUMMIT #1B
ATC Asset Number : 36075
Engineering Number : OAA798020_C3_01
Proposed Carrier : WISPER ISP, LLC
Carrier Site Name : JCKSMOAO
Carrier Site Number : N/A
Site Location : 1093 NW Black Twig Circle
Lees Summit, MO 64081-1905
38.9333° N, 94.4176° W
County : Jackson
Date : May 27, 2025
Max Usage : 73%
Analysis Result : Pass

Created By:

Garrett Williams
Structural Engineer

Garrett Williams



COA: 2015011232

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 480 ft Guyed tower to reflect the change in loading by WISPER ISP, LLC.

Supporting Documents

Tower:	Allied Tower, Drawing #B-21081 dated August 8, 2000
Foundation:	Allied Tower, Drawing #B-21136 dated August 31, 2000
Geotechnical:	GeoSystems Engineering, Inc., Job #1995328 dated September 9, 1999

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	109 mph (3-second gust)
Basic Wind Speed w/ Ice:	45 mph (3-second gust) w/ 1.45" radial ice concurrent
Code(s):	ANSI/TIA-222-I / 2018 IBC
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	$S_{05} = 0.14$, $S_{01} = 0.11$
Site Class:	Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact Engineering@americantower.com. Please include the American Tower asset name, asset number, and engineering number in the subject line for any questions.

Structure Usages

Structural Component	Usage	Control	Location	Result
Leg	52.9%	Member X	Section 3	Pass
Diagonal	51.8%	Member X	Section 8	Pass
Horizontal	61.5%	Member	Section 1	Pass
Bolt	19.3%	-	Section 25	Pass
Torque Arm	42.7%	Compression	Elevation 460 ft	Pass
Cable	50.0%	Tension	Elevation 300 ft	Pass
Serviceability Usage	2.2%	Rotation	Elevation 456 ft	Pass
Mat & Pier	73.0%	Bearing [Soil]	Node 1	Pass
Guy Anchor	33.8%	Tension [Anchor Rod]	Node A1	Pass
Guy Anchor	33.8%	Tension [Anchor Rod]	Node A1a	Pass
Guy Anchor	33.8%	Tension [Anchor Rod]	Node A1b	Pass
Guy Anchor	50.6%	Flexure [Steel]	Node A2	Pass
Guy Anchor	50.6%	Flexure [Steel]	Node A2a	Pass
Guy Anchor	50.7%	Flexure [Steel]	Node A2b	Pass

Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Uplift (k)	Shear (k)
Guyed – Pivot Base	-	416.1	-	0.5
Guyed Anchor - A2	-	-	59.4	54.4
Guyed Anchor - A1	-	-	25.5	24.3

**Reactions shown are maximum overall and not limited by Load Case excluding Overstrength Load Cases*

Structure base reactions were analyzed using available geotechnical and foundation information.

WISPER ISP, LLC Final Loading

Elev (ft)	Qty	Equipment	Lines
417.0	1	Aviat Networks WTM 4200 ANSI	(1) 0.22" (5.7mm) Fiber (4) 0.27" (6.7mm) Cat 5e (1) 0.32" (8.1mm) Cable (1) 3/8" (9.5mm) RET Control Cable
	1	Aviat Networks WTM 4800 (15.4lbs)	
	1	30" x 23" BOB	
	1	Side Arm	
	2	RFS SC3-W100BGT1X	
	4	Cambium Networks PMP 430 Access Point	
408.6	4	Cambium Networks PMP 430 Access Point	-

Install proposed lines in the place of the existing WISPER ISP, LLC lines.

Other Existing/Reserved Loading

Elev (ft)	Qty	Equipment	Lines
480.3	1	Decibel DB264	-
480.0	-	-	(1) 1 1/4" Coax
475.0	3	Light Sector Frame	-
462.2	1	17' Omni	-
462.0	-	-	(1) 1 5/8" Coax
460.0	-	-	(1) 1 5/8" Coax
459.5	1	17' Omni	-
457.0	1	Side Arm	-
430.0	1	Decibel DB408	(1) 3" Coax
429.0	-	-	(1) 3" Coax
427.0	2	Side Arm	-
420.5	1	Stand-Off	-
418.0	1	Radio/ODU	-
417.4	1	6' HP Dish	-
417.0	-	-	(1) 2" conduit
408.9	4	Motorola 5780AP	-
403.8	2	13' Omni	-
397.0	2	Side Arm	-
387.0	1	8' Omni	(1) 1 5/8" Coax
383.0	1	Side Arm	-
355.0	1	Side Arm	-
330.0	2	Side Arm	-
320.0	1	Side Arm	-
189.0	1	Side Arm	-
182.0	3	RFS APXVSP18-C-A20 (62 lbs)	(3) 1 1/4" Hybriflex Cable
181.9	3	Ericsson RRUS-11 800 MHz	-
181.6	3	Ericsson RRUS82 w/ Solarshield	-
181.4	3	Commscope TTTT90AP-1XR	-
181.3	3	Ericsson RRUS 31	-
180.0	3	Sector Frame	-
171.0	3	Light Sector Frame	-
130.0	3	Light Sector Frame	-
86.0	1	Side Arm	-
66.0	1	PCTEL MYA4503	(1) 1/2" Coax

(If table breaks across pages, please see previous page for data in merged cells)



Standard Conditions

All engineering services performed by ATC Tower Services LLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts, and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services LLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and ATC Tower Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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

ASSET: LEE S SUMMIT #1B, 36075
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020

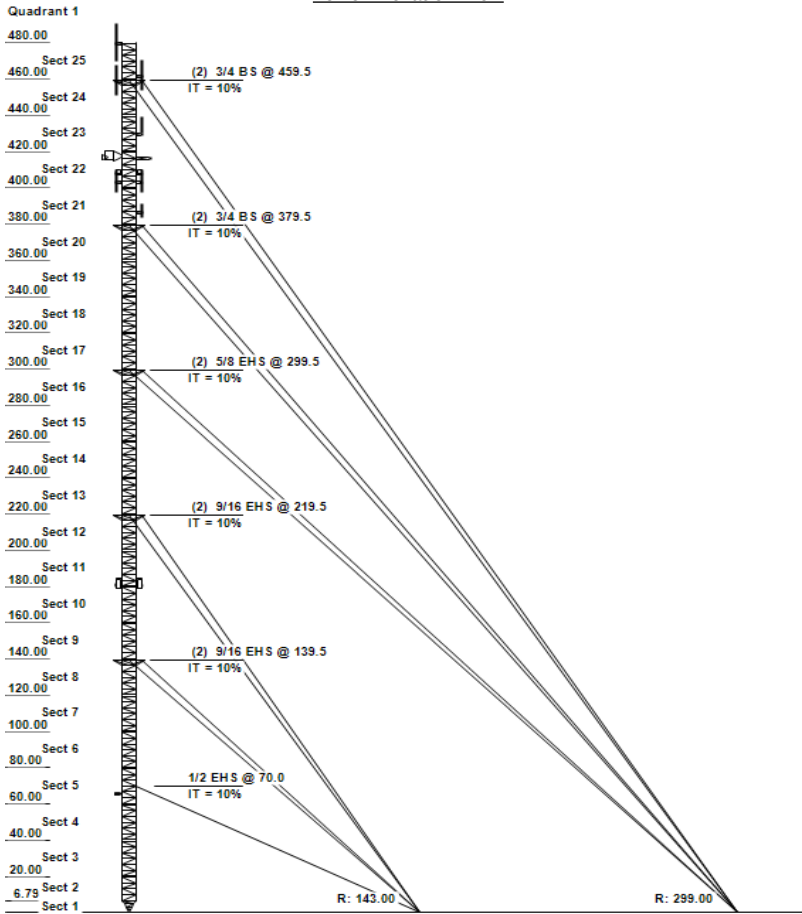
ANALYSIS PARAMETERS

Design Wind: 109 mph Ice Wind: 45 mph w/ 1.45" ice Service Wind: 60 mph
Risk Category II Exposure: B S_{DS} : 0.140 S_{D1} : 0.110
Topo Factor: Method 1 Topo Feature: Flat
Structure Height: 480 ft Base Elevation: 0 ft Shape: Triangle
Base Width: 3.50 ft Top Width: 3.50 ft Base Type: Pivot

TOWER SECTION PROPERTIES

Section	Leg Members	Diagonal Members	Horizontal Members
1 - 8	SOL 50 ksi 3" SOLID	SOL 36 ksi 1 1/8" SOLID	SOL 36 ksi 7/8" SOLID
9 - 12	SOL 50 ksi 3" SOLID	SOL 36 ksi 1 1/4" SOLID	SOL 36 ksi 7/8" SOLID
13 - 16	SOL 50 ksi 2 3/4" SOLID	SOL 36 ksi 1 1/8" SOLID	SOL 36 ksi 7/8" SOLID
17 - 20	SOL 50 ksi 2 1/2" SOLID	SOL 36 ksi 1 1/4" SOLID	SOL 36 ksi 7/8" SOLID
21 - 25	SOL 50 ksi 2 1/4" SOLID	SOL 36 ksi 1 1/4" SOLID	SOL 36 ksi 7/8" SOLID

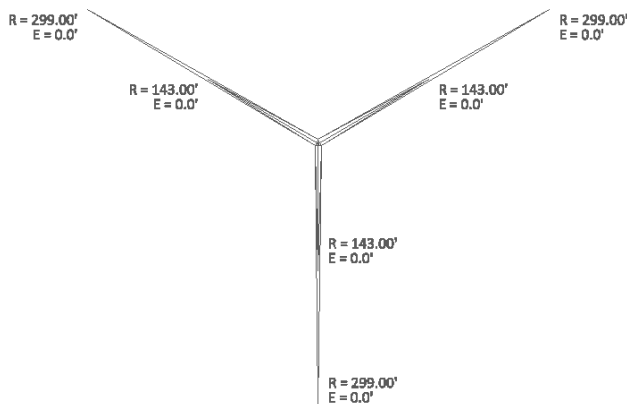
Tower Elevation View



BASE REACTIONS

Axial (k): 416.07
Shear (k): 0.51

Tower Plan View



DISCRETE APPURTENANCE

Elev (ft)	Description
480.3	(1) Decibel DB264
475.0	(3) Generic Flat Light Sector Frame
462.2	(1) Generic 17" Omni
460.0	(1) Generic Torque Arm
459.5	(1) Generic 17" Omni
457.0	(1) Generic Flat Side Arm
430.0	(1) Decibel DB408
427.0	(2) Generic Round Side Arm
420.5	(1) Generic Flat Stand-Off
418.0	(1) Generic Radio/ODU
417.4	(1) Generic 6' HP Dish
417.0	(1) Generic 30" x 23" BOB
417.0	(4) Cambium Networks PMP 430 Access
417.0	(1) Aviat Networks WTM 4800 (15.4lbs)
417.0	(1) Aviat Networks WTM 4200 ANSI
417.0	(2) RFS SC3-W100BGT1X
417.0	(1) Generic Round Side Arm
408.9	(4) Motorola 5780AP
408.6	(4) Cambium Networks PMP 430 Access
403.8	(2) Generic 13' Omni
397.0	(2) Generic Round Side Arm
387.0	(1) Generic 8' Omni
383.0	(1) Generic Flat Side Arm
380.0	(1) Generic Torque Arm
355.0	(1) Generic Round Side Arm
330.0	(2) Generic Round Side Arm
320.0	(1) Generic Round Side Arm
300.0	(1) Generic Torque Arm
220.0	(1) Generic Torque Arm
189.0	(1) Generic Round Side Arm
182.0	(3) RFS APXVSP18-C-A20 (62 lbs)
181.9	(3) Ericsson RRUS-11 800 MHz
181.6	(3) Ericsson RRUS82 w/ Solarshield
181.4	(3) Commscope TTTT90AP-1XR
181.3	(3) Ericsson RRUS 31
180.0	(3) Generic Round Sector Frame
171.0	(3) Generic Flat Light Sector Frame
140.0	(1) Generic Torque Arm
130.0	(3) Generic Flat Light Sector Frame
86.0	(1) Generic Flat Side Arm
66.0	(1) PCTEL MYA4503

LINEAR APPURTENANCE

Elev (ft)	Description
480.0	(1) 1 1/4" Coax
462.0	(1) 1 5/8" Coax
460.0	(1) 1 5/8" Coax
430.0	(1) 3" Coax
429.0	(1) 3" Coax
417.0	(1) 3/8" (0.38"- 9.5mm) RET Cont
417.0	(1) 0.22" (5.7mm) Fiber
417.0	(1) 2" conduit
417.0	(4) 0.27" (6.7mm) Cat 5e
417.0	(1) 0.32" (8.1mm) Cable
387.0	(1) 1 5/8" Coax
182.0	(3) 1 1/4" Hybriflex Cable
66.0	(1) 1/2" Coax

GUY ANCHOR REACTIONS

Radius (ft)	Drop (ft)	Azimuth (°)	Uplift (k)	Shear (k)
143.0	0.00	0	25.52	24.29
143.0	0.00	120	25.53	24.29
143.0	0.00	240	25.53	24.29
299.0	0.00	0	59.37	54.42
299.0	0.00	120	59.39	54.45
299.0	0.00	240	59.40	54.42

ANALYSIS PARAMETERS			
Location:	Jackson County, MO	Height:	480 ft
Type and Shape:	Guyed, Triangle	Base Elevation:	0.00 ft
Manufacturer:	Allied	Bottom Face Width:	3.50 ft
Kd	0.85	Top Face Width:	3.50 ft
Ke:	0.97		

ICE & WIND PARAMETERS			
Exposure Category:	B	Design Wind Speed Without Ice:	109 mph
		Design Wind Speed with Ice:	45 mph
Risk Category:	II	Operational Windspeed:	60 mph
Topographic Factor Procedure:	Method 1		
Crest Height(H):	0 ft	Design Ice Thickness:	1.45 in
Crest Length(L):	0 ft	HMSL:	981 ft
Feature:	Flat	Distance from Apex (x):	0
		Upwind/Downwind:	

SEISMIC PARAMETERS			
Analysis Method:	Equivalent Lateral Force Method		
Site Class:	Default	Period Based on Rayleigh Method (sec):	1.06
T _L (sec):	12	P:	1.3
S _{ds} :	0.140	S _{d1} :	0.110
		C _s :	0.035
		C _{s, Max} :	0.035
		C _{s, Min} :	0.030

LOAD CASES	
1.2D + 1.0W Normal	1.2D + 1.0W Normal - 109 mph Wind with No Ice
1.2D + 1.0W 60°	1.2D + 1.0W 60° - 109 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90° - 109 mph Wind with No Ice
1.2D + 1.0W 120°	1.2D + 1.0W 120° - 109 mph Wind with No Ice
1.2D + 1.0W 180°	1.2D + 1.0W 180° - 109 mph Wind with No Ice
1.2D + 1.0W 210°	1.2D + 1.0W 210° - 109 mph Wind with No Ice
1.2D + 1.0W 240°	1.2D + 1.0W 240° - 109 mph Wind with No Ice
1.2D + 1.0W 300°	1.2D + 1.0W 300° - 109 mph Wind with No Ice
1.2D + 1.0W 330°	1.2D + 1.0W 330° - 109 mph Wind with No Ice
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 60°	1.2D + 1.0Di + 1.0Wi 60° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 120°	1.2D + 1.0Di + 1.0Wi 120° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 180°	1.2D + 1.0Di + 1.0Wi 180° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 210°	1.2D + 1.0Di + 1.0Wi 210° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 240°	1.2D + 1.0Di + 1.0Wi 240° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 300°	1.2D + 1.0Di + 1.0Wi 300° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Di + 1.0Wi 330°	1.2D + 1.0Di + 1.0Wi 330° - 45 mph Wind with 1.45" Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh Normal - Seismic
1.2D + 1.0Ev + 1.0Eh 60°	1.2D + 1.0Ev + 1.0Eh 60° - Seismic
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90° - Seismic
1.2D + 1.0Ev + 1.0Eh 120°	1.2D + 1.0Ev + 1.0Eh 120° - Seismic
1.2D + 1.0Ev + 1.0Eh 180°	1.2D + 1.0Ev + 1.0Eh 180° - Seismic
1.2D + 1.0Ev + 1.0Eh 210°	1.2D + 1.0Ev + 1.0Eh 210° - Seismic
1.2D + 1.0Ev + 1.0Eh 240°	1.2D + 1.0Ev + 1.0Eh 240° - Seismic
1.2D + 1.0Ev + 1.0Eh 300°	1.2D + 1.0Ev + 1.0Eh 300° - Seismic

LOAD CASES	
1.2D + 1.0Ev + 1.0Eh 330°	1.2D + 1.0Ev + 1.0Eh 330° - Seismic
1.0D + 1.0W Service Normal	1.0D + 1.0W Service Normal - 60 mph Wind with No Ice
1.0D + 1.0W Service 60°	1.0D + 1.0W Service 60° - 60 mph Wind with No Ice
1.0D + 1.0W Service 90°	1.0D + 1.0W Service 90° - 60 mph Wind with No Ice
1.0D + 1.0W Service 120°	1.0D + 1.0W Service 120° - 60 mph Wind with No Ice
1.0D + 1.0W Service 180°	1.0D + 1.0W Service 180° - 60 mph Wind with No Ice
1.0D + 1.0W Service 210°	1.0D + 1.0W Service 210° - 60 mph Wind with No Ice
1.0D + 1.0W Service 240°	1.0D + 1.0W Service 240° - 60 mph Wind with No Ice
1.0D + 1.0W Service 300°	1.0D + 1.0W Service 300° - 60 mph Wind with No Ice
1.0D + 1.0W Service 330°	1.0D + 1.0W Service 330° - 60 mph Wind with No Ice
1.2D + 1.0Ev + 1.5Eh Normal	1.2D + 1.0Ev + 1.5Eh Normal - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 60°	1.2D + 1.0Ev + 1.5Eh 60° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 90°	1.2D + 1.0Ev + 1.5Eh 90° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 120°	1.2D + 1.0Ev + 1.5Eh 120° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 180°	1.2D + 1.0Ev + 1.5Eh 180° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 210°	1.2D + 1.0Ev + 1.5Eh 210° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 240°	1.2D + 1.0Ev + 1.5Eh 240° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 300°	1.2D + 1.0Ev + 1.5Eh 300° - Seismic Overstrength
1.2D + 1.0Ev + 1.5Eh 330°	1.2D + 1.0Ev + 1.5Eh 330° - Seismic Overstrength

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

TOWER LOADING - DISCRETE APPURTENANCE

Discrete Appurtenance Properties for LC: 1.2D + 1.0W

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
480.3	Decibel DB264	1	36	5.6	21.5	0.0	0.0	1.00	1.00	0.0	0.00	36.03	172	43
475.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	35.92	922	1440
462.2	Generic 17' Omni	1	55	5.1	17.0	3.0	3.0	1.00	1.00	0.0	0.00	35.66	155	66
460.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	35.61	454	600
459.5	Generic 17' Omni	1	55	5.1	17.0	3.0	3.0	1.00	1.00	0.0	0.00	35.60	154	66
457.0	Generic Flat Side Arm	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	35.55	190	225
430.0	Decibel DB408	1	17	2.9	9.4	0.0	0.0	1.00	1.00	1.0	86.27	35.00	86	20
427.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	34.91	278	450
420.5	Generic Flat Stand-Off	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	34.77	186	225
418.0	Generic Radio/ODU	1	30	1.6	1.3	12.0	8.0	1.00	1.00	0.0	0.00	34.72	47	36
417.4	Generic 6' HP Dish	1	281	35.7	6.0	72.0	0.0	0.90	1.00	0.0	0.00	34.70	947	337
417.0	Cambium Networks PMP 430 Acces	4	14	1.0	1.1	8.3	4.2	1.00	0.50	0.0	0.00	34.69	56	65
417.0	Aviat Networks WTM 4800 (15.4l	1	15	1.0	1.0	10.5	5.0	0.80	1.00	0.0	0.00	34.69	24	18
417.0	Aviat Networks WTM 4200 ANSI	1	14	1.0	1.0	10.5	4.0	1.00	0.50	0.0	0.00	34.69	15	17
417.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	34.69	153	225
417.0	Generic 30" x 23" BOB	1	100	5.8	2.5	23.0	8.0	1.00	1.00	0.0	0.00	34.69	170	120
417.0	RFS SC3-W100BGT1X	2	40	10.6	3.3	39.3	15.0	1.00	1.00	0.0	0.00	34.69	627	96
408.9	Motorola 5780AP	4	14	2.7	2.4	8.3	11.0	1.00	0.67	0.0	0.00	34.51	208	65
408.6	Cambium Networks PMP 430 Acces	4	14	1.0	1.1	8.3	4.2	1.00	0.50	0.0	0.00	34.51	56	65
403.8	Generic 13' Omni	2	40	3.9	13.0	3.0	3.0	1.00	1.00	0.0	0.00	34.40	228	96
397.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	34.24	272	450
387.0	Generic 8' Omni	1	25	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.00	34.01	69	30
383.0	Generic Flat Side Arm	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	33.92	182	225
380.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	33.84	432	600
355.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	33.24	147	225
330.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	32.59	288	450
320.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	32.33	143	225
300.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	31.78	405	600
220.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	29.25	373	600
189.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	28.09	124	225
182.0	RFS APXVSP18-C-A20 (62 lbs)	3	62	8.0	6.0	11.8	7.9	0.80	0.71	0.0	0.00	27.81	323	223
181.9	Ericsson RRUS-11 800 MHz	3	54	2.5	1.4	17.8	9.2	0.80	0.67	0.0	0.00	27.81	96	194
181.6	Ericsson RRUS82 w/ Solarshield	3	62	3.0	2.0	15.0	7.0	0.80	0.67	0.0	0.00	27.80	113	224
181.4	Commscope TTTT90AP-1XR	3	33	7.0	5.3	12.0	5.0	0.80	0.65	0.0	0.00	27.79	257	119
181.3	Ericsson RRUS 31	3	56	1.6	1.4	11.8	9.3	0.80	0.50	0.0	0.00	27.78	46	202
180.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	27.73	573	1080
171.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	27.35	702	1440
140.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	25.93	331	600
130.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	25.42	653	1440
86.0	Generic Flat Side Arm	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	22.77	122	225
66.0	PCTEL MYA4503	1	2	0.3	1.9	1.0	1.0	1.00	1.00	0.0	0.00	21.22	5	2
Totals		73	11,378	536.6									10,785	13,654

Discrete Appurtenance Properties for LC: 1.2D + 1.0Di + 1.0Wi

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
480.3	Decibel DB264	1	224	24.3	21.5	0.0	0.0	1.00	1.00	0.0	0.00	6.14	127	232
475.0	Generic Flat Light Sector Fram	3	727	34.3	0.0	0.0	0.0	0.75	0.75	0.0	0.00	6.12	301	2420
462.2	Generic 17' Omni	1	194	11.7	17.0	3.0	3.0	1.00	1.00	0.0	0.00	6.08	60	205
460.0	Generic Torque Arm	1	877	26.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.07	136	977
459.5	Generic 17' Omni	1	193	11.6	17.0	3.0	3.0	1.00	1.00	0.0	0.00	6.07	60	204
457.0	Generic Flat Side Arm	1	332	9.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.06	50	369
430.0	Decibel DB408	1	150	12.8	9.4	0.0	0.0	1.00	1.00	1.0	65.04	5.97	65	154
427.0	Generic Round Side Arm	2	286	8.1	0.0	0.0	0.0	1.00	0.90	0.0	0.00	5.95	74	647
420.5	Generic Flat Stand-Off	1	331	9.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.93	49	368
418.0	Generic Radio/ODU	1	85	2.5	1.3	12.0	8.0	1.00	1.00	0.0	0.00	5.92	13	91
417.4	Generic 6' HP Dish	1	1040	39.4	6.0	72.0	0.0	0.90	1.00	0.0	0.00	5.91	178	1096
417.0	Cambium Networks PMP 430 Acces	4	42	1.7	1.1	8.3	4.2	1.00	0.50	0.0	0.00	5.91	17	178
417.0	Aviat Networks WTM 4800 (15.4l	1	47	1.7	1.0	10.5	5.0	0.80	1.00	0.0	0.00	5.91	7	50
417.0	Aviat Networks WTM 4200 ANSI	1	43	1.7	1.0	10.5	4.0	1.00	0.50	0.0	0.00	5.91	4	45
417.0	Generic Round Side Arm	1	285	8.1	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.91	41	323
417.0	Generic 30" x 23" BOB	1	242	7.4	2.5	23.0	8.0	1.00	1.00	0.0	0.00	5.91	37	262
417.0	RFS SC3-W100BGT1X	2	260	12.7	3.3	39.3	15.0	1.00	1.00	0.0	0.00	5.91	127	537
408.9	Motorola 5780AP	4	98	3.9	2.4	8.3	11.0	1.00	0.67	0.0	0.00	5.88	53	402
408.6	Cambium Networks PMP 430 Acces	4	42	1.7	1.1	8.3	4.2	1.00	0.50	0.0	0.00	5.88	17	178
403.8	Generic 13' Omni	2	145	8.9	13.0	3.0	3.0	1.00	1.00	0.0	0.00	5.86	88	306
397.0	Generic Round Side Arm	2	285	8.1	0.0	0.0	0.0	1.00	0.90	0.0	0.00	5.84	72	645
387.0	Generic 8' Omni	1	90	5.3	8.0	3.0	3.0	1.00	1.00	0.0	0.00	5.80	26	95
383.0	Generic Flat Side Arm	1	330	9.6	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.78	47	367
380.0	Generic Torque Arm	1	869	26.1	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.77	128	969
355.0	Generic Round Side Arm	1	284	8.1	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.66	39	321
330.0	Generic Round Side Arm	2	283	8.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.56	76	642
320.0	Generic Round Side Arm	1	283	8.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.51	38	320
300.0	Generic Torque Arm	1	860	25.8	0.0	0.0	0.0	1.00	1.00	0.0	0.00	5.42	119	960

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
220.0	Generic Torque Arm	1	849	25.5	0.0	0.0	0.0	1.00	1.00	0.0	0.00	4.99	108	949
189.0	Generic Round Side Arm	1	278	7.9	0.0	0.0	0.0	1.00	1.00	0.0	0.00	4.79	32	316
182.0	RFS APXVSP18-C-A20 (62 lbs)	3	242	10.8	6.0	11.8	7.9	0.80	0.71	0.0	0.00	4.74	74	762
181.9	Ericsson RRUS-11 800 MHz	3	129	3.6	1.4	17.8	9.2	0.80	0.67	0.0	0.00	4.74	23	419
181.6	Ericsson RRUS82 w/ Solarshield	3	138	4.1	2.0	15.0	7.0	0.80	0.67	0.0	0.00	4.74	27	450
181.4	Commscope TTTT90AP-1XR	3	169	9.4	5.3	12.0	5.0	0.80	0.65	0.0	0.00	4.74	59	527
181.3	Ericsson RRUS 31	3	112	2.5	1.4	11.8	9.3	0.80	0.50	0.0	0.00	4.74	12	369
180.0	Generic Round Sector Frame	3	661	30.6	0.0	0.0	0.0	0.75	0.75	0.0	0.00	4.73	208	2162
171.0	Generic Flat Light Sector Fram	3	695	32.7	0.0	0.0	0.0	0.75	0.75	0.0	0.00	4.66	219	2326
140.0	Generic Torque Arm	1	833	25.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	4.42	94	933
130.0	Generic Flat Light Sector Fram	3	687	32.3	0.0	0.0	0.0	0.75	0.75	0.0	0.00	4.33	201	2302
86.0	Generic Flat Side Arm	1	310	9.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	3.88	30	348
66.0	PCTEL MYA4503	1	12	1.3	1.9	1.0	1.0	1.00	1.00	0.0	0.00	3.62	4	13
Totals		73	22,963	920.1									3138	25,239

Discrete Appurtenance Properties for LC: 1.0D + 1.0W Service

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc. (ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
480.3	Decibel DB264	1	36	5.6	21.5	0.0	0.0	1.00	1.00	0.0	0.00	10.92	52	36
475.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	10.88	279	1200
462.2	Generic 17' Omni	1	55	5.1	17.0	3.0	3.0	1.00	1.00	0.0	0.00	10.80	47	55
460.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.79	138	500
459.5	Generic 17' Omni	1	55	5.1	17.0	3.0	3.0	1.00	1.00	0.0	0.00	10.79	47	55
457.0	Generic Flat Side Arm	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.77	58	188
430.0	Decibel DB408	1	17	2.9	9.4	0.0	0.0	1.00	1.00	1.0	26.14	10.61	26	17
427.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	10.58	84	375
420.5	Generic Flat Stand-Off	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.54	56	188
418.0	Generic Radio/ODU	1	30	1.6	1.3	12.0	8.0	1.00	1.00	0.0	0.00	10.52	14	30
417.4	Generic 6' HP Dish	1	281	35.7	6.0	72.0	0.0	0.90	1.00	0.0	0.00	10.51	287	281
417.0	Cambium Networks PMP 430 Acces	4	14	1.0	1.1	8.3	4.2	1.00	0.50	0.0	0.00	10.51	17	54
417.0	Aviat Networks WTM 4800 (15.4l)	1	15	1.0	1.0	10.5	5.0	0.80	1.00	0.0	0.00	10.51	7	15
417.0	Aviat Networks WTM 4200 ANSI	1	14	1.0	1.0	10.5	4.0	1.00	0.50	0.0	0.00	10.51	4	14
417.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.51	46	188
417.0	Generic 30" x 23" BOB	1	100	5.8	2.5	23.0	8.0	1.00	1.00	0.0	0.00	10.51	51	100
417.0	RFS SC3-W100BGT1X	2	40	10.6	3.3	39.3	15.0	1.00	1.00	0.0	0.00	10.51	190	80
408.9	Motorola 5780AP	4	14	2.7	2.4	8.3	11.0	1.00	0.67	0.0	0.00	10.46	63	54
408.6	Cambium Networks PMP 430 Acces	4	14	1.0	1.1	8.3	4.2	1.00	0.50	0.0	0.00	10.46	17	54
403.8	Generic 13' Omni	2	40	3.9	13.0	3.0	3.0	1.00	1.00	0.0	0.00	10.42	69	80
397.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	0.90	0.0	0.00	10.38	83	375
387.0	Generic 8' Omni	1	25	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.00	10.30	21	25
383.0	Generic Flat Side Arm	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.28	55	188
380.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.25	131	500
355.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.07	45	188
330.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	9.88	87	375
320.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	9.80	43	188
300.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	9.63	123	500
220.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	8.86	113	500
189.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	8.51	38	188
182.0	RFS APXVSP18-C-A20 (62 lbs)	3	62	8.0	6.0	11.8	7.9	0.80	0.71	0.0	0.00	8.43	98	186
181.9	Ericsson RRUS-11 800 MHz	3	54	2.5	1.4	17.8	9.2	0.80	0.67	0.0	0.00	8.43	29	162
181.6	Ericsson RRUS82 w/ Solarshield	3	62	3.0	2.0	15.0	7.0	0.80	0.67	0.0	0.00	8.42	34	186
181.4	Commscope TTTT90AP-1XR	3	33	7.0	5.3	12.0	5.0	0.80	0.65	0.0	0.00	8.42	78	99
181.3	Ericsson RRUS 31	3	56	1.6	1.4	11.8	9.3	0.80	0.50	0.0	0.00	8.42	14	168
180.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	8.40	174	900
171.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	8.29	213	1200
140.0	Generic Torque Arm	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.86	100	500
130.0	Generic Flat Light Sector Fram	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.00	7.70	198	1200
86.0	Generic Flat Side Arm	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.90	37	188
66.0	PCTEL MYA4503	1	2	0.3	1.9	1.0	1.0	1.00	1.00	0.0	0.00	6.43	2	2
Totals		73	11,378	536.6									3,268	11,378

TOWER LOADING - LINEAR APPURTENANCE

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In Wind	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient. Factor	K _a Override
0.0	480.0	1 1/4" Coax	1	1.55	0.63	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	462.0	1 5/8" Coax	1	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	460.0	1 5/8" Coax	1	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	430.0	3" Coax	1	3.02	1.78	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	429.0	3" Coax	1	3.02	1.78	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	417.0	2" conduit	1	2.38	3.65	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	417.0	0.27" (6.7mm) Cat 5e	4	0.27	0.03	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	417.0	0.22" (5.7mm) Fiber	1	0.22	0.02	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	417.0	0.32" (8.1mm) Cable	1	0.32	0.06	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	417.0	3/8" (0.38"- 9.5mm) RET Contro	1	0.38	0.23	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	387.0	1 5/8" Coax	1	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	182.0	1 1/4" Hybriflex Cable	3	1.54	1.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	66.0	1/2" Coax	1	0.63	0.15	100	3	Individual	0.00	N	1.00	1.00	0.00

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0W Normal

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	1.00	1.00	0.0	9.03	23.50	0.00	2612	0	431	500	930
4	50	19.71	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	1.00	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	1.00	1.00	0.0	3.07	6.62	0.00	894	0	98	177	275
Totals														54,503	0			24,185

1.2D + 1.0W 60°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	0.80	1.00	0.0	8.85	23.05	0.00	2612	0	422	500	922
4	50	19.71	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	0.80	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	0.80	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0			24,140

1.2D + 1.0W 90°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0W 90°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
12	210	28.89	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	0.85	1.00	0.0	8.90	23.16	0.00	2612	0	424	500	924
4	50	19.71	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	0.85	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	0.85	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0			24,142

1.2D + 1.0W 120°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	1.00	1.00	0.0	9.03	23.50	0.00	2612	0	431	500	930
4	50	19.71	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	1.00	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	1.00	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0			24,148

1.2D + 1.0W 180°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _t	D _t	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	0.80	1.00	0.0	8.85	23.05	0.00	2612	0	422	500	922
4	50	19.71	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	0.80	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	0.80	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0	24,140		

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0W 210°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	0.85	1.00	0.0	8.90	23.16	0.00	2612	0	424	500	924
4	50	19.71	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	0.85	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	0.85	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0			24,142

1.2D + 1.0W 240°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	1.00	1.00	0.0	9.03	23.50	0.00	2612	0	431	500	930
4	50	19.71	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	1.00	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	1.00	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0			24,148

1.2D + 1.0W 300°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0W 300°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
13	230	29.60	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	0.80	1.00	0.0	8.85	23.05	0.00	2612	0	422	500	922
4	50	19.71	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	0.80	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	0.80	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0			24,140

1.2D + 1.0W 330°

Gust Response Factor (Gh): 0.85

109 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	35.82	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1600	0	578	64	642
24	450	35.40	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1637	0	571	199	770
23	430	34.98	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1678	0	564	299	863
22	410	34.54	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1806	0	557	538	1095
21	390	34.08	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1828	0	550	578	1128
20	370	33.60	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	573	614	1187
19	350	33.11	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	565	605	1169
18	330	32.59	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	556	595	1151
17	310	32.06	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	2069	0	547	586	1132
16	290	31.49	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	555	575	1131
15	270	30.90	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	545	564	1109
14	250	30.27	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	534	553	1087
13	230	29.60	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	2240	0	522	541	1063
12	210	28.89	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2598	0	544	528	1072
11	190	28.13	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2605	0	530	527	1057
10	170	27.31	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2670	0	514	628	1142
9	150	26.41	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2670	0	497	607	1104
8	130	25.42	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	471	584	1055
7	110	24.32	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	450	559	1009
6	90	23.05	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2588	0	427	530	957
5	70	21.56	0.875	13.951	0.00	0.198	2.60	0.85	1.00	0.0	8.90	23.16	0.00	2612	0	424	500	924
4	50	19.71	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2592	0	365	466	831
3	30	17.47	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2592	0	324	413	736
2	13	17.47	0.000	9.470	0.00	0.191	2.63	0.85	1.00	0.0	5.53	14.53	0.00	1723	0	216	273	488
1	3	17.47	0.000	4.829	0.00	0.356	2.16	0.85	1.00	0.0	3.07	6.63	0.00	894	0	98	140	239
Totals														54,503	0			24,142

1.2D + 1.0Di + 1.0Wi Normal

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	1.00	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	1.00	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	1.00	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	1.00	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	1.00	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	1.00	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	1.00	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	1.00	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	1.00	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	1.00	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	1.00	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	1.00	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	1.00	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	1.00	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	1.00	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	1.00	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	1.00	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	1.00	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	1.00	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	1.00	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	1.00	1.00	1.6	26.93	51.64	24.22	5768	3156	161	246	407
4	50	3.36	0.000	37.611	23.42	0.470	1.94	1.00	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	1.00	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	1.00	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	1.00	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0Di + 1.0Wi Normal

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
Totals														131,352	76,850			11,438

1.2D + 1.0Di + 1.0Wi 60°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	0.80	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	0.80	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	0.80	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	0.80	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	0.80	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	0.80	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	0.80	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	0.80	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	0.80	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	0.80	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	0.80	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	0.80	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	0.80	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	0.80	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	0.80	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	0.80	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	0.80	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	0.80	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	0.80	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	0.80	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	0.80	1.00	1.6	26.75	51.30	24.22	5768	3156	160	246	406
4	50	3.36	0.000	37.611	23.42	0.470	1.94	0.80	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	0.80	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	0.80	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	0.80	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals														131,352	76,850			11,437

1.2D + 1.0Di + 1.0Wi 90°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	0.85	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	0.85	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	0.85	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	0.85	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	0.85	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	0.85	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	0.85	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	0.85	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	0.85	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	0.85	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	0.85	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	0.85	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	0.85	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	0.85	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	0.85	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	0.85	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	0.85	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	0.85	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	0.85	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	0.85	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	0.85	1.00	1.6	26.80	51.39	24.22	5768	3156	160	246	407
4	50	3.36	0.000	37.611	23.42	0.470	1.94	0.85	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	0.85	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	0.85	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	0.85	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals														131,352	76,850			11,437

1.2D + 1.0Di + 1.0Wi 120°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	1.00	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	1.00	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	1.00	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	1.00	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	1.00	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	1.00	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 120°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
19	350	5.64	0.000	41.304	28.45	0.515	1.88	1.00	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	1.00	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	1.00	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	1.00	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	1.00	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	1.00	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	1.00	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	1.00	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	1.00	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	1.00	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	1.00	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	1.00	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	1.00	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	1.00	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	1.00	1.00	1.6	26.93	51.64	24.22	5768	3156	161	246	407
4	50	3.36	0.000	37.611	23.42	0.470	1.94	1.00	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	1.00	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	1.00	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	1.00	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals														131,352	76,850			11,438

1.2D + 1.0Di + 1.0Wi 180°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	0.80	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	0.80	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	0.80	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	0.80	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	0.80	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	0.80	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	0.80	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	0.80	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	0.80	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	0.80	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	0.80	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	0.80	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	0.80	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	0.80	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	0.80	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	0.80	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	0.80	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	0.80	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	0.80	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	0.80	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	0.80	1.00	1.6	26.75	51.30	24.22	5768	3156	160	246	406
4	50	3.36	0.000	37.611	23.42	0.470	1.94	0.80	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	0.80	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	0.80	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	0.80	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals														131,352	76,850			11,437

1.2D + 1.0Di + 1.0Wi 210°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	0.85	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	0.85	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	0.85	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	0.85	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	0.85	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	0.85	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	0.85	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	0.85	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	0.85	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	0.85	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	0.85	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	0.85	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	0.85	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	0.85	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	0.85	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	0.85	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	0.85	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	0.85	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	0.85	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 210°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	90	3.93	0.000	39.029	24.84	0.486	1.92	0.85	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	0.85	1.00	1.6	26.80	51.39	24.22	5768	3156	160	246	407
4	50	3.36	0.000	37.611	23.42	0.470	1.94	0.85	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	0.85	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	0.85	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	0.85	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals															131,352	76,850		11,437

1.2D + 1.0Di + 1.0Wi 240°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	1.00	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	1.00	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	1.00	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	1.00	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	1.00	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	1.00	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	1.00	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	1.00	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	1.00	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	1.00	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	1.00	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	1.00	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	1.00	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	1.00	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	1.00	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	1.00	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	1.00	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	1.00	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	1.00	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	1.00	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	1.00	1.00	1.6	26.93	51.64	24.22	5768	3156	161	246	407
4	50	3.36	0.000	37.611	23.42	0.470	1.94	1.00	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	1.00	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	1.00	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	1.00	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals															131,352	76,850		11,438

1.2D + 1.0Di + 1.0Wi 300°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	0.80	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	0.80	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	0.80	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	0.80	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	0.80	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	0.80	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	0.80	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	0.80	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	0.80	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	0.80	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	0.80	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	0.80	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	0.80	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	0.80	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	0.80	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	0.80	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	0.80	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	0.80	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	0.80	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	0.80	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	0.80	1.00	1.6	26.75	51.30	24.22	5768	3156	160	246	406
4	50	3.36	0.000	37.611	23.42	0.470	1.94	0.80	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	0.80	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	0.80	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	0.80	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals															131,352	76,850		11,437

1.2D + 1.0Di + 1.0Wi 330°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)
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ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 330°

Gust Response Factor (Gh): 0.85

45 mph Wind with 1.45" Radial Ice

Wind Importance Factor (Iw): 1.00

Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _t	D _t	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	6.10	0.000	41.346	29.31	0.517	1.88	0.85	1.00	1.9	28.85	54.21	29.31	3441	1841	281	30	311
24	450	6.03	0.000	41.218	29.18	0.515	1.88	0.85	1.00	1.9	28.72	54.03	29.18	3803	2166	277	84	361
23	430	5.96	0.000	41.086	29.05	0.514	1.88	0.85	1.00	1.9	28.60	53.85	29.05	4041	2364	273	114	387
22	410	5.89	0.000	40.948	28.91	0.512	1.88	0.85	1.00	1.9	28.47	53.65	28.91	5134	3328	268	289	558
21	390	5.81	0.000	40.804	28.76	0.511	1.89	0.85	1.00	1.9	28.33	53.45	28.76	5321	3494	264	320	584
20	370	5.73	0.000	41.462	28.61	0.516	1.88	0.85	1.00	1.8	28.94	54.39	28.61	5679	3611	265	328	593
19	350	5.64	0.000	41.304	28.45	0.515	1.88	0.85	1.00	1.8	28.79	54.17	28.45	5648	3579	260	323	583
18	330	5.56	0.000	41.137	28.29	0.513	1.88	0.85	1.00	1.8	28.63	53.94	28.29	5615	3546	255	318	572
17	310	5.46	0.000	40.961	28.11	0.511	1.89	0.85	1.00	1.8	28.46	53.69	28.11	5580	3511	249	312	562
16	290	5.37	0.000	41.301	27.92	0.513	1.88	0.85	1.00	1.8	28.75	54.16	27.92	5724	3484	247	304	551
15	270	5.27	0.000	41.102	27.73	0.510	1.89	0.85	1.00	1.8	28.56	53.88	27.73	5686	3446	241	298	539
14	250	5.16	0.000	40.890	27.51	0.508	1.89	0.85	1.00	1.8	28.36	53.59	27.51	5644	3404	235	292	527
13	230	5.05	0.000	40.661	27.28	0.506	1.89	0.85	1.00	1.8	28.14	53.27	27.28	5600	3360	228	285	514
12	210	4.92	0.000	41.506	27.04	0.514	1.88	0.85	1.00	1.7	28.94	54.49	27.04	5965	3368	228	272	500
11	190	4.79	0.000	41.237	26.77	0.511	1.89	0.85	1.00	1.7	28.69	54.11	26.77	5962	3357	221	270	491
10	170	4.65	0.000	40.941	26.47	0.508	1.89	0.85	1.00	1.7	28.41	53.70	26.47	6336	3666	212	314	527
9	150	4.50	0.000	40.612	26.14	0.504	1.90	0.85	1.00	1.7	28.10	53.25	26.14	6266	3596	204	303	507
8	130	4.33	0.000	39.959	25.77	0.496	1.90	0.85	1.00	1.7	27.47	52.34	25.77	6084	3496	193	293	486
7	110	4.14	0.000	39.532	25.34	0.492	1.91	0.85	1.00	1.6	27.08	51.76	25.34	5996	3407	182	280	462
6	90	3.93	0.000	39.029	24.84	0.486	1.92	0.85	1.00	1.6	26.62	51.09	24.84	5892	3304	171	264	435
5	70	3.67	0.875	38.175	24.22	0.487	1.92	0.85	1.00	1.6	26.80	51.39	24.22	5768	3156	160	246	407
4	50	3.36	0.000	37.611	23.42	0.470	1.94	0.85	1.00	1.5	25.35	49.23	23.42	5692	3100	141	235	375
3	30	2.98	0.000	36.444	22.26	0.457	1.96	0.85	1.00	1.4	24.33	47.74	22.26	5461	2869	121	206	327
2	13	2.98	0.000	23.346	13.88	0.445	1.98	0.85	1.00	1.3	15.46	30.63	13.88	3418	1695	78	131	209
1	3	2.98	0.000	10.867	6.04	0.730	1.78	0.85	1.00	1.2	9.17	16.33	6.04	1596	702	41	30	71
Totals															131,352	76,850		11,437

1.0D + 1.0W Service Normal

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _t	D _t	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	1.00	1.00	0.0	9.03	23.50	0.00	2177	0	130	151	282
4	50	5.97	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	1.00	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	1.00	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals															45,419	0		7,317

1.0D + 1.0W Service 60°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _t	D _t	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322

CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I

PROJECT: OAA798020 C3 01

SECTION FORCES

1.0D + 1.0W Service 60°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (I_w): 1.00

Section #	Elev (ft)	Q _z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _i	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
12	210	8.75	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	0.80	1.00	0.0	8.85	23.05	0.00	2177	0	128	151	279
4	50	5.97	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	0.80	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	0.80	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals														45,419	0			7,314

1.0D + 1.0W Service 90°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (I_w): 1.00

Section #	Elev (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _i	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	0.85	1.00	0.0	8.90	23.16	0.00	2177	0	129	151	280
4	50	5.97	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	0.85	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	0.85	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals														45,419	0	7,315		

1.0D + 1.0W Service 120°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (I_w): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _i	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	1.00	1.00	0.0	9.03	23.50	0.00	2177	0	130	151	282
4	50	5.97	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	1.00	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	1.00	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals														45,419	0	7,317		

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

SECTION FORCES

1.0D + 1.0W Service 180°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	0.80	1.00	0.0	8.85	23.05	0.00	2177	0	128	151	279
4	50	5.97	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	0.80	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	0.80	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals														45,419	0			7,314

1.0D + 1.0W Service 210°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	0.85	1.00	0.0	8.90	23.16	0.00	2177	0	129	151	280
4	50	5.97	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	0.85	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	0.85	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals														45,419	0			7,315

1.0D + 1.0W Service 240°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	1.00	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	1.00	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

SECTION FORCES

1.0D + 1.0W Service 240°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
13	230	8.97	0.000	13.377	0.00	0.179	2.67	1.00	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	1.00	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	1.00	1.00	0.0	9.03	23.50	0.00	2177	0	130	151	282
4	50	5.97	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	1.00	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	1.00	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	1.00	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals														45,419	0			7,317

1.0D + 1.0W Service 300°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _r	D _r	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	0.80	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	0.80	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	0.80	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	0.80	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	0.80	1.00	0.0	8.85	23.05	0.00	2177	0	128	151	279
4	50	5.97	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	0.80	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	0.80	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	0.80	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72
Totals														45,419	0			7,314

1.0D + 1.0W Service 330°

Gust Response Factor (Gh): 0.85

60 mph Wind with No Ice

Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _i	D _i	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
25	470	10.85	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1333	0	175	19	195
24	450	10.73	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1364	0	173	60	233
23	430	10.60	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1398	0	171	91	262
22	410	10.46	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1505	0	169	163	332
21	390	10.33	0.000	12.040	0.00	0.163	2.72	0.85	1.00	0.0	6.97	18.99	0.00	1523	0	167	175	342
20	370	10.18	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	174	186	360
19	350	10.03	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	171	183	354
18	330	9.88	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	168	180	349
17	310	9.71	0.000	12.850	0.00	0.173	2.69	0.85	1.00	0.0	7.46	20.06	0.00	1724	0	166	177	343
16	290	9.54	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	168	174	343
15	270	9.36	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	165	171	336
14	250	9.17	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	162	168	329
13	230	8.97	0.000	13.377	0.00	0.179	2.67	0.85	1.00	0.0	7.78	20.75	0.00	1867	0	158	164	322
12	210	8.75	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2165	0	165	160	325
11	190	8.52	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2171	0	161	160	320
10	170	8.28	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2225	0	156	190	346
9	150	8.00	0.000	14.469	0.00	0.193	2.62	0.85	1.00	0.0	8.46	22.16	0.00	2225	0	151	184	335
8	130	7.70	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	143	177	320
7	110	7.37	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	136	169	306
6	90	6.98	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2157	0	129	161	290
5	70	6.53	0.875	13.951	0.00	0.198	2.60	0.85	1.00	0.0	8.90	23.16	0.00	2177	0	129	151	280
4	50	5.97	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2160	0	111	141	252
3	30	5.29	0.000	14.188	0.00	0.189	2.63	0.85	1.00	0.0	8.28	21.79	0.00	2160	0	98	125	223
2	13	5.29	0.000	9.470	0.00	0.191	2.63	0.85	1.00	0.0	5.53	14.53	0.00	1436	0	65	83	148
1	3	5.29	0.000	4.829	0.00	0.356	2.16	0.85	1.00	0.0	3.07	6.63	0.00	745	0	30	42	72

SECTION FORCES																		
1.0D + 1.0W Service 330°						Gust Response Factor (Gh):		0.85										
60 mph Wind with No Ice						Wind Importance Factor (Iw):		1.00										
Section #	Elev (ft)	Q _Z (psf)	A _r (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt (lb)	Ice Wt (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
Totals													45,419	0	7,315			

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

EQUIVALENT LATERAL FORCE METHOD

Long-Period Transition Period (T_L - Seconds):	12
Importance Factor (I_e):	1.00
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.14
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.11
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s :	0.04
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	1.06
Redundancy Factor (ρ):	1.30
Seismic Force Distribution Exponent (k):	1.28
Total Unfactored Dead Load:	56.80 k
Seismic Base Shear (E):	2.55 k

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
25	470.00	1,333	3,521,927	0.054	137	1,637
24	450.00	1,364	3,409,018	0.052	133	1,675
23	430.00	1,398	3,295,939	0.050	129	1,717
22	410.00	1,505	3,337,647	0.051	130	1,848
21	390.00	1,523	3,167,997	0.048	124	1,870
20	370.00	1,724	3,352,407	0.051	131	2,117
19	350.00	1,724	3,122,132	0.048	122	2,117
18	330.00	1,724	2,895,521	0.044	113	2,117
17	310.00	1,724	2,672,734	0.041	104	2,117
16	290.00	1,867	2,656,974	0.041	104	2,292
15	270.00	1,867	2,424,627	0.037	95	2,292
14	250.00	1,867	2,197,063	0.034	86	2,292
13	230.00	1,867	1,974,556	0.030	77	2,292
12	210.00	2,165	2,038,164	0.031	79	2,658
11	190.00	2,171	1,797,957	0.028	70	2,666
10	170.00	2,225	1,598,055	0.024	62	2,732
9	150.00	2,225	1,361,387	0.021	53	2,732
8	130.00	2,157	1,098,866	0.017	43	2,649
7	110.00	2,157	887,230	0.014	35	2,649
6	90.00	2,157	686,171	0.010	27	2,649
5	70.00	2,177	501,876	0.008	20	2,673
4	50.00	2,160	323,694	0.005	13	2,652
3	30.00	2,160	168,281	0.003	7	2,652
2	13.40	1,436	39,835	0.001	2	1,763
1	3.40	745	3,563	0.000	0	915
Decibel DB264	480.00	36	97,699	0.002	4	44
Generic Flat Light Sector Frame	475.00	1,200	3,213,258	0.049	125	1,474
Generic 17' Omni	462.20	55	142,211	0.002	6	68
Generic Torque Arm	460.00	500	1,284,956	0.020	50	614
Generic 17' Omni	459.50	55	141,148	0.002	6	68
Generic Flat Side Arm	457.00	188	477,838	0.007	19	230
Decibel DB408	430.00	17	40,074	0.001	2	21
Generic Round Side Arm	427.00	375	876,088	0.013	34	460
Generic Flat Stand-Off	420.50	188	429,523	0.007	17	230
Generic Radio/ODU	418.00	30	68,201	0.001	3	37
Generic 6' HP Dish	417.40	281	637,641	0.010	25	345
Cambium Networks PMP 430 Access Point	417.00	54	122,386	0.002	5	66
Aviat Networks WTM 4800 (15.4lbs)	417.00	15	34,903	0.000	1	19
Aviat Networks WTM 4200 ANSI	417.00	14	31,730	0.000	1	17
Generic Round Side Arm	417.00	188	424,950	0.006	17	230
Generic 30" x 23" BOB	417.00	100	226,640	0.004	9	123
RFS SC3-W100BGT1X	417.00	80	181,312	0.003	7	98
Motorola 5780AP	408.90	54	119,350	0.002	5	66
Cambium Networks PMP 430 Access Point	408.60	54	119,238	0.002	5	66
Generic 13' Omni	403.80	80	173,995	0.003	7	98
Generic Round Side Arm	397.00	375	798,056	0.012	31	460
Generic 8' Omni	387.00	25	51,494	0.001	2	31
Generic Flat Side Arm	383.00	188	381,098	0.006	15	230
Generic Torque Arm	380.00	500	1,006,078	0.015	39	614

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

Generic Round Side Arm	355.00	188	345,792	0.005	13	230
Generic Round Side Arm	330.00	375	629,842	0.010	25	460
Generic Round Side Arm	320.00	188	302,752	0.005	12	230
Generic Torque Arm	300.00	500	743,298	0.011	29	614
Generic Torque Arm	220.00	500	499,653	0.008	19	614
Generic Round Side Arm	189.00	188	154,252	0.002	6	230
RFS APXVSP18-C-A20 (62 lbs)	182.00	186	145,798	0.002	6	228
Ericsson RRUS-11 800 MHz	181.90	162	126,896	0.002	5	199
Ericsson RRUS82 w/ Solarshield	181.60	186	145,623	0.002	6	229
Commscope TTTT90AP-1XR	181.40	99	77,275	0.001	3	122
Ericsson RRUS 31	181.30	168	131,274	0.002	5	207
Generic Round Sector Frame	180.00	900	695,563	0.011	27	1,105
Generic Flat Light Sector Frame	171.00	1,200	868,457	0.013	34	1,474
Generic Torque Arm	140.00	500	280,088	0.004	11	614
Generic Flat Light Sector Frame	130.00	1,200	611,350	0.009	24	1,474
Generic Flat Side Arm	86.00	188	56,275	0.001	2	230
PCTEL MYA4503	66.00	2	321	0.000	0	2
Totals		56,797	65,427,995	1.000	2,551	69,747

1.2D + 1.0Ev + 1.5Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W _Z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
25	470.00	1,333	3,521,927	0.054	206	1,637
24	450.00	1,364	3,409,018	0.052	199	1,675
23	430.00	1,398	3,295,939	0.050	193	1,717
22	410.00	1,505	3,337,647	0.051	195	1,848
21	390.00	1,523	3,167,997	0.048	185	1,870
20	370.00	1,724	3,352,407	0.051	196	2,117
19	350.00	1,724	3,122,132	0.048	183	2,117
18	330.00	1,724	2,895,521	0.044	169	2,117
17	310.00	1,724	2,672,734	0.041	156	2,117
16	290.00	1,867	2,656,974	0.041	155	2,292
15	270.00	1,867	2,424,627	0.037	142	2,292
14	250.00	1,867	2,197,063	0.034	129	2,292
13	230.00	1,867	1,974,556	0.030	115	2,292
12	210.00	2,165	2,038,164	0.031	119	2,658
11	190.00	2,171	1,797,957	0.028	105	2,666
10	170.00	2,225	1,598,055	0.024	93	2,732
9	150.00	2,225	1,361,387	0.021	80	2,732
8	130.00	2,157	1,098,866	0.017	64	2,649
7	110.00	2,157	887,230	0.014	52	2,649
6	90.00	2,157	686,171	0.010	40	2,649
5	70.00	2,177	501,876	0.008	29	2,673
4	50.00	2,160	323,694	0.005	19	2,652
3	30.00	2,160	168,281	0.003	10	2,652
2	13.40	1,436	39,835	0.001	2	1,763
1	3.40	745	3,563	0.000	0	915
Decibel DB264	480.00	36	97,699	0.002	6	44
Generic Flat Light Sector Frame	475.00	1,200	3,213,258	0.049	188	1,474
Generic 17' Omni	462.20	55	142,211	0.002	8	68
Generic Torque Arm	460.00	500	1,284,956	0.020	75	614
Generic 17' Omni	459.50	55	141,148	0.002	8	68
Generic Flat Side Arm	457.00	188	477,838	0.007	28	230
Decibel DB408	430.00	17	40,074	0.001	2	21
Generic Round Side Arm	427.00	375	876,088	0.013	51	460
Generic Flat Stand-Off	420.50	188	429,523	0.007	25	230
Generic Radio/ODU	418.00	30	68,201	0.001	4	37
Generic 6' HP Dish	417.40	281	637,641	0.010	37	345
Cambium Networks PMP 430 Access Point	417.00	54	122,386	0.002	7	66
Aviat Networks WTM 4800 (15.4lbs)	417.00	15	34,903	0.000	2	19
Aviat Networks WTM 4200 ANSI	417.00	14	31,730	0.000	2	17
Generic Round Side Arm	417.00	188	424,950	0.006	25	230
Generic 30" x 23" BOB	417.00	100	226,640	0.004	13	123
RFS SC3-W100BGT1X	417.00	80	181,312	0.003	11	98
Motorola 5780AP	408.90	54	119,350	0.002	7	66
Cambium Networks PMP 430 Access Point	408.60	54	119,238	0.002	7	66
Generic 13' Omni	403.80	80	173,995	0.003	10	98
Generic Round Side Arm	397.00	375	798,056	0.012	47	460
Generic 8' Omni	387.00	25	51,494	0.001	3	31
Generic Flat Side Arm	383.00	188	381,098	0.006	22	230
Generic Torque Arm	380.00	500	1,006,078	0.015	59	614
Generic Round Side Arm	355.00	188	345,792	0.005	20	230
Generic Round Side Arm	330.00	375	629,842	0.010	37	460
Generic Round Side Arm	320.00	188	302,752	0.005	18	230
Generic Torque Arm	300.00	500	743,298	0.011	43	614
Generic Torque Arm	220.00	500	499,653	0.008	29	614
Generic Round Side Arm	189.00	188	154,252	0.002	9	230
RFS APXVSP18-C-A20 (62 lbs)	182.00	186	145,798	0.002	9	228
Ericsson RRUS-11 800 MHz	181.90	162	126,896	0.002	7	199
Ericsson RRUS82 w/ Solarshield	181.60	186	145,623	0.002	9	229
Commscope TTTT90AP-1XR	181.40	99	77,275	0.001	5	122
Ericsson RRUS 31	181.30	168	131,274	0.002	8	207

ASSET:	36075, LEE S SUMMIT #1B			CODE:	ANSI/TIA-222-I	
CUSTOMER:	WISPER ISP, LLC			PROJECT:	OAA798020_C3_01	
Generic Round Sector Frame	180.00	900	695,563	0.011	41	1,105
Generic Flat Light Sector Frame	171.00	1,200	868,457	0.013	51	1,474
Generic Torque Arm	140.00	500	280,088	0.004	16	614
Generic Flat Light Sector Frame	130.00	1,200	611,350	0.009	36	1,474
Generic Flat Side Arm	86.00	188	56,275	0.001	3	230
PCTEL MYA4503	66.00	2	321	0.000	0	2
Totals		56,797	65,427,995	1.000	3,827	69,747

FORCE/STRESS SUMMARY

Section 1 – 0.0' to 6.79'

										Shear	Bear			Use	
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	ΦRnv (kip)	ΦRn (kip)	# Bolt	# Hole	%	Controls
L SOL - 3" SOLID	-145.63	1.2D + 1.0Di + 1.0Wi 90°	1.771	100	100	100	28.34	50.00	299.97	0.00	0.00	0	0	49	Member X
D SOL - 1 1/8" SOLID	-5.77	1.2D + 1.0Di + 1.0Wi N	2.16	100	100	100	64.51	36.00	25.87	0.00	0.00	0	0	22	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦePn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear Φt Pn (kip)	# Bolt	# Hole	Use %	Controls			
H SOL - 7/8" SOLID	11.99	1.2D + 1.0Di + 1.0Wi N	36.0	58	19.48	0.00	0.00	0.00	0	0	62	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									

Section 2 – 6.8' to 20.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls	
	X			Y	Z	KL/R			Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)					
L SOL - 3" SOLID	-138.96	1.2D + 1.0Di + 1.0Wi 180°	3.184	100	100	100	50.94	50.00	263.13	0.00	0.00	0	0	53	Member X
D SOL - 1 1/8" SOLID	-2.12	1.2D + 1.0Di + 1.0Wi 120°	4.731	100	100	100	141.27	36.00	11.25	0.00	0.00	0	0	19	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _e P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
H SOL - 7/8" SOLID	11.48	1.2D + 1.0Di + 1.0Wi N	36.0	58	19.48	0.00	0.00	0.00	0	0	59	Member			
D SOL - 1 1/8" SOLID	0.21	1.2D + 1.0W 330°	36.0	58	32.21	0.00	0.00	0.00	0	0	1	Member			
Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type									

FORCE/STRESS SUMMARY

Section 3 – 20.0' to 40.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦRnv (kip)				ΦRn (kip)					
L SOL - 3" SOLID	-138.79	1.2D + 1.0Di + 1.0Wi 210°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	53	Member X
D SOL - 1 1/8" SOLID	-1.97	1.2D + 1.0Di + 1.0Wi 240°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	18	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φt Pn (kip)														
H SOL - 7/8" SOLID	1.30	1.2D + 1.0Di + 1.0Wi 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	7	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									

Section 4 – 40.0' to 60.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦR _{nv}				ΦR _n					
						(kip)				(kip)					
L SOL - 3" SOLID	-137.43	1.2D + 1.0Di + 1.0Wi 210°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	52	Member X
D SOL - 1 1/8" SOLID	-2.00	1.2D + 1.0Di + 1.0Wi 210°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	18	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φ _t P _n (kip)														
H SOL - 7/8" SOLID	1.29	1.2D + 1.0Di + 1.0Wi 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	7	Member			
D SOL - 1 1/8" SOLID	0.41	1.2D + 1.0W 90°	36.0	58	32.21	0.00	0.00	0.00	0	0	1	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

Section 5 – 60.0' to 80.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
	X			Y	Z										
L SOL - 3" SOLID	-134.56	1.2D + 1.0Di + 1.0Wi 120°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	51	Member X
H SOL - 7/8" SOLID	-0.06	1.2D + 1.0W 120°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	1	Member X
D SOL - 1 1/8" SOLID	-2.44	1.2D + 1.0W 90°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	22	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
H SOL - 7/8" SOLID	1.23	1.2D + 1.0Di + 1.0Wi 120°	36.0	58	19.48	0.00	0.00	0.00	0	0	6	Member			
D SOL - 1 1/8" SOLID	0.49	1.2D + 1.0W 90°	36.0	58	32.21	0.00	0.00	0.00	0	0	2	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

FORCE/STRESS SUMMARY

Section 6 – 80.0' to 100.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦR _{nv} (kip)				ΦR _n (kip)					
L SOL - 3" SOLID	-130.18	1.2D + 1.0Di + 1.0Wi 240°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	50	Member X
D SOL - 1 1/8" SOLID	-1.87	1.2D + 1.0Di + 1.0Wi 330°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	17	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φ _t P _n (kip)														
H SOL - 7/8" SOLID	1.23	1.2D + 1.0Di + 1.0Wi 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	6	Member			
D SOL - 1 1/8" SOLID	0.18	1.2D + 1.0W 330°	36.0	58	32.21	0.00	0.00	0.00	0	0	1	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

Section 7 – 100.0' to 120.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦRnv (kip)				ΦRn (kip)					
L SOL - 3" SOLID	-128.51	1.2D + 1.0Di + 1.0Wi 240°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	49	Member X
D SOL - 1 1/8" SOLID	-1.97	1.2D + 1.0Di + 1.0Wi 210°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	18	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φt Pn (kip)														
H SOL - 7/8" SOLID	1.21	1.2D + 1.0Di + 1.0Wi 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	6	Member			
D SOL - 1 1/8" SOLID	0.09	1.2D + 1.0W 60°	36.0	58	32.21	0.00	0.00	0.00	0	0	0	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									

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Section 8 – 120.0' to 140.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls		
	L SOL - 3" SOLID	-125.92	1.2D + 1.0Di + 1.0Wi 330°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	48	Member X
	H SOL - 7/8" SOLID	-1.16	1.2D + 1.0W 240°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	15	Member X
	D SOL - 1 1/8" SOLID	-5.79	1.2D + 1.0Di + 1.0Wi 240°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	52	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls				
	H SOL - 7/8" SOLID	3.42	1.2D + 1.0W 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	18	Member			
	D SOL - 1 1/8" SOLID	1.35	1.2D + 1.0W 300°	36.0	58	32.21	0.00	0.00	0.00	0	0	4	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type										

Section 9 – 140.0' to 160.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	Φ _{R_{nv}}			Φ _{R_n}											
	Φ _{R_{nv}}			Φ _{R_n}											
	Φ _{R_{nv}}			Φ _{R_n}											
	Φ _{R_{nv}}			Φ _{R_n}											
L SOL - 3" SOLID	-116.71	1.2D + 1.0Di + 1.0Wi 210°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	44	Member X
H SOL - 7/8" SOLID	-1.47	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	20	Member X
D SOL - 1 1/4" SOLID	-4.56	1.2D + 1.0W 330°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	27	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear	Bear	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φ _{R_{nv}}					Φ _{R_n}	Φ _t P _n								
	Φ _{R_{nv}}					Φ _{R_n}	Φ _t P _n								
	Φ _{R_{nv}}					Φ _{R_n}	Φ _t P _n								
	Φ _{R_{nv}}					Φ _{R_n}	Φ _t P _n								
H SOL - 7/8" SOLID	2.47	1.2D + 1.0W 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	13	Member			
D SOL - 1 1/4" SOLID	3.45	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0	0	9	Member			
Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type									

Section 10 – 160.0' to 180.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦR _{nv} (kip)				ΦR _n (kip)					
L SOL - 3" SOLID	-115.37	1.2D + 1.0Di + 1.0Wi 60°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	44	Member X
H SOL - 7/8" SOLID	-0.44	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	6	Member X
D SOL - 1 1/4" SOLID	-3.94	1.2D + 1.0W 120°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	23	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φ _t P _n (kip)														
H SOL - 7/8" SOLID	1.20	1.2D + 1.0Di + 1.0Wi 300°	36.0	58	19.48	0.00	0.00	0.00	0	0	6	Member			
D SOL - 1 1/4" SOLID	2.59	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0	0	7	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

FORCE/STRESS SUMMARY

Section 11 – 180.0' to 200.00'

											Shear	Bear				
Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	ΦR _{nv} (kip)	ΦR _n (kip)	#	#	Use	Controls		
				X	Y	Z	KL/R						%			
	L SOL - 3" SOLID	-113.57	1.2D + 1.0Di + 1.0Wi 300°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	43	Member X
	H SOL - 7/8" SOLID	-0.02	1.2D + 1.0W 90°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	0	Member X
	D SOL - 1 1/4" SOLID	-1.96	1.2D + 1.0Di + 1.0Wi 120°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	12	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls				
	H SOL - 7/8" SOLID	1.10	1.2D + 1.0Di + 1.0Wi 330°	36.0	58	19.48	0.00	0.00	0.00	0	0	6	Member			
	D SOL - 1 1/4" SOLID	0.70	1.2D + 1.0W 90°	36.0	58	39.76	0.00	0.00	0.00	0	0	2	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type										

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Section 12 – 200.0' to 220.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	ΦRnv (kip)			ΦRn (kip)											
L SOL - 3" SOLID	-109.90	1.2D + 1.0Di + 1.0Wi 300°	3.208	100	100	100	51.33	50.00	262.36	0.00	0.00	0	0	42	Member X
H SOL - 7/8" SOLID	-0.22	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	3	Member X
D SOL - 1 1/4" SOLID	-5.77	1.2D + 1.0Di + 1.0Wi 240°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	34	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φt Pn (kip)														
H SOL - 7/8" SOLID	2.68	1.2D + 1.0Di + 1.0Wi 210°	36.0	58	19.48	0.00	0.00	0.00	0	0	14	Member			
D SOL - 1 1/4" SOLID	1.25	1.2D + 1.0W 90°	36.0	58	39.76	0.00	0.00	0.00	0	0	3	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									

Section 13 – 220.0' to 240.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	ΦRnv (kip)			ΦRn (kip)											
L SOL - 2 3/4" SOLID	-93.65	1.2D + 1.0Di + 1.0Wi 240°	3.208	100	100	100	56.00	50.00	212.52	0.00	0.00	0	0	44	Member X
H SOL - 7/8" SOLID	-0.56	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	7	Member X
D SOL - 1 1/8" SOLID	-1.95	1.2D + 1.0Di + 1.0Wi 120°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	17	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear	Bear	Blk Shear	# Bolt	# Hole	Use %	Controls			
	ΦRnv (kip)					ΦRn (kip)	Φt Pn (kip)								
H SOL - 7/8" SOLID	1.21	1.2D + 1.0W 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	6	Member			
D SOL - 1 1/8" SOLID	0.76	1.2D + 1.0W 300°	36.0	58	32.21	0.00	0.00	0.00	0	0	2	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									

Section 14 – 240.0' to 260.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	ΦRnv (kip)			ΦRn (kip)											
L SOL - 2 3/4" SOLID	-92.49	1.2D + 1.0Di + 1.0Wi 300°	3.208	100	100	100	56.00	50.00	212.52	0.00	0.00	0	0	44	Member X
H SOL - 7/8" SOLID	-0.03	1.2D + 1.0W 120°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	0	Member X
D SOL - 1 1/8" SOLID	-1.56	1.2D + 1.0Di + 1.0Wi 120°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	14	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φt Pn (kip)														
H SOL - 7/8" SOLID	0.81	1.2D + 1.0Di + 1.0Wi 330°	36.0	58	19.48	0.00	0.00	0.00	0	0	4	Member			
D SOL - 1 1/8" SOLID	0.78	1.2D + 1.0W 120°	36.0	58	32.21	0.00	0.00	0.00	0	0	2	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									

FORCE/STRESS SUMMARY

Section 15 – 260.0' to 280.00'

		Pu (kip)	Load Case	Len (ft)	Bracing %			F _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls	
Member Compression					X	Y	Z	KL/R								
L SOL - 2 3/4" SOLID		-91.02	1.2D + 1.0Di + 1.0Wi 300°	3.208	100	100	100	56.00	50.00	212.52	0.00	0.00	0	0	43	Member X
H SOL - 7/8" SOLID		-0.26	1.2D + 1.0W 240°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	3	Member X
D SOL - 1 1/8" SOLID		-2.57	1.2D + 1.0W 240°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	23	Member X
		Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
Member Tension																
H SOL - 7/8" SOLID		0.79	1.2D + 1.0Di + 1.0Wi 90°	36.0	58	19.48	0.00	0.00	0.00	0	0	4	Member			
D SOL - 1 1/8" SOLID		1.77	1.2D + 1.0W 120°	36.0	58	32.21	0.00	0.00	0.00	0	0	6	Member			
Max Splice Forces		Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

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Section 16 – 280.0' to 300.00'

	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
				X	Y	Z				Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)				
Member Compression															
L SOL - 2 3/4" SOLID	-85.98	1.2D + 1.0Di + 1.0Wi 240°	3.208	100	100	100	56.00	50.00	212.52	0.00	0.00	0	0	40	Member X
H SOL - 7/8" SOLID	-1.38	1.2D + 1.0W 240°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	18	Member X
D SOL - 1 1/8" SOLID	-4.46	1.2D + 1.0W 240°	4.747	100	100	100	141.76	36.00	11.17	0.00	0.00	0	0	40	Member X
	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls		
								Φ _t P _n (kip)	Φ _t P _n (kip)						
Member Tension															
H SOL - 7/8" SOLID	3.08	1.2D + 1.0W 90°	36.0	58	19.48	0.00	0.00	0.00	0.00	0	0	16	Member		
D SOL - 1 1/8" SOLID	2.09	1.2D + 1.0W 240°	36.0	58	32.21	0.00	0.00	0.00	0.00	0	0	6	Member		
Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type									

Section 17 – 300.0' to 320.00'

	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
				X	Y	Z				Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)				
Member Compression															
L SOL - 2 1/2" SOLID	-72.09	1.2D + 1.0Di + 1.0Wi 330°	3.208	100	100	100	61.60	50.00	167.42	0.00	0.00	0	0	43	Member X
H SOL - 7/8" SOLID	-1.11	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	15	Member X
D SOL - 1 1/4" SOLID	-3.03	1.2D + 1.0W 120°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	18	Member X
	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls		
								Φ _t P _n (kip)	Φ _t P _n (kip)						
Member Tension															
H SOL - 7/8" SOLID	1.84	1.2D + 1.0W 90°	36.0	58	19.48	0.00	0.00	0.00	0.00	0	0	9	Member		
D SOL - 1 1/4" SOLID	2.32	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0.00	0	0	6	Member		
Max Splice Forces	Pu (kip)	Load Case	Φ _{R_{nt}} (kip)	Use %	Num Bolts	Bolt Type									

Section 18 – 320.0' to 340.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F' _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦR _{nv} (kip)				ΦR _n (kip)					
L SOL - 2 1/2" SOLID	-66.92	1.2D + 1.0Di + 1.0Wi 120°	3.208	100	100	100	61.60	50.00	167.42	0.00	0.00	0	0	40	Member X
H SOL - 7/8" SOLID	-0.36	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	5	Member X
D SOL - 1 1/4" SOLID	-2.40	1.2D + 1.0W 120°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	14	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls		
	Φ _t P _n (kip)							Φ _t P _n (kip)							
H SOL - 7/8" SOLID	0.79	1.2D + 1.0W 120°	36.0	58	19.48	0.00	0.00	0.00	0.00	0	0	4	Member		
D SOL - 1 1/4" SOLID	1.43	1.2D + 1.0W 240°	36.0	58	39.76	0.00	0.00	0.00	0.00	0	0	4	Member		
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

Section 19 – 340.0' to 360.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F _y (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	# Bolt	# Hole	Use %	Controls
	X			Y	Z										
L SOL - 2 1/2" SOLID	-66.31	1.2D + 1.0Di + 1.0Wi 210°	3.208	100	100	100	61.60	50.00	167.42	0.00	0.00	0	0	40	Member X
H SOL - 7/8" SOLID	-0.25	1.2D + 1.0W 60°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	3	Member X
D SOL - 1 1/4" SOLID	-1.39	1.2D + 1.0W 300°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	8	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear Φ _t P _n (kip)	# Bolt	# Hole	Use %	Controls			
H SOL - 7/8" SOLID	0.54	1.2D + 1.0Di + 1.0Wi 210°	36.0	58	19.48	0.00	0.00	0.00	0	0	3	Member			
D SOL - 1 1/4" SOLID	0.90	1.2D + 1.0W 90°	36.0	58	39.76	0.00	0.00	0.00	0	0	2	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

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Section 20 – 360.0' to 380.00'

Member Compression	Pu	Load Case	Len (ft)	Bracing %			KL/R	F _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	(kip)			X	Y	Z				Φ _t P _n (kip)	Φ _{R_n} (kip)				
L SOL - 2 1/2" SOLID	-63.92	1.2D + 1.0Di + 1.0Wi 120°	3.208	100	100	100	61.60	50.00	167.42	0.00	0.00	0	0	38	Member X
H SOL - 7/8" SOLID	-2.55	1.2D + 1.0W 120°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	34	Member X
D SOL - 1 1/4" SOLID	-3.62	1.2D + 1.0Di + 1.0Wi 300°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	21	Member X

Member Tension	Pu	Load Case	F _y (ksi)	F _u (ksi)	Φ _t P _n (kip)	Shear	Bear	Blk Shear	# Bolt	# Hole	Use %	Controls
	(kip)					Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)	Φ _t P _n (kip)				
H SOL - 7/8" SOLID	4.62	1.2D + 1.0W 60°	36.0	58	19.48	0.00	0.00	0.00	0	0	24	Member
D SOL - 1 1/4" SOLID	1.55	1.2D + 1.0W 300°	36.0	58	39.76	0.00	0.00	0.00	0	0	4	Member

Max Splice Forces	Pu	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type
	(kip)					

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Section 21 – 380.0' to 400.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦRnv (kip)				ΦRn (kip)					
L SOL - 2 1/4" SOLID	-41.99	1.2D + 1.0W 240°	3.208	100	100	100	68.44	50.00	127.03	0.00	0.00	0	0	33	Member X
H SOL - 7/8" SOLID	-2.29	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	30	Member X
D SOL - 1 1/4" SOLID	-5.36	1.2D + 1.0W 120°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	32	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear	Bear	Blk Shear	# Bolt	# Hole	Use %	Controls			
	ΦRnv (kip)					ΦRn (kip)	Φt Pn (kip)								
L SOL - 2 1/4" SOLID	0.01	1.2D + 1.0W 60°	50.0	65	178.92	0.00	0.00		0	0	0	Member			
H SOL - 7/8" SOLID	2.64	1.2D + 1.0W 120°	36.0	58	19.48	0.00	0.00	0.00	0	0	14	Member			
D SOL - 1 1/4" SOLID	5.25	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0	0	13	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									

Section 22 – 400.0' to 420.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	X			Y	Z	ΦR _{nv} (kip)				ΦR _n (kip)					
L SOL - 2 1/4" SOLID	-42.15	1.2D + 1.0W 300°	3.208	100	100	100	68.44	50.00	127.03	0.00	0.00	0	0	33	Member X
H SOL - 7/8" SOLID	-1.48	1.2D + 1.0W 240°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	20	Member X
D SOL - 1 1/4" SOLID	-4.10	1.2D + 1.0W 120°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	24	Member X
Member Tension	Pu (kip)	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear ΦR _{nv} (kip)	Bear ΦR _n (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φ _t P _n (kip)														
L SOL - 2 1/4" SOLID	1.66	1.2D + 1.0W 120°	50.0	65	178.92	0.00	0.00		0	0	1	Member			
H SOL - 7/8" SOLID	1.73	1.2D + 1.0W 60°	36.0	58	19.48	0.00	0.00	0.00	0	0	9	Member			
D SOL - 1 1/4" SOLID	3.75	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0	0	9	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦR _{nt} (kip)	Use %	Num Bolts	Bolt Type									

Section 23 – 420.0' to 440.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			KL/R	F'y (ksi)	Φc Pn (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	ΦRnv (kip)			ΦRn (kip)											
L SOL - 2 1/4" SOLID	-41.46	1.2D + 1.0W 60°	3.208	100	100	100	68.44	50.00	127.03	0.00	0.00	0	0	33	Member X
H SOL - 7/8" SOLID	-0.57	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	8	Member X
D SOL - 1 1/4" SOLID	-1.75	1.2D + 1.0W 60°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	10	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear	Bear	Blk Shear	# Bolt	# Hole	Use %	Controls			
	ΦRnv (kip)					ΦRn (kip)	Φt Pn (kip)								
L SOL - 2 1/4" SOLID	1.80	1.2D + 1.0W 240°	50.0	65	178.92	0.00	0.00		0	0	1	Member			
H SOL - 7/8" SOLID	0.60	1.2D + 1.0W 120°	36.0	58	19.48	0.00	0.00	0.00	0	0	3	Member			
D SOL - 1 1/4" SOLID	1.69	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0	0	4	Member			
Max Splice Forces	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
Bot Tension															
	1.60	1.2D + 1.0W 120°	38.31	4	3	1/2 A325									

Section 24 – 440.0' to 460.00'

Member Compression	Pu	Load Case	Len (ft)	Bracing %			KL/R	F _y (ksi)	Φ _c P _n (kip)	Shear	Bear	# Bolt	# Hole	Use %	Controls
	(kip)			X	Y	Z				Φ _{R_{nv}} (kip)	Φ _{R_n} (kip)				
L SOL - 2 1/4" SOLID	-35.34	1.2D + 1.0Di + 1.0Wi 180°	3.208	100	100	100	68.44	50.00	127.03	0.00	0.00	0	0	28	Member X
H SOL - 7/8" SOLID	-1.98	1.2D + 1.0W N	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	26	Member X
D SOL - 1 1/4" SOLID	-2.54	1.2D + 1.0W 120°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	15	Member X
Member Tension	Pu	Load Case	F _y (ksi)	F _u (ksi)	Φ _c P _n (kip)	Shear Φ _{R_{nv}} (kip)	Bear Φ _{R_n} (kip)	Blk Shear		# Bolt	# Hole	Use %	Controls		
	(kip)							Φ _t P _n (kip)	(kip)						
L SOL - 2 1/4" SOLID	7.39	1.2D + 1.0W 300°	50.0	65	178.92	0.00	0.00			0	0	4	Member		

FORCE/STRESS SUMMARY												
SOL - 7/8" SOLID	3.26	1.2D + 1.0W 330°	36.0	58	19.48	0.00	0.00	0.00	0	0	17	Member
SOL - 1 1/4" SOLID	2.79	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0	0	7	Member
	Pu		ΦR _{nt}	Use	Num							
Max Splice Forces	(kip)	Load Case	(kip)	%	Bolts		Bolt Type					

Section 25 – 460.0' to 480.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Φc Pn	Shear	Bear	# Bolt	# Hole	Use %	Controls	
	X			Y	Z	KL/R			ΦRnv (kip)	ΦRn (kip)					
SOL - 2 1/4" SOLID	-8.63	1.2D + 1.0W 240°	3.208	100	100	100	68.44	50.00	127.03	0.00	0.00	0	0	7	Member X
SOL - 7/8" SOLID	-0.95	1.2D + 1.0W 300°	3.499	100	100	100	134.39	36.00	7.52	0.00	0.00	0	0	13	Member X
SOL - 1 1/4" SOLID	-1.77	1.2D + 1.0W 60°	4.747	100	100	100	127.61	36.00	16.87	0.00	0.00	0	0	10	Member X
Member Tension	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	ΦcPn (kip)	Shear ΦRnv (kip)	Bear ΦRn (kip)	Blk Shear	# Bolt	# Hole	Use %	Controls			
	Φt Pn (kip)														
SOL - 2 1/4" SOLID	7.66	1.2D + 1.0W 300°	50.0	65	178.92	0.00	0.00		0	0	4	Member			
SOL - 7/8" SOLID	1.05	1.2D + 1.0W 120°	36.0	58	19.48	0.00	0.00	0.00	0	0	5	Member			
SOL - 1 1/4" SOLID	1.93	1.2D + 1.0W 330°	36.0	58	39.76	0.00	0.00	0.00	0	0	5	Member			
Max Splice Forces Bot Tension	Pu (kip)	Load Case	ΦRnt (kip)	Use %	Num Bolts	Bolt Type									
	7.39	1.2D + 1.0W 300°	38.31	19	3	1/2 A325									

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.2D + 1.0W Normal	70.00	1/2 EHS	A1	31	16.14	0.41	3
		1/2 EHS	A1b	31a	16.14	4.35	27
		1/2 EHS	A1a	31b	16.14	4.35	27
	139.63	9/16 EHS	A1	T2	21	0.33	2
		9/16 EHS	A1b	T2	21	5.98	28
		9/16 EHS	A1b	T2a	21	6.01	29
		9/16 EHS	A1a	T2a	21	5.98	28
		9/16 EHS	A1a	T2b	21	6.01	29
		9/16 EHS	A1	T2b	21	0.33	2
	219.63	9/16 EHS	A1	T3	21	1.39	7
		9/16 EHS	A1b	T3	21	5.8	28
		9/16 EHS	A1a	T3a	21	5.6	27
		9/16 EHS	A1b	T3a	21	5.6	27
		9/16 EHS	A1a	T3b	21	5.8	28
		9/16 EHS	A1	T3b	21	1.39	7
	299.63	5/8 EHS	A2	T4	25.44	1.46	6
		5/8 EHS	A2b	T4	25.44	7.35	29
		5/8 EHS	A2b	T4a	25.44	7.28	29
		5/8 EHS	A2a	T4a	25.44	7.29	29
		5/8 EHS	A2a	T4b	25.44	7.34	29
		5/8 EHS	A2	T4b	25.44	1.46	6
	379.63	3/4 BS	A2	T5	40.8	3.18	8
		3/4 BS	A2b	T5	40.8	11.2	27
		3/4 BS	A2a	T5a	40.8	11.28	28
		3/4 BS	A2b	T5a	40.8	11.26	28
		3/4 BS	A2	T5b	40.8	3.19	8
		3/4 BS	A2a	T5b	40.8	11.18	27
	459.63	3/4 BS	A2	T6	40.8	4.58	11
		3/4 BS	A2b	T6	40.8	12.21	30
		3/4 BS	A2b	T6a	40.8	12.13	30
		3/4 BS	A2a	T6a	40.8	12.16	30
		3/4 BS	A2a	T6b	40.8	12.19	30
		3/4 BS	A2	T6b	40.8	4.6	11
1.2D + 1.0W 60°	70.00	1/2 EHS	A1	31	16.14	1.71	11
		1/2 EHS	A1b	31a	16.14	1.7	11
		1/2 EHS	A1a	31b	16.14	5.25	33
	139.63	9/16 EHS	A1	T2	21	2.12	10
		9/16 EHS	A1b	T2	21	2.1	10
		9/16 EHS	A1a	T2a	21	7.71	37
		9/16 EHS	A1b	T2a	21	2.08	10
		9/16 EHS	A1	T2b	21	2.06	10
		9/16 EHS	A1a	T2b	21	7.77	37
	219.63	9/16 EHS	A1	T3	21	2.77	13
		9/16 EHS	A1b	T3	21	2.76	13
		9/16 EHS	A1a	T3a	21	7.76	37
		9/16 EHS	A1b	T3a	21	2.69	13
		9/16 EHS	A1a	T3b	21	7.79	37
		9/16 EHS	A1	T3b	21	2.68	13
	299.63	5/8 EHS	A2b	T4	25.44	4.43	17
		5/8 EHS	A2	T4	25.44	4.46	18
		5/8 EHS	A2b	T4a	25.44	4.37	17
		5/8 EHS	A2a	T4a	25.44	9.63	38
		5/8 EHS	A2	T4b	25.44	4.36	17
		5/8 EHS	A2a	T4b	25.44	9.69	38
	379.63	3/4 BS	A2b	T5	40.8	6.68	16
		3/4 BS	A2	T5	40.8	6.74	17
		3/4 BS	A2a	T5a	40.8	14.96	37
		3/4 BS	A2b	T5a	40.8	6.68	16
		3/4 BS	A2a	T5b	40.8	15.1	37

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	459.63	3/4 BS	A2	T5b	40.8	6.62	16
		3/4 BS	A2b	T6	40.8	7.74	19
		3/4 BS	A2	T6	40.8	7.79	19
		3/4 BS	A2a	T6a	40.8	15.29	37
		3/4 BS	A2b	T6a	40.8	7.67	19
		3/4 BS	A2a	T6b	40.8	15.43	38
	70.00	3/4 BS	A2	T6b	40.8	7.59	19
		1/2 EHS	A1	31	16.14	3.12	19
		1/2 EHS	A1b	31a	16.14	0.65	4
		1/2 EHS	A1a	31b	16.14	5.04	31
		9/16 EHS	A1	T2	21	4.13	20
		9/16 EHS	A1b	T2	21	0.88	4
1.2D + 1.0W 90°	139.63	9/16 EHS	A1b	T2a	21	0.83	4
		9/16 EHS	A1a	T2a	21	7.27	35
		9/16 EHS	A1a	T2b	21	7.43	35
		9/16 EHS	A1	T2b	21	4.04	19
		9/16 EHS	A1	T3	21	4.28	20
		9/16 EHS	A1b	T3	21	1.74	8
	219.63	9/16 EHS	A1a	T3a	21	7.26	35
		9/16 EHS	A1b	T3a	21	1.7	8
		9/16 EHS	A1a	T3b	21	7.21	34
		9/16 EHS	A1	T3b	21	4.09	19
		5/8 EHS	A2	T4	25.44	6.13	24
		5/8 EHS	A2b	T4	25.44	2.6	10
	299.63	5/8 EHS	A2b	T4a	25.44	2.56	10
		5/8 EHS	A2a	T4a	25.44	8.92	35
		5/8 EHS	A2a	T4b	25.44	9	35
		5/8 EHS	A2	T4b	25.44	5.99	24
		3/4 BS	A2	T5	40.8	9.09	22
		3/4 BS	A2b	T5	40.8	4.37	11
	379.63	3/4 BS	A2a	T5a	40.8	13.74	34
		3/4 BS	A2b	T5a	40.8	4.37	11
		3/4 BS	A2	T5b	40.8	8.95	22
		3/4 BS	A2a	T5b	40.8	14.04	34
		3/4 BS	A2	T6	40.8	10.08	25
		3/4 BS	A2b	T6	40.8	5.59	14
	459.63	3/4 BS	A2b	T6a	40.8	5.58	14
		3/4 BS	A2a	T6a	40.8	14.3	35
		3/4 BS	A2a	T6b	40.8	14.49	36
		3/4 BS	A2	T6b	40.8	9.83	24
		1/2 EHS	A1	31	16.14	4.35	27
		1/2 EHS	A1b	31a	16.14	0.41	3
1.2D + 1.0W 120°	70.00	1/2 EHS	A1a	31b	16.14	4.35	27
		9/16 EHS	A1	T2	21	6.03	29
		9/16 EHS	A1b	T2	21	0.32	2
		9/16 EHS	A1a	T2a	21	5.98	28
		9/16 EHS	A1b	T2a	21	0.33	2
		9/16 EHS	A1a	T2b	21	6.04	29
	139.63	9/16 EHS	A1	T2b	21	5.98	28
		9/16 EHS	A1b	T3	21	1.38	7
		9/16 EHS	A1	T3	21	5.83	28
		9/16 EHS	A1a	T3a	21	5.8	28
		9/16 EHS	A1b	T3a	21	1.38	7
		9/16 EHS	A1	T3b	21	5.61	27
	219.63	9/16 EHS	A1a	T3b	21	5.64	27
		5/8 EHS	A2	T4	25.44	7.4	29
		5/8 EHS	A2b	T4	25.44	1.43	6
		5/8 EHS	A2b	T4a	25.44	1.45	6
		5/8 EHS	A2a	T4a	25.44	7.35	29
		5/8 EHS	A2a	T4a	25.44	7.35	29

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	379.63	5/8 EHS	A2a	T4b	25.44	7.33	29
		5/8 EHS	A2	T4b	25.44	7.29	29
		3/4 BS	A2	T5	40.8	11.29	28
		3/4 BS	A2b	T5	40.8	3.13	8
		3/4 BS	A2a	T5a	40.8	11.16	27
		3/4 BS	A2b	T5a	40.8	3.18	8
	459.63	3/4 BS	A2	T5b	40.8	11.24	28
		3/4 BS	A2a	T5b	40.8	11.36	28
		3/4 BS	A2	T6	40.8	12.27	30
		3/4 BS	A2b	T6	40.8	4.55	11
		3/4 BS	A2b	T6a	40.8	4.61	11
		3/4 BS	A2a	T6a	40.8	12.16	30
	70.00	3/4 BS	A2	T6b	40.8	12.09	30
		3/4 BS	A2a	T6b	40.8	12.22	30
		1/2 EHS	A1	31	16.14	5.25	33
1.2D + 1.0W 180°	139.63	1/2 EHS	A1b	31a	16.14	1.71	11
		1/2 EHS	A1a	31b	16.14	1.7	11
		9/16 EHS	A1	T2	21	7.76	37
		9/16 EHS	A1b	T2	21	2.06	10
		9/16 EHS	A1b	T2a	21	2.12	10
		9/16 EHS	A1a	T2a	21	2.11	10
	219.63	9/16 EHS	A1a	T2b	21	2.08	10
		9/16 EHS	A1	T2b	21	7.72	37
		9/16 EHS	A1	T3	21	7.78	37
		9/16 EHS	A1b	T3	21	2.68	13
		9/16 EHS	A1a	T3a	21	2.76	13
		9/16 EHS	A1b	T3a	21	2.77	13
	299.63	9/16 EHS	A1a	T3b	21	2.69	13
		9/16 EHS	A1	T3b	21	7.77	37
		5/8 EHS	A2	T4	25.44	9.66	38
	379.63	5/8 EHS	A2b	T4	25.44	4.37	17
		5/8 EHS	A2b	T4a	25.44	4.44	17
		5/8 EHS	A2a	T4a	25.44	4.44	17
		5/8 EHS	A2a	T4b	25.44	4.37	17
		5/8 EHS	A2	T4b	25.44	9.66	38
		3/4 BS	A2	T5	40.8	15.03	37
	459.63	3/4 BS	A2b	T5	40.8	6.65	16
		3/4 BS	A2a	T5a	40.8	6.71	16
		3/4 BS	A2b	T5a	40.8	6.71	16
		3/4 BS	A2	T5b	40.8	15.03	37
		3/4 BS	A2a	T5b	40.8	6.65	16
		3/4 BS	A2	T6	40.8	15.34	38
1.2D + 1.0W 210°	70.00	3/4 BS	A2b	T6	40.8	7.64	19
		3/4 BS	A2b	T6a	40.8	7.77	19
		3/4 BS	A2a	T6a	40.8	7.77	19
		3/4 BS	A2a	T6b	40.8	7.63	19
		3/4 BS	A2	T6b	40.8	15.35	38
		1/2 EHS	A1	31	16.14	5.04	31
	139.63	1/2 EHS	A1b	31a	16.14	3.12	19
		1/2 EHS	A1a	31b	16.14	0.65	4
		9/16 EHS	A1	T2	21	7.41	35
		9/16 EHS	A1b	T2	21	4.05	19
		9/16 EHS	A1a	T2a	21	0.88	4
		9/16 EHS	A1b	T2a	21	4.12	20
	219.63	9/16 EHS	A1a	T2b	21	0.83	4
		9/16 EHS	A1	T2b	21	7.29	35
		9/16 EHS	A1	T3	21	7.19	34
		9/16 EHS	A1b	T3	21	4.1	20
		9/16 EHS	A1b	T3a	21	4.26	20

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	299.63	9/16 EHS	A1a	T3a	21	1.74	8
		9/16 EHS	A1a	T3b	21	1.7	8
		9/16 EHS	A1	T3b	21	7.28	35
		5/8 EHS	A2	T4	25.44	8.95	35
		5/8 EHS	A2b	T4	25.44	6.01	24
		5/8 EHS	A2a	T4a	25.44	2.61	10
	379.63	5/8 EHS	A2b	T4a	25.44	6.09	24
		5/8 EHS	A2a	T4b	25.44	2.55	10
		5/8 EHS	A2	T4b	25.44	8.97	35
		3/4 BS	A2b	T5	40.8	9.01	22
		3/4 BS	A2	T5	40.8	13.92	34
		3/4 BS	A2b	T5a	40.8	9.01	22
	459.63	3/4 BS	A2a	T5a	40.8	4.41	11
		3/4 BS	A2	T5b	40.8	13.88	34
		3/4 BS	A2a	T5b	40.8	4.32	11
		3/4 BS	A2	T6	40.8	14.34	35
		3/4 BS	A2b	T6	40.8	9.92	24
		3/4 BS	A2a	T6a	40.8	5.64	14
1.2D + 1.0W 240°	70.00	3/4 BS	A2b	T6a	40.8	10.01	25
		3/4 BS	A2a	T6b	40.8	5.51	14
		3/4 BS	A2	T6b	40.8	14.43	35
	139.63	1/2 EHS	A1	31	16.14	4.35	27
		1/2 EHS	A1b	31a	16.14	4.35	27
		1/2 EHS	A1a	31b	16.14	0.41	3
		9/16 EHS	A1	T2	21	6.02	29
		9/16 EHS	A1b	T2	21	6	29
		9/16 EHS	A1b	T2a	21	6.01	29
	219.63	9/16 EHS	A1a	T2a	21	0.32	2
		9/16 EHS	A1a	T2b	21	0.33	2
		9/16 EHS	A1	T2b	21	6	29
		9/16 EHS	A1b	T3	21	5.64	27
		9/16 EHS	A1	T3	21	5.62	27
		9/16 EHS	A1b	T3a	21	5.81	28
	299.63	9/16 EHS	A1a	T3a	21	1.38	7
		9/16 EHS	A1	T3b	21	5.83	28
		9/16 EHS	A1a	T3b	21	1.38	7
		5/8 EHS	A2	T4	25.44	7.29	29
		5/8 EHS	A2b	T4	25.44	7.33	29
		5/8 EHS	A2a	T4a	25.44	1.44	6
1.2D + 1.0W 300°	379.63	5/8 EHS	A2b	T4a	25.44	7.35	29
		5/8 EHS	A2a	T4b	25.44	1.43	6
		5/8 EHS	A2	T4b	25.44	7.4	29
		3/4 BS	A2b	T5	40.8	11.36	28
		3/4 BS	A2	T5	40.8	11.24	28
		3/4 BS	A2a	T5a	40.8	3.19	8
	459.63	3/4 BS	A2b	T5a	40.8	11.16	27
		3/4 BS	A2a	T5b	40.8	3.13	8
		3/4 BS	A2	T5b	40.8	11.3	28
		3/4 BS	A2	T6	40.8	12.07	30
		3/4 BS	A2b	T6	40.8	12.23	30
		3/4 BS	A2a	T6a	40.8	4.61	11
1.2D + 1.0W 300°	70.00	3/4 BS	A2b	T6a	40.8	12.15	30
		3/4 BS	A2	T6b	40.8	12.28	30
		3/4 BS	A2a	T6b	40.8	4.54	11
	139.63	1/2 EHS	A1	31	16.14	1.7	11
		1/2 EHS	A1b	31a	16.14	5.25	33
		1/2 EHS	A1a	31b	16.14	1.71	11
	139.63	9/16 EHS	A1	T2	21	2.07	10
		9/16 EHS	A1b	T2	21	7.74	37

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	219.63	9/16 EHS	A1a	T2a	21	2.07	10
		9/16 EHS	A1b	T2a	21	7.75	37
		9/16 EHS	A1a	T2b	21	2.12	10
		9/16 EHS	A1	T2b	21	2.11	10
		9/16 EHS	A1	T3	21	2.68	13
		9/16 EHS	A1b	T3	21	7.79	37
		9/16 EHS	A1b	T3a	21	7.76	37
		9/16 EHS	A1a	T3a	21	2.69	13
		9/16 EHS	A1a	T3b	21	2.76	13
		9/16 EHS	A1	T3b	21	2.77	13
	299.63	5/8 EHS	A2	T4	25.44	4.36	17
		5/8 EHS	A2b	T4	25.44	9.69	38
		5/8 EHS	A2a	T4a	25.44	4.38	17
		5/8 EHS	A2b	T4a	25.44	9.62	38
		5/8 EHS	A2a	T4b	25.44	4.42	17
		5/8 EHS	A2	T4b	25.44	4.46	18
		3/4 BS	A2b	T5	40.8	15.13	37
		3/4 BS	A2	T5	40.8	6.62	16
		3/4 BS	A2b	T5a	40.8	14.94	37
		3/4 BS	A2a	T5a	40.8	6.68	16
	379.63	3/4 BS	A2	T5b	40.8	6.75	17
		3/4 BS	A2a	T5b	40.8	6.67	16
		3/4 BS	A2	T6	40.8	7.58	19
		3/4 BS	A2b	T6	40.8	15.46	38
		3/4 BS	A2a	T6a	40.8	7.69	19
		3/4 BS	A2b	T6a	40.8	15.26	37
		3/4 BS	A2a	T6b	40.8	7.73	19
		3/4 BS	A2	T6b	40.8	7.8	19
	459.63	1/2 EHS	A1	31	16.14	0.65	4
		1/2 EHS	A1b	31a	16.14	5.04	31
		1/2 EHS	A1a	31b	16.14	3.12	19
1.2D + 1.0W 330°	139.63	9/16 EHS	A1	T2	21	0.83	4
		9/16 EHS	A1b	T2	21	7.29	35
		9/16 EHS	A1b	T2a	21	7.41	35
		9/16 EHS	A1a	T2a	21	4.05	19
		9/16 EHS	A1a	T2b	21	4.12	20
		9/16 EHS	A1	T2b	21	0.88	4
	219.63	9/16 EHS	A1b	T3	21	7.28	35
		9/16 EHS	A1	T3	21	1.7	8
		9/16 EHS	A1b	T3a	21	7.19	34
		9/16 EHS	A1a	T3a	21	4.1	20
		9/16 EHS	A1	T3b	21	1.74	8
		9/16 EHS	A1a	T3b	21	4.26	20
	299.63	5/8 EHS	A2	T4	25.44	2.55	10
		5/8 EHS	A2b	T4	25.44	8.97	35
		5/8 EHS	A2a	T4a	25.44	6.01	24
		5/8 EHS	A2b	T4a	25.44	8.94	35
		5/8 EHS	A2a	T4b	25.44	6.09	24
		5/8 EHS	A2	T4b	25.44	2.62	10
	379.63	3/4 BS	A2b	T5	40.8	13.88	34
		3/4 BS	A2	T5	40.8	4.32	11
		3/4 BS	A2a	T5a	40.8	9.02	22
		3/4 BS	A2b	T5a	40.8	13.9	34
		3/4 BS	A2a	T5b	40.8	9	22
		3/4 BS	A2	T5b	40.8	4.42	11
	459.63	3/4 BS	A2	T6	40.8	5.5	13
		3/4 BS	A2b	T6	40.8	14.45	35
		3/4 BS	A2a	T6a	40.8	9.93	24
		3/4 BS	A2b	T6a	40.8	14.34	35
		3/4 BS	A2b	T6a	40.8	14.34	35

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.2D + 1.0Di + 1.0Wi Normal	70.00	3/4 BS	A2	T6b	40.8	5.64	14
		3/4 BS	A2a	T6b	40.8	10.01	25
		1/2 EHS	A1	31	16.14	3.9	24
		1/2 EHS	A1b	31a	16.14	5.63	35
	139.63	1/2 EHS	A1a	31b	16.14	5.64	35
		9/16 EHS	A1	T2	21	4.2	20
		9/16 EHS	A1b	T2	21	6.77	32
		9/16 EHS	A1b	T2a	21	6.75	32
	219.63	9/16 EHS	A1a	T2a	21	6.71	32
		9/16 EHS	A1a	T2b	21	6.81	32
		9/16 EHS	A1	T2b	21	4.17	20
		9/16 EHS	A1b	T3	21	7.15	34
	299.63	9/16 EHS	A1	T3	21	3.89	19
		9/16 EHS	A1b	T3a	21	7.07	34
		9/16 EHS	A1a	T3a	21	7.06	34
		9/16 EHS	A1	T3b	21	3.89	19
	379.63	9/16 EHS	A1a	T3b	21	7.15	34
		5/8 EHS	A2	T4	25.44	8.71	34
		5/8 EHS	A2b	T4	25.44	11.86	47
		5/8 EHS	A2a	T4a	25.44	11.81	46
	459.63	5/8 EHS	A2b	T4a	25.44	11.81	46
		5/8 EHS	A2a	T4b	25.44	11.86	47
		5/8 EHS	A2	T4b	25.44	8.72	34
		3/4 BS	A2b	T5	40.8	15.33	38
		3/4 BS	A2	T5	40.8	11.01	27
		3/4 BS	A2a	T5a	40.8	15.24	37
		3/4 BS	A2b	T5a	40.8	15.22	37
		3/4 BS	A2a	T5b	40.8	15.31	38
		3/4 BS	A2	T5b	40.8	11.02	27
		3/4 BS	A2	T6	40.8	11.26	28
		3/4 BS	A2b	T6	40.8	16.02	39
		3/4 BS	A2a	T6a	40.8	15.87	39
		3/4 BS	A2b	T6a	40.8	15.85	39
		3/4 BS	A2	T6b	40.8	11.29	28
		3/4 BS	A2a	T6b	40.8	16	39
1.2D + 1.0Di + 1.0Wi 60°	70.00	1/2 EHS	A1	31	16.14	4.42	27
		1/2 EHS	A1b	31a	16.14	4.42	27
		1/2 EHS	A1a	31b	16.14	6.05	37
	139.63	9/16 EHS	A1	T2	21	4.99	24
		9/16 EHS	A1b	T2	21	4.97	24
		9/16 EHS	A1b	T2a	21	4.94	24
		9/16 EHS	A1a	T2a	21	7.58	36
	219.63	9/16 EHS	A1a	T2b	21	7.63	36
		9/16 EHS	A1	T2b	21	4.91	23
		9/16 EHS	A1	T3	21	5.19	25
		9/16 EHS	A1b	T3	21	5.18	25
	299.63	9/16 EHS	A1a	T3a	21	8.08	38
		9/16 EHS	A1b	T3a	21	5.07	24
		9/16 EHS	A1a	T3b	21	8.09	39
		9/16 EHS	A1	T3b	21	5.07	24
	379.63	5/8 EHS	A2	T4	25.44	9.64	38
		5/8 EHS	A2b	T4	25.44	9.63	38
		5/8 EHS	A2b	T4a	25.44	9.56	38
		5/8 EHS	A2a	T4a	25.44	12.73	50
		5/8 EHS	A2a	T4b	25.44	12.74	50
		5/8 EHS	A2	T4b	25.44	9.56	38
		3/4 BS	A2	T5	40.8	12.37	30
		3/4 BS	A2b	T5	40.8	12.35	30
		3/4 BS	A2a	T5a	40.8	16.72	41

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	459.63	3/4 BS	A2b	T5a	40.8	12.24	30
		3/4 BS	A2	T5b	40.8	12.25	30
		3/4 BS	A2a	T5b	40.8	16.72	41
		3/4 BS	A2	T6	40.8	12.96	32
		3/4 BS	A2b	T6	40.8	12.99	32
		3/4 BS	A2b	T6a	40.8	12.82	31
		3/4 BS	A2a	T6a	40.8	17.48	43
		3/4 BS	A2a	T6b	40.8	17.48	43
	70.00	3/4 BS	A2	T6b	40.8	12.78	31
		1/2 EHS	A1	31	16.14	5.05	31
		1/2 EHS	A1b	31a	16.14	4.02	25
		1/2 EHS	A1a	31b	16.14	5.96	37
	139.63	9/16 EHS	A1	T2	21	5.91	28
		9/16 EHS	A1b	T2	21	4.34	21
		9/16 EHS	A1a	T2a	21	7.37	35
		9/16 EHS	A1b	T2a	21	4.37	21
		9/16 EHS	A1a	T2b	21	7.42	35
		9/16 EHS	A1	T2b	21	5.79	28
	219.63	9/16 EHS	A1	T3	21	6.21	30
		9/16 EHS	A1b	T3	21	4.28	20
		9/16 EHS	A1b	T3a	21	4.23	20
		9/16 EHS	A1a	T3a	21	7.84	37
	299.63	9/16 EHS	A1a	T3b	21	7.82	37
		9/16 EHS	A1	T3b	21	6.07	29
		5/8 EHS	A2	T4	25.44	10.79	42
		5/8 EHS	A2b	T4	25.44	8.88	35
		5/8 EHS	A2a	T4a	25.44	12.53	49
		5/8 EHS	A2b	T4a	25.44	8.88	35
		5/8 EHS	A2	T4b	25.44	10.68	42
		5/8 EHS	A2a	T4b	25.44	12.54	49
	379.63	3/4 BS	A2b	T5	40.8	11.33	28
		3/4 BS	A2	T5	40.8	13.83	34
		3/4 BS	A2a	T5a	40.8	16.36	40
		3/4 BS	A2b	T5a	40.8	11.31	28
		3/4 BS	A2	T5b	40.8	13.67	34
		3/4 BS	A2a	T5b	40.8	16.35	40
	459.63	3/4 BS	A2	T6	40.8	14.49	36
		3/4 BS	A2b	T6	40.8	11.79	29
		3/4 BS	A2a	T6a	40.8	17.09	42
		3/4 BS	A2b	T6a	40.8	11.72	29
		3/4 BS	A2a	T6b	40.8	17.04	42
		3/4 BS	A2	T6b	40.8	14.27	35
	70.00	1/2 EHS	A1	31	16.14	5.63	35
		1/2 EHS	A1b	31a	16.14	3.91	24
		1/2 EHS	A1a	31b	16.14	5.63	35
	139.63	9/16 EHS	A1	T2	21	6.81	32
		9/16 EHS	A1b	T2	21	4.17	20
		9/16 EHS	A1a	T2a	21	6.77	32
		9/16 EHS	A1b	T2a	21	4.2	20
		9/16 EHS	A1a	T2b	21	6.75	32
		9/16 EHS	A1	T2b	21	6.71	32
	219.63	9/16 EHS	A1	T3	21	7.16	34
		9/16 EHS	A1b	T3	21	3.88	18
		9/16 EHS	A1b	T3a	21	3.89	19
		9/16 EHS	A1a	T3a	21	7.15	34
	299.63	9/16 EHS	A1a	T3b	21	7.07	34
		9/16 EHS	A1	T3b	21	7.06	34
		5/8 EHS	A2	T4	25.44	11.88	47
		5/8 EHS	A2b	T4	25.44	8.7	34

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	379.63	5/8 EHS	A2a	T4a	25.44	11.86	47
		5/8 EHS	A2b	T4a	25.44	8.71	34
		5/8 EHS	A2	T4b	25.44	11.82	46
		5/8 EHS	A2a	T4b	25.44	11.82	46
		3/4 BS	A2b	T5	40.8	10.99	27
		3/4 BS	A2	T5	40.8	15.34	38
		3/4 BS	A2a	T5a	40.8	15.32	38
		3/4 BS	A2b	T5a	40.8	11	27
	459.63	3/4 BS	A2	T5b	40.8	15.24	37
		3/4 BS	A2a	T5b	40.8	15.23	37
		3/4 BS	A2	T6	40.8	15.99	39
		3/4 BS	A2b	T6	40.8	11.3	28
		3/4 BS	A2a	T6a	40.8	16.01	39
		3/4 BS	A2b	T6a	40.8	11.32	28
		3/4 BS	A2a	T6b	40.8	15.86	39
		3/4 BS	A2	T6b	40.8	15.83	39
1.2D + 1.0Di + 1.0Wi 180°	70.00	1/2 EHS	A1	31	16.14	6.05	37
		1/2 EHS	A1b	31a	16.14	4.42	27
		1/2 EHS	A1a	31b	16.14	4.42	27
	139.63	9/16 EHS	A1	T2	21	7.63	36
		9/16 EHS	A1b	T2	21	4.91	23
		9/16 EHS	A1b	T2a	21	5	24
		9/16 EHS	A1a	T2a	21	4.97	24
		9/16 EHS	A1a	T2b	21	4.94	24
		9/16 EHS	A1	T2b	21	7.58	36
	219.63	9/16 EHS	A1b	T3	21	5.07	24
		9/16 EHS	A1	T3	21	8.09	39
		9/16 EHS	A1b	T3a	21	5.19	25
		9/16 EHS	A1a	T3a	21	5.19	25
		9/16 EHS	A1	T3b	21	8.09	39
		9/16 EHS	A1a	T3b	21	5.07	24
	299.63	5/8 EHS	A2	T4	25.44	12.75	50
		5/8 EHS	A2b	T4	25.44	9.56	38
		5/8 EHS	A2a	T4a	25.44	9.63	38
		5/8 EHS	A2b	T4a	25.44	9.63	38
		5/8 EHS	A2a	T4b	25.44	9.55	38
		5/8 EHS	A2	T4b	25.44	12.75	50
	379.63	3/4 BS	A2b	T5	40.8	12.24	30
		3/4 BS	A2	T5	40.8	16.73	41
		3/4 BS	A2a	T5a	40.8	12.35	30
		3/4 BS	A2b	T5a	40.8	12.34	30
		3/4 BS	A2a	T5b	40.8	12.23	30
		3/4 BS	A2	T5b	40.8	16.74	41
	459.63	3/4 BS	A2	T6	40.8	17.44	43
		3/4 BS	A2b	T6	40.8	12.82	31
		3/4 BS	A2a	T6a	40.8	13	32
		3/4 BS	A2b	T6a	40.8	12.98	32
		3/4 BS	A2	T6b	40.8	17.46	43
		3/4 BS	A2a	T6b	40.8	12.8	31
1.2D + 1.0Di + 1.0Wi 210°	70.00	1/2 EHS	A1	31	16.14	5.95	37
		1/2 EHS	A1b	31a	16.14	5.05	31
		1/2 EHS	A1a	31b	16.14	4.02	25
	139.63	9/16 EHS	A1	T2	21	7.41	35
		9/16 EHS	A1b	T2	21	5.79	28
		9/16 EHS	A1a	T2a	21	4.34	21
		9/16 EHS	A1b	T2a	21	5.91	28
		9/16 EHS	A1a	T2b	21	4.37	21
		9/16 EHS	A1	T2b	21	7.37	35
	219.63	9/16 EHS	A1	T3	21	7.82	37

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	299.63	9/16 EHS	A1b	T3	21	6.07	29
		9/16 EHS	A1b	T3a	21	6.2	30
		9/16 EHS	A1a	T3a	21	4.29	20
		9/16 EHS	A1a	T3b	21	4.23	20
		9/16 EHS	A1	T3b	21	7.84	37
		5/8 EHS	A2	T4	25.44	12.55	49
		5/8 EHS	A2b	T4	25.44	10.67	42
		5/8 EHS	A2a	T4a	25.44	8.88	35
	379.63	5/8 EHS	A2b	T4a	25.44	10.77	42
		5/8 EHS	A2	T4b	25.44	12.55	49
		5/8 EHS	A2a	T4b	25.44	8.87	35
		3/4 BS	A2b	T5	40.8	13.67	34
		3/4 BS	A2	T5	40.8	16.35	40
		3/4 BS	A2a	T5a	40.8	11.34	28
		3/4 BS	A2b	T5a	40.8	13.81	34
		3/4 BS	A2	T5b	40.8	16.39	40
	459.63	3/4 BS	A2a	T5b	40.8	11.29	28
		3/4 BS	A2	T6	40.8	16.99	42
		3/4 BS	A2b	T6	40.8	14.32	35
		3/4 BS	A2a	T6a	40.8	11.82	29
		3/4 BS	A2b	T6a	40.8	14.5	36
		3/4 BS	A2a	T6b	40.8	11.69	29
		3/4 BS	A2	T6b	40.8	17.07	42
		1/2 EHS	A1	31	16.14	5.63	35
1.2D + 1.0Di + 1.0Wi 240°	70.00	1/2 EHS	A1b	31a	16.14	5.64	35
		1/2 EHS	A1a	31b	16.14	3.91	24
		9/16 EHS	A1b	T2	21	6.71	32
	139.63	9/16 EHS	A1	T2	21	6.75	32
		9/16 EHS	A1a	T2a	21	4.17	20
		9/16 EHS	A1b	T2a	21	6.81	32
		9/16 EHS	A1	T2b	21	6.77	32
		9/16 EHS	A1a	T2b	21	4.2	20
	219.63	9/16 EHS	A1b	T3	21	7.06	34
		9/16 EHS	A1	T3	21	7.07	34
		9/16 EHS	A1a	T3a	21	3.89	19
		9/16 EHS	A1b	T3a	21	7.15	34
		9/16 EHS	A1a	T3b	21	3.89	19
		9/16 EHS	A1	T3b	21	7.15	34
	299.63	5/8 EHS	A2	T4	25.44	11.82	46
		5/8 EHS	A2b	T4	25.44	11.82	46
		5/8 EHS	A2a	T4a	25.44	8.71	34
		5/8 EHS	A2b	T4a	25.44	11.86	47
		5/8 EHS	A2	T4b	25.44	11.88	47
		5/8 EHS	A2a	T4b	25.44	8.7	34
	379.63	3/4 BS	A2	T5	40.8	15.23	37
		3/4 BS	A2b	T5	40.8	15.24	37
		3/4 BS	A2a	T5a	40.8	11.01	27
		3/4 BS	A2b	T5a	40.8	15.31	38
		3/4 BS	A2a	T5b	40.8	10.98	27
		3/4 BS	A2	T5b	40.8	15.35	38
	459.63	3/4 BS	A2	T6	40.8	15.81	39
		3/4 BS	A2b	T6	40.8	15.88	39
		3/4 BS	A2a	T6a	40.8	11.34	28
		3/4 BS	A2b	T6a	40.8	16	39
		3/4 BS	A2a	T6b	40.8	11.28	28
		3/4 BS	A2	T6b	40.8	16	39
1.2D + 1.0Di + 1.0Wi 300°	70.00	1/2 EHS	A1	31	16.14	4.42	27
		1/2 EHS	A1b	31a	16.14	6.04	37
		1/2 EHS	A1a	31b	16.14	4.42	27

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	139.63	9/16 EHS	A1	T2	21	4.94	24
		9/16 EHS	A1b	T2	21	7.59	36
		9/16 EHS	A1b	T2a	21	7.63	36
		9/16 EHS	A1a	T2a	21	4.91	23
		9/16 EHS	A1a	T2b	21	4.99	24
		9/16 EHS	A1	T2b	21	4.96	24
	219.63	9/16 EHS	A1	T3	21	5.07	24
		9/16 EHS	A1b	T3	21	8.09	39
		9/16 EHS	A1a	T3a	21	5.07	24
		9/16 EHS	A1b	T3a	21	8.09	39
		9/16 EHS	A1a	T3b	21	5.18	25
		9/16 EHS	A1	T3b	21	5.19	25
	299.63	5/8 EHS	A2b	T4	25.44	12.75	50
		5/8 EHS	A2	T4	25.44	9.56	38
		5/8 EHS	A2a	T4a	25.44	9.55	38
		5/8 EHS	A2b	T4a	25.44	12.74	50
		5/8 EHS	A2a	T4b	25.44	9.62	38
		5/8 EHS	A2	T4b	25.44	9.64	38
	379.63	3/4 BS	A2	T5	40.8	12.23	30
		3/4 BS	A2b	T5	40.8	16.75	41
		3/4 BS	A2a	T5a	40.8	12.25	30
		3/4 BS	A2b	T5a	40.8	16.71	41
		3/4 BS	A2a	T5b	40.8	12.32	30
		3/4 BS	A2	T5b	40.8	12.38	30
	459.63	3/4 BS	A2	T6	40.8	12.76	31
		3/4 BS	A2b	T6	40.8	17.51	43
		3/4 BS	A2b	T6a	40.8	17.47	43
		3/4 BS	A2a	T6a	40.8	12.84	31
		3/4 BS	A2a	T6b	40.8	12.97	32
		3/4 BS	A2	T6b	40.8	12.98	32
1.2D + 1.0Di + 1.0Wi 330°	70.00	1/2 EHS	A1	31	16.14	4.02	25
		1/2 EHS	A1b	31a	16.14	5.96	37
		1/2 EHS	A1a	31b	16.14	5.05	31
	139.63	9/16 EHS	A1	T2	21	4.37	21
		9/16 EHS	A1b	T2	21	7.37	35
		9/16 EHS	A1a	T2a	21	5.79	28
		9/16 EHS	A1b	T2a	21	7.41	35
		9/16 EHS	A1a	T2b	21	5.91	28
		9/16 EHS	A1	T2b	21	4.34	21
	219.63	9/16 EHS	A1	T3	21	4.23	20
		9/16 EHS	A1b	T3	21	7.84	37
		9/16 EHS	A1b	T3a	21	7.82	37
		9/16 EHS	A1a	T3a	21	6.07	29
		9/16 EHS	A1a	T3b	21	6.2	30
		9/16 EHS	A1	T3b	21	4.29	20
	299.63	5/8 EHS	A2	T4	25.44	8.88	35
		5/8 EHS	A2b	T4	25.44	12.54	49
		5/8 EHS	A2a	T4a	25.44	10.67	42
		5/8 EHS	A2b	T4a	25.44	12.54	49
		5/8 EHS	A2a	T4b	25.44	10.77	42
		5/8 EHS	A2	T4b	25.44	8.9	35
	379.63	3/4 BS	A2b	T5	40.8	16.37	40
		3/4 BS	A2	T5	40.8	11.31	28
		3/4 BS	A2a	T5a	40.8	13.68	34
		3/4 BS	A2b	T5a	40.8	16.33	40
		3/4 BS	A2a	T5b	40.8	13.8	34
		3/4 BS	A2	T5b	40.8	11.36	28
	459.63	3/4 BS	A2	T6	40.8	11.66	29
		3/4 BS	A2b	T6	40.8	17.1	42

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.2D + 1.0Ev + 1.0Eh Normal	70.00	3/4 BS	A2a	T6a	40.8	14.33	35
		3/4 BS	A2b	T6a	40.8	17.02	42
		3/4 BS	A2a	T6b	40.8	14.5	36
		3/4 BS	A2	T6b	40.8	11.78	29
	139.63	1/2 EHS	A1	31	16.14	2.47	15
		1/2 EHS	A1b	31a	16.14	2.54	16
		1/2 EHS	A1a	31b	16.14	2.54	16
		9/16 EHS	A1	T2	21	2.83	13
	219.63	9/16 EHS	A1b	T2	21	3.03	14
		9/16 EHS	A1b	T2a	21	3.05	15
		9/16 EHS	A1a	T2a	21	3.04	14
		9/16 EHS	A1a	T2b	21	3.05	15
	299.63	9/16 EHS	A1	T2b	21	2.81	13
		9/16 EHS	A1	T3	21	2.62	12
		9/16 EHS	A1b	T3	21	2.91	14
		9/16 EHS	A1a	T3a	21	2.91	14
	379.63	9/16 EHS	A1b	T3a	21	2.91	14
		9/16 EHS	A1a	T3b	21	2.91	14
		9/16 EHS	A1	T3b	21	2.62	12
		5/8 EHS	A2	T4	25.44	3.67	14
	459.63	5/8 EHS	A2b	T4	25.44	3.99	16
		5/8 EHS	A2b	T4a	25.44	3.99	16
		5/8 EHS	A2a	T4a	25.44	3.99	16
		5/8 EHS	A2a	T4b	25.44	3.99	16
	70.00	5/8 EHS	A2	T4b	25.44	3.67	14
		3/4 BS	A2	T5	40.8	5.8	14
		3/4 BS	A2b	T5	40.8	6.34	16
		3/4 BS	A2a	T5a	40.8	6.34	16
	139.63	3/4 BS	A2b	T5a	40.8	6.33	16
		3/4 BS	A2	T5b	40.8	5.8	14
		3/4 BS	A2a	T5b	40.8	6.33	16
		3/4 BS	A2	T6	40.8	5.81	14
	219.63	3/4 BS	A2b	T6	40.8	6.36	16
		3/4 BS	A2b	T6a	40.8	6.34	16
		3/4 BS	A2a	T6a	40.8	6.35	16
		3/4 BS	A2a	T6b	40.8	6.35	16
	299.63	3/4 BS	A2	T6b	40.8	5.83	14
		1/2 EHS	A1	31	16.14	2.49	15
		1/2 EHS	A1b	31a	16.14	2.49	15
		1/2 EHS	A1a	31b	16.14	2.57	16
	379.63	9/16 EHS	A1	T2	21	2.9	14
		9/16 EHS	A1b	T2	21	2.88	14
		9/16 EHS	A1a	T2a	21	3.1	15
		9/16 EHS	A1b	T2a	21	2.91	14
	70.00	9/16 EHS	A1	T2b	21	2.89	14
		9/16 EHS	A1a	T2b	21	3.12	15
		9/16 EHS	A1	T3	21	2.72	13
		9/16 EHS	A1b	T3	21	2.72	13
	139.63	9/16 EHS	A1a	T3a	21	3	14
		9/16 EHS	A1b	T3a	21	2.72	13
		9/16 EHS	A1a	T3b	21	3	14
		9/16 EHS	A1	T3b	21	2.72	13
	219.63	5/8 EHS	A2b	T4	25.44	3.78	15
		5/8 EHS	A2	T4	25.44	3.78	15
		5/8 EHS	A2b	T4a	25.44	3.78	15
		5/8 EHS	A2a	T4a	25.44	4.09	16
	299.63	5/8 EHS	A2	T4b	25.44	3.78	15
		5/8 EHS	A2a	T4b	25.44	4.09	16
		3/4 BS	A2b	T5	40.8	5.99	15

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	459.63	3/4 BS	A2	T5	40.8	5.98	15
		3/4 BS	A2a	T5a	40.8	6.51	16
		3/4 BS	A2b	T5a	40.8	5.98	15
		3/4 BS	A2a	T5b	40.8	6.5	16
		3/4 BS	A2	T5b	40.8	5.99	15
		3/4 BS	A2b	T6	40.8	6.01	15
		3/4 BS	A2	T6	40.8	6	15
		3/4 BS	A2a	T6a	40.8	6.52	16
		3/4 BS	A2b	T6a	40.8	5.99	15
		3/4 BS	A2a	T6b	40.8	6.51	16
		3/4 BS	A2	T6b	40.8	6	15
		1/2 EHS	A1	31	16.14	2.52	16
1.2D + 1.0Ev + 1.0Eh 90°	139.63	1/2 EHS	A1b	31a	16.14	2.48	15
		1/2 EHS	A1a	31b	16.14	2.56	16
		9/16 EHS	A1	T2	21	2.97	14
		9/16 EHS	A1b	T2	21	2.83	13
		9/16 EHS	A1b	T2a	21	2.85	14
		9/16 EHS	A1a	T2a	21	3.08	15
		9/16 EHS	A1a	T2b	21	3.1	15
		9/16 EHS	A1	T2b	21	2.96	14
		9/16 EHS	A1	T3	21	2.81	13
		9/16 EHS	A1b	T3	21	2.64	13
		9/16 EHS	A1a	T3a	21	2.98	14
		9/16 EHS	A1b	T3a	21	2.65	13
	219.63	9/16 EHS	A1a	T3b	21	2.98	14
		9/16 EHS	A1	T3b	21	2.81	13
		5/8 EHS	A2	T4	25.44	3.88	15
		5/8 EHS	A2b	T4	25.44	3.7	15
		5/8 EHS	A2b	T4a	25.44	3.7	15
		5/8 EHS	A2a	T4a	25.44	4.07	16
		5/8 EHS	A2a	T4b	25.44	4.07	16
		5/8 EHS	A2	T4b	25.44	3.88	15
		3/4 BS	A2	T5	40.8	6.15	15
		3/4 BS	A2b	T5	40.8	5.85	14
		3/4 BS	A2a	T5a	40.8	6.47	16
		3/4 BS	A2b	T5a	40.8	5.84	14
	459.63	3/4 BS	A2	T5b	40.8	6.16	15
		3/4 BS	A2a	T5b	40.8	6.47	16
		3/4 BS	A2	T6	40.8	6.17	15
		3/4 BS	A2b	T6	40.8	5.87	14
		3/4 BS	A2b	T6a	40.8	5.86	14
		3/4 BS	A2a	T6a	40.8	6.49	16
		3/4 BS	A2a	T6b	40.8	6.47	16
		3/4 BS	A2	T6b	40.8	6.17	15
1.2D + 1.0Ev + 1.0Eh 120°	70.00	1/2 EHS	A1	31	16.14	2.54	16
		1/2 EHS	A1b	31a	16.14	2.47	15
		1/2 EHS	A1a	31b	16.14	2.54	16
	139.63	9/16 EHS	A1	T2	21	3.05	15
		9/16 EHS	A1b	T2	21	2.82	13
		9/16 EHS	A1a	T2a	21	3.03	14
		9/16 EHS	A1b	T2a	21	2.83	13
		9/16 EHS	A1a	T2b	21	3.05	15
		9/16 EHS	A1	T2b	21	3.03	14
	219.63	9/16 EHS	A1b	T3	21	2.63	13
		9/16 EHS	A1	T3	21	2.9	14
		9/16 EHS	A1a	T3a	21	2.9	14
		9/16 EHS	A1b	T3a	21	2.63	13
		9/16 EHS	A1	T3b	21	2.91	14
		9/16 EHS	A1a	T3b	21	2.91	14

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	299.63	5/8 EHS	A2	T4	25.44	3.98	16
		5/8 EHS	A2b	T4	25.44	3.68	14
		5/8 EHS	A2b	T4a	25.44	3.68	14
		5/8 EHS	A2a	T4a	25.44	3.98	16
		5/8 EHS	A2a	T4b	25.44	3.98	16
		5/8 EHS	A2	T4b	25.44	3.99	16
	379.63	3/4 BS	A2	T5	40.8	6.32	15
		3/4 BS	A2b	T5	40.8	5.82	14
		3/4 BS	A2a	T5a	40.8	6.33	16
		3/4 BS	A2b	T5a	40.8	5.81	14
		3/4 BS	A2	T5b	40.8	6.33	16
		3/4 BS	A2a	T5b	40.8	6.33	16
	459.63	3/4 BS	A2	T6	40.8	6.34	16
		3/4 BS	A2b	T6	40.8	5.84	14
		3/4 BS	A2b	T6a	40.8	5.83	14
		3/4 BS	A2a	T6a	40.8	6.35	16
		3/4 BS	A2	T6b	40.8	6.34	16
		3/4 BS	A2a	T6b	40.8	6.33	16
1.2D + 1.0Ev + 1.0Eh 180°	70.00	1/2 EHS	A1	31	16.14	2.57	16
		1/2 EHS	A1b	31a	16.14	2.49	15
		1/2 EHS	A1a	31b	16.14	2.49	15
	139.63	9/16 EHS	A1	T2	21	3.12	15
		9/16 EHS	A1b	T2	21	2.89	14
		9/16 EHS	A1b	T2a	21	2.9	14
		9/16 EHS	A1a	T2a	21	2.88	14
		9/16 EHS	A1a	T2b	21	2.91	14
		9/16 EHS	A1	T2b	21	3.11	15
	219.63	9/16 EHS	A1	T3	21	3	14
		9/16 EHS	A1b	T3	21	2.72	13
		9/16 EHS	A1a	T3a	21	2.71	13
		9/16 EHS	A1b	T3a	21	2.72	13
		9/16 EHS	A1a	T3b	21	2.72	13
		9/16 EHS	A1	T3b	21	3	14
	299.63	5/8 EHS	A2	T4	25.44	4.1	16
		5/8 EHS	A2b	T4	25.44	3.78	15
		5/8 EHS	A2b	T4a	25.44	3.78	15
		5/8 EHS	A2a	T4a	25.44	3.78	15
		5/8 EHS	A2a	T4b	25.44	3.78	15
		5/8 EHS	A2	T4b	25.44	4.1	16
	379.63	3/4 BS	A2	T5	40.8	6.51	16
		3/4 BS	A2b	T5	40.8	5.98	15
		3/4 BS	A2a	T5a	40.8	5.98	15
		3/4 BS	A2b	T5a	40.8	5.97	15
		3/4 BS	A2	T5b	40.8	6.52	16
		3/4 BS	A2a	T5b	40.8	5.97	15
	459.63	3/4 BS	A2	T6	40.8	6.52	16
		3/4 BS	A2b	T6	40.8	6	15
		3/4 BS	A2b	T6a	40.8	5.99	15
		3/4 BS	A2a	T6a	40.8	6	15
		3/4 BS	A2a	T6b	40.8	5.99	15
		3/4 BS	A2	T6b	40.8	6.53	16
1.2D + 1.0Ev + 1.0Eh 210°	70.00	1/2 EHS	A1	31	16.14	2.56	16
		1/2 EHS	A1b	31a	16.14	2.52	16
		1/2 EHS	A1a	31b	16.14	2.48	15
	139.63	9/16 EHS	A1	T2	21	3.1	15
		9/16 EHS	A1b	T2	21	2.96	14
		9/16 EHS	A1a	T2a	21	2.83	13
		9/16 EHS	A1b	T2a	21	2.97	14
		9/16 EHS	A1a	T2b	21	2.85	14

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	219.63	9/16 EHS	A1	T2b	21	3.08	15
		9/16 EHS	A1	T3	21	2.97	14
		9/16 EHS	A1b	T3	21	2.81	13
		9/16 EHS	A1b	T3a	21	2.81	13
		9/16 EHS	A1a	T3a	21	2.65	13
		9/16 EHS	A1a	T3b	21	2.65	13
	299.63	9/16 EHS	A1	T3b	21	2.97	14
		5/8 EHS	A2	T4	25.44	4.06	16
		5/8 EHS	A2b	T4	25.44	3.88	15
		5/8 EHS	A2a	T4a	25.44	3.71	15
		5/8 EHS	A2b	T4a	25.44	3.88	15
		5/8 EHS	A2a	T4b	25.44	3.71	15
	379.63	5/8 EHS	A2	T4b	25.44	4.06	16
		3/4 BS	A2b	T5	40.8	6.16	15
		3/4 BS	A2	T5	40.8	6.45	16
		3/4 BS	A2b	T5a	40.8	6.15	15
		3/4 BS	A2a	T5a	40.8	5.86	14
		3/4 BS	A2	T5b	40.8	6.46	16
	459.63	3/4 BS	A2a	T5b	40.8	5.86	14
		3/4 BS	A2	T6	40.8	6.46	16
		3/4 BS	A2b	T6	40.8	6.17	15
		3/4 BS	A2a	T6a	40.8	5.88	14
		3/4 BS	A2b	T6a	40.8	6.17	15
		3/4 BS	A2a	T6b	40.8	5.87	14
1.2D + 1.0Ev + 1.0Eh 240°	70.00	1/2 EHS	A1	31	16.14	2.54	16
		1/2 EHS	A1b	31a	16.14	2.54	16
		1/2 EHS	A1a	31b	16.14	2.47	15
	139.63	9/16 EHS	A1	T2	21	3.05	15
		9/16 EHS	A1b	T2	21	3.03	14
		9/16 EHS	A1b	T2a	21	3.05	15
		9/16 EHS	A1a	T2a	21	2.82	13
		9/16 EHS	A1a	T2b	21	2.83	13
		9/16 EHS	A1	T2b	21	3.03	14
	219.63	9/16 EHS	A1b	T3	21	2.91	14
		9/16 EHS	A1	T3	21	2.91	14
		9/16 EHS	A1b	T3a	21	2.9	14
		9/16 EHS	A1a	T3a	21	2.63	13
		9/16 EHS	A1	T3b	21	2.9	14
		9/16 EHS	A1a	T3b	21	2.63	13
	299.63	5/8 EHS	A2	T4	25.44	3.98	16
		5/8 EHS	A2b	T4	25.44	3.99	16
		5/8 EHS	A2a	T4a	25.44	3.68	14
		5/8 EHS	A2b	T4a	25.44	3.98	16
		5/8 EHS	A2a	T4b	25.44	3.68	14
		5/8 EHS	A2	T4b	25.44	3.98	16
	379.63	3/4 BS	A2b	T5	40.8	6.33	16
		3/4 BS	A2	T5	40.8	6.33	16
		3/4 BS	A2a	T5a	40.8	5.82	14
		3/4 BS	A2b	T5a	40.8	6.32	15
		3/4 BS	A2a	T5b	40.8	5.81	14
		3/4 BS	A2	T5b	40.8	6.33	16
	459.63	3/4 BS	A2	T6	40.8	6.33	16
		3/4 BS	A2b	T6	40.8	6.34	16
		3/4 BS	A2a	T6a	40.8	5.84	14
		3/4 BS	A2b	T6a	40.8	6.34	16
		3/4 BS	A2	T6b	40.8	6.35	16
		3/4 BS	A2a	T6b	40.8	5.83	14
1.2D + 1.0Ev + 1.0Eh 300°	70.00	1/2 EHS	A1	31	16.14	2.49	15

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	139.63	1/2 EHS	A1b	31a	16.14	2.57	16
		1/2 EHS	A1a	31b	16.14	2.49	15
		9/16 EHS	A1	T2	21	2.91	14
		9/16 EHS	A1b	T2	21	3.1	15
		9/16 EHS	A1a	T2a	21	2.89	14
	219.63	9/16 EHS	A1b	T2a	21	3.12	15
		9/16 EHS	A1a	T2b	21	2.9	14
		9/16 EHS	A1	T2b	21	2.88	14
		9/16 EHS	A1	T3	21	2.72	13
		9/16 EHS	A1b	T3	21	3	14
	299.63	9/16 EHS	A1b	T3a	21	3	14
		9/16 EHS	A1a	T3a	21	2.72	13
		9/16 EHS	A1a	T3b	21	2.72	13
		9/16 EHS	A1	T3b	21	2.72	13
		5/8 EHS	A2	T4	25.44	3.78	15
	379.63	5/8 EHS	A2b	T4	25.44	4.09	16
		5/8 EHS	A2a	T4a	25.44	3.78	15
		5/8 EHS	A2b	T4a	25.44	4.09	16
		5/8 EHS	A2a	T4b	25.44	3.78	15
		5/8 EHS	A2	T4b	25.44	3.78	15
	459.63	3/4 BS	A2b	T5	40.8	6.51	16
		3/4 BS	A2	T5	40.8	5.98	15
		3/4 BS	A2b	T5a	40.8	6.5	16
		3/4 BS	A2a	T5a	40.8	5.99	15
		3/4 BS	A2	T5b	40.8	5.99	15
1.2D + 1.0Ev + 1.0Eh 330°	70.00	3/4 BS	A2a	T5b	40.8	5.98	15
		3/4 BS	A2	T6	40.8	5.99	15
		3/4 BS	A2b	T6	40.8	6.52	16
		3/4 BS	A2a	T6a	40.8	6	15
		3/4 BS	A2b	T6a	40.8	6.51	16
	139.63	3/4 BS	A2a	T6b	40.8	6	15
		3/4 BS	A2	T6b	40.8	6.01	15
		1/2 EHS	A1	31	16.14	2.48	15
		1/2 EHS	A1b	31a	16.14	2.56	16
		1/2 EHS	A1a	31b	16.14	2.52	16
	219.63	9/16 EHS	A1	T2	21	2.85	14
		9/16 EHS	A1b	T2	21	3.08	15
		9/16 EHS	A1b	T2a	21	3.1	15
		9/16 EHS	A1a	T2a	21	2.96	14
		9/16 EHS	A1a	T2b	21	2.97	14
	299.63	9/16 EHS	A1	T2b	21	2.83	13
		9/16 EHS	A1b	T3	21	2.97	14
		9/16 EHS	A1	T3	21	2.65	13
		9/16 EHS	A1b	T3a	21	2.97	14
		9/16 EHS	A1a	T3a	21	2.81	13
	379.63	9/16 EHS	A1	T3b	21	2.65	13
		9/16 EHS	A1a	T3b	21	2.81	13
		5/8 EHS	A2	T4	25.44	3.71	15
		5/8 EHS	A2b	T4	25.44	4.06	16
		5/8 EHS	A2a	T4a	25.44	3.88	15
		5/8 EHS	A2b	T4a	25.44	4.06	16
		5/8 EHS	A2a	T4b	25.44	3.88	15
		5/8 EHS	A2	T4b	25.44	3.71	15
		3/4 BS	A2b	T5	40.8	6.46	16
		3/4 BS	A2	T5	40.8	5.86	14
		3/4 BS	A2a	T5a	40.8	6.16	15
		3/4 BS	A2b	T5a	40.8	6.45	16
		3/4 BS	A2a	T5b	40.8	6.15	15
		3/4 BS	A2	T5b	40.8	5.86	14

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.0D + 1.0W Service Normal	459.63	3/4 BS	A2	T6	40.8	5.87	14
		3/4 BS	A2b	T6	40.8	6.48	16
		3/4 BS	A2a	T6a	40.8	6.17	15
		3/4 BS	A2b	T6a	40.8	6.46	16
		3/4 BS	A2	T6b	40.8	5.88	14
		3/4 BS	A2a	T6b	40.8	6.17	15
	70.00	1/2 EHS	A1	31	16.14	1.83	11
		1/2 EHS	A1b	31a	16.14	2.92	18
		1/2 EHS	A1a	31b	16.14	2.92	18
	139.63	9/16 EHS	A1b	T2	21	3.58	17
		9/16 EHS	A1	T2	21	1.95	9
		9/16 EHS	A1a	T2a	21	3.56	17
		9/16 EHS	A1b	T2a	21	3.58	17
		9/16 EHS	A1	T2b	21	1.93	9
		9/16 EHS	A1a	T2b	21	3.59	17
	219.63	9/16 EHS	A1	T3	21	1.96	9
		9/16 EHS	A1b	T3	21	3.47	17
		9/16 EHS	A1b	T3a	21	3.41	16
		9/16 EHS	A1a	T3a	21	3.41	16
		9/16 EHS	A1a	T3b	21	3.47	17
		9/16 EHS	A1	T3b	21	1.96	9
	299.63	5/8 EHS	A2b	T4	25.44	4.66	18
		5/8 EHS	A2	T4	25.44	3.02	12
		5/8 EHS	A2b	T4a	25.44	4.64	18
		5/8 EHS	A2a	T4a	25.44	4.64	18
		5/8 EHS	A2	T4b	25.44	3.02	12
		5/8 EHS	A2a	T4b	25.44	4.66	18
	379.63	3/4 BS	A2	T5	40.8	4.9	12
		3/4 BS	A2b	T5	40.8	7.26	18
		3/4 BS	A2b	T5a	40.8	7.23	18
		3/4 BS	A2a	T5a	40.8	7.24	18
		3/4 BS	A2	T5b	40.8	4.92	12
		3/4 BS	A2a	T5b	40.8	7.25	18
	459.63	3/4 BS	A2b	T6	40.8	7.47	18
		3/4 BS	A2	T6	40.8	5.05	12
		3/4 BS	A2a	T6a	40.8	7.39	18
		3/4 BS	A2b	T6a	40.8	7.38	18
		3/4 BS	A2	T6b	40.8	5.07	12
		3/4 BS	A2a	T6b	40.8	7.45	18
1.0D + 1.0W Service 60°	70.00	1/2 EHS	A1	31	16.14	2.19	14
		1/2 EHS	A1b	31a	16.14	2.19	14
		1/2 EHS	A1a	31b	16.14	3.25	20
	139.63	9/16 EHS	A1	T2	21	2.5	12
		9/16 EHS	A1b	T2	21	2.48	12
		9/16 EHS	A1b	T2a	21	2.48	12
		9/16 EHS	A1a	T2a	21	4.15	20
		9/16 EHS	A1a	T2b	21	4.18	20
		9/16 EHS	A1	T2b	21	2.46	12
	219.63	9/16 EHS	A1	T3	21	2.51	12
		9/16 EHS	A1b	T3	21	2.5	12
		9/16 EHS	A1a	T3a	21	4.03	19
		9/16 EHS	A1b	T3a	21	2.45	12
		9/16 EHS	A1a	T3b	21	4.03	19
		9/16 EHS	A1	T3b	21	2.45	12
	299.63	5/8 EHS	A2	T4	25.44	3.62	14
		5/8 EHS	A2b	T4	25.44	3.61	14
		5/8 EHS	A2b	T4a	25.44	3.57	14
		5/8 EHS	A2a	T4a	25.44	5.15	20
		5/8 EHS	A2a	T4b	25.44	5.16	20

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	379.63	5/8 EHS	A2	T4b	25.44	3.57	14
		3/4 BS	A2	T5	40.8	5.72	14
		3/4 BS	A2b	T5	40.8	5.69	14
		3/4 BS	A2a	T5a	40.8	8.1	20
		3/4 BS	A2b	T5a	40.8	5.67	14
		3/4 BS	A2	T5b	40.8	5.65	14
	459.63	3/4 BS	A2a	T5b	40.8	8.13	20
		3/4 BS	A2	T6	40.8	5.99	15
		3/4 BS	A2b	T6	40.8	5.97	15
		3/4 BS	A2b	T6a	40.8	5.9	14
		3/4 BS	A2a	T6a	40.8	8.23	20
		3/4 BS	A2a	T6b	40.8	8.25	20
1.0D + 1.0W Service 90°	70.00	3/4 BS	A2	T6b	40.8	5.87	14
		1/2 EHS	A1	31	16.14	2.56	16
		1/2 EHS	A1b	31a	16.14	1.92	12
	139.63	1/2 EHS	A1a	31b	16.14	3.17	20
		9/16 EHS	A1	T2	21	3.06	15
		9/16 EHS	A1b	T2	21	2.06	10
		9/16 EHS	A1b	T2a	21	2.08	10
		9/16 EHS	A1a	T2a	21	4	19
		9/16 EHS	A1a	T2b	21	4.02	19
	219.63	9/16 EHS	A1	T2b	21	3.01	14
		9/16 EHS	A1	T3	21	2.99	14
		9/16 EHS	A1b	T3	21	2.11	10
		9/16 EHS	A1a	T3a	21	3.88	18
		9/16 EHS	A1b	T3a	21	2.08	10
		9/16 EHS	A1a	T3b	21	3.86	18
	299.63	9/16 EHS	A1	T3b	21	2.91	14
		5/8 EHS	A2	T4	25.44	4.18	16
		5/8 EHS	A2b	T4	25.44	3.13	12
		5/8 EHS	A2b	T4a	25.44	3.13	12
		5/8 EHS	A2a	T4a	25.44	5.02	20
		5/8 EHS	A2a	T4b	25.44	5.03	20
	379.63	5/8 EHS	A2	T4b	25.44	4.12	16
		3/4 BS	A2	T5	40.8	6.5	16
		3/4 BS	A2b	T5	40.8	5.08	12
		3/4 BS	A2a	T5a	40.8	7.86	19
		3/4 BS	A2b	T5a	40.8	5.1	13
		3/4 BS	A2	T5b	40.8	6.42	16
	459.63	3/4 BS	A2a	T5b	40.8	7.9	19
		3/4 BS	A2	T6	40.8	6.75	17
		3/4 BS	A2b	T6	40.8	5.32	13
		3/4 BS	A2b	T6a	40.8	5.31	13
		3/4 BS	A2a	T6a	40.8	8.01	20
		3/4 BS	A2a	T6b	40.8	8.02	20
1.0D + 1.0W Service 120°	70.00	3/4 BS	A2	T6b	40.8	6.61	16
		1/2 EHS	A1	31	16.14	2.92	18
		1/2 EHS	A1b	31a	16.14	1.83	11
	139.63	1/2 EHS	A1a	31b	16.14	2.92	18
		9/16 EHS	A1	T2	21	3.6	17
		9/16 EHS	A1b	T2	21	1.92	9
		9/16 EHS	A1a	T2a	21	3.58	17
		9/16 EHS	A1b	T2a	21	1.94	9
		9/16 EHS	A1a	T2b	21	3.58	17
	219.63	9/16 EHS	A1	T2b	21	3.56	17
		9/16 EHS	A1b	T3	21	1.94	9
		9/16 EHS	A1	T3	21	3.48	17
		9/16 EHS	A1a	T3a	21	3.47	17
		9/16 EHS	A1b	T3a	21	1.95	9

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	299.63	9/16 EHS	A1	T3b	21	3.41	16
		9/16 EHS	A1a	T3b	21	3.42	16
		5/8 EHS	A2	T4	25.44	4.67	18
		5/8 EHS	A2b	T4	25.44	3	12
		5/8 EHS	A2b	T4a	25.44	3.01	12
		5/8 EHS	A2a	T4a	25.44	4.66	18
	379.63	5/8 EHS	A2a	T4b	25.44	4.65	18
		5/8 EHS	A2	T4b	25.44	4.64	18
		3/4 BS	A2	T5	40.8	7.27	18
		3/4 BS	A2b	T5	40.8	4.88	12
		3/4 BS	A2a	T5a	40.8	7.24	18
		3/4 BS	A2b	T5a	40.8	4.91	12
	459.63	3/4 BS	A2	T5b	40.8	7.23	18
		3/4 BS	A2a	T5b	40.8	7.25	18
		3/4 BS	A2b	T6	40.8	5.04	12
		3/4 BS	A2	T6	40.8	7.47	18
		3/4 BS	A2b	T6a	40.8	5.09	12
		3/4 BS	A2a	T6a	40.8	7.45	18
1.0D + 1.0W Service 180°	70.00	3/4 BS	A2a	T6b	40.8	7.4	18
		3/4 BS	A2	T6b	40.8	7.37	18
		1/2 EHS	A1	31	16.14	3.25	20
		1/2 EHS	A1b	31a	16.14	2.19	14
		1/2 EHS	A1a	31b	16.14	2.19	14
	139.63	9/16 EHS	A1	T2	21	4.17	20
		9/16 EHS	A1b	T2	21	2.46	12
		9/16 EHS	A1b	T2a	21	2.5	12
		9/16 EHS	A1a	T2a	21	2.48	12
		9/16 EHS	A1a	T2b	21	2.48	12
		9/16 EHS	A1	T2b	21	4.16	20
	219.63	9/16 EHS	A1	T3	21	4.03	19
		9/16 EHS	A1b	T3	21	2.45	12
		9/16 EHS	A1a	T3a	21	2.51	12
		9/16 EHS	A1b	T3a	21	2.51	12
		9/16 EHS	A1a	T3b	21	2.45	12
		9/16 EHS	A1	T3b	21	4.03	19
	299.63	5/8 EHS	A2	T4	25.44	5.16	20
		5/8 EHS	A2b	T4	25.44	3.57	14
		5/8 EHS	A2b	T4a	25.44	3.61	14
		5/8 EHS	A2a	T4a	25.44	3.61	14
		5/8 EHS	A2a	T4b	25.44	3.57	14
		5/8 EHS	A2	T4b	25.44	5.16	20
	379.63	3/4 BS	A2	T5	40.8	8.11	20
		3/4 BS	A2b	T5	40.8	5.66	14
		3/4 BS	A2a	T5a	40.8	5.7	14
		3/4 BS	A2b	T5a	40.8	5.7	14
		3/4 BS	A2	T5b	40.8	8.12	20
		3/4 BS	A2a	T5b	40.8	5.66	14
	459.63	3/4 BS	A2	T6	40.8	8.23	20
		3/4 BS	A2b	T6	40.8	5.89	14
		3/4 BS	A2b	T6a	40.8	5.98	15
		3/4 BS	A2a	T6a	40.8	5.99	15
		3/4 BS	A2a	T6b	40.8	5.88	14
		3/4 BS	A2	T6b	40.8	8.24	20
1.0D + 1.0W Service 210°	70.00	1/2 EHS	A1	31	16.14	3.17	20
		1/2 EHS	A1b	31a	16.14	2.56	16
		1/2 EHS	A1a	31b	16.14	1.92	12
	139.63	9/16 EHS	A1	T2	21	4.01	19
		9/16 EHS	A1b	T2	21	3.01	14
		9/16 EHS	A1a	T2a	21	2.06	10

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	219.63	9/16 EHS	A1b	T2a	21	3.05	15
		9/16 EHS	A1a	T2b	21	2.08	10
		9/16 EHS	A1	T2b	21	3.99	19
		9/16 EHS	A1b	T3	21	2.92	14
		9/16 EHS	A1	T3	21	3.84	18
		9/16 EHS	A1a	T3a	21	2.12	10
		9/16 EHS	A1b	T3a	21	2.99	14
		9/16 EHS	A1	T3b	21	3.87	18
	299.63	9/16 EHS	A1a	T3b	21	2.09	10
		5/8 EHS	A2	T4	25.44	5.01	20
		5/8 EHS	A2b	T4	25.44	4.14	16
		5/8 EHS	A2b	T4a	25.44	4.17	16
		5/8 EHS	A2a	T4a	25.44	3.15	12
		5/8 EHS	A2a	T4b	25.44	3.13	12
		5/8 EHS	A2	T4b	25.44	5.02	20
		3/4 BS	A2	T5	40.8	7.85	19
	379.63	3/4 BS	A2b	T5	40.8	6.45	16
		3/4 BS	A2a	T5a	40.8	5.12	13
		3/4 BS	A2b	T5a	40.8	6.48	16
		3/4 BS	A2	T5b	40.8	7.87	19
		3/4 BS	A2a	T5b	40.8	5.08	12
		3/4 BS	A2b	T6	40.8	6.66	16
		3/4 BS	A2	T6	40.8	7.96	20
		3/4 BS	A2a	T6a	40.8	5.36	13
	459.63	3/4 BS	A2b	T6a	40.8	6.74	17
		3/4 BS	A2	T6b	40.8	8.02	20
		3/4 BS	A2a	T6b	40.8	5.27	13
		1/2 EHS	A1	31	16.14	2.92	18
		1/2 EHS	A1b	31a	16.14	2.92	18
		1/2 EHS	A1a	31b	16.14	1.83	11
		9/16 EHS	A1	T2	21	3.58	17
		9/16 EHS	A1b	T2	21	3.57	17
1.0D + 1.0W Service 240°	139.63	9/16 EHS	A1b	T2a	21	3.6	17
		9/16 EHS	A1a	T2a	21	1.92	9
		9/16 EHS	A1a	T2b	21	1.94	9
		9/16 EHS	A1	T2b	21	3.58	17
	219.63	9/16 EHS	A1	T3	21	3.41	16
		9/16 EHS	A1b	T3	21	3.42	16
		9/16 EHS	A1a	T3a	21	1.95	9
		9/16 EHS	A1b	T3a	21	3.47	17
		9/16 EHS	A1a	T3b	21	1.95	9
		9/16 EHS	A1	T3b	21	3.47	17
	299.63	5/8 EHS	A2	T4	25.44	4.64	18
		5/8 EHS	A2b	T4	25.44	4.65	18
		5/8 EHS	A2b	T4a	25.44	4.66	18
		5/8 EHS	A2a	T4a	25.44	3.01	12
		5/8 EHS	A2a	T4b	25.44	3	12
		5/8 EHS	A2	T4b	25.44	4.67	18
	379.63	3/4 BS	A2	T5	40.8	7.23	18
		3/4 BS	A2b	T5	40.8	7.26	18
		3/4 BS	A2a	T5a	40.8	4.92	12
		3/4 BS	A2b	T5a	40.8	7.24	18
	459.63	3/4 BS	A2	T5b	40.8	7.28	18
		3/4 BS	A2a	T5b	40.8	4.87	12
		3/4 BS	A2	T6	40.8	7.36	18
		3/4 BS	A2b	T6	40.8	7.41	18
		3/4 BS	A2b	T6a	40.8	7.44	18
		3/4 BS	A2a	T6a	40.8	5.1	13
		3/4 BS	A2a	T6b	40.8	5.03	12

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.0D + 1.0W Service 300°	70.00	3/4 BS	A2	T6b	40.8	7.48	18
		1/2 EHS	A1	31	16.14	2.19	14
		1/2 EHS	A1b	31a	16.14	3.25	20
		1/2 EHS	A1a	31b	16.14	2.19	14
	139.63	9/16 EHS	A1	T2	21	2.48	12
		9/16 EHS	A1b	T2	21	4.16	20
		9/16 EHS	A1b	T2a	21	4.17	20
		9/16 EHS	A1a	T2a	21	2.47	12
	219.63	9/16 EHS	A1	T2b	21	2.48	12
		9/16 EHS	A1a	T2b	21	2.5	12
		9/16 EHS	A1b	T3	21	4.03	19
		9/16 EHS	A1	T3	21	2.45	12
	299.63	9/16 EHS	A1b	T3a	21	4.03	19
		9/16 EHS	A1a	T3a	21	2.45	12
		9/16 EHS	A1	T3b	21	2.51	12
		9/16 EHS	A1a	T3b	21	2.5	12
	379.63	5/8 EHS	A2b	T4	25.44	5.17	20
		5/8 EHS	A2	T4	25.44	3.57	14
		5/8 EHS	A2b	T4a	25.44	5.15	20
		5/8 EHS	A2a	T4a	25.44	3.58	14
	459.63	5/8 EHS	A2	T4b	25.44	3.62	14
		5/8 EHS	A2a	T4b	25.44	3.6	14
		3/4 BS	A2b	T5	40.8	8.14	20
		3/4 BS	A2	T5	40.8	5.64	14
	379.63	3/4 BS	A2a	T5a	40.8	5.68	14
		3/4 BS	A2b	T5a	40.8	8.09	20
		3/4 BS	A2	T5b	40.8	5.73	14
		3/4 BS	A2a	T5b	40.8	5.68	14
	459.63	3/4 BS	A2b	T6	40.8	8.27	20
		3/4 BS	A2	T6	40.8	5.85	14
		3/4 BS	A2b	T6a	40.8	8.21	20
		3/4 BS	A2a	T6a	40.8	5.92	14
	379.63	3/4 BS	A2	T6b	40.8	6	15
		3/4 BS	A2a	T6b	40.8	5.96	15
1.0D + 1.0W Service 330°	70.00	1/2 EHS	A1	31	16.14	1.92	12
		1/2 EHS	A1b	31a	16.14	3.17	20
		1/2 EHS	A1a	31b	16.14	2.56	16
	139.63	9/16 EHS	A1b	T2	21	4	19
		9/16 EHS	A1	T2	21	2.08	10
		9/16 EHS	A1b	T2a	21	4.01	19
		9/16 EHS	A1a	T2a	21	3.01	14
	219.63	9/16 EHS	A1a	T2b	21	3.05	15
		9/16 EHS	A1	T2b	21	2.06	10
		9/16 EHS	A1b	T3	21	3.87	18
		9/16 EHS	A1	T3	21	2.09	10
	299.63	9/16 EHS	A1a	T3a	21	2.92	14
		9/16 EHS	A1b	T3a	21	3.84	18
		9/16 EHS	A1	T3b	21	2.12	10
		9/16 EHS	A1a	T3b	21	2.99	14
	379.63	5/8 EHS	A2b	T4	25.44	5.02	20
		5/8 EHS	A2	T4	25.44	3.13	12
		5/8 EHS	A2a	T4a	25.44	4.14	16
		5/8 EHS	A2b	T4a	25.44	5.01	20
	379.63	5/8 EHS	A2	T4b	25.44	3.15	12
		5/8 EHS	A2a	T4b	25.44	4.17	16
		3/4 BS	A2	T5	40.8	5.08	12
		3/4 BS	A2b	T5	40.8	7.87	19
	379.63	3/4 BS	A2a	T5a	40.8	6.46	16
		3/4 BS	A2b	T5a	40.8	7.85	19

DETAILED CABLE FORCES							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
	459.63	3/4 BS	A2	T5b	40.8	5.13	13
		3/4 BS	A2a	T5b	40.8	6.48	16
		3/4 BS	A2	T6	40.8	5.26	13
		3/4 BS	A2b	T6	40.8	8.03	20
		3/4 BS	A2b	T6a	40.8	7.97	20
		3/4 BS	A2a	T6a	40.8	6.66	16
		3/4 BS	A2	T6b	40.8	5.35	13
		3/4 BS	A2a	T6b	40.8	6.74	17

MAXIMUM CABLE FORCES SUMMARY							
Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Available Tension (kip)	Applied Tension (kip)	Use (%)
1.2D + 1.0Di + 1.0Wi 60°	70.00	1/2 EHS	A1a	31b	16.14	6.05	37
1.2D + 1.0W 60°	139.63	9/16 EHS	A1a	T2a	21.00	7.71	37
1.2D + 1.0Di + 1.0Wi 60°	219.63	9/16 EHS	A1a	T3b	21.00	8.09	39
1.2D + 1.0Di + 1.0Wi 60°	299.63	5/8 EHS	A2a	T4a	25.44	12.73	50
1.2D + 1.0Di + 1.0Wi 60°	379.63	3/4 BS	A2a	T5a	40.80	16.72	41
1.2D + 1.0Di + 1.0Wi 60°	459.63	3/4 BS	A2a	T6a	40.80	17.48	43

MAXIMUM TORQUE ARM STRESS SUMMARY					
Load Case	Elevation (ft)	Member	Type	Compression (%)	Tension (%)
1.2D + 1.0Di + 1.0Wi 60°	70.00	PL 3 x 0.375	Horiz	0	11.5
1.2D + 1.0Di + 1.0Wi 90°	139.50	5X5X0.5	Torque Arm	0	16.8
1.2D + 1.0Di + 1.0Wi 60°	139.50	4X4X0.375	Lower Kicker	17.8	0
1.2D + 1.0Di + 1.0Wi 120°	219.50	5X5X0.5	Torque Arm	0	17.7
1.2D + 1.0Di + 1.0Wi 300°	219.50	4X4X0.375	Lower Kicker	21.4	0
1.2D + 1.0Di + 1.0Wi 180°	299.50	4X4X0.375	Lower Kicker	28.7	0
1.2D + 1.0Di + 1.0Wi 120°	299.50	5X5X0.5	Torque Arm	0	27.5
1.2D + 1.0Di + 1.0Wi 120°	379.50	5X5X0.5	Torque Arm	0	36.2
1.2D + 1.0Di + 1.0Wi 180°	379.50	4X4X0.375	Lower Kicker	39.8	0
1.2D + 1.0Di + 1.0Wi 300°	459.50	4X4X0.375	Lower Kicker	42.7	0
1.2D + 1.0Di + 1.0Wi 330°	459.50	5X5X0.5	Torque Arm	0	37

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	66.79	0.0364	0.0147	0.0234	0.0276
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	86.79	0.0453	0.0141	0.0256	0.0291
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	130.00	0.0608	0.0136	0.0213	0.0248
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	140.00	0.0647	0.0136	0.0445	0.0462
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	170.00	0.0827	0.0109	0.0303	0.0322
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	180.00	0.0877	0.0101	0.0267	0.0285
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	180.38	0.0879	0.0101	0.0283	0.0296
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	183.58	0.0883	0.0099	0.0187	0.0212
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	190.00	0.0897	0.0094	0.0141	0.017
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	220.00	0.0901	0.0077	0.0227	0.0236
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	300.00	0.0823	0.0048	0.0215	0.0218
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	320.00	0.0866	0.0033	0.0300	0.0301
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	330.00	0.0901	0.0027	0.0164	0.0167
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	356.42	0.0966	0.0014	0.0145	0.0146
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	380.00	0.1016	0.0008	0.0611	0.0611
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	383.58	0.1041	0.0007	0.0196	0.0196
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	386.79	0.1049	0.0006	0.0285	0.0285
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	396.42	0.1101	0.0004	0.0238	0.0238
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	403.58	0.1137	0.0003	0.0173	0.0173
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	410.00	0.1157	0.0002	0.0161	0.0161
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	416.42	0.1169	0.0002	0.0142	0.0142
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	420.38	0.1163	0.0001	0.0199	0.0199
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	426.79	0.1155	0.0001	0.0267	0.0267
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	430.00	0.1152	0.0001	0.0295	0.0295
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	456.42	0.1032	0.0000	0.0719	0.0719
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	459.63	0.1016	0.0000	0.0426	0.0426
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	460.00	0.1015	0.0000	0.0407	0.0407
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	463.58	0.1003	0.0000	0.0488	0.0488
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	476.42	0.0963	0.0000	0.0457	0.0457
1.0D + 1.0W Service 330° 60 mph Wind with No Ice	480.00	0.0954	0.0000	0.0440	0.044
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	66.79	0.0363	0.0078	0.0242	0.0253
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	86.79	0.0458	0.0076	0.0276	0.0286
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	130.00	0.0641	0.0077	0.0260	0.0269
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	140.00	0.0689	0.0078	0.0483	0.0487
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	170.00	0.0911	0.0035	0.0378	0.0379
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	180.00	0.0969	0.0021	0.0349	0.0349
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	180.38	0.0971	0.0020	0.0369	0.0369
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	183.58	0.0987	0.0015	0.0257	0.0258
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	190.00	0.1011	0.0006	0.0203	0.0203
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	220.00	0.1062	-0.0047	0.0169	0.0176
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	300.00	0.111	-0.0169	0.0214	0.0272
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	320.00	0.1177	-0.0125	0.0368	0.0386
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	330.00	0.1227	-0.0106	0.0232	0.0255
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	356.42	0.1324	-0.0063	0.0205	0.0215
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	380.00	0.1401	-0.0037	0.0728	0.0729
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	383.58	0.1433	-0.0033	0.0275	0.0277
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	386.79	0.1447	-0.0030	0.0389	0.039
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	396.42	0.1517	-0.0021	0.0332	0.0333
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	403.58	0.1568	-0.0016	0.0257	0.0257
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	410.00	0.1599	-0.0013	0.0241	0.0241
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	416.42	0.1621	-0.0010	0.0150	0.0151
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	420.38	0.162	-0.0008	0.0032	0.0033
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	426.79	0.1618	-0.0006	0.0072	0.0072
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	430.00	0.1617	-0.0006	0.0127	0.0127
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	456.42	0.1488	-0.0002	0.0502	0.0502
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	459.63	0.1467	-0.0001	0.0180	0.018
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	460.00	0.1466	-0.0001	0.0148	0.0148
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	463.58	0.145	-0.0001	0.0319	0.0319
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	476.42	0.139	-0.0001	0.0270	0.027

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 300° 60 mph Wind with No Ice	480.00	0.1374	-0.0001	0.0248	0.0248
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	66.79	0.036	0.0073	0.0219	0.0231
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	86.79	0.0444	0.0072	0.0232	0.0242
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	130.00	0.0571	0.0077	0.0155	0.0168
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	140.00	0.0599	0.0080	0.0411	0.0416
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	170.00	0.074	0.0039	0.0199	0.0203
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	180.00	0.0766	0.0025	0.0140	0.0141
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	180.38	0.0767	0.0025	0.0182	0.0183
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	183.58	0.0771	0.0021	0.0059	0.0062
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	190.00	0.0773	0.0013	0.0011	0.0014
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	220.00	0.0706	-0.0036	0.0217	0.022
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	300.00	0.04	-0.0141	0.0145	0.02
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	320.00	0.0397	-0.0096	0.0203	0.0223
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	330.00	0.0415	-0.0076	0.0052	0.0092
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	356.42	0.0429	-0.0036	0.0026	0.0044
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	380.00	0.0425	-0.0017	0.0574	0.0574
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	383.58	0.0441	-0.0015	0.0056	0.0058
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	386.79	0.0442	-0.0013	0.0152	0.0152
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	396.42	0.0468	-0.0008	0.0044	0.0045
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	403.58	0.0484	-0.0005	0.0064	0.0064
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	410.00	0.0483	-0.0005	0.0080	0.008
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	416.42	0.0471	-0.0003	0.0204	0.0204
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	420.38	0.0446	-0.0003	0.0328	0.0328
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	426.79	0.0408	-0.0002	0.0405	0.0405
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	430.00	0.0389	-0.0002	0.0458	0.0458
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	456.42	0.01	0.0000	0.0885	0.0885
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	459.63	0.006	0.0000	0.0518	0.0518
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	460.00	0.0057	0.0000	0.0571	0.0571
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	463.58	0.0026	0.0000	0.0688	0.0688
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	476.42	0.017	0.0000	0.0630	0.063
1.0D + 1.0W Service 240° 60 mph Wind with No Ice	480.00	0.0208	0.0000	0.0612	0.0612
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	66.79	0.0364	0.0149	0.0233	0.0277
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	86.79	0.0453	0.0143	0.0256	0.0292
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	130.00	0.0608	0.0138	0.0213	0.0249
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	140.00	0.0646	0.0138	0.0444	0.0462
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	170.00	0.0827	0.0113	0.0303	0.0324
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	180.00	0.0877	0.0106	0.0267	0.0287
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	180.38	0.0879	0.0106	0.0283	0.0298
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	183.58	0.0882	0.0104	0.0188	0.0215
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	190.00	0.0897	0.0100	0.0142	0.0173
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	220.00	0.0901	0.0084	0.0226	0.0237
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	300.00	0.0828	0.0070	0.0213	0.0221
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	320.00	0.0872	0.0049	0.0305	0.0307
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	330.00	0.0905	0.0040	0.0168	0.0173
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	356.42	0.0971	0.0022	0.0146	0.0147
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	380.00	0.1021	0.0012	0.0607	0.0607
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	383.58	0.1045	0.0010	0.0192	0.0192
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	386.79	0.1053	0.0009	0.0279	0.0279
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	396.42	0.1103	0.0006	0.0230	0.023
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	403.58	0.1127	0.0004	0.0160	0.016
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	410.00	0.1157	0.0003	0.0153	0.0153
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	416.42	0.1167	0.0003	0.0144	0.0144
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	420.38	0.116	0.0002	0.0219	0.0219
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	426.79	0.115	0.0001	0.0281	0.0281
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	430.00	0.1146	0.0001	0.0320	0.032
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	456.42	0.102	0.0000	0.0741	0.0741
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	459.63	0.0995	0.0000	0.0402	0.0402
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	460.00	0.1002	0.0000	0.0423	0.0423
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	463.58	0.098	0.0000	0.0529	0.0529

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	476.42	0.0948	0.0000	0.0480	0.048
1.0D + 1.0W Service 210° 60 mph Wind with No Ice	480.00	0.0938	0.0000	0.0462	0.0462
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	66.79	0.0363	0.0095	0.0242	0.0259
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	86.79	0.0458	0.0092	0.0276	0.0291
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	130.00	0.0641	0.0095	0.0260	0.0274
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	140.00	0.0689	0.0096	0.0481	0.0488
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	170.00	0.091	0.0066	0.0378	0.0384
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	180.00	0.097	0.0057	0.0352	0.0356
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	180.38	0.0972	0.0056	0.0367	0.0369
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	183.58	0.0985	0.0053	0.0258	0.0264
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	190.00	0.101	0.0047	0.0204	0.0209
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	220.00	0.1062	0.0021	0.0167	0.0167
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	300.00	0.1109	0.0008	0.0206	0.0206
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	320.00	0.1178	0.0006	0.0398	0.0398
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	330.00	0.1225	0.0004	0.0236	0.0236
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	356.42	0.1319	0.0002	0.0204	0.0204
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	380.00	0.1394	0.0001	0.0661	0.0661
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	383.58	0.1423	0.0001	0.0274	0.0274
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	386.79	0.1437	0.0001	0.0375	0.0375
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	396.42	0.1503	0.0001	0.0321	0.0321
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	403.58	0.1544	0.0001	0.0233	0.0233
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	410.00	0.1579	0.0001	0.0216	0.0216
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	416.42	0.1597	0.0001	0.0125	0.0125
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	420.38	0.1596	0.0001	0.0044	0.0044
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	426.79	0.1593	0.0001	0.0086	0.0086
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	430.00	0.1591	0.0001	0.0123	0.0123
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	456.42	0.1457	0.0000	0.0529	0.0529
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	459.63	0.1431	0.0000	0.0213	0.0213
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	460.00	0.1433	0.0000	0.0172	0.0172
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	463.58	0.1412	0.0000	0.0339	0.0339
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	476.42	0.1351	0.0000	0.0290	0.029
1.0D + 1.0W Service 180° 60 mph Wind with No Ice	480.00	0.1333	0.0000	0.0268	0.0268
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	66.79	0.036	0.0095	0.0219	0.0239
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	86.79	0.0444	0.0093	0.0232	0.025
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	130.00	0.0572	0.0102	0.0155	0.0179
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	140.00	0.0599	0.0107	0.0409	0.0419
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	170.00	0.0739	0.0083	0.0200	0.0217
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	180.00	0.0768	0.0077	0.0142	0.0158
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	180.38	0.0769	0.0077	0.0178	0.019
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	183.58	0.0769	0.0075	0.0060	0.0096
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	190.00	0.0771	0.0072	0.0012	0.0072
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	220.00	0.0706	0.0062	0.0215	0.0221
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	300.00	0.0399	0.0136	0.0134	0.0183
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	320.00	0.0399	0.0091	0.0226	0.0241
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	330.00	0.0402	0.0072	0.0058	0.0093
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	356.42	0.0421	0.0034	0.0024	0.0039
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	380.00	0.0419	0.0016	0.0494	0.0494
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	383.58	0.0425	0.0014	0.0060	0.0062
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	386.79	0.0437	0.0012	0.0149	0.015
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	396.42	0.0454	0.0008	0.0043	0.0044
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	403.58	0.0471	0.0006	0.0054	0.0055
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	410.00	0.0471	0.0004	0.0083	0.0083
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	416.42	0.0459	0.0003	0.0188	0.0188
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	420.38	0.0447	0.0002	0.0372	0.0372
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	426.79	0.0409	0.0002	0.0399	0.0399
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	430.00	0.038	0.0002	0.0457	0.0458
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	456.42	0.0092	0.0001	0.0894	0.0894
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	459.63	0.0051	0.0000	0.0462	0.0462
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	460.00	0.0048	0.0000	0.0569	0.0569

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	463.58	0.0018	0.0000	0.0689	0.0689
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	476.42	0.0159	0.0000	0.0629	0.0629
1.0D + 1.0W Service 120° 60 mph Wind with No Ice	480.00	0.0199	0.0000	0.0612	0.0612
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	66.79	0.0364	0.0179	0.0234	0.0294
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	86.79	0.0454	0.0173	0.0257	0.0308
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	130.00	0.0611	0.0166	0.0218	0.0269
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	140.00	0.065	0.0166	0.0449	0.0475
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	170.00	0.0832	0.0162	0.0312	0.0351
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	180.00	0.0887	0.0162	0.0279	0.0323
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	180.38	0.0888	0.0162	0.0288	0.0324
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	183.58	0.089	0.0161	0.0196	0.0254
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	190.00	0.0907	0.0162	0.0150	0.022
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	220.00	0.0917	0.0164	0.0225	0.0271
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	300.00	0.0855	0.0300	0.0202	0.035
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	320.00	0.0904	0.0228	0.0331	0.0402
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	330.00	0.0928	0.0195	0.0178	0.0263
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	356.42	0.1002	0.0121	0.0146	0.0186
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	380.00	0.1059	0.0076	0.0655	0.066
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	383.58	0.1072	0.0068	0.0206	0.0217
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	386.79	0.1093	0.0062	0.0302	0.0308
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	396.42	0.1137	0.0046	0.0244	0.0248
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	403.58	0.1177	0.0036	0.0186	0.0189
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	410.00	0.12	0.0029	0.0179	0.0181
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	416.42	0.1214	0.0023	0.0154	0.0156
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	420.38	0.1219	0.0019	0.0256	0.0256
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	426.79	0.1211	0.0015	0.0278	0.0279
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	430.00	0.1199	0.0014	0.0332	0.0333
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	456.42	0.108	0.0005	0.0751	0.0751
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	459.63	0.1064	0.0004	0.0308	0.0308
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	460.00	0.1063	0.0004	0.0426	0.0426
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	463.58	0.1051	0.0004	0.0541	0.0541
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	476.42	0.1012	0.0003	0.0481	0.0481
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	480.00	0.1003	0.0003	0.0464	0.0464
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	66.79	0.0364	0.0107	0.0242	0.0263
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	86.79	0.0459	0.0104	0.0276	0.0295
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	130.00	0.0642	0.0108	0.0260	0.0279
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	140.00	0.069	0.0109	0.0481	0.049
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	170.00	0.0909	0.0090	0.0379	0.0389
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	180.00	0.0971	0.0084	0.0354	0.0363
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	180.38	0.0973	0.0083	0.0365	0.0372
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	183.58	0.0984	0.0082	0.0258	0.0271
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	190.00	0.1009	0.0078	0.0204	0.0218
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	220.00	0.1063	0.0064	0.0163	0.0171
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	300.00	0.1109	0.0131	0.0193	0.0226
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	320.00	0.1178	0.0097	0.0413	0.0424
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	330.00	0.1213	0.0081	0.0236	0.025
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	356.42	0.1313	0.0048	0.0205	0.021
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	380.00	0.1395	0.0029	0.0709	0.0709
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	383.58	0.1414	0.0025	0.0283	0.0284
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	386.79	0.1439	0.0023	0.0393	0.0393
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	396.42	0.1499	0.0016	0.0330	0.0331
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	403.58	0.1551	0.0012	0.0255	0.0255
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	410.00	0.1584	0.0010	0.0241	0.0241
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	416.42	0.1607	0.0008	0.0138	0.0138
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	420.38	0.1616	0.0007	0.0075	0.0076
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	426.79	0.1615	0.0005	0.0066	0.0067
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	430.00	0.1605	0.0005	0.0119	0.0119
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	456.42	0.1478	0.0001	0.0516	0.0516
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	459.63	0.1458	0.0001	0.0144	0.0144

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	460.00	0.1457	0.0001	0.0161	0.0161
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	463.58	0.144	0.0001	0.0325	0.0325
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	476.42	0.1381	0.0001	0.0269	0.0269
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	480.00	0.1364	0.0001	0.0247	0.0247
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	66.79	0.0358	0.0078	0.0217	0.0231
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	86.79	0.0442	0.0076	0.0230	0.0241
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	130.00	0.0567	0.0085	0.0150	0.0167
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	140.00	0.0593	0.0090	0.0403	0.041
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	170.00	0.073	0.0055	0.0192	0.02
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	180.00	0.0756	0.0045	0.0133	0.0138
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	180.38	0.0757	0.0045	0.0173	0.0176
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	183.58	0.0759	0.0042	0.0052	0.0067
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	190.00	0.076	0.0036	0.0019	0.0038
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	220.00	0.069	0.0012	0.0223	0.0223
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	300.00	0.0376	-0.0029	0.0143	0.0145
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	320.00	0.037	-0.0019	0.0207	0.0208
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	330.00	0.0387	-0.0015	0.0053	0.0054
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	356.42	0.04	-0.0006	0.0029	0.003
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	380.00	0.0396	-0.0003	0.0527	0.0527
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	383.58	0.0412	-0.0002	0.0064	0.0064
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	386.79	0.0413	-0.0002	0.0149	0.0149
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	396.42	0.044	-0.0001	0.0055	0.0055
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	403.58	0.0455	-0.0001	0.0042	0.0042
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	410.00	0.0454	-0.0001	0.0053	0.0053
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	416.42	0.0443	-0.0001	0.0171	0.0171
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	420.38	0.0421	-0.0001	0.0327	0.0327
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	426.79	0.0386	0.0000	0.0382	0.0382
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	430.00	0.0368	0.0000	0.0419	0.0419
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	456.42	0.009	0.0000	0.0865	0.0865
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	459.63	0.0046	0.0000	0.0570	0.057
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	460.00	0.0047	0.0000	0.0548	0.0548
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	463.58	0.0007	0.0000	0.0637	0.0637
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	476.42	0.0137	0.0000	0.0603	0.0603
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	480.00	0.0174	0.0000	0.0586	0.0586
1.2D + 1.0Ev + 1.0Eh 330° Seismic	66.79	0.0036	0.0069	0.0043	0.0082
1.2D + 1.0Ev + 1.0Eh 330° Seismic	86.79	0.005	0.0067	0.0046	0.0082
1.2D + 1.0Ev + 1.0Eh 330° Seismic	130.00	0.0083	0.0079	0.0074	0.0107
1.2D + 1.0Ev + 1.0Eh 330° Seismic	140.00	0.0096	0.0084	0.0187	0.0204
1.2D + 1.0Ev + 1.0Eh 330° Seismic	170.00	0.0151	0.0051	0.0105	0.0116
1.2D + 1.0Ev + 1.0Eh 330° Seismic	180.00	0.017	0.0041	0.0113	0.012
1.2D + 1.0Ev + 1.0Eh 330° Seismic	180.38	0.0171	0.0040	0.0141	0.0146
1.2D + 1.0Ev + 1.0Eh 330° Seismic	183.58	0.0172	0.0038	0.0100	0.0107
1.2D + 1.0Ev + 1.0Eh 330° Seismic	190.00	0.0182	0.0032	0.0086	0.0092
1.2D + 1.0Ev + 1.0Eh 330° Seismic	220.00	0.0217	0.0009	0.0151	0.0151
1.2D + 1.0Ev + 1.0Eh 330° Seismic	300.00	0.0321	-0.0014	0.0169	0.017
1.2D + 1.0Ev + 1.0Eh 330° Seismic	320.00	0.0358	-0.0009	0.0163	0.0163
1.2D + 1.0Ev + 1.0Eh 330° Seismic	330.00	0.0381	-0.0007	0.0112	0.0112
1.2D + 1.0Ev + 1.0Eh 330° Seismic	356.42	0.0425	-0.0003	0.0106	0.0106
1.2D + 1.0Ev + 1.0Eh 330° Seismic	380.00	0.0462	-0.0001	0.0269	0.0269
1.2D + 1.0Ev + 1.0Eh 330° Seismic	383.58	0.0474	-0.0001	0.0141	0.0141
1.2D + 1.0Ev + 1.0Eh 330° Seismic	386.79	0.0479	-0.0001	0.0154	0.0154
1.2D + 1.0Ev + 1.0Eh 330° Seismic	396.42	0.0508	0.0000	0.0149	0.0149
1.2D + 1.0Ev + 1.0Eh 330° Seismic	403.58	0.0527	0.0000	0.0129	0.0129
1.2D + 1.0Ev + 1.0Eh 330° Seismic	410.00	0.0543	0.0000	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh 330° Seismic	416.42	0.0557	0.0000	0.0121	0.0121
1.2D + 1.0Ev + 1.0Eh 330° Seismic	420.38	0.0562	0.0000	0.0137	0.0137
1.2D + 1.0Ev + 1.0Eh 330° Seismic	426.79	0.0572	0.0000	0.0084	0.0084
1.2D + 1.0Ev + 1.0Eh 330° Seismic	430.00	0.0579	0.0000	0.0072	0.0072
1.2D + 1.0Ev + 1.0Eh 330° Seismic	456.42	0.0595	0.0000	0.0102	0.0102

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 330° Seismic	459.63	0.0596	0.0000	0.0057	0.0057
1.2D + 1.0Ev + 1.0Eh 330° Seismic	460.00	0.0596	0.0000	0.0149	0.0149
1.2D + 1.0Ev + 1.0Eh 330° Seismic	463.58	0.0599	0.0000	0.0039	0.0039
1.2D + 1.0Ev + 1.0Eh 330° Seismic	476.42	0.061	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 330° Seismic	480.00	0.0613	0.0000	0.0065	0.0065
1.2D + 1.0Ev + 1.0Eh 300° Seismic	66.79	0.0035	0.0070	0.0044	0.0082
1.2D + 1.0Ev + 1.0Eh 300° Seismic	86.79	0.0049	0.0067	0.0046	0.0082
1.2D + 1.0Ev + 1.0Eh 300° Seismic	130.00	0.0083	0.0078	0.0073	0.0106
1.2D + 1.0Ev + 1.0Eh 300° Seismic	140.00	0.0096	0.0083	0.0168	0.0186
1.2D + 1.0Ev + 1.0Eh 300° Seismic	170.00	0.0152	0.0050	0.0104	0.0115
1.2D + 1.0Ev + 1.0Eh 300° Seismic	180.00	0.0169	0.0040	0.0113	0.012
1.2D + 1.0Ev + 1.0Eh 300° Seismic	180.38	0.0169	0.0040	0.0155	0.016
1.2D + 1.0Ev + 1.0Eh 300° Seismic	183.58	0.0173	0.0037	0.0099	0.0105
1.2D + 1.0Ev + 1.0Eh 300° Seismic	190.00	0.0182	0.0032	0.0085	0.0091
1.2D + 1.0Ev + 1.0Eh 300° Seismic	220.00	0.0216	0.0009	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh 300° Seismic	300.00	0.0318	-0.0015	0.0152	0.0152
1.2D + 1.0Ev + 1.0Eh 300° Seismic	320.00	0.0355	-0.0010	0.0168	0.0168
1.2D + 1.0Ev + 1.0Eh 300° Seismic	330.00	0.0381	-0.0007	0.0110	0.0111
1.2D + 1.0Ev + 1.0Eh 300° Seismic	356.42	0.0423	-0.0003	0.0103	0.0103
1.2D + 1.0Ev + 1.0Eh 300° Seismic	380.00	0.0459	-0.0001	0.0253	0.0253
1.2D + 1.0Ev + 1.0Eh 300° Seismic	383.58	0.0474	-0.0001	0.0142	0.0142
1.2D + 1.0Ev + 1.0Eh 300° Seismic	386.79	0.0476	-0.0001	0.0154	0.0154
1.2D + 1.0Ev + 1.0Eh 300° Seismic	396.42	0.0507	-0.0001	0.0155	0.0155
1.2D + 1.0Ev + 1.0Eh 300° Seismic	403.58	0.0527	0.0000	0.0130	0.013
1.2D + 1.0Ev + 1.0Eh 300° Seismic	410.00	0.0542	0.0000	0.0133	0.0133
1.2D + 1.0Ev + 1.0Eh 300° Seismic	416.42	0.0556	0.0000	0.0125	0.0125
1.2D + 1.0Ev + 1.0Eh 300° Seismic	420.38	0.0558	0.0000	0.0144	0.0144
1.2D + 1.0Ev + 1.0Eh 300° Seismic	426.79	0.0568	0.0000	0.0083	0.0083
1.2D + 1.0Ev + 1.0Eh 300° Seismic	430.00	0.0577	0.0000	0.0071	0.0071
1.2D + 1.0Ev + 1.0Eh 300° Seismic	456.42	0.0591	0.0000	0.0101	0.0101
1.2D + 1.0Ev + 1.0Eh 300° Seismic	459.63	0.0592	0.0000	0.0068	0.0068
1.2D + 1.0Ev + 1.0Eh 300° Seismic	460.00	0.0593	0.0000	0.0129	0.0129
1.2D + 1.0Ev + 1.0Eh 300° Seismic	463.58	0.0596	0.0000	0.0035	0.0035
1.2D + 1.0Ev + 1.0Eh 300° Seismic	476.42	0.0607	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 300° Seismic	480.00	0.061	0.0000	0.0062	0.0062
1.2D + 1.0Ev + 1.0Eh 240° Seismic	66.79	0.0035	0.0070	0.0040	0.008
1.2D + 1.0Ev + 1.0Eh 240° Seismic	86.79	0.0048	0.0067	0.0046	0.0082
1.2D + 1.0Ev + 1.0Eh 240° Seismic	130.00	0.0083	0.0079	0.0076	0.0108
1.2D + 1.0Ev + 1.0Eh 240° Seismic	140.00	0.0096	0.0084	0.0196	0.0212
1.2D + 1.0Ev + 1.0Eh 240° Seismic	170.00	0.0152	0.0051	0.0105	0.0116
1.2D + 1.0Ev + 1.0Eh 240° Seismic	180.00	0.017	0.0041	0.0109	0.0117
1.2D + 1.0Ev + 1.0Eh 240° Seismic	180.38	0.017	0.0041	0.0155	0.016
1.2D + 1.0Ev + 1.0Eh 240° Seismic	183.58	0.0174	0.0038	0.0098	0.0105
1.2D + 1.0Ev + 1.0Eh 240° Seismic	190.00	0.0183	0.0032	0.0086	0.0092
1.2D + 1.0Ev + 1.0Eh 240° Seismic	220.00	0.0219	0.0009	0.0157	0.0157
1.2D + 1.0Ev + 1.0Eh 240° Seismic	300.00	0.0324	-0.0014	0.0176	0.0176
1.2D + 1.0Ev + 1.0Eh 240° Seismic	320.00	0.0361	-0.0009	0.0155	0.0155
1.2D + 1.0Ev + 1.0Eh 240° Seismic	330.00	0.0387	-0.0007	0.0112	0.0112
1.2D + 1.0Ev + 1.0Eh 240° Seismic	356.42	0.043	-0.0003	0.0110	0.011
1.2D + 1.0Ev + 1.0Eh 240° Seismic	380.00	0.0466	-0.0001	0.0275	0.0275
1.2D + 1.0Ev + 1.0Eh 240° Seismic	383.58	0.0481	-0.0001	0.0138	0.0138
1.2D + 1.0Ev + 1.0Eh 240° Seismic	386.79	0.0484	-0.0001	0.0154	0.0154
1.2D + 1.0Ev + 1.0Eh 240° Seismic	396.42	0.0515	-0.0001	0.0152	0.0152
1.2D + 1.0Ev + 1.0Eh 240° Seismic	403.58	0.0534	0.0000	0.0146	0.0146
1.2D + 1.0Ev + 1.0Eh 240° Seismic	410.00	0.055	0.0000	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh 240° Seismic	416.42	0.0564	0.0000	0.0126	0.0126
1.2D + 1.0Ev + 1.0Eh 240° Seismic	420.38	0.0566	0.0000	0.0148	0.0148
1.2D + 1.0Ev + 1.0Eh 240° Seismic	426.79	0.0576	0.0000	0.0085	0.0085
1.2D + 1.0Ev + 1.0Eh 240° Seismic	430.00	0.0585	0.0000	0.0073	0.0073

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 240° Seismic	456.42	0.0601	0.0000	0.0100	0.01
1.2D + 1.0Ev + 1.0Eh 240° Seismic	459.63	0.0602	0.0000	0.0094	0.0094
1.2D + 1.0Ev + 1.0Eh 240° Seismic	460.00	0.0602	0.0000	0.0152	0.0152
1.2D + 1.0Ev + 1.0Eh 240° Seismic	463.58	0.0606	0.0000	0.0028	0.0028
1.2D + 1.0Ev + 1.0Eh 240° Seismic	476.42	0.0617	0.0000	0.0051	0.0051
1.2D + 1.0Ev + 1.0Eh 240° Seismic	480.00	0.062	0.0000	0.0066	0.0066
1.2D + 1.0Ev + 1.0Eh 210° Seismic	66.79	0.0036	0.0069	0.0043	0.0082
1.2D + 1.0Ev + 1.0Eh 210° Seismic	86.79	0.005	0.0067	0.0046	0.0081
1.2D + 1.0Ev + 1.0Eh 210° Seismic	130.00	0.0083	0.0079	0.0074	0.0107
1.2D + 1.0Ev + 1.0Eh 210° Seismic	140.00	0.0096	0.0084	0.0187	0.0204
1.2D + 1.0Ev + 1.0Eh 210° Seismic	170.00	0.0151	0.0051	0.0105	0.0116
1.2D + 1.0Ev + 1.0Eh 210° Seismic	180.00	0.017	0.0041	0.0113	0.012
1.2D + 1.0Ev + 1.0Eh 210° Seismic	180.38	0.0171	0.0040	0.0141	0.0146
1.2D + 1.0Ev + 1.0Eh 210° Seismic	183.58	0.0172	0.0038	0.0100	0.0107
1.2D + 1.0Ev + 1.0Eh 210° Seismic	190.00	0.0182	0.0032	0.0086	0.0092
1.2D + 1.0Ev + 1.0Eh 210° Seismic	220.00	0.0217	0.0009	0.0151	0.0151
1.2D + 1.0Ev + 1.0Eh 210° Seismic	300.00	0.0321	-0.0014	0.0169	0.017
1.2D + 1.0Ev + 1.0Eh 210° Seismic	320.00	0.0358	-0.0009	0.0163	0.0163
1.2D + 1.0Ev + 1.0Eh 210° Seismic	330.00	0.0381	-0.0007	0.0112	0.0112
1.2D + 1.0Ev + 1.0Eh 210° Seismic	356.42	0.0425	-0.0003	0.0106	0.0106
1.2D + 1.0Ev + 1.0Eh 210° Seismic	380.00	0.0462	-0.0001	0.0269	0.0269
1.2D + 1.0Ev + 1.0Eh 210° Seismic	383.58	0.0474	-0.0001	0.0141	0.0141
1.2D + 1.0Ev + 1.0Eh 210° Seismic	386.79	0.0479	-0.0001	0.0154	0.0154
1.2D + 1.0Ev + 1.0Eh 210° Seismic	396.42	0.0508	0.0000	0.0149	0.0149
1.2D + 1.0Ev + 1.0Eh 210° Seismic	403.58	0.0527	0.0000	0.0145	0.0145
1.2D + 1.0Ev + 1.0Eh 210° Seismic	410.00	0.0543	0.0000	0.0134	0.0134
1.2D + 1.0Ev + 1.0Eh 210° Seismic	416.42	0.0557	0.0000	0.0121	0.0121
1.2D + 1.0Ev + 1.0Eh 210° Seismic	420.38	0.0562	0.0000	0.0137	0.0137
1.2D + 1.0Ev + 1.0Eh 210° Seismic	426.79	0.0572	0.0000	0.0084	0.0084
1.2D + 1.0Ev + 1.0Eh 210° Seismic	430.00	0.0579	0.0000	0.0072	0.0072
1.2D + 1.0Ev + 1.0Eh 210° Seismic	456.42	0.0594	0.0000	0.0102	0.0102
1.2D + 1.0Ev + 1.0Eh 210° Seismic	459.63	0.0595	0.0000	0.0099	0.0099
1.2D + 1.0Ev + 1.0Eh 210° Seismic	460.00	0.0596	0.0000	0.0149	0.0149
1.2D + 1.0Ev + 1.0Eh 210° Seismic	463.58	0.0599	0.0000	0.0025	0.0025
1.2D + 1.0Ev + 1.0Eh 210° Seismic	476.42	0.061	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 210° Seismic	480.00	0.0613	0.0000	0.0065	0.0065
1.2D + 1.0Ev + 1.0Eh 180° Seismic	66.79	0.0035	0.0074	0.0044	0.0086
1.2D + 1.0Ev + 1.0Eh 180° Seismic	86.79	0.0049	0.0072	0.0047	0.0086
1.2D + 1.0Ev + 1.0Eh 180° Seismic	130.00	0.0083	0.0081	0.0075	0.0109
1.2D + 1.0Ev + 1.0Eh 180° Seismic	140.00	0.0097	0.0085	0.0170	0.0189
1.2D + 1.0Ev + 1.0Eh 180° Seismic	170.00	0.0154	0.0053	0.0107	0.0119
1.2D + 1.0Ev + 1.0Eh 180° Seismic	180.00	0.0172	0.0043	0.0117	0.0125
1.2D + 1.0Ev + 1.0Eh 180° Seismic	180.38	0.0173	0.0042	0.0159	0.0164
1.2D + 1.0Ev + 1.0Eh 180° Seismic	183.58	0.0176	0.0040	0.0102	0.011
1.2D + 1.0Ev + 1.0Eh 180° Seismic	190.00	0.0186	0.0034	0.0089	0.0095
1.2D + 1.0Ev + 1.0Eh 180° Seismic	220.00	0.0222	0.0009	0.0140	0.014
1.2D + 1.0Ev + 1.0Eh 180° Seismic	300.00	0.0331	-0.0014	0.0157	0.0157
1.2D + 1.0Ev + 1.0Eh 180° Seismic	320.00	0.037	-0.0010	0.0175	0.0175
1.2D + 1.0Ev + 1.0Eh 180° Seismic	330.00	0.0396	-0.0008	0.0116	0.0116
1.2D + 1.0Ev + 1.0Eh 180° Seismic	356.42	0.0441	-0.0004	0.0106	0.0106
1.2D + 1.0Ev + 1.0Eh 180° Seismic	380.00	0.0477	-0.0002	0.0260	0.026
1.2D + 1.0Ev + 1.0Eh 180° Seismic	383.58	0.0493	-0.0001	0.0145	0.0145
1.2D + 1.0Ev + 1.0Eh 180° Seismic	386.79	0.0495	-0.0001	0.0159	0.0159
1.2D + 1.0Ev + 1.0Eh 180° Seismic	396.42	0.0527	-0.0001	0.0160	0.016
1.2D + 1.0Ev + 1.0Eh 180° Seismic	403.58	0.054	-0.0001	0.0142	0.0142
1.2D + 1.0Ev + 1.0Eh 180° Seismic	410.00	0.0563	0.0000	0.0137	0.0137
1.2D + 1.0Ev + 1.0Eh 180° Seismic	416.42	0.0577	0.0000	0.0127	0.0127
1.2D + 1.0Ev + 1.0Eh 180° Seismic	420.38	0.0579	0.0000	0.0147	0.0147
1.2D + 1.0Ev + 1.0Eh 180° Seismic	426.79	0.059	0.0000	0.0084	0.0084

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 180° Seismic	430.00	0.0599	0.0000	0.0072	0.0072
1.2D + 1.0Ev + 1.0Eh 180° Seismic	456.42	0.0613	0.0000	0.0104	0.0104
1.2D + 1.0Ev + 1.0Eh 180° Seismic	459.63	0.0609	0.0000	0.0108	0.0108
1.2D + 1.0Ev + 1.0Eh 180° Seismic	460.00	0.0614	0.0000	0.0130	0.013
1.2D + 1.0Ev + 1.0Eh 180° Seismic	463.58	0.0612	0.0000	0.0022	0.0022
1.2D + 1.0Ev + 1.0Eh 180° Seismic	476.42	0.0627	0.0000	0.0047	0.0047
1.2D + 1.0Ev + 1.0Eh 180° Seismic	480.00	0.063	0.0000	0.0061	0.0061
1.2D + 1.0Ev + 1.0Eh 120° Seismic	66.79	0.0035	0.0070	0.0040	0.008
1.2D + 1.0Ev + 1.0Eh 120° Seismic	86.79	0.0048	0.0067	0.0046	0.0082
1.2D + 1.0Ev + 1.0Eh 120° Seismic	130.00	0.0083	0.0079	0.0076	0.0108
1.2D + 1.0Ev + 1.0Eh 120° Seismic	140.00	0.0096	0.0084	0.0196	0.0212
1.2D + 1.0Ev + 1.0Eh 120° Seismic	170.00	0.0152	0.0051	0.0105	0.0116
1.2D + 1.0Ev + 1.0Eh 120° Seismic	180.00	0.017	0.0041	0.0109	0.0117
1.2D + 1.0Ev + 1.0Eh 120° Seismic	180.38	0.017	0.0040	0.0155	0.016
1.2D + 1.0Ev + 1.0Eh 120° Seismic	183.58	0.0174	0.0038	0.0098	0.0105
1.2D + 1.0Ev + 1.0Eh 120° Seismic	190.00	0.0183	0.0032	0.0086	0.0092
1.2D + 1.0Ev + 1.0Eh 120° Seismic	220.00	0.0219	0.0009	0.0157	0.0157
1.2D + 1.0Ev + 1.0Eh 120° Seismic	300.00	0.0324	-0.0014	0.0176	0.0176
1.2D + 1.0Ev + 1.0Eh 120° Seismic	320.00	0.0361	-0.0009	0.0155	0.0155
1.2D + 1.0Ev + 1.0Eh 120° Seismic	330.00	0.0387	-0.0007	0.0112	0.0112
1.2D + 1.0Ev + 1.0Eh 120° Seismic	356.42	0.043	-0.0003	0.0110	0.011
1.2D + 1.0Ev + 1.0Eh 120° Seismic	380.00	0.0466	-0.0001	0.0275	0.0275
1.2D + 1.0Ev + 1.0Eh 120° Seismic	383.58	0.0482	-0.0001	0.0138	0.0138
1.2D + 1.0Ev + 1.0Eh 120° Seismic	386.79	0.0484	-0.0001	0.0154	0.0154
1.2D + 1.0Ev + 1.0Eh 120° Seismic	396.42	0.0515	-0.0001	0.0152	0.0152
1.2D + 1.0Ev + 1.0Eh 120° Seismic	403.58	0.0527	0.0000	0.0146	0.0146
1.2D + 1.0Ev + 1.0Eh 120° Seismic	410.00	0.055	0.0000	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh 120° Seismic	416.42	0.0564	0.0000	0.0126	0.0126
1.2D + 1.0Ev + 1.0Eh 120° Seismic	420.38	0.0566	0.0000	0.0148	0.0148
1.2D + 1.0Ev + 1.0Eh 120° Seismic	426.79	0.0576	0.0000	0.0085	0.0085
1.2D + 1.0Ev + 1.0Eh 120° Seismic	430.00	0.0585	0.0000	0.0073	0.0073
1.2D + 1.0Ev + 1.0Eh 120° Seismic	456.42	0.0601	0.0000	0.0100	0.01
1.2D + 1.0Ev + 1.0Eh 120° Seismic	459.63	0.0592	0.0000	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh 120° Seismic	460.00	0.0602	0.0000	0.0152	0.0152
1.2D + 1.0Ev + 1.0Eh 120° Seismic	463.58	0.0597	0.0000	0.0024	0.0024
1.2D + 1.0Ev + 1.0Eh 120° Seismic	476.42	0.0617	0.0000	0.0051	0.0051
1.2D + 1.0Ev + 1.0Eh 120° Seismic	480.00	0.062	0.0000	0.0066	0.0066
1.2D + 1.0Ev + 1.0Eh 90° Seismic	66.79	0.0036	0.0074	0.0044	0.0086
1.2D + 1.0Ev + 1.0Eh 90° Seismic	86.79	0.005	0.0072	0.0047	0.0086
1.2D + 1.0Ev + 1.0Eh 90° Seismic	130.00	0.0084	0.0081	0.0076	0.011
1.2D + 1.0Ev + 1.0Eh 90° Seismic	140.00	0.0097	0.0085	0.0190	0.0207
1.2D + 1.0Ev + 1.0Eh 90° Seismic	170.00	0.0153	0.0053	0.0108	0.0121
1.2D + 1.0Ev + 1.0Eh 90° Seismic	180.00	0.0174	0.0043	0.0117	0.0124
1.2D + 1.0Ev + 1.0Eh 90° Seismic	180.38	0.0174	0.0043	0.0145	0.015
1.2D + 1.0Ev + 1.0Eh 90° Seismic	183.58	0.0176	0.0040	0.0104	0.0111
1.2D + 1.0Ev + 1.0Eh 90° Seismic	190.00	0.0186	0.0034	0.0090	0.0096
1.2D + 1.0Ev + 1.0Eh 90° Seismic	220.00	0.0224	0.0010	0.0156	0.0156
1.2D + 1.0Ev + 1.0Eh 90° Seismic	300.00	0.0334	-0.0014	0.0175	0.0176
1.2D + 1.0Ev + 1.0Eh 90° Seismic	320.00	0.0373	-0.0010	0.0170	0.017
1.2D + 1.0Ev + 1.0Eh 90° Seismic	330.00	0.0397	-0.0008	0.0117	0.0117
1.2D + 1.0Ev + 1.0Eh 90° Seismic	356.42	0.0443	-0.0004	0.0110	0.011
1.2D + 1.0Ev + 1.0Eh 90° Seismic	380.00	0.0481	-0.0002	0.0277	0.0277
1.2D + 1.0Ev + 1.0Eh 90° Seismic	383.58	0.0494	-0.0001	0.0145	0.0145
1.2D + 1.0Ev + 1.0Eh 90° Seismic	386.79	0.0499	-0.0001	0.0160	0.016
1.2D + 1.0Ev + 1.0Eh 90° Seismic	396.42	0.0528	-0.0001	0.0153	0.0153
1.2D + 1.0Ev + 1.0Eh 90° Seismic	403.58	0.0549	-0.0001	0.0149	0.0149
1.2D + 1.0Ev + 1.0Eh 90° Seismic	410.00	0.0565	0.0000	0.0138	0.0138
1.2D + 1.0Ev + 1.0Eh 90° Seismic	416.42	0.0579	0.0000	0.0124	0.0124
1.2D + 1.0Ev + 1.0Eh 90° Seismic	420.38	0.0584	0.0000	0.0140	0.014

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 90° Seismic	426.79	0.0595	0.0000	0.0085	0.0085
1.2D + 1.0Ev + 1.0Eh 90° Seismic	430.00	0.0602	0.0000	0.0073	0.0073
1.2D + 1.0Ev + 1.0Eh 90° Seismic	456.42	0.0617	0.0000	0.0105	0.0105
1.2D + 1.0Ev + 1.0Eh 90° Seismic	459.63	0.0609	0.0000	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh 90° Seismic	460.00	0.0618	0.0000	0.0150	0.015
1.2D + 1.0Ev + 1.0Eh 90° Seismic	463.58	0.0613	0.0000	0.0022	0.0022
1.2D + 1.0Ev + 1.0Eh 90° Seismic	476.42	0.0632	0.0000	0.0048	0.0048
1.2D + 1.0Ev + 1.0Eh 90° Seismic	480.00	0.0635	0.0000	0.0064	0.0064
1.2D + 1.0Ev + 1.0Eh 60° Seismic	66.79	0.0035	0.0070	0.0044	0.0082
1.2D + 1.0Ev + 1.0Eh 60° Seismic	86.79	0.0049	0.0067	0.0046	0.0082
1.2D + 1.0Ev + 1.0Eh 60° Seismic	130.00	0.0083	0.0078	0.0073	0.0106
1.2D + 1.0Ev + 1.0Eh 60° Seismic	140.00	0.0096	0.0083	0.0168	0.0186
1.2D + 1.0Ev + 1.0Eh 60° Seismic	170.00	0.0152	0.0050	0.0104	0.0115
1.2D + 1.0Ev + 1.0Eh 60° Seismic	180.00	0.0169	0.0040	0.0113	0.012
1.2D + 1.0Ev + 1.0Eh 60° Seismic	180.38	0.0169	0.0040	0.0155	0.016
1.2D + 1.0Ev + 1.0Eh 60° Seismic	183.58	0.0173	0.0037	0.0099	0.0105
1.2D + 1.0Ev + 1.0Eh 60° Seismic	190.00	0.0182	0.0032	0.0085	0.0091
1.2D + 1.0Ev + 1.0Eh 60° Seismic	220.00	0.0216	0.0009	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh 60° Seismic	300.00	0.0318	-0.0015	0.0152	0.0152
1.2D + 1.0Ev + 1.0Eh 60° Seismic	320.00	0.0355	-0.0010	0.0168	0.0168
1.2D + 1.0Ev + 1.0Eh 60° Seismic	330.00	0.0381	-0.0007	0.0110	0.0111
1.2D + 1.0Ev + 1.0Eh 60° Seismic	356.42	0.0423	-0.0003	0.0103	0.0103
1.2D + 1.0Ev + 1.0Eh 60° Seismic	380.00	0.0459	-0.0001	0.0253	0.0253
1.2D + 1.0Ev + 1.0Eh 60° Seismic	383.58	0.0474	-0.0001	0.0142	0.0142
1.2D + 1.0Ev + 1.0Eh 60° Seismic	386.79	0.0476	-0.0001	0.0154	0.0154
1.2D + 1.0Ev + 1.0Eh 60° Seismic	396.42	0.0507	-0.0001	0.0155	0.0155
1.2D + 1.0Ev + 1.0Eh 60° Seismic	403.58	0.0527	0.0000	0.0138	0.0138
1.2D + 1.0Ev + 1.0Eh 60° Seismic	410.00	0.0542	0.0000	0.0133	0.0133
1.2D + 1.0Ev + 1.0Eh 60° Seismic	416.42	0.0556	0.0000	0.0125	0.0125
1.2D + 1.0Ev + 1.0Eh 60° Seismic	420.38	0.0558	0.0000	0.0144	0.0144
1.2D + 1.0Ev + 1.0Eh 60° Seismic	426.79	0.0568	0.0000	0.0083	0.0083
1.2D + 1.0Ev + 1.0Eh 60° Seismic	430.00	0.0577	0.0000	0.0071	0.0071
1.2D + 1.0Ev + 1.0Eh 60° Seismic	456.42	0.0591	0.0000	0.0101	0.0101
1.2D + 1.0Ev + 1.0Eh 60° Seismic	459.63	0.0583	0.0000	0.0120	0.012
1.2D + 1.0Ev + 1.0Eh 60° Seismic	460.00	0.0593	0.0000	0.0129	0.0129
1.2D + 1.0Ev + 1.0Eh 60° Seismic	463.58	0.0587	0.0000	0.0027	0.0027
1.2D + 1.0Ev + 1.0Eh 60° Seismic	476.42	0.0607	0.0000	0.0049	0.0049
1.2D + 1.0Ev + 1.0Eh 60° Seismic	480.00	0.061	0.0000	0.0062	0.0062
1.2D + 1.0Ev + 1.0Eh Normal Seismic	66.79	0.0035	0.0074	0.0040	0.0084
1.2D + 1.0Ev + 1.0Eh Normal Seismic	86.79	0.0048	0.0072	0.0047	0.0086
1.2D + 1.0Ev + 1.0Eh Normal Seismic	130.00	0.0083	0.0081	0.0078	0.0111
1.2D + 1.0Ev + 1.0Eh Normal Seismic	140.00	0.0097	0.0085	0.0199	0.0215
1.2D + 1.0Ev + 1.0Eh Normal Seismic	170.00	0.0155	0.0053	0.0109	0.0121
1.2D + 1.0Ev + 1.0Eh Normal Seismic	180.00	0.0174	0.0043	0.0113	0.0121
1.2D + 1.0Ev + 1.0Eh Normal Seismic	180.38	0.0174	0.0043	0.0159	0.0164
1.2D + 1.0Ev + 1.0Eh Normal Seismic	183.58	0.0177	0.0040	0.0102	0.011
1.2D + 1.0Ev + 1.0Eh Normal Seismic	190.00	0.0187	0.0034	0.0090	0.0097
1.2D + 1.0Ev + 1.0Eh Normal Seismic	220.00	0.0225	0.0010	0.0162	0.0162
1.2D + 1.0Ev + 1.0Eh Normal Seismic	300.00	0.0337	-0.0014	0.0182	0.0183
1.2D + 1.0Ev + 1.0Eh Normal Seismic	320.00	0.0377	-0.0010	0.0162	0.0162
1.2D + 1.0Ev + 1.0Eh Normal Seismic	330.00	0.0403	-0.0008	0.0118	0.0118
1.2D + 1.0Ev + 1.0Eh Normal Seismic	356.42	0.0449	-0.0004	0.0114	0.0114
1.2D + 1.0Ev + 1.0Eh Normal Seismic	380.00	0.0486	-0.0002	0.0284	0.0284
1.2D + 1.0Ev + 1.0Eh Normal Seismic	383.58	0.0502	-0.0001	0.0142	0.0142
1.2D + 1.0Ev + 1.0Eh Normal Seismic	386.79	0.0504	-0.0001	0.0159	0.0159
1.2D + 1.0Ev + 1.0Eh Normal Seismic	396.42	0.0536	-0.0001	0.0156	0.0156
1.2D + 1.0Ev + 1.0Eh Normal Seismic	403.58	0.0557	-0.0001	0.0135	0.0135
1.2D + 1.0Ev + 1.0Eh Normal Seismic	410.00	0.0573	0.0000	0.0139	0.0139
1.2D + 1.0Ev + 1.0Eh Normal Seismic	416.42	0.0587	0.0000	0.0129	0.0129

ASSET: 36075, LEE S SUMMIT #1B

CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I

PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh Normal Seismic	420.38	0.0589	0.0000	0.0151	0.0151
1.2D + 1.0Ev + 1.0Eh Normal Seismic	426.79	0.06	0.0000	0.0086	0.0086
1.2D + 1.0Ev + 1.0Eh Normal Seismic	430.00	0.0609	0.0000	0.0074	0.0074
1.2D + 1.0Ev + 1.0Eh Normal Seismic	456.42	0.0624	0.0000	0.0102	0.0102
1.2D + 1.0Ev + 1.0Eh Normal Seismic	459.63	0.0621	0.0000	0.0068	0.0068
1.2D + 1.0Ev + 1.0Eh Normal Seismic	460.00	0.0626	0.0000	0.0153	0.0153
1.2D + 1.0Ev + 1.0Eh Normal Seismic	463.58	0.0624	0.0000	0.0038	0.0038
1.2D + 1.0Ev + 1.0Eh Normal Seismic	476.42	0.064	0.0000	0.0050	0.005
1.2D + 1.0Ev + 1.0Eh Normal Seismic	480.00	0.0643	0.0000	0.0065	0.0065
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	66.79	0.0865	0.0618	0.0519	0.0807
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	86.79	0.1044	0.0607	0.0493	0.0779
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	130.00	0.1305	0.0587	0.0389	0.069
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	140.00	0.1366	0.0582	0.0744	0.0934
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	170.00	0.1634	0.0528	0.0537	0.0753
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	180.00	0.1733	0.0510	0.0537	0.0741
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	180.38	0.1736	0.0509	0.0610	0.0778
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	183.58	0.1733	0.0504	0.0425	0.0659
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	190.00	0.1764	0.0492	0.0378	0.062
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	220.00	0.1819	0.0440	0.0554	0.0691
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	300.00	0.1749	0.0417	0.0547	0.0668
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	320.00	0.1775	0.0369	0.0383	0.0532
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	330.00	0.1785	0.0346	0.0393	0.0516
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	356.42	0.18	0.0287	0.0613	0.0677
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	380.00	0.1806	0.0243	0.0716	0.075
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	383.58	0.1825	0.0234	0.0768	0.0799
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	386.79	0.1828	0.0226	0.0633	0.0665
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	396.42	0.1873	0.0202	0.0752	0.0775
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	403.58	0.1907	0.0178	0.0863	0.0881
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	410.00	0.1935	0.0173	0.0862	0.0878
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	416.42	0.1963	0.0161	0.1009	0.1022
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	420.38	0.1978	0.0154	0.1149	0.1159
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	426.79	0.201	0.0144	0.1240	0.1248
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	430.00	0.2026	0.0139	0.1278	0.1285
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	456.42	0.2269	0.0109	0.2032	0.2035
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	459.63	0.2312	0.0098	0.1590	0.1593
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	460.00	0.2318	0.0107	0.1567	0.157
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	463.58	0.2372	0.0096	0.1614	0.1617
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	476.42	0.2581	0.0101	0.1589	0.1592
1.2D + 1.0Di + 1.0Wi 330° 45 mph Wind with 1.45" Radial Ice	480.00	0.2645	0.0101	0.1542	0.1545
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	66.79	0.0809	0.0273	0.0535	0.0599
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	86.79	0.1004	0.0276	0.0554	0.0619
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	130.00	0.1366	0.0296	0.0522	0.0594
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	140.00	0.1461	0.0300	0.0923	0.0963
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	170.00	0.1868	0.0193	0.0727	0.0752
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	180.00	0.1989	0.0158	0.0717	0.0734
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	180.38	0.1993	0.0156	0.0786	0.0797
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	183.58	0.2019	0.0145	0.0569	0.0587
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	190.00	0.2076	0.0122	0.0482	0.0497
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	220.00	0.2238	0.0018	0.0446	0.0446
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	300.00	0.2314	-0.0221	0.0287	0.0363
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	320.00	0.2359	-0.0187	0.0443	0.0471
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	330.00	0.2407	-0.0170	0.0133	0.0215
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	356.42	0.2424	-0.0130	0.0070	0.0132
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	380.00	0.2377	-0.0100	0.0598	0.0606
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	383.58	0.24	-0.0094	0.0113	0.0147
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	386.79	0.239	-0.0089	0.0128	0.0151
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	396.42	0.2422	-0.0075	0.0066	0.01
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	403.58	0.2438	-0.0066	0.0092	0.0113
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	410.00	0.2435	-0.0058	0.0106	0.0118

ASSET: 36075, LEE S SUMMIT #1B

CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I

PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	416.42	0.2421	-0.0051	0.0256	0.026
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	420.38	0.2389	-0.0047	0.0350	0.0352
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	426.79	0.2347	-0.0041	0.0458	0.046
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	430.00	0.2331	-0.0039	0.0545	0.0546
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	456.42	0.1976	-0.0024	0.1194	0.1194
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	459.63	0.1922	-0.0023	0.0717	0.0717
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	460.00	0.1918	-0.0022	0.0651	0.0651
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	463.58	0.1869	-0.0022	0.0869	0.0869
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	476.42	0.1691	-0.0020	0.0810	0.0811
1.2D + 1.0Di + 1.0Wi 300° 45 mph Wind with 1.45" Radial Ice	480.00	0.1642	-0.0020	0.0752	0.0753
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	66.79	0.0911	0.0279	0.0499	0.0572
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	86.79	0.1078	0.0284	0.0417	0.0505
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	130.00	0.1237	0.0306	0.0125	0.0322
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	140.00	0.1257	0.0310	0.0560	0.0629
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	170.00	0.1383	0.0207	0.0142	0.0251
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	180.00	0.1401	0.0172	0.0063	0.0183
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	180.38	0.1401	0.0171	0.0183	0.0234
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	183.58	0.1392	0.0160	0.0086	0.0166
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	190.00	0.138	0.0138	0.0142	0.0189
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	220.00	0.1227	0.0037	0.0432	0.0432
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	300.00	0.0689	-0.0188	0.0490	0.0521
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	320.00	0.0568	-0.0152	0.0141	0.0203
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	330.00	0.0519	-0.0136	0.0451	0.0471
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	356.42	0.0228	-0.0097	0.0846	0.085
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	380.00	0.0213	-0.0070	0.0736	0.0739
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	383.58	0.0282	-0.0065	0.1119	0.1121
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	386.79	0.0323	-0.0060	0.0950	0.0952
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	396.42	0.0504	-0.0049	0.1148	0.1149
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	403.58	0.0639	-0.0041	0.1313	0.1314
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	410.00	0.0782	-0.0038	0.1364	0.1365
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	416.42	0.0943	-0.0033	0.1569	0.1569
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	420.38	0.104	-0.0030	0.1752	0.1752
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	426.79	0.1236	-0.0027	0.1840	0.184
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	430.00	0.1352	-0.0026	0.1932	0.1932
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	456.42	0.2367	-0.0013	0.2716	0.2716
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	459.63	0.2445	-0.0012	0.2162	0.2162
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	460.00	0.2518	-0.0012	0.2253	0.2254
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	463.58	0.26	-0.0011	0.2351	0.2351
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	476.42	0.3168	-0.0010	0.2280	0.228
1.2D + 1.0Di + 1.0Wi 240° 45 mph Wind with 1.45" Radial Ice	480.00	0.3309	-0.0010	0.2229	0.2229
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	66.79	0.0863	0.0625	0.0517	0.0812
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	86.79	0.1042	0.0614	0.0491	0.0784
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	130.00	0.1302	0.0595	0.0389	0.0696
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	140.00	0.1363	0.0590	0.0743	0.0938
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	170.00	0.1632	0.0540	0.0540	0.0763
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	180.00	0.1732	0.0523	0.0540	0.0752
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	180.38	0.1734	0.0522	0.0612	0.0788
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	183.58	0.1732	0.0517	0.0428	0.0671
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	190.00	0.1764	0.0506	0.0381	0.0632
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	220.00	0.1824	0.0458	0.0551	0.0699
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	300.00	0.1777	0.0459	0.0531	0.0681
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	320.00	0.1809	0.0412	0.0397	0.0572
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	330.00	0.1818	0.0389	0.0386	0.054
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	356.42	0.1833	0.0331	0.0619	0.0702
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	380.00	0.1829	0.0285	0.0710	0.0757
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	383.58	0.184	0.0275	0.0807	0.0848
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	386.79	0.1847	0.0267	0.0666	0.071
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	396.42	0.1881	0.0242	0.0810	0.084
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	403.58	0.1903	0.0225	0.0940	0.0964

ASSET: 36075, LEE S SUMMIT #1B

CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I

PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	410.00	0.1933	0.0211	0.0951	0.0974
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	416.42	0.1957	0.0197	0.1118	0.1135
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	420.38	0.1978	0.0190	0.1255	0.1269
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	426.79	0.2009	0.0178	0.1343	0.1354
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	430.00	0.2018	0.0173	0.1406	0.1416
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	456.42	0.2284	0.0144	0.2157	0.2162
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	459.63	0.2334	0.0136	0.1649	0.1655
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	460.00	0.234	0.0142	0.1685	0.169
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	463.58	0.2397	0.0133	0.1776	0.1781
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	476.42	0.2628	0.0136	0.1719	0.1724
1.2D + 1.0Di + 1.0Wi 210° 45 mph Wind with 1.45" Radial Ice	480.00	0.2699	0.0135	0.1670	0.1675
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	66.79	0.0811	0.0303	0.0534	0.0611
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	86.79	0.1005	0.0306	0.0551	0.063
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	130.00	0.1363	0.0329	0.0515	0.0604
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	140.00	0.1457	0.0334	0.0914	0.0964
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	170.00	0.1857	0.0243	0.0721	0.076
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	180.00	0.198	0.0213	0.0713	0.0744
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	180.38	0.1984	0.0212	0.0776	0.0798
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	183.58	0.2007	0.0202	0.0564	0.0599
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	190.00	0.2063	0.0183	0.0478	0.0512
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	220.00	0.2225	0.0096	0.0438	0.0444
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	300.00	0.2316	-0.0036	0.0276	0.0278
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	320.00	0.2368	-0.0029	0.0490	0.049
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	330.00	0.2411	-0.0027	0.0151	0.0151
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	356.42	0.2428	-0.0020	0.0073	0.0073
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	380.00	0.2373	-0.0015	0.0525	0.0525
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	383.58	0.2393	-0.0014	0.0113	0.0114
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	386.79	0.2381	-0.0013	0.0079	0.008
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	396.42	0.2403	-0.0011	0.0095	0.0095
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	403.58	0.2397	-0.0004	0.0159	0.0159
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	410.00	0.2396	-0.0009	0.0167	0.0167
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	416.42	0.237	-0.0007	0.0347	0.0347
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	420.38	0.2336	-0.0007	0.0453	0.0453
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	426.79	0.2283	-0.0006	0.0555	0.0555
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	430.00	0.2258	-0.0006	0.0595	0.0595
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	456.42	0.186	-0.0003	0.1309	0.1309
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	459.63	0.1795	0.0000	0.0811	0.0811
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	460.00	0.1795	-0.0002	0.0758	0.0758
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	463.58	0.1733	0.0000	0.0980	0.098
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	476.42	0.1535	-0.0002	0.0917	0.0917
1.2D + 1.0Di + 1.0Wi 180° 45 mph Wind with 1.45" Radial Ice	480.00	0.1479	-0.0002	0.0858	0.0858
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	66.79	0.0913	0.0329	0.0499	0.0598
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	86.79	0.108	0.0334	0.0418	0.0535
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	130.00	0.1239	0.0359	0.0125	0.0372
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	140.00	0.1258	0.0364	0.0558	0.0653
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	170.00	0.1381	0.0286	0.0143	0.032
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	180.00	0.1404	0.0261	0.0071	0.0268
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	180.38	0.1404	0.0260	0.0181	0.0302
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	183.58	0.1389	0.0252	0.0087	0.0255
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	190.00	0.1377	0.0235	0.0144	0.0268
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	220.00	0.123	0.0161	0.0425	0.0448
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	300.00	0.0683	0.0137	0.0476	0.049
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	320.00	0.0568	0.0111	0.0168	0.0191
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	330.00	0.0503	0.0098	0.0459	0.0465
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	356.42	0.0208	0.0068	0.0841	0.0843
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	380.00	0.0201	0.0049	0.0715	0.0716
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	383.58	0.0262	0.0046	0.1117	0.1118
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	386.79	0.0311	0.0043	0.0943	0.0944
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	396.42	0.0477	0.0035	0.1151	0.1152

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	403.58	0.061	0.0031	0.1284	0.1284
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	410.00	0.0751	0.0027	0.1360	0.136
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	416.42	0.0912	0.0024	0.1553	0.1553
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	420.38	0.1032	0.0022	0.1757	0.1757
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	426.79	0.1227	0.0020	0.1832	0.1832
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	430.00	0.1322	0.0019	0.1925	0.1925
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	456.42	0.2338	0.0010	0.2715	0.2715
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	459.63	0.2464	0.0010	0.2022	0.2022
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	460.00	0.2487	0.0010	0.2245	0.2245
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	463.58	0.2618	0.0009	0.2358	0.2358
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	476.42	0.3137	0.0008	0.2275	0.2275
1.2D + 1.0Di + 1.0Wi 120° 45 mph Wind with 1.45" Radial Ice	480.00	0.3278	0.0008	0.2225	0.2225
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	66.79	0.0865	0.0667	0.0518	0.0845
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	86.79	0.1044	0.0657	0.0492	0.0818
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	130.00	0.1305	0.0638	0.0389	0.0734
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	140.00	0.1366	0.0634	0.0743	0.0965
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	170.00	0.1635	0.0606	0.0537	0.081
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	180.00	0.1736	0.0596	0.0540	0.0804
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	180.38	0.1738	0.0596	0.0603	0.083
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	183.58	0.1735	0.0593	0.0422	0.0728
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	190.00	0.1767	0.0587	0.0374	0.0695
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	220.00	0.1823	0.0560	0.0535	0.0755
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	300.00	0.1751	0.0699	0.0503	0.0835
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	320.00	0.1775	0.0654	0.0385	0.0759
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	330.00	0.1775	0.0632	0.0384	0.0729
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	356.42	0.179	0.0577	0.0617	0.0845
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	380.00	0.1797	0.0533	0.0664	0.0835
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	383.58	0.1803	0.0524	0.0819	0.0962
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	386.79	0.1822	0.0516	0.0686	0.0848
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	396.42	0.1861	0.0492	0.0835	0.0956
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	403.58	0.1897	0.0475	0.0912	0.1017
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	410.00	0.1943	0.0462	0.0979	0.1077
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	416.42	0.1983	0.0449	0.1117	0.1204
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	420.38	0.202	0.0442	0.1264	0.1339
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	426.79	0.2066	0.0431	0.1333	0.1397
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	430.00	0.208	0.0426	0.1421	0.148
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	456.42	0.2394	0.0394	0.2141	0.2176
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	459.63	0.2408	0.0392	0.1447	0.1499
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	460.00	0.2455	0.0392	0.1677	0.1717
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	463.58	0.2473	0.0390	0.1782	0.1824
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	476.42	0.2761	0.0385	0.1703	0.1746
1.2D + 1.0Di + 1.0Wi 90° 45 mph Wind with 1.45" Radial Ice	480.00	0.2834	0.0384	0.1657	0.1699
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	66.79	0.0813	0.0323	0.0535	0.0623
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	86.79	0.1008	0.0326	0.0552	0.0641
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	130.00	0.1367	0.0350	0.0516	0.0616
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	140.00	0.1461	0.0355	0.0913	0.0971
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	170.00	0.1858	0.0275	0.0718	0.0769
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	180.00	0.1983	0.0248	0.0711	0.0754
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	180.38	0.1987	0.0247	0.0770	0.0802
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	183.58	0.2007	0.0239	0.0560	0.0608
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	190.00	0.2064	0.0222	0.0472	0.0522
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	220.00	0.2221	0.0146	0.0423	0.044
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	300.00	0.2285	0.0115	0.0241	0.0254
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	320.00	0.2331	0.0093	0.0477	0.0486
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	330.00	0.2363	0.0082	0.0139	0.0162
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	356.42	0.2378	0.0058	0.0065	0.0088
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	380.00	0.2337	0.0042	0.0509	0.0511
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	383.58	0.2349	0.0039	0.0094	0.0101
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	386.79	0.2348	0.0036	0.0129	0.0134

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	396.42	0.2369	0.0029	0.0094	0.0097
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	403.58	0.2382	0.0023	0.0064	0.0066
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	410.00	0.2382	0.0021	0.0097	0.0099
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	416.42	0.2368	0.0018	0.0241	0.0241
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	420.38	0.2359	0.0016	0.0370	0.037
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	426.79	0.2319	0.0014	0.0442	0.0442
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	430.00	0.2284	0.0013	0.0529	0.0529
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	456.42	0.194	0.0006	0.1209	0.1209
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	459.63	0.1884	0.0005	0.0619	0.0619
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	460.00	0.1882	0.0006	0.0665	0.0665
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	463.58	0.1831	0.0005	0.0868	0.0868
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	476.42	0.1657	0.0005	0.0798	0.0798
1.2D + 1.0Di + 1.0Wi 60° 45 mph Wind with 1.45" Radial Ice	480.00	0.1609	0.0005	0.0737	0.0737
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	66.79	0.0913	0.0298	0.0501	0.0583
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	86.79	0.1081	0.0304	0.0419	0.0518
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	130.00	0.1242	0.0326	0.0126	0.0341
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	140.00	0.1261	0.0331	0.0560	0.0639
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	170.00	0.1386	0.0237	0.0139	0.0275
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	180.00	0.1405	0.0206	0.0063	0.0215
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	180.38	0.1404	0.0205	0.0179	0.026
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	183.58	0.1393	0.0195	0.0092	0.0201
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	190.00	0.1381	0.0176	0.0149	0.0222
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	220.00	0.1225	0.0085	0.0440	0.0444
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	300.00	0.0654	-0.0075	0.0511	0.0515
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	320.00	0.0524	-0.0061	0.0170	0.0181
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	330.00	0.047	-0.0054	0.0471	0.0474
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	356.42	0.0173	-0.0039	0.0840	0.0841
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	380.00	0.0245	-0.0029	0.0713	0.0714
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	383.58	0.0312	-0.0026	0.1081	0.1081
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	386.79	0.0349	-0.0024	0.0909	0.0909
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	396.42	0.0521	-0.0019	0.1087	0.1087
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	403.58	0.063	-0.0017	0.1230	0.123
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	410.00	0.0778	-0.0015	0.1267	0.1267
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	416.42	0.0927	-0.0013	0.1454	0.1454
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	420.38	0.1017	-0.0011	0.1656	0.1656
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	426.79	0.1201	-0.0010	0.1745	0.1745
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	430.00	0.1311	-0.0009	0.1792	0.1792
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	456.42	0.2277	-0.0004	0.2607	0.2607
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	459.63	0.2395	-0.0004	0.2163	0.2163
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	460.00	0.2421	-0.0004	0.2141	0.2141
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	463.58	0.2546	-0.0004	0.2190	0.219
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	476.42	0.3037	-0.0003	0.2161	0.2161
1.2D + 1.0Di + 1.0Wi Normal 45 mph Wind with 1.45" Radial Ice	480.00	0.317	-0.0003	0.2110	0.211
1.2D + 1.0W 330° 109 mph Wind with No Ice	66.79	0.1529	0.0588	0.1183	0.1321
1.2D + 1.0W 330° 109 mph Wind with No Ice	86.79	0.2004	0.0578	0.1422	0.153
1.2D + 1.0W 330° 109 mph Wind with No Ice	130.00	0.3053	0.0555	0.1464	0.1554
1.2D + 1.0W 330° 109 mph Wind with No Ice	140.00	0.3315	0.0549	0.2161	0.2221
1.2D + 1.0W 330° 109 mph Wind with No Ice	170.00	0.4338	0.0522	0.1805	0.1879
1.2D + 1.0W 330° 109 mph Wind with No Ice	180.00	0.4639	0.0513	0.1654	0.1724
1.2D + 1.0W 330° 109 mph Wind with No Ice	180.38	0.4649	0.0513	0.1649	0.1719
1.2D + 1.0W 330° 109 mph Wind with No Ice	183.58	0.4714	0.0510	0.1336	0.143
1.2D + 1.0W 330° 109 mph Wind with No Ice	190.00	0.4848	0.0505	0.1141	0.1248
1.2D + 1.0W 330° 109 mph Wind with No Ice	220.00	0.5201	0.0479	0.0845	0.0952
1.2D + 1.0W 330° 109 mph Wind with No Ice	300.00	0.5498	0.0399	0.0996	0.1054
1.2D + 1.0W 330° 109 mph Wind with No Ice	320.00	0.5845	0.0388	0.1767	0.1801
1.2D + 1.0W 330° 109 mph Wind with No Ice	330.00	0.6067	0.0383	0.1340	0.1382
1.2D + 1.0W 330° 109 mph Wind with No Ice	356.42	0.6702	0.0369	0.1470	0.1507
1.2D + 1.0W 330° 109 mph Wind with No Ice	380.00	0.7326	0.0359	0.3339	0.3355
1.2D + 1.0W 330° 109 mph Wind with No Ice	383.58	0.7475	0.0357	0.1959	0.1982

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 330° 109 mph Wind with No Ice	386.79	0.7592	0.0354	0.2337	0.2359
1.2D + 1.0W 330° 109 mph Wind with No Ice	396.42	0.7989	0.0348	0.2165	0.2185
1.2D + 1.0W 330° 109 mph Wind with No Ice	403.58	0.8298	0.0314	0.2010	0.2031
1.2D + 1.0W 330° 109 mph Wind with No Ice	410.00	0.8534	0.0340	0.1990	0.2011
1.2D + 1.0W 330° 109 mph Wind with No Ice	416.42	0.874	0.0337	0.1693	0.1721
1.2D + 1.0W 330° 109 mph Wind with No Ice	420.38	0.8837	0.0335	0.1345	0.1386
1.2D + 1.0W 330° 109 mph Wind with No Ice	426.79	0.8973	0.0331	0.1066	0.1116
1.2D + 1.0W 330° 109 mph Wind with No Ice	430.00	0.9031	0.0330	0.0920	0.0978
1.2D + 1.0W 330° 109 mph Wind with No Ice	456.42	0.9202	0.0323	0.0340	0.0469
1.2D + 1.0W 330° 109 mph Wind with No Ice	459.63	0.9206	0.0273	0.0657	0.0712
1.2D + 1.0W 330° 109 mph Wind with No Ice	460.00	0.9211	0.0323	0.1041	0.109
1.2D + 1.0W 330° 109 mph Wind with No Ice	463.58	0.9236	0.0273	0.0250	0.037
1.2D + 1.0W 330° 109 mph Wind with No Ice	476.42	0.9325	0.0322	0.0404	0.0512
1.2D + 1.0W 330° 109 mph Wind with No Ice	480.00	0.9351	0.0322	0.0481	0.0568
1.2D + 1.0W 300° 109 mph Wind with No Ice	66.79	0.1335	0.0081	0.0991	0.0993
1.2D + 1.0W 300° 109 mph Wind with No Ice	86.79	0.1741	0.0079	0.1219	0.1222
1.2D + 1.0W 300° 109 mph Wind with No Ice	130.00	0.2674	0.0085	0.1376	0.1376
1.2D + 1.0W 300° 109 mph Wind with No Ice	140.00	0.2928	0.0087	0.2069	0.207
1.2D + 1.0W 300° 109 mph Wind with No Ice	170.00	0.3997	-0.0069	0.1935	0.1936
1.2D + 1.0W 300° 109 mph Wind with No Ice	180.00	0.4308	-0.0104	0.1848	0.1849
1.2D + 1.0W 300° 109 mph Wind with No Ice	180.38	0.4319	-0.0106	0.1829	0.1832
1.2D + 1.0W 300° 109 mph Wind with No Ice	183.58	0.4416	-0.0117	0.1533	0.1535
1.2D + 1.0W 300° 109 mph Wind with No Ice	190.00	0.4579	-0.0140	0.1377	0.138
1.2D + 1.0W 300° 109 mph Wind with No Ice	220.00	0.5126	-0.0246	0.1151	0.1177
1.2D + 1.0W 300° 109 mph Wind with No Ice	300.00	0.6265	-0.0687	0.1360	0.1523
1.2D + 1.0W 300° 109 mph Wind with No Ice	320.00	0.6765	-0.0682	0.2061	0.216
1.2D + 1.0W 300° 109 mph Wind with No Ice	330.00	0.7066	-0.0680	0.1648	0.1783
1.2D + 1.0W 300° 109 mph Wind with No Ice	356.42	0.7818	-0.0675	0.1655	0.1784
1.2D + 1.0W 300° 109 mph Wind with No Ice	380.00	0.8512	-0.0673	0.3597	0.366
1.2D + 1.0W 300° 109 mph Wind with No Ice	383.58	0.8678	-0.0671	0.2072	0.2178
1.2D + 1.0W 300° 109 mph Wind with No Ice	386.79	0.8802	-0.0671	0.2489	0.2578
1.2D + 1.0W 300° 109 mph Wind with No Ice	396.42	0.923	-0.0669	0.2321	0.2415
1.2D + 1.0W 300° 109 mph Wind with No Ice	403.58	0.9561	-0.0669	0.2143	0.2245
1.2D + 1.0W 300° 109 mph Wind with No Ice	410.00	0.9812	-0.0668	0.2112	0.2216
1.2D + 1.0W 300° 109 mph Wind with No Ice	416.42	1.0034	-0.0668	0.1795	0.1916
1.2D + 1.0W 300° 109 mph Wind with No Ice	420.38	1.0132	-0.0667	0.1444	0.1572
1.2D + 1.0W 300° 109 mph Wind with No Ice	426.79	1.0277	-0.0666	0.1155	0.1311
1.2D + 1.0W 300° 109 mph Wind with No Ice	430.00	1.0342	-0.0666	0.0977	0.1157
1.2D + 1.0W 300° 109 mph Wind with No Ice	456.42	1.0541	-0.0662	0.0198	0.0665
1.2D + 1.0W 300° 109 mph Wind with No Ice	459.63	1.0545	-0.0662	0.0848	0.1076
1.2D + 1.0W 300° 109 mph Wind with No Ice	460.00	1.0552	-0.0662	0.1045	0.1237
1.2D + 1.0W 300° 109 mph Wind with No Ice	463.58	1.0583	-0.0661	0.0304	0.0728
1.2D + 1.0W 300° 109 mph Wind with No Ice	476.42	1.0687	-0.0661	0.0475	0.0814
1.2D + 1.0W 300° 109 mph Wind with No Ice	480.00	1.0717	-0.0661	0.0549	0.0859
1.2D + 1.0W 240° 109 mph Wind with No Ice	66.79	0.1688	0.0076	0.1298	0.13
1.2D + 1.0W 240° 109 mph Wind with No Ice	86.79	0.2199	0.0079	0.1498	0.1498
1.2D + 1.0W 240° 109 mph Wind with No Ice	130.00	0.3256	0.0085	0.1384	0.1385
1.2D + 1.0W 240° 109 mph Wind with No Ice	140.00	0.3505	0.0085	0.2125	0.2125
1.2D + 1.0W 240° 109 mph Wind with No Ice	170.00	0.4437	-0.0064	0.1492	0.1492
1.2D + 1.0W 240° 109 mph Wind with No Ice	180.00	0.4659	-0.0098	0.1275	0.1279
1.2D + 1.0W 240° 109 mph Wind with No Ice	180.38	0.4667	-0.0099	0.1310	0.1314
1.2D + 1.0W 240° 109 mph Wind with No Ice	183.58	0.473	-0.0109	0.0915	0.0917
1.2D + 1.0W 240° 109 mph Wind with No Ice	190.00	0.4818	-0.0131	0.0660	0.0671
1.2D + 1.0W 240° 109 mph Wind with No Ice	220.00	0.4879	-0.0232	0.0285	0.0363
1.2D + 1.0W 240° 109 mph Wind with No Ice	300.00	0.3961	-0.0669	0.0209	0.0692
1.2D + 1.0W 240° 109 mph Wind with No Ice	320.00	0.4099	-0.0658	0.1328	0.1482
1.2D + 1.0W 240° 109 mph Wind with No Ice	330.00	0.4268	-0.0651	0.0967	0.1166
1.2D + 1.0W 240° 109 mph Wind with No Ice	356.42	0.4796	-0.0637	0.1331	0.1475
1.2D + 1.0W 240° 109 mph Wind with No Ice	380.00	0.5398	-0.0624	0.3621	0.3675

ASSET: 36075, LEE S SUMMIT #1B

CODE: ANSI/TIA-222-I

CUSTOMER: WISPER ISP, LLC

PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 240° 109 mph Wind with No Ice	383.58	0.5551	-0.0621	0.1934	0.203
1.2D + 1.0W 240° 109 mph Wind with No Ice	386.79	0.5667	-0.0619	0.2365	0.2445
1.2D + 1.0W 240° 109 mph Wind with No Ice	396.42	0.6073	-0.0612	0.2172	0.2243
1.2D + 1.0W 240° 109 mph Wind with No Ice	403.58	0.6394	-0.0605	0.2083	0.2156
1.2D + 1.0W 240° 109 mph Wind with No Ice	410.00	0.6638	-0.0603	0.2045	0.2132
1.2D + 1.0W 240° 109 mph Wind with No Ice	416.42	0.6858	-0.0599	0.1764	0.1863
1.2D + 1.0W 240° 109 mph Wind with No Ice	420.38	0.6952	-0.0597	0.1432	0.1536
1.2D + 1.0W 240° 109 mph Wind with No Ice	426.79	0.7095	-0.0594	0.1146	0.1277
1.2D + 1.0W 240° 109 mph Wind with No Ice	430.00	0.716	-0.0593	0.0965	0.1129
1.2D + 1.0W 240° 109 mph Wind with No Ice	456.42	0.737	-0.0587	0.0232	0.0592
1.2D + 1.0W 240° 109 mph Wind with No Ice	459.63	0.7376	-0.0586	0.0878	0.1056
1.2D + 1.0W 240° 109 mph Wind with No Ice	460.00	0.7383	-0.0586	0.1072	0.1222
1.2D + 1.0W 240° 109 mph Wind with No Ice	463.58	0.7415	-0.0585	0.0290	0.0653
1.2D + 1.0W 240° 109 mph Wind with No Ice	476.42	0.7524	-0.0584	0.0498	0.0768
1.2D + 1.0W 240° 109 mph Wind with No Ice	480.00	0.7554	-0.0584	0.0574	0.0811
1.2D + 1.0W 210° 109 mph Wind with No Ice	66.79	0.1529	0.0603	0.1183	0.1328
1.2D + 1.0W 210° 109 mph Wind with No Ice	86.79	0.2004	0.0594	0.1421	0.1536
1.2D + 1.0W 210° 109 mph Wind with No Ice	130.00	0.3053	0.0571	0.1464	0.156
1.2D + 1.0W 210° 109 mph Wind with No Ice	140.00	0.3315	0.0565	0.2161	0.2225
1.2D + 1.0W 210° 109 mph Wind with No Ice	170.00	0.4339	0.0547	0.1807	0.1888
1.2D + 1.0W 210° 109 mph Wind with No Ice	180.00	0.464	0.0541	0.1654	0.1732
1.2D + 1.0W 210° 109 mph Wind with No Ice	180.38	0.465	0.0541	0.1649	0.1727
1.2D + 1.0W 210° 109 mph Wind with No Ice	183.58	0.4715	0.0539	0.1338	0.1443
1.2D + 1.0W 210° 109 mph Wind with No Ice	190.00	0.485	0.0536	0.1143	0.1263
1.2D + 1.0W 210° 109 mph Wind with No Ice	220.00	0.5205	0.0519	0.0844	0.097
1.2D + 1.0W 210° 109 mph Wind with No Ice	300.00	0.551	0.0499	0.0994	0.1089
1.2D + 1.0W 210° 109 mph Wind with No Ice	320.00	0.5861	0.0495	0.1768	0.1826
1.2D + 1.0W 210° 109 mph Wind with No Ice	330.00	0.6076	0.0492	0.1342	0.1423
1.2D + 1.0W 210° 109 mph Wind with No Ice	356.42	0.671	0.0486	0.1469	0.1535
1.2D + 1.0W 210° 109 mph Wind with No Ice	380.00	0.7333	0.0482	0.3313	0.3343
1.2D + 1.0W 210° 109 mph Wind with No Ice	383.58	0.7479	0.0481	0.1944	0.199
1.2D + 1.0W 210° 109 mph Wind with No Ice	386.79	0.7595	0.0480	0.2320	0.2362
1.2D + 1.0W 210° 109 mph Wind with No Ice	396.42	0.7989	0.0478	0.2143	0.2184
1.2D + 1.0W 210° 109 mph Wind with No Ice	403.58	0.8289	0.0476	0.1997	0.2053
1.2D + 1.0W 210° 109 mph Wind with No Ice	410.00	0.8528	0.0475	0.1963	0.2007
1.2D + 1.0W 210° 109 mph Wind with No Ice	416.42	0.8731	0.0474	0.1655	0.1713
1.2D + 1.0W 210° 109 mph Wind with No Ice	420.38	0.8825	0.0473	0.1310	0.1378
1.2D + 1.0W 210° 109 mph Wind with No Ice	426.79	0.8958	0.0472	0.1027	0.113
1.2D + 1.0W 210° 109 mph Wind with No Ice	430.00	0.9014	0.0472	0.0888	0.1006
1.2D + 1.0W 210° 109 mph Wind with No Ice	456.42	0.9172	0.0467	0.0383	0.0604
1.2D + 1.0W 210° 109 mph Wind with No Ice	459.63	0.917	0.0434	0.0616	0.0754
1.2D + 1.0W 210° 109 mph Wind with No Ice	460.00	0.9178	0.0467	0.1001	0.1105
1.2D + 1.0W 210° 109 mph Wind with No Ice	463.58	0.9196	0.0434	0.0199	0.0477
1.2D + 1.0W 210° 109 mph Wind with No Ice	476.42	0.9281	0.0466	0.0367	0.059
1.2D + 1.0W 210° 109 mph Wind with No Ice	480.00	0.9305	0.0466	0.0443	0.0634
1.2D + 1.0W 180° 109 mph Wind with No Ice	66.79	0.1338	0.0195	0.0990	0.1007
1.2D + 1.0W 180° 109 mph Wind with No Ice	86.79	0.1745	0.0194	0.1219	0.1234
1.2D + 1.0W 180° 109 mph Wind with No Ice	130.00	0.2677	0.0203	0.1375	0.1386
1.2D + 1.0W 180° 109 mph Wind with No Ice	140.00	0.2931	0.0206	0.2064	0.207
1.2D + 1.0W 180° 109 mph Wind with No Ice	170.00	0.399	0.0158	0.1934	0.194
1.2D + 1.0W 180° 109 mph Wind with No Ice	180.00	0.4313	0.0142	0.1859	0.1864
1.2D + 1.0W 180° 109 mph Wind with No Ice	180.38	0.4325	0.0142	0.1819	0.1822
1.2D + 1.0W 180° 109 mph Wind with No Ice	183.58	0.4408	0.0137	0.1535	0.1541
1.2D + 1.0W 180° 109 mph Wind with No Ice	190.00	0.4571	0.0127	0.1379	0.1385
1.2D + 1.0W 180° 109 mph Wind with No Ice	220.00	0.5121	0.0082	0.1140	0.1141
1.2D + 1.0W 180° 109 mph Wind with No Ice	300.00	0.6247	0.0066	0.1329	0.1329
1.2D + 1.0W 180° 109 mph Wind with No Ice	320.00	0.6744	0.0054	0.2091	0.2092
1.2D + 1.0W 180° 109 mph Wind with No Ice	330.00	0.7034	0.0048	0.1639	0.164
1.2D + 1.0W 180° 109 mph Wind with No Ice	356.42	0.7776	0.0036	0.1658	0.1658

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 180° 109 mph Wind with No Ice	380.00	0.8464	0.0029	0.3469	0.347
1.2D + 1.0W 180° 109 mph Wind with No Ice	383.58	0.862	0.0026	0.2043	0.2043
1.2D + 1.0W 180° 109 mph Wind with No Ice	386.79	0.8742	0.0024	0.2447	0.2447
1.2D + 1.0W 180° 109 mph Wind with No Ice	396.42	0.9159	0.0020	0.2300	0.23
1.2D + 1.0W 180° 109 mph Wind with No Ice	403.58	0.9472	0.0018	0.2045	0.2045
1.2D + 1.0W 180° 109 mph Wind with No Ice	410.00	0.9723	0.0017	0.2060	0.206
1.2D + 1.0W 180° 109 mph Wind with No Ice	416.42	0.9937	0.0016	0.1748	0.1748
1.2D + 1.0W 180° 109 mph Wind with No Ice	420.38	1.0044	0.0014	0.1458	0.1458
1.2D + 1.0W 180° 109 mph Wind with No Ice	426.79	1.0187	0.0013	0.1103	0.1103
1.2D + 1.0W 180° 109 mph Wind with No Ice	430.00	1.0245	0.0012	0.0987	0.0987
1.2D + 1.0W 180° 109 mph Wind with No Ice	456.42	1.0442	0.0006	0.0265	0.0265
1.2D + 1.0W 180° 109 mph Wind with No Ice	459.63	1.0446	0.0006	0.0667	0.0667
1.2D + 1.0W 180° 109 mph Wind with No Ice	460.00	1.0451	0.0006	0.1003	0.1003
1.2D + 1.0W 180° 109 mph Wind with No Ice	463.58	1.0476	0.0006	0.0283	0.0283
1.2D + 1.0W 180° 109 mph Wind with No Ice	476.42	1.0578	0.0006	0.0446	0.0446
1.2D + 1.0W 180° 109 mph Wind with No Ice	480.00	1.0606	0.0005	0.0518	0.0518
1.2D + 1.0W 120° 109 mph Wind with No Ice	66.79	0.1694	0.0275	0.1298	0.1326
1.2D + 1.0W 120° 109 mph Wind with No Ice	86.79	0.2205	0.0280	0.1498	0.1519
1.2D + 1.0W 120° 109 mph Wind with No Ice	130.00	0.3262	0.0290	0.1384	0.1405
1.2D + 1.0W 120° 109 mph Wind with No Ice	140.00	0.3507	0.0293	0.2114	0.2128
1.2D + 1.0W 120° 109 mph Wind with No Ice	170.00	0.4428	0.0305	0.1498	0.1529
1.2D + 1.0W 120° 109 mph Wind with No Ice	180.00	0.4671	0.0309	0.1282	0.1311
1.2D + 1.0W 120° 109 mph Wind with No Ice	180.38	0.4678	0.0309	0.1289	0.1317
1.2D + 1.0W 120° 109 mph Wind with No Ice	183.58	0.4724	0.0310	0.0920	0.0971
1.2D + 1.0W 120° 109 mph Wind with No Ice	190.00	0.4814	0.0313	0.0666	0.0735
1.2D + 1.0W 120° 109 mph Wind with No Ice	220.00	0.488	0.0325	0.0272	0.0406
1.2D + 1.0W 120° 109 mph Wind with No Ice	300.00	0.3959	0.0707	0.0164	0.0709
1.2D + 1.0W 120° 109 mph Wind with No Ice	320.00	0.4103	0.0695	0.1318	0.147
1.2D + 1.0W 120° 109 mph Wind with No Ice	330.00	0.425	0.0690	0.0980	0.1198
1.2D + 1.0W 120° 109 mph Wind with No Ice	356.42	0.4785	0.0675	0.1325	0.1462
1.2D + 1.0W 120° 109 mph Wind with No Ice	380.00	0.539	0.0662	0.3424	0.3488
1.2D + 1.0W 120° 109 mph Wind with No Ice	383.58	0.553	0.0661	0.1951	0.206
1.2D + 1.0W 120° 109 mph Wind with No Ice	386.79	0.5663	0.0659	0.2354	0.2445
1.2D + 1.0W 120° 109 mph Wind with No Ice	396.42	0.6055	0.0653	0.2187	0.2282
1.2D + 1.0W 120° 109 mph Wind with No Ice	403.58	0.6378	0.0649	0.2096	0.2194
1.2D + 1.0W 120° 109 mph Wind with No Ice	410.00	0.6624	0.0646	0.2065	0.2164
1.2D + 1.0W 120° 109 mph Wind with No Ice	416.42	0.6841	0.0642	0.1724	0.184
1.2D + 1.0W 120° 109 mph Wind with No Ice	420.38	0.6955	0.0640	0.1541	0.165
1.2D + 1.0W 120° 109 mph Wind with No Ice	426.79	0.7098	0.0637	0.1145	0.1289
1.2D + 1.0W 120° 109 mph Wind with No Ice	430.00	0.7149	0.0635	0.0971	0.114
1.2D + 1.0W 120° 109 mph Wind with No Ice	456.42	0.736	0.0628	0.0242	0.0673
1.2D + 1.0W 120° 109 mph Wind with No Ice	459.63	0.7365	0.0627	0.0986	0.1169
1.2D + 1.0W 120° 109 mph Wind with No Ice	460.00	0.7372	0.0627	0.1170	0.1328
1.2D + 1.0W 120° 109 mph Wind with No Ice	463.58	0.7405	0.0627	0.0291	0.0691
1.2D + 1.0W 120° 109 mph Wind with No Ice	476.42	0.7514	0.0626	0.0497	0.0793
1.2D + 1.0W 120° 109 mph Wind with No Ice	480.00	0.7546	0.0626	0.0573	0.0849
1.2D + 1.0W 90° 109 mph Wind with No Ice	66.79	0.1534	0.0765	0.1183	0.1408
1.2D + 1.0W 90° 109 mph Wind with No Ice	86.79	0.201	0.0757	0.1421	0.1605
1.2D + 1.0W 90° 109 mph Wind with No Ice	130.00	0.3059	0.0738	0.1465	0.1626
1.2D + 1.0W 90° 109 mph Wind with No Ice	140.00	0.3321	0.0734	0.2156	0.2266
1.2D + 1.0W 90° 109 mph Wind with No Ice	170.00	0.4349	0.0810	0.1814	0.1987
1.2D + 1.0W 90° 109 mph Wind with No Ice	180.00	0.4652	0.0835	0.1659	0.1858
1.2D + 1.0W 90° 109 mph Wind with No Ice	180.38	0.4662	0.0836	0.1640	0.1828
1.2D + 1.0W 90° 109 mph Wind with No Ice	183.58	0.4728	0.0844	0.1344	0.1587
1.2D + 1.0W 90° 109 mph Wind with No Ice	190.00	0.4864	0.0860	0.1150	0.1436
1.2D + 1.0W 90° 109 mph Wind with No Ice	220.00	0.5222	0.0938	0.0826	0.122
1.2D + 1.0W 90° 109 mph Wind with No Ice	300.00	0.5546	0.1543	0.0942	0.1808
1.2D + 1.0W 90° 109 mph Wind with No Ice	320.00	0.5907	0.1538	0.1763	0.2339
1.2D + 1.0W 90° 109 mph Wind with No Ice	330.00	0.6129	0.1535	0.1359	0.205

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 90° 109 mph Wind with No Ice	356.42	0.6776	0.1528	0.1471	0.2093
1.2D + 1.0W 90° 109 mph Wind with No Ice	380.00	0.7407	0.1524	0.3611	0.3919
1.2D + 1.0W 90° 109 mph Wind with No Ice	383.58	0.7547	0.1522	0.1917	0.2446
1.2D + 1.0W 90° 109 mph Wind with No Ice	386.79	0.768	0.1521	0.2365	0.2812
1.2D + 1.0W 90° 109 mph Wind with No Ice	396.42	0.8068	0.1519	0.2132	0.2594
1.2D + 1.0W 90° 109 mph Wind with No Ice	403.58	0.8386	0.1517	0.2001	0.2511
1.2D + 1.0W 90° 109 mph Wind with No Ice	410.00	0.8625	0.1515	0.2001	0.251
1.2D + 1.0W 90° 109 mph Wind with No Ice	416.42	0.8837	0.1514	0.1653	0.2242
1.2D + 1.0W 90° 109 mph Wind with No Ice	420.38	0.8943	0.1513	0.1393	0.2015
1.2D + 1.0W 90° 109 mph Wind with No Ice	426.79	0.9076	0.1512	0.1044	0.1825
1.2D + 1.0W 90° 109 mph Wind with No Ice	430.00	0.912	0.1512	0.0851	0.1725
1.2D + 1.0W 90° 109 mph Wind with No Ice	456.42	0.9279	0.1508	0.0428	0.1567
1.2D + 1.0W 90° 109 mph Wind with No Ice	459.63	0.9278	0.1508	0.0907	0.176
1.2D + 1.0W 90° 109 mph Wind with No Ice	460.00	0.9285	0.1508	0.1097	0.1865
1.2D + 1.0W 90° 109 mph Wind with No Ice	463.58	0.9311	0.1508	0.0192	0.152
1.2D + 1.0W 90° 109 mph Wind with No Ice	476.42	0.9395	0.1508	0.0388	0.1555
1.2D + 1.0W 90° 109 mph Wind with No Ice	480.00	0.9418	0.1508	0.0460	0.1572
1.2D + 1.0W 60° 109 mph Wind with No Ice	66.79	0.1341	0.0282	0.0991	0.1026
1.2D + 1.0W 60° 109 mph Wind with No Ice	86.79	0.1748	0.0282	0.1219	0.1251
1.2D + 1.0W 60° 109 mph Wind with No Ice	130.00	0.268	0.0293	0.1376	0.1402
1.2D + 1.0W 60° 109 mph Wind with No Ice	140.00	0.2934	0.0297	0.2061	0.2076
1.2D + 1.0W 60° 109 mph Wind with No Ice	170.00	0.3988	0.0296	0.1937	0.196
1.2D + 1.0W 60° 109 mph Wind with No Ice	180.00	0.4319	0.0296	0.1868	0.1892
1.2D + 1.0W 60° 109 mph Wind with No Ice	180.38	0.4331	0.0296	0.1814	0.1831
1.2D + 1.0W 60° 109 mph Wind with No Ice	183.58	0.4411	0.0296	0.1537	0.1565
1.2D + 1.0W 60° 109 mph Wind with No Ice	190.00	0.4575	0.0297	0.1383	0.1414
1.2D + 1.0W 60° 109 mph Wind with No Ice	220.00	0.5129	0.0300	0.1132	0.1161
1.2D + 1.0W 60° 109 mph Wind with No Ice	300.00	0.6263	0.0597	0.1302	0.1412
1.2D + 1.0W 60° 109 mph Wind with No Ice	320.00	0.6765	0.0591	0.2163	0.2242
1.2D + 1.0W 60° 109 mph Wind with No Ice	330.00	0.7044	0.0589	0.1650	0.1752
1.2D + 1.0W 60° 109 mph Wind with No Ice	356.42	0.7801	0.0583	0.1664	0.176
1.2D + 1.0W 60° 109 mph Wind with No Ice	380.00	0.8502	0.0581	0.3648	0.3693
1.2D + 1.0W 60° 109 mph Wind with No Ice	383.58	0.8648	0.0578	0.2062	0.2139
1.2D + 1.0W 60° 109 mph Wind with No Ice	386.79	0.8788	0.0578	0.2499	0.2565
1.2D + 1.0W 60° 109 mph Wind with No Ice	396.42	0.9199	0.0575	0.2311	0.237
1.2D + 1.0W 60° 109 mph Wind with No Ice	403.58	0.9533	0.0572	0.2136	0.2199
1.2D + 1.0W 60° 109 mph Wind with No Ice	410.00	0.9785	0.0571	0.2104	0.218
1.2D + 1.0W 60° 109 mph Wind with No Ice	416.42	1.001	0.0570	0.1770	0.1859
1.2D + 1.0W 60° 109 mph Wind with No Ice	420.38	1.0122	0.0570	0.1537	0.1624
1.2D + 1.0W 60° 109 mph Wind with No Ice	426.79	1.0268	0.0569	0.1149	0.127
1.2D + 1.0W 60° 109 mph Wind with No Ice	430.00	1.0319	0.0569	0.0965	0.1119
1.2D + 1.0W 60° 109 mph Wind with No Ice	456.42	1.0522	0.0566	0.0291	0.0636
1.2D + 1.0W 60° 109 mph Wind with No Ice	459.63	1.0528	0.0566	0.0905	0.1067
1.2D + 1.0W 60° 109 mph Wind with No Ice	460.00	1.0534	0.0566	0.1067	0.1208
1.2D + 1.0W 60° 109 mph Wind with No Ice	463.58	1.0564	0.0566	0.0274	0.0629
1.2D + 1.0W 60° 109 mph Wind with No Ice	476.42	1.0668	0.0565	0.0474	0.0733
1.2D + 1.0W 60° 109 mph Wind with No Ice	480.00	1.0697	0.0565	0.0544	0.0781
1.2D + 1.0W Normal 109 mph Wind with No Ice	66.79	0.1689	0.0161	0.1291	0.1301
1.2D + 1.0W Normal 109 mph Wind with No Ice	86.79	0.2197	0.0165	0.1486	0.1492
1.2D + 1.0W Normal 109 mph Wind with No Ice	130.00	0.3242	0.0173	0.1362	0.1368
1.2D + 1.0W Normal 109 mph Wind with No Ice	140.00	0.3484	0.0174	0.2094	0.2097
1.2D + 1.0W Normal 109 mph Wind with No Ice	170.00	0.4397	0.0119	0.1463	0.1468
1.2D + 1.0W Normal 109 mph Wind with No Ice	180.00	0.4623	0.0100	0.1245	0.1247
1.2D + 1.0W Normal 109 mph Wind with No Ice	180.38	0.463	0.0100	0.1268	0.127
1.2D + 1.0W Normal 109 mph Wind with No Ice	183.58	0.4681	0.0094	0.0886	0.0891
1.2D + 1.0W Normal 109 mph Wind with No Ice	190.00	0.4765	0.0082	0.0631	0.0636
1.2D + 1.0W Normal 109 mph Wind with No Ice	220.00	0.4811	0.0027	0.0310	0.031
1.2D + 1.0W Normal 109 mph Wind with No Ice	300.00	0.3845	-0.0100	0.0208	0.0224
1.2D + 1.0W Normal 109 mph Wind with No Ice	320.00	0.3969	-0.0083	0.1256	0.1258

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DEFLECTIONS AND ROTATIONS					
Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W Normal 109 mph Wind with No Ice	330.00	0.4131	-0.0075	0.0947	0.0948
1.2D + 1.0W Normal 109 mph Wind with No Ice	356.42	0.4649	-0.0056	0.1328	0.1329
1.2D + 1.0W Normal 109 mph Wind with No Ice	380.00	0.5245	-0.0041	0.3444	0.3444
1.2D + 1.0W Normal 109 mph Wind with No Ice	383.58	0.5396	-0.0038	0.1940	0.194
1.2D + 1.0W Normal 109 mph Wind with No Ice	386.79	0.551	-0.0036	0.2334	0.2334
1.2D + 1.0W Normal 109 mph Wind with No Ice	396.42	0.5913	-0.0029	0.2197	0.2197
1.2D + 1.0W Normal 109 mph Wind with No Ice	403.58	0.6228	-0.0026	0.2001	0.2001
1.2D + 1.0W Normal 109 mph Wind with No Ice	410.00	0.6471	-0.0024	0.2062	0.2062
1.2D + 1.0W Normal 109 mph Wind with No Ice	416.42	0.6687	-0.0021	0.1776	0.1776
1.2D + 1.0W Normal 109 mph Wind with No Ice	420.38	0.6788	-0.0019	0.1482	0.1482
1.2D + 1.0W Normal 109 mph Wind with No Ice	426.79	0.6937	-0.0017	0.1166	0.1166
1.2D + 1.0W Normal 109 mph Wind with No Ice	430.00	0.7005	-0.0016	0.1051	0.1051
1.2D + 1.0W Normal 109 mph Wind with No Ice	456.42	0.7242	-0.0009	0.0192	0.0192
1.2D + 1.0W Normal 109 mph Wind with No Ice	459.63	0.7243	-0.0008	0.0693	0.0693
1.2D + 1.0W Normal 109 mph Wind with No Ice	460.00	0.7257	-0.0008	0.1170	0.117
1.2D + 1.0W Normal 109 mph Wind with No Ice	463.58	0.7279	-0.0008	0.0404	0.0404
1.2D + 1.0W Normal 109 mph Wind with No Ice	476.42	0.7412	-0.0007	0.0549	0.0549
1.2D + 1.0W Normal 109 mph Wind with No Ice	480.00	0.7446	-0.0007	0.0624	0.0624

ASSET: 36075, LEE S SUMMIT #1B
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PROJECT: OAA798020_C3_01

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0W Normal	0.00	0.00		1	0.00	225.08	-0.47
	143.00	0.00	0	A1	0.00	-2.70	1.84
	143.00	0.00	240	A1a	-15.80	-19.27	-9.84
	143.00	0.00	120	A1b	15.80	-19.27	-9.84
	299.00	0.00	0	A2	0.00	-13.41	8.64
	299.00	0.00	240	A2a	-31.16	-45.20	-21.01
	299.00	0.00	120	A2b	31.16	-45.20	-21.01
1.2D + 1.0W 60°	0.00	0.00		1	-0.44	235.21	-0.26
	143.00	0.00	0	A1	-0.60	-7.92	7.08
	143.00	0.00	240	A1a	-21.04	-25.53	-12.15
	143.00	0.00	120	A1b	5.83	-7.92	-4.05
	299.00	0.00	0	A2	-2.61	-27.82	21.03
	299.00	0.00	240	A2a	-43.00	-59.40	-24.83
	299.00	0.00	120	A2b	16.91	-27.82	-12.77
1.2D + 1.0W 90°	0.00	0.00		1	-0.43	231.57	-0.10
	143.00	0.00	0	A1	-0.75	-13.65	12.95
	143.00	0.00	240	A1a	-20.02	-23.99	-11.19
	143.00	0.00	120	A1b	2.61	-4.09	-1.85
	299.00	0.00	0	A2	-3.18	-36.91	29.62
	299.00	0.00	240	A2a	-40.57	-55.07	-21.86
	299.00	0.00	120	A2b	10.45	-18.44	-7.57
1.2D + 1.0W 120°	0.00	0.00		1	-0.37	225.31	0.21
	143.00	0.00	0	A1	-0.63	-19.33	18.66
	143.00	0.00	240	A1a	-16.47	-19.33	-8.79
	143.00	0.00	120	A1b	1.58	-2.68	-0.91
	299.00	0.00	0	A2	-2.62	-45.31	37.58
	299.00	0.00	240	A2a	-33.85	-45.31	-16.53
	299.00	0.00	120	A2b	7.41	-13.31	-4.28
1.2D + 1.0W 180°	0.00	0.00		1	0.00	235.19	0.51
	143.00	0.00	0	A1	0.00	-25.52	24.29
	143.00	0.00	240	A1a	-6.43	-7.92	-3.02
	143.00	0.00	120	A1b	6.43	-7.92	-3.02
	299.00	0.00	0	A2	0.00	-59.37	49.63
	299.00	0.00	240	A2a	-19.52	-27.83	-8.26
	299.00	0.00	120	A2b	19.52	-27.83	-8.26
1.2D + 1.0W 210°	0.00	0.00		1	0.13	231.56	0.42
	143.00	0.00	0	A1	0.32	-23.98	22.94
	143.00	0.00	240	A1a	-2.91	-4.09	-1.34
	143.00	0.00	120	A1b	11.58	-13.64	-5.83
	299.00	0.00	0	A2	1.36	-55.06	46.07
	299.00	0.00	240	A2a	-11.78	-18.43	-5.27
	299.00	0.00	120	A2b	27.23	-36.92	-12.06
1.2D + 1.0W 240°	0.00	0.00		1	0.37	225.31	0.21
	143.00	0.00	0	A1	0.62	-19.33	18.65
	143.00	0.00	240	A1a	-1.58	-2.68	-0.91
	143.00	0.00	120	A1b	16.47	-19.33	-8.79
	299.00	0.00	0	A2	2.62	-45.31	37.58
	299.00	0.00	240	A2a	-7.41	-13.31	-4.28
	299.00	0.00	120	A2b	33.85	-45.31	-16.53
1.2D + 1.0W 300°	0.00	0.00		1	0.44	235.21	-0.26
	143.00	0.00	0	A1	0.60	-7.92	7.08
	143.00	0.00	240	A1a	-5.83	-7.92	-4.05
	143.00	0.00	120	A1b	21.04	-25.53	-12.15
	299.00	0.00	0	A2	2.61	-27.82	21.03
	299.00	0.00	240	A2a	-16.91	-27.82	-12.77
	299.00	0.00	120	A2b	43.00	-59.39	-24.83
1.2D + 1.0W 330°	0.00	0.00		1	0.30	231.56	-0.32
	143.00	0.00	0	A1	0.30	-4.09	3.19
	143.00	0.00	240	A1a	-10.84	-13.64	-7.12

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Di + 1.0Wi Normal	143.00	0.00	120	A1b	19.70	-23.98	-11.75
	299.00	0.00	0	A2	1.33	-18.43	12.83
	299.00	0.00	240	A2a	-24.06	-36.92	-17.55
	299.00	0.00	120	A2b	39.22	-55.07	-24.21
	0.00	0.00		1	0.00	416.06	-0.11
	143.00	0.00	0	A1	0.00	-10.45	12.02
	143.00	0.00	240	A1a	-18.11	-19.77	-11.23
	143.00	0.00	120	A1b	18.11	-19.77	-11.23
	299.00	0.00	0	A2	0.00	-35.16	32.04
	299.00	0.00	240	A2a	-41.24	-52.14	-26.67
1.2D + 1.0Di + 1.0Wi 60°	299.00	0.00	120	A2b	41.24	-52.14	-26.67
	0.00	0.00		1	-0.02	414.59	-0.01
	143.00	0.00	0	A1	-0.67	-13.73	15.06
	143.00	0.00	240	A1a	-20.86	-22.68	-12.04
	143.00	0.00	120	A1b	12.71	-13.73	-8.11
	299.00	0.00	0	A2	-2.49	-40.63	37.16
	299.00	0.00	240	A2a	-47.13	-57.82	-27.21
	299.00	0.00	120	A2b	30.94	-40.64	-20.74
	0.00	0.00		1	-0.07	415.26	0.05
	143.00	0.00	0	A1	-0.82	-16.78	18.21
1.2D + 1.0Di + 1.0Wi 90°	143.00	0.00	240	A1a	-20.42	-21.91	-11.40
	143.00	0.00	120	A1b	10.91	-11.35	-6.68
	299.00	0.00	0	A2	-3.01	-46.30	43.03
	299.00	0.00	240	A2a	-46.62	-56.34	-25.46
	299.00	0.00	120	A2b	28.17	-36.59	-17.74
	0.00	0.00		1	-0.10	416.07	0.06
	143.00	0.00	0	A1	-0.67	-19.77	21.30
	143.00	0.00	240	A1a	-18.78	-19.77	-10.07
	143.00	0.00	120	A1b	10.41	-10.45	-6.01
	299.00	0.00	0	A2	-2.47	-52.14	49.05
1.2D + 1.0Di + 1.0Wi 120°	299.00	0.00	240	A2a	-43.72	-52.15	-22.38
	299.00	0.00	120	A2b	27.75	-35.18	-16.02
	0.00	0.00		1	0.00	414.60	0.03
	143.00	0.00	0	A1	0.00	-22.68	24.08
	143.00	0.00	240	A1a	-13.37	-13.73	-6.96
	143.00	0.00	120	A1b	13.38	-13.73	-6.95
	299.00	0.00	0	A2	0.00	-57.81	54.42
	299.00	0.00	240	A2a	-33.43	-40.64	-16.43
	299.00	0.00	120	A2b	33.43	-40.64	-16.43
	0.00	0.00		1	0.08	415.26	0.04
1.2D + 1.0Di + 1.0Wi 180°	143.00	0.00	0	A1	0.34	-21.91	23.39
	143.00	0.00	240	A1a	-11.25	-11.35	-6.11
	143.00	0.00	120	A1b	16.18	-16.78	-8.40
	299.00	0.00	0	A2	1.26	-56.32	53.11
	299.00	0.00	240	A2a	-29.45	-36.59	-15.52
	299.00	0.00	120	A2b	38.77	-46.31	-18.91
	0.00	0.00		1	0.10	416.07	0.06
	143.00	0.00	0	A1	0.67	-19.77	21.29
	143.00	0.00	240	A1a	-10.41	-10.45	-6.01
	143.00	0.00	120	A1b	18.78	-19.77	-10.07
1.2D + 1.0Di + 1.0Wi 210°	299.00	0.00	0	A2	2.47	-52.14	49.05
	299.00	0.00	240	A2a	-27.75	-35.18	-16.02
	299.00	0.00	120	A2b	43.72	-52.15	-22.38
	0.00	0.00		1	0.02	414.60	-0.01
	143.00	0.00	0	A1	0.66	-13.73	15.05
	143.00	0.00	240	A1a	-12.71	-13.73	-8.11
	143.00	0.00	120	A1b	20.87	-22.69	-12.05
	299.00	0.00	0	A2	2.49	-40.61	37.15
	299.00	0.00	240	A2a	-30.93	-40.62	-20.73

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Di + 1.0Wi 330°	299.00	0.00	120	A2b	47.16	-57.86	-27.23
	0.00	0.00		1	-0.01	415.26	-0.09
	143.00	0.00	0	A1	0.33	-11.35	12.79
	143.00	0.00	240	A1a	-15.36	-16.78	-9.81
	143.00	0.00	120	A1b	20.09	-21.91	-11.99
	299.00	0.00	0	A2	1.28	-36.57	33.27
	299.00	0.00	240	A2a	-35.76	-46.31	-24.12
	299.00	0.00	120	A2b	45.36	-56.33	-27.64
1.2D + 1.0Ev + 1.0Eh Normal	0.00	0.00		1	0.00	178.68	0.02
	143.00	0.00	0	A1	0.00	-8.96	8.89
	143.00	0.00	240	A1a	-8.30	-9.79	-4.79
	143.00	0.00	120	A1b	8.30	-9.79	-4.79
	299.00	0.00	0	A2	0.00	-21.59	17.87
	299.00	0.00	240	A2a	-16.93	-23.77	-9.78
	299.00	0.00	120	A2b	16.93	-23.77	-9.78
	0.00	0.00		1	0.02	178.67	0.01
1.2D + 1.0Ev + 1.0Eh 60°	143.00	0.00	0	A1	0.00	-9.24	9.13
	143.00	0.00	240	A1a	-8.49	-10.05	-4.90
	143.00	0.00	120	A1b	7.90	-9.24	-4.56
	299.00	0.00	0	A2	0.00	-22.34	18.45
	299.00	0.00	240	A2a	-17.39	-24.45	-10.04
	299.00	0.00	120	A2b	15.97	-22.34	-9.23
	0.00	0.00		1	0.02	178.67	0.00
	143.00	0.00	0	A1	0.00	-9.51	9.35
1.2D + 1.0Ev + 1.0Eh 90°	143.00	0.00	240	A1a	-8.44	-9.99	-4.87
	143.00	0.00	120	A1b	7.76	-9.04	-4.48
	299.00	0.00	0	A2	0.00	-23.04	18.99
	299.00	0.00	240	A2a	-17.29	-24.31	-9.98
	299.00	0.00	120	A2b	15.60	-21.79	-9.01
	0.00	0.00		1	0.02	178.67	-0.01
	143.00	0.00	0	A1	0.00	-9.78	9.58
	143.00	0.00	240	A1a	-8.29	-9.78	-4.79
1.2D + 1.0Ev + 1.0Eh 120°	143.00	0.00	120	A1b	7.71	-8.97	-4.45
	299.00	0.00	0	A2	0.00	-23.74	19.53
	299.00	0.00	240	A2a	-16.91	-23.74	-9.76
	299.00	0.00	120	A2b	15.51	-21.65	-8.96
	0.00	0.00		1	0.00	178.67	-0.02
	143.00	0.00	0	A1	0.00	-10.06	9.81
	143.00	0.00	240	A1a	-7.90	-9.24	-4.56
	143.00	0.00	120	A1b	7.90	-9.24	-4.56
1.2D + 1.0Ev + 1.0Eh 180°	299.00	0.00	0	A2	0.00	-24.51	20.12
	299.00	0.00	240	A2a	-15.96	-22.31	-9.21
	299.00	0.00	120	A2b	15.96	-22.31	-9.21
	0.00	0.00		1	-0.01	178.67	-0.02
	143.00	0.00	0	A1	0.00	-9.98	9.74
	143.00	0.00	240	A1a	-7.76	-9.05	-4.48
	143.00	0.00	120	A1b	8.10	-9.51	-4.67
	299.00	0.00	0	A2	0.00	-24.26	19.93
1.2D + 1.0Ev + 1.0Eh 210°	299.00	0.00	240	A2a	-15.64	-21.83	-9.03
	299.00	0.00	120	A2b	16.44	-23.04	-9.49
	0.00	0.00		1	-0.02	178.67	-0.01
	143.00	0.00	0	A1	0.00	-9.78	9.58
	143.00	0.00	240	A1a	-7.71	-8.97	-4.45
	143.00	0.00	120	A1b	8.29	-9.78	-4.79
	299.00	0.00	0	A2	0.00	-23.74	19.53
	299.00	0.00	240	A2a	-15.51	-21.65	-8.96
1.2D + 1.0Ev + 1.0Eh 240°	299.00	0.00	120	A2b	16.91	-23.74	-9.76
	0.00	0.00		1	-0.02	178.67	0.01
	143.00	0.00	0	A1	0.00	-9.24	9.13

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Ev + 1.0Eh 330°	143.00	0.00	240	A1a	-7.90	-9.24	-4.56
	143.00	0.00	120	A1b	8.49	-10.05	-4.90
	299.00	0.00	0	A2	0.00	-22.34	18.45
	299.00	0.00	240	A2a	-15.97	-22.34	-9.23
	299.00	0.00	120	A2b	17.39	-24.45	-10.04
	0.00	0.00		1	-0.01	178.67	0.02
	143.00	0.00	0	A1	0.00	-9.05	8.96
	143.00	0.00	240	A1a	-8.10	-9.51	-4.68
	143.00	0.00	120	A1b	8.44	-9.98	-4.87
	299.00	0.00	0	A2	0.00	-21.83	18.06
1.0D + 1.0W Service Normal	299.00	0.00	240	A2a	-16.44	-23.04	-9.50
	299.00	0.00	120	A2b	17.26	-24.26	-9.97
	0.00	0.00		1	0.00	171.54	-0.27
	143.00	0.00	0	A1	0.00	-6.41	6.26
	143.00	0.00	240	A1a	-9.70	-11.55	-5.81
	143.00	0.00	120	A1b	9.70	-11.55	-5.81
	299.00	0.00	0	A2	0.00	-18.34	14.57
	299.00	0.00	240	A2a	-19.56	-27.72	-12.19
	299.00	0.00	120	A2b	19.56	-27.72	-12.19
	0.00	0.00		1	-0.21	172.13	-0.12
1.0D + 1.0W Service 60°	143.00	0.00	0	A1	-0.18	-8.16	7.94
	143.00	0.00	240	A1a	-11.37	-13.49	-6.56
	143.00	0.00	120	A1b	6.79	-8.16	-4.13
	299.00	0.00	0	A2	-0.78	-21.69	17.45
	299.00	0.00	240	A2a	-22.44	-31.04	-12.96
	299.00	0.00	120	A2b	14.73	-21.70	-9.40
	0.00	0.00		1	-0.26	171.79	0.01
	143.00	0.00	0	A1	-0.22	-9.85	9.62
	143.00	0.00	240	A1a	-10.99	-12.96	-6.24
	143.00	0.00	120	A1b	5.73	-6.84	-3.41
1.0D + 1.0W Service 90°	299.00	0.00	0	A2	-0.94	-24.74	20.28
	299.00	0.00	240	A2a	-21.98	-30.13	-12.23
	299.00	0.00	120	A2b	13.01	-19.19	-7.97
	0.00	0.00		1	-0.24	171.53	0.14
	143.00	0.00	0	A1	-0.18	-11.57	11.32
	143.00	0.00	240	A1a	-9.90	-11.57	-5.51
	143.00	0.00	120	A1b	5.40	-6.37	-3.11
	299.00	0.00	0	A2	-0.78	-27.73	23.05
	299.00	0.00	240	A2a	-20.35	-27.74	-10.85
	299.00	0.00	120	A2b	12.59	-18.31	-7.27
1.0D + 1.0W Service 120°	0.00	0.00		1	0.00	172.13	0.24
	143.00	0.00	0	A1	0.00	-13.49	13.12
	143.00	0.00	240	A1a	-6.97	-8.16	-3.81
	143.00	0.00	120	A1b	6.97	-8.16	-3.81
	299.00	0.00	0	A2	0.00	-31.04	25.91
	299.00	0.00	240	A2a	-15.50	-21.70	-8.05
	299.00	0.00	120	A2b	15.50	-21.70	-8.05
	0.00	0.00		1	0.14	171.78	0.22
	143.00	0.00	0	A1	0.09	-12.94	12.62
	143.00	0.00	240	A1a	-5.83	-6.86	-3.26
1.0D + 1.0W Service 210°	143.00	0.00	120	A1b	8.45	-9.86	-4.62
	299.00	0.00	0	A2	0.40	-30.05	25.09
	299.00	0.00	240	A2a	-13.43	-19.22	-7.29
	299.00	0.00	120	A2b	18.07	-24.79	-9.34
	0.00	0.00		1	0.24	171.53	0.14
	143.00	0.00	0	A1	0.18	-11.57	11.32
	143.00	0.00	240	A1a	-5.40	-6.37	-3.12
	143.00	0.00	120	A1b	9.90	-11.57	-5.50
	299.00	0.00	0	A2	0.78	-27.73	23.05

ASSET: 36075, LEE S SUMMIT #1B
CUSTOMER: WISPER ISP, LLC

CODE: ANSI/TIA-222-I
PROJECT: OAA798020_C3_01

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.0D + 1.0W Service 300°	299.00	0.00	240	A2a	-12.59	-18.31	-7.27
	299.00	0.00	120	A2b	20.35	-27.73	-10.86
	0.00	0.00		1	0.21	172.13	-0.12
	143.00	0.00	0	A1	0.18	-8.16	7.94
	143.00	0.00	240	A1a	-6.79	-8.16	-4.13
	143.00	0.00	120	A1b	11.37	-13.49	-6.56
	299.00	0.00	0	A2	0.78	-21.69	17.45
	299.00	0.00	240	A2a	-14.73	-21.70	-9.40
1.0D + 1.0W Service 330°	299.00	0.00	120	A2b	22.44	-31.04	-12.96
	0.00	0.00		1	0.12	171.78	-0.23
	143.00	0.00	0	A1	0.09	-6.86	6.68
	143.00	0.00	240	A1a	-8.23	-9.86	-5.01
	143.00	0.00	120	A1b	10.89	-12.94	-6.39
	299.00	0.00	0	A2	0.40	-19.21	15.28
	299.00	0.00	240	A2a	-17.12	-24.79	-10.97
	299.00	0.00	120	A2b	21.53	-30.05	-12.89
1.2D + 1.0Ev + 1.5Eh Normal	0.00	0.00		1	0.00	178.77	0.03
	143.00	0.00	0	A1	0.00	-8.68	8.66
	143.00	0.00	240	A1a	-8.40	-9.93	-4.85
	143.00	0.00	120	A1b	8.40	-9.93	-4.85
	299.00	0.00	0	A2	0.00	-20.83	17.28
	299.00	0.00	240	A2a	-17.21	-24.19	-9.94
	299.00	0.00	120	A2b	17.21	-24.19	-9.94
	0.00	0.00		1	0.02	178.74	0.01
1.2D + 1.0Ev + 1.5Eh 60°	143.00	0.00	0	A1	0.00	-9.10	9.01
	143.00	0.00	240	A1a	-8.70	-10.34	-5.02
	143.00	0.00	120	A1b	7.80	-9.10	-4.51
	299.00	0.00	0	A2	0.00	-21.97	18.16
	299.00	0.00	240	A2a	-17.93	-25.26	-10.35
	299.00	0.00	120	A2b	15.72	-21.97	-9.08
	0.00	0.00		1	0.03	178.76	0.00
	143.00	0.00	0	A1	0.00	-9.51	9.35
1.2D + 1.0Ev + 1.5Eh 90°	143.00	0.00	240	A1a	-8.62	-10.24	-4.98
	143.00	0.00	120	A1b	7.58	-8.79	-4.38
	299.00	0.00	0	A2	0.00	-23.06	19.00
	299.00	0.00	240	A2a	-17.77	-25.03	-10.26
	299.00	0.00	120	A2b	15.16	-21.13	-8.76
	0.00	0.00		1	0.03	178.77	-0.01
	143.00	0.00	0	A1	0.00	-9.93	9.70
	143.00	0.00	240	A1a	-8.40	-9.93	-4.85
1.2D + 1.0Ev + 1.5Eh 120°	143.00	0.00	120	A1b	7.50	-8.68	-4.33
	299.00	0.00	0	A2	0.00	-24.19	19.88
	299.00	0.00	240	A2a	-17.22	-24.19	-9.93
	299.00	0.00	120	A2b	14.97	-20.83	-8.64
	0.00	0.00		1	0.00	178.75	-0.03
	143.00	0.00	0	A1	0.00	-10.35	10.05
	143.00	0.00	240	A1a	-7.80	-9.10	-4.50
	143.00	0.00	120	A1b	7.80	-9.10	-4.50
1.2D + 1.0Ev + 1.5Eh 180°	299.00	0.00	0	A2	0.00	-25.33	20.76
	299.00	0.00	240	A2a	-15.71	-21.94	-9.06
	299.00	0.00	120	A2b	15.71	-21.94	-9.06
	0.00	0.00		1	-0.01	178.75	-0.02
	143.00	0.00	0	A1	0.00	-10.23	9.95
	143.00	0.00	240	A1a	-7.59	-8.80	-4.38
	143.00	0.00	120	A1b	8.10	-9.51	-4.68
	299.00	0.00	0	A2	0.00	-24.97	20.48
1.2D + 1.0Ev + 1.5Eh 210°	299.00	0.00	240	A2a	-15.20	-21.18	-8.77
	299.00	0.00	120	A2b	16.46	-23.06	-9.50
	0.00	0.00		1	-0.03	178.77	-0.01

DETAILED REACTIONS							
Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	*(-) Uplift and (+) Down		
					FX* (kip)	FY* (kip)	FZ* (kip)
1.2D + 1.0Ev + 1.5Eh 300°	143.00	0.00	0	A1	0.00	-9.93	9.70
	143.00	0.00	240	A1a	-7.50	-8.68	-4.33
	143.00	0.00	120	A1b	8.40	-9.93	-4.85
	299.00	0.00	0	A2	0.00	-24.19	19.88
	299.00	0.00	240	A2a	-14.97	-20.83	-8.64
	299.00	0.00	120	A2b	17.22	-24.19	-9.94
	0.00	0.00		1	-0.02	178.74	0.01
	143.00	0.00	0	A1	0.00	-9.10	9.01
	143.00	0.00	240	A1a	-7.80	-9.10	-4.51
	143.00	0.00	120	A1b	8.70	-10.34	-5.02
	299.00	0.00	0	A2	0.00	-21.97	18.16
	299.00	0.00	240	A2a	-15.72	-21.97	-9.08
	299.00	0.00	120	A2b	17.93	-25.26	-10.35
	0.00	0.00		1	-0.01	178.76	0.02
	143.00	0.00	0	A1	0.00	-8.79	8.75
1.2D + 1.0Ev + 1.5Eh 330°	143.00	0.00	240	A1a	-8.10	-9.51	-4.68
	143.00	0.00	120	A1b	8.62	-10.24	-4.98
	299.00	0.00	0	A2	0.00	-21.13	17.51
	299.00	0.00	240	A2a	-16.45	-23.06	-9.51
	299.00	0.00	120	A2b	17.77	-25.03	-10.26

MAXIMUM GUY ANCHOR REACTIONS				
Radius (ft)	Drop (ft)	Azimuth (deg)	Uplift (kip)	Shear (kip)
143.00	0.00	0	25.52	24.29
143.00	0.00	120	25.53	24.29
143.00	0.00	240	25.53	24.29
299.00	0.00	0	59.37	54.42
299.00	0.00	120	59.39	54.45
299.00	0.00	240	59.40	54.42

MAXIMUM REACTIONS SUMMARY		
Base / Anchor Group	Vertical Load <i>(Compression for Base; Uplift for Anchor)</i>	Horizontal Shear
Guyed – Pivot Base	416.07 (kip)	0.51 (kip)
Guyed Anchor - A1	25.53 (kip)	24.29 (kip)
Guyed Anchor - A2	59.40 (kip)	54.45 (kip)

MAXIMUM GUY ANCHOR REACTIONS WITH OVERSTRENGTH				
Radius (ft)	Drop (ft)	Azimuth (deg)	Uplift (kip)	Shear (kip)
143.00	0.00	0	25.52	24.29
143.00	0.00	120	25.53	24.29
143.00	0.00	240	25.53	24.29
299.00	0.00	0	59.37	54.42
299.00	0.00	120	59.39	54.45
299.00	0.00	240	59.40	54.42

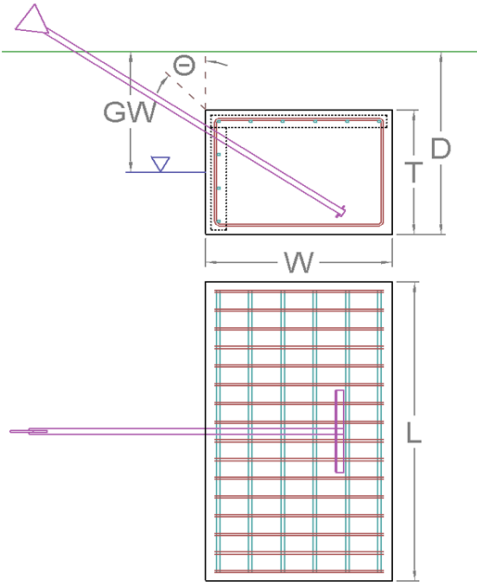
MAXIMUM REACTIONS SUMMARY WITH OVERSTRENGTH		
Base / Anchor Group	Vertical Load <i>(Compression for Base; Uplift for Anchor)</i>	Horizontal Shear
Guyed – Pivot Base w/Overstrength	416.07 (kip)	0.51 (kip)
Guyed Anchor - A1 w/Overstrength	25.53 (kip)	24.29 (kip)
Guyed Anchor - A2 w/Overstrength	59.40 (kip)	54.45 (kip)

GUY ANCHOR BLOCK FOUNDATION ANALYSIS (NODE A1a @ r = 143 ft)

APPLIED REACTIONS	
Uplift (k)	Shear (k)
25.53	24.29

FOUNDATION PARAMETERS			
Base Depth:	D	9	ft
Block Width:	W	4	ft
Block Length:	L	14	ft
Block Thickness:	T	3	ft
Concrete Compressive Strength:		3,000	psi
Top Rebar Quantity, Size, & Yield:		(5) #6 bars [60 ksi]	
Side Rebar Quantity, Size, & Yield:		(2) #6 bars [60 ksi]	
Anchor Rod Quantity & Shape:		(1) W-Shape	
Anchor Rod Area (gross/net):		3.620 // 3.620	in ²
Anchor Rod Strength (fy/fu):		36 // 58	ksi

SOIL PARAMETERS			
Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		131	pcf
Friction Angle:		0	°
Cohesion:		1,250	psf
Ultimate Skin Friction		600	psf
Coefficient of Shear Friction:		0.3	
Uplift Pullout Angle:	θ	30	°
Uplift at ____ of Anchor:		Top	



SOIL STRENGTH ANALYSIS		
Uplift Strength Reduction Factor, Φ_u	Shear Strength Reduction Factor, Φ_v	Dead Load Factor
0.75	0.75	0.9

SOIL UPLIFT ANALYSIS			
Uplift Resistance from Skin Friction and Soil Shear (k)	Additional Uplift Resistance (k)	Uplift Capacity, ΦT_n (k)	Soil Uplift Usage, $T_u / \Phi T_n$
155.63	0	179.02	14.3%

SOIL SHEAR ANALYSIS						
Skin Friction Resistance (k)	Normal Force Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Additional Shear Resistance (k)	Shear Capacity, ΦV_n (k)	Soil Shear Usage, $V_u / \Phi V_n$
9.93	11.03	3,482.50	146.26	0	125.41	19.4%

ANCHOR ROD STRENGTH ANALYSIS				
Yield Strength Reduction Factor, Φ_y	Tensile Strength Reduction Factor, Φ_t	Resultant Tensile Load, T_u (k)	Tensile Capacity, ΦT_n (k-ft)	Anchor Rod Tensile Usage, $T_u / \Phi T_n$
0.8	0.65	35.2	104.26	33.8%

REINFORCING STEEL STRENGTH ANALYSIS

Strength Shear Reduction Factor, Φ_v	Strength Reduction Factor for Lateral Flexure, Φ_{BV}	Strength Reduction Factor for Vertical Flexure, Φ_{BT}	Compression Zone Factor, β_1
0.75	0.9	0.9	0.65

REINFORCING ONE WAY SHEAR ANALYSIS - SHEAR

One Way Shear due to Shear, V_u (k)	One Way Shear Capacity due to Shear, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$
8.96	130.51	6.9% 

REINFORCING ONE WAY SHEAR ANALYSIS - UPLIFT

One Way Shear due to Uplift, V_u (k)	One Way Shear Capacity due to Uplift, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$
10.33	126.69	8.2% 

REINFORCING FLEXURE ANALYSIS - SHEAR

Flexure Load, M_{uv} (k-ft)	Distance to steel, d_v (in)	Whitney Block, a_v (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bv} M_{nv}$ (k-ft)	Rebar Flexural Usage, $M_{uv} / \Phi_{bv} M_{nv}$
42.51	44.125	0.575	0.1926	173.60	24.5% 

REINFORCING FLEXURE ANALYSIS - UPLIFT

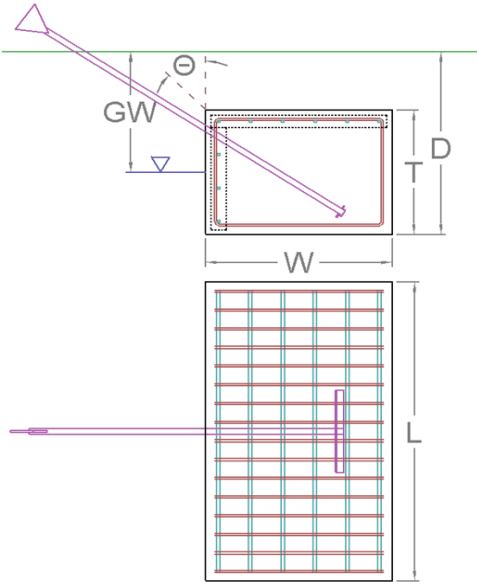
Flexure Load, M_{ut} (k-ft)	Depth to steel, d_t (in)	Whitney Block, a_t (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bt} M_{nt}$ (k-ft)	Rebar Flexural Usage, $M_{ut} / \Phi_{bt} M_{nt}$
44.68	32.125	1.078	0.0730	312.70	14.3% 

GUY ANCHOR BLOCK FOUNDATION ANALYSIS (NODE A2b @ r = 299 ft)

APPLIED REACTIONS	
Uplift (k)	Shear (k)
59.39	54.45

FOUNDATION PARAMETERS			
Base Depth:	D	9	ft
Block Width:	W	6	ft
Block Length:	L	20	ft
Block Thickness:	T	3	ft
Concrete Compressive Strength:		3,000	psi
Top Rebar Quantity, Size, & Yield:		(8) #6 bars [60 ksi]	
Side Rebar Quantity, Size, & Yield:		(2) #6 bars [60 ksi]	
Anchor Rod Quantity & Shape:		(1) W-Shape	
Anchor Rod Area (gross/net):		7.380 // 7.380	in ²
Anchor Rod Strength (fy/fu):		36 // 58	ksi

SOIL PARAMETERS			
Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		131	pcf
Friction Angle:		30	°
Cohesion:		1,250	psf
Ultimate Skin Friction		600	psf
Coefficient of Shear Friction:		0.3	
Uplift Pullout Angle:	θ	30	°
Uplift at ____ of Anchor:		Top	



SOIL STRENGTH ANALYSIS		
Uplift Strength Reduction Factor, Φ _u	Shear Strength Reduction Factor, Φ _v	Dead Load Factor
0.75	0.75	0.9

SOIL UPLIFT ANALYSIS			
Uplift Resistance from Skin Friction and Soil Shear (k)	Additional Uplift Resistance (k)	Uplift Capacity, ΦT _n (k)	Soil Uplift Usage, T _u / ΦT _n
233.12	0	308.33	19.3%

SOIL SHEAR ANALYSIS						
Skin Friction Resistance (k)	Normal Force Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Additional Shear Resistance (k)	Shear Capacity, ΦV _n (k)	Soil Shear Usage, V _u / ΦV _n
14.60	22.23	7,277.63	436.66	0	355.11	15.3%

ANCHOR ROD STRENGTH ANALYSIS				
Yield Strength Reduction Factor, Φ _y	Tensile Strength Reduction Factor, Φ _t	Resultant Tensile Load, T _u (k)	Tensile Capacity, ΦT _n (k-ft)	Anchor Rod Tensile Usage, T _u / ΦT _n
0.8	0.65	80.6	212.54	37.9%

REINFORCING STEEL STRENGTH ANALYSIS

Strength Shear Reduction Factor, Φ_v	Strength Reduction Factor for Lateral Flexure, Φ_{BV}	Strength Reduction Factor for Vertical Flexure, Φ_{BT}	Compression Zone Factor, β_1
0.75	0.9	0.9	0.65

REINFORCING ONE WAY SHEAR ANALYSIS - SHEAR

One Way Shear due to Shear, V_u (k)	One Way Shear Capacity due to Shear, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$	
19.51	201.49	9.7%	✓

REINFORCING ONE WAY SHEAR ANALYSIS - UPLIFT

One Way Shear due to Uplift, V_u (k)	One Way Shear Capacity due to Uplift, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$	
25.74	190.03	13.5%	✓

REINFORCING FLEXURE ANALYSIS - SHEAR

Flexure Load, M_{uv} (k-ft)	Distance to steel, d_v (in)	Whitney Block, a_v (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bv} M_{nv}$ (k-ft)	Rebar Flexural Usage, $M_{uv} / \Phi_{bv} M_{nv}$	
136.12	68.125	0.575	0.2990	268.64	50.7%	✓

REINFORCING FLEXURE ANALYSIS - UPLIFT

Flexure Load, M_{ut} (k-ft)	Depth to steel, d_t (in)	Whitney Block, a_t (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bt} M_{nt}$ (k-ft)	Rebar Flexural Usage, $M_{ut} / \Phi_{bt} M_{nt}$	
148.48	32.125	1.150	0.0682	499.75	29.7%	✓

GUY ANCHOR BLOCK FOUNDATION ANALYSIS (NODE A1b @ r = 143 ft)

APPLIED REACTIONS

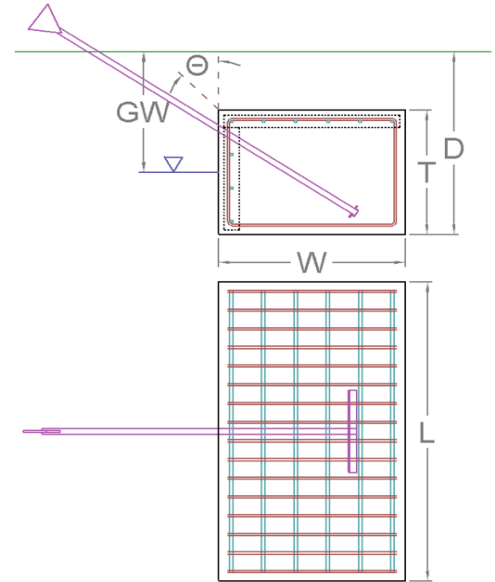
Uplift (k)	Shear (k)
25.53	24.29

FOUNDATION PARAMETERS

Base Depth:	D	9	ft
Block Width:	W	4	ft
Block Length:	L	14	ft
Block Thickness:	T	3	ft
Concrete Compressive Strength:		3,000	psi
Top Rebar Quantity, Size, & Yield:		(5) #6 bars [60 ksi]	
Side Rebar Quantity, Size, & Yield:		(2) #6 bars [60 ksi]	
Anchor Rod Quantity & Shape:		(1) W-Shape	
Anchor Rod Area (gross/net):		3.620 // 3.620	in ²
Anchor Rod Strength (fy/fu):		36 // 58	ksi

SOIL PARAMETERS

Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		131	pcf
Friction Angle:		0	°
Cohesion:		1,250	psf
Ultimate Skin Friction		600	psf
Coefficient of Shear Friction:		0.3	
Uplift Pullout Angle:	θ	30	°
Uplift at ____ of Anchor:		Top	



SOIL STRENGTH ANALYSIS

Uplift Strength Reduction Factor, Φ_u	Shear Strength Reduction Factor, Φ_v	Dead Load Factor
0.75	0.75	0.9

SOIL UPLIFT ANALYSIS

Uplift Resistance from Skin Friction and Soil Shear (k)	Additional Uplift Resistance (k)	Uplift Capacity, ΦT_n (k)	Soil Uplift Usage, $T_u / \Phi T_n$	
155.63	0	179.02	14.3%	✓

SOIL SHEAR ANALYSIS

Skin Friction Resistance (k)	Normal Force Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Additional Shear Resistance (k)	Shear Capacity, ΦV_n (k)	Soil Shear Usage, $V_u / \Phi V_n$	
9.93	11.03	3,482.50	146.26	0	125.41	19.4%	✓

ANCHOR ROD STRENGTH ANALYSIS

Yield Strength Reduction Factor, Φ_y	Tensile Strength Reduction Factor, Φ_t	Resultant Tensile Load, T_u (k)	Tensile Capacity, ΦT_n (k-ft)	Anchor Rod Tensile Usage, $T_u / \Phi T_n$	
0.8	0.65	35.2	104.26	33.8%	✓

REINFORCING STEEL STRENGTH ANALYSIS

Strength Shear Reduction Factor, Φ_v	Strength Reduction Factor for Lateral Flexure, Φ_{BV}	Strength Reduction Factor for Vertical Flexure, Φ_{BT}	Compression Zone Factor, β_1
0.75	0.9	0.9	0.65

REINFORCING ONE WAY SHEAR ANALYSIS - SHEAR

One Way Shear due to Shear, V_u (k)	One Way Shear Capacity due to Shear, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$
8.96	130.51	6.9% 

REINFORCING ONE WAY SHEAR ANALYSIS - UPLIFT

One Way Shear due to Uplift, V_u (k)	One Way Shear Capacity due to Uplift, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$
10.33	126.69	8.2% 

REINFORCING FLEXURE ANALYSIS - SHEAR

Flexure Load, M_{uv} (k-ft)	Distance to steel, d_v (in)	Whitney Block, a_v (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bv} M_{nv}$ (k-ft)	Rebar Flexural Usage, $M_{uv} / \Phi_{bv} M_{nv}$
42.51	44.125	0.575	0.1926	173.60	24.5% 

REINFORCING FLEXURE ANALYSIS - UPLIFT

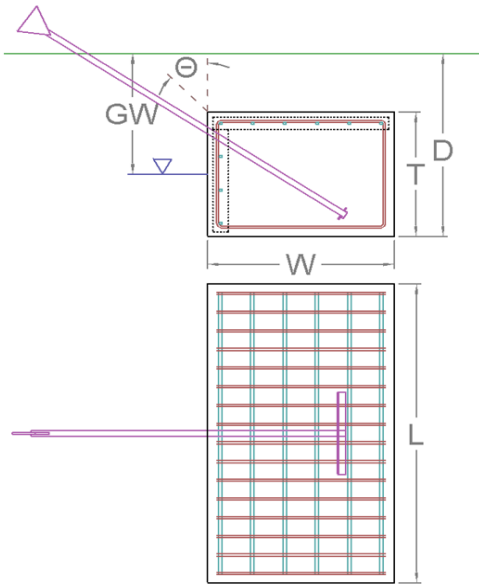
Flexure Load, M_{ut} (k-ft)	Depth to steel, d_t (in)	Whitney Block, a_t (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bt} M_{nt}$ (k-ft)	Rebar Flexural Usage, $M_{ut} / \Phi_{bt} M_{nt}$
44.68	32.125	1.078	0.0730	312.70	14.3% 

GUY ANCHOR BLOCK FOUNDATION ANALYSIS (NODE A2a @ r = 299 ft)

APPLIED REACTIONS	
Uplift (k)	Shear (k)
59.40	54.42

FOUNDATION PARAMETERS			
Base Depth:	D	9	ft
Block Width:	W	6	ft
Block Length:	L	20	ft
Block Thickness:	T	3	ft
Concrete Compressive Strength:		3,000	psi
Top Rebar Quantity, Size, & Yield:		(8) #6 bars [60 ksi]	
Side Rebar Quantity, Size, & Yield:		(2) #6 bars [60 ksi]	
Anchor Rod Quantity & Shape:		(1) W-Shape	
Anchor Rod Area (gross/net):		7.380 // 7.380	in ²
Anchor Rod Strength (fy/fu):		36 // 58	ksi

SOIL PARAMETERS			
Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		131	pcf
Friction Angle:		30	°
Cohesion:		1,250	psf
Ultimate Skin Friction		600	psf
Coefficient of Shear Friction:		0.3	
Uplift Pullout Angle:	θ	30	°
Uplift at ____ of Anchor:		Top	



SOIL STRENGTH ANALYSIS		
Uplift Strength Reduction Factor, Φ _u	Shear Strength Reduction Factor, Φ _v	Dead Load Factor
0.75	0.75	0.9

SOIL UPLIFT ANALYSIS			
Uplift Resistance from Skin Friction and Soil Shear (k)	Additional Uplift Resistance (k)	Uplift Capacity, ΦT _n (k)	Soil Uplift Usage, T _u / ΦT _n
233.13	0	308.33	19.3%

SOIL SHEAR ANALYSIS						
Skin Friction Resistance (k)	Normal Force Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Additional Shear Resistance (k)	Shear Capacity, ΦV _n (k)	Soil Shear Usage, V _u / ΦV _n
14.59	22.23	7,277.63	436.66	0	355.11	15.3%

ANCHOR ROD STRENGTH ANALYSIS				
Yield Strength Reduction Factor, Φ _y	Tensile Strength Reduction Factor, Φ _t	Resultant Tensile Load, T _u (k)	Tensile Capacity, ΦT _n (k-ft)	Anchor Rod Tensile Usage, T _u / ΦT _n
0.8	0.65	80.6	212.54	37.9%

REINFORCING STEEL STRENGTH ANALYSIS

Strength Shear Reduction Factor, Φ_v	Strength Reduction Factor for Lateral Flexure, Φ_{BV}	Strength Reduction Factor for Vertical Flexure, Φ_{BT}	Compression Zone Factor, β_1
0.75	0.9	0.9	0.65

REINFORCING ONE WAY SHEAR ANALYSIS - SHEAR

One Way Shear due to Shear, V_u (k)	One Way Shear Capacity due to Shear, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$	
19.50	201.49	9.7%	

REINFORCING ONE WAY SHEAR ANALYSIS - UPLIFT

One Way Shear due to Uplift, V_u (k)	One Way Shear Capacity due to Uplift, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$	
25.74	190.03	13.5%	

REINFORCING FLEXURE ANALYSIS - SHEAR

Flexure Load, M_{uv} (k-ft)	Distance to steel, d_v (in)	Whitney Block, a_v (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bv} M_{nv}$ (k-ft)	Rebar Flexural Usage, $M_{uv} / \Phi_{bv} M_{nv}$	
136.05	68.125	0.575	0.2990	268.64	50.6%	

REINFORCING FLEXURE ANALYSIS - UPLIFT

Flexure Load, M_{ut} (k-ft)	Depth to steel, d_t (in)	Whitney Block, a_t (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bt} M_{nt}$ (k-ft)	Rebar Flexural Usage, $M_{ut} / \Phi_{bt} M_{nt}$	
148.50	32.125	1.150	0.0682	499.75	29.7%	

GUY ANCHOR BLOCK FOUNDATION ANALYSIS (NODE A1 @ r = 143 ft)

APPLIED REACTIONS

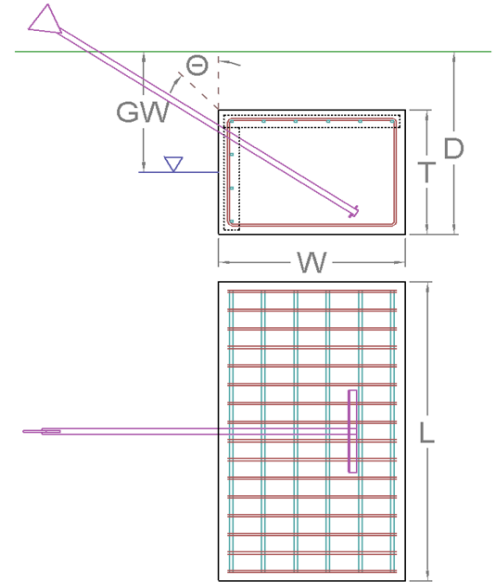
Uplift (k)	Shear (k)
25.52	24.29

FOUNDATION PARAMETERS

Base Depth:	D	9	ft
Block Width:	W	4	ft
Block Length:	L	14	ft
Block Thickness:	T	3	ft
Concrete Compressive Strength:		3,000	psi
Top Rebar Quantity, Size, & Yield:		(5) #6 bars [60 ksi]	
Side Rebar Quantity, Size, & Yield:		(2) #6 bars [60 ksi]	
Anchor Rod Quantity & Shape:		(1) W-Shape	
Anchor Rod Area (gross/net):		3.620 // 3.620	in ²
Anchor Rod Strength (fy/fu):		36 // 58	ksi

SOIL PARAMETERS

Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		131	pcf
Friction Angle:		0	°
Cohesion:		1,250	psf
Ultimate Skin Friction		600	psf
Coefficient of Shear Friction:		0.3	
Uplift Pullout Angle:	θ	30	°
Uplift at ____ of Anchor:		Top	



SOIL STRENGTH ANALYSIS

Uplift Strength Reduction Factor, Φ_u	Shear Strength Reduction Factor, Φ_v	Dead Load Factor
0.75	0.75	0.9

SOIL UPLIFT ANALYSIS

Uplift Resistance from Skin Friction and Soil Shear (k)	Additional Uplift Resistance (k)	Uplift Capacity, ΦT_n (k)	Soil Uplift Usage, $T_u / \Phi T_n$	
155.63	0	179.02	14.3%	✓

SOIL SHEAR ANALYSIS

Skin Friction Resistance (k)	Normal Force Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Additional Shear Resistance (k)	Shear Capacity, ΦV_n (k)	Soil Shear Usage, $V_u / \Phi V_n$	
9.93	11.03	3,482.50	146.26	0	125.42	19.4%	✓

ANCHOR ROD STRENGTH ANALYSIS

Yield Strength Reduction Factor, Φ_y	Tensile Strength Reduction Factor, Φ_t	Resultant Tensile Load, T_u (k)	Tensile Capacity, ΦT_n (k-ft)	Anchor Rod Tensile Usage, $T_u / \Phi T_n$	
0.8	0.65	35.2	104.26	33.8%	✓

REINFORCING STEEL STRENGTH ANALYSIS

Strength Shear Reduction Factor, Φ_v	Strength Reduction Factor for Lateral Flexure, Φ_{BV}	Strength Reduction Factor for Vertical Flexure, Φ_{BT}	Compression Zone Factor, β_1
0.75	0.9	0.9	0.65

REINFORCING ONE WAY SHEAR ANALYSIS - SHEAR

One Way Shear due to Shear, V_u (k)	One Way Shear Capacity due to Shear, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$
8.96	130.51	6.9%



REINFORCING ONE WAY SHEAR ANALYSIS - UPLIFT

One Way Shear due to Uplift, V_u (k)	One Way Shear Capacity due to Uplift, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$
10.33	126.69	8.2%



REINFORCING FLEXURE ANALYSIS - SHEAR

Flexure Load, M_{uv} (k-ft)	Distance to steel, d_v (in)	Whitney Block, a_v (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bv} M_{nv}$ (k-ft)	Rebar Flexural Usage, $M_{uv} / \Phi_{bv} M_{nv}$
42.51	44.125	0.575	0.1926	173.60	24.5%



REINFORCING FLEXURE ANALYSIS - UPLIFT

Flexure Load, M_{ut} (k-ft)	Depth to steel, d_t (in)	Whitney Block, a_t (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bt} M_{nt}$ (k-ft)	Rebar Flexural Usage, $M_{ut} / \Phi_{bt} M_{nt}$
44.66	32.125	1.078	0.0730	312.70	14.3%



GUY ANCHOR BLOCK FOUNDATION ANALYSIS (NODE A2 @ r = 299 ft)

APPLIED REACTIONS

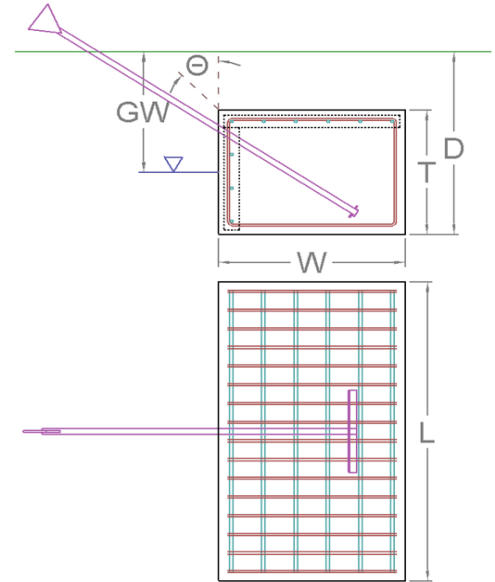
Uplift (k)	Shear (k)
59.37	54.42

FOUNDATION PARAMETERS

Base Depth:	D	9	ft
Block Width:	W	6	ft
Block Length:	L	20	ft
Block Thickness:	T	3	ft
Concrete Compressive Strength:		3,000	psi
Top Rebar Quantity, Size, & Yield:		(8) #6 bars [60 ksi]	
Side Rebar Quantity, Size, & Yield:		(2) #6 bars [60 ksi]	
Anchor Rod Quantity & Shape:		(1) W-Shape	
Anchor Rod Area (gross/net):		7.380 // 7.380	in ²
Anchor Rod Strength (fy/fu):		36 // 58	ksi

SOIL PARAMETERS

Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		131	pcf
Friction Angle:		30	°
Cohesion:		1,250	psf
Ultimate Skin Friction		600	psf
Coefficient of Shear Friction:		0.3	
Uplift Pullout Angle:	θ	30	°
Uplift at ____ of Anchor:		Top	



SOIL STRENGTH ANALYSIS

Uplift Strength Reduction Factor, Φ_u	Shear Strength Reduction Factor, Φ_v	Dead Load Factor
0.75	0.75	0.9

SOIL UPLIFT ANALYSIS

Uplift Resistance from Skin Friction and Soil Shear (k)	Additional Uplift Resistance (k)	Uplift Capacity, ΦT_n (k)	Soil Uplift Usage, $T_u / \Phi T_n$	
233.12	0	308.33	19.3%	✓

SOIL SHEAR ANALYSIS

Skin Friction Resistance (k)	Normal Force Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Additional Shear Resistance (k)	Shear Capacity, ΦV_n (k)	Soil Shear Usage, $V_u / \Phi V_n$	
14.59	22.24	7,277.63	436.66	0	355.12	15.3%	✓

ANCHOR ROD STRENGTH ANALYSIS

Yield Strength Reduction Factor, Φ_y	Tensile Strength Reduction Factor, Φ_t	Resultant Tensile Load, T_u (k)	Tensile Capacity, ΦT_n (k-ft)	Anchor Rod Tensile Usage, $T_u / \Phi T_n$	
0.8	0.65	80.5	212.54	37.9%	✓

REINFORCING STEEL STRENGTH ANALYSIS

Strength Shear Reduction Factor, Φ_v	Strength Reduction Factor for Lateral Flexure, Φ_{BV}	Strength Reduction Factor for Vertical Flexure, Φ_{BT}	Compression Zone Factor, β_1
0.75	0.9	0.9	0.65

REINFORCING ONE WAY SHEAR ANALYSIS - SHEAR

One Way Shear due to Shear, V_u (k)	One Way Shear Capacity due to Shear, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$	
19.50	201.49	9.7%	✓

REINFORCING ONE WAY SHEAR ANALYSIS - UPLIFT

One Way Shear due to Uplift, V_u (k)	One Way Shear Capacity due to Uplift, $\Phi_c V_n$ (k)	Rebar One Way Shear Usage, $V_u / \Phi_c V_n$	
25.73	190.03	13.5%	✓

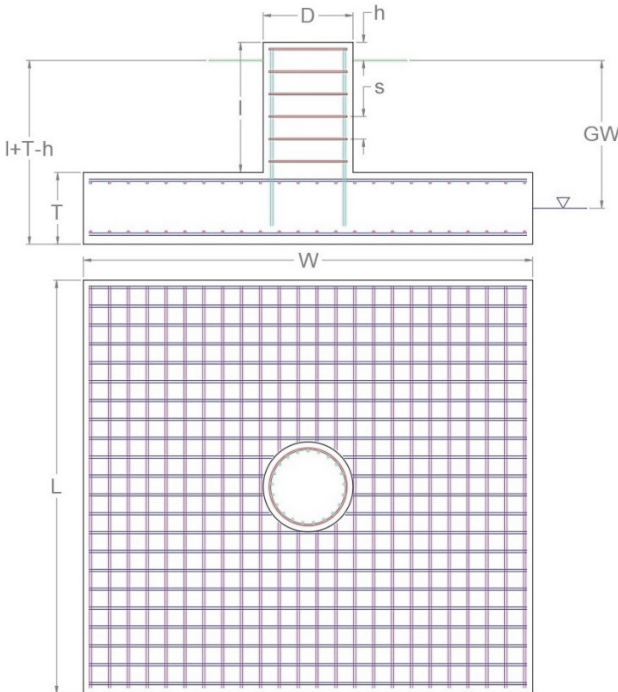
REINFORCING FLEXURE ANALYSIS - SHEAR

Flexure Load, M_{uv} (k-ft)	Distance to steel, d_v (in)	Whitney Block, a_v (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bv} M_{nv}$ (k-ft)	Rebar Flexural Usage, $M_{uv} / \Phi_{bv} M_{nv}$	
136.05	68.125	0.575	0.2990	268.64	50.6%	✓

REINFORCING FLEXURE ANALYSIS - UPLIFT

Flexure Load, M_{ut} (k-ft)	Depth to steel, d_t (in)	Whitney Block, a_t (in)	Strain in Rebar, ϵ_t (in/in)	Flexural Capacity, $\Phi_{bt} M_{nt}$ (k-ft)	Rebar Flexural Usage, $M_{ut} / \Phi_{bt} M_{nt}$	
148.42	32.125	1.150	0.0682	499.75	29.7%	✓

MAT & PIER FOUNDATION ANALYSIS (NODE 1)

APPLIED GLOBAL REACTIONS					
Moment (k-ft)		Axial (k)		Shear (k)	
0.00		416.07		0.12	
FOUNDATION PARAMETERS					
Mat Length:	L	12	ft		
Mat Width:	W	12	ft		
Mat Thickness:	T	2	ft		
Base Depth:	L+T-h	6	ft		
Pier Shape:		Round			
Pier Diameter:	D	4	ft		
Pier Height above Grade:	h	1	ft		
Concrete Compressive Strength:		3,000	psi		
Mat Bottom Rebar:		(10) #8 bars [60 ksi]			
Pier Vertical Rebar:		(8) #8 bars [60 ksi]			
Pier Rebar Ties:	s	#3 bars @ 12.0" c/c [60 ksi]			
Rebar Clear Cover:		3.0	in		
Tower Eccentricity:	ecc	0	ft		
Tower Leg Count		1			
SOIL PARAMETERS					
Water Table Depth [BGL]:	GW		ft		
Soil Unit Weight:		110	pcf		
Ultimate Skin Friction:		500	psf		
Ultimate Bearing Pressure:		8,700	psf		
Bearing Pressure Type:		Gross			
Coefficient of Shear Friction:		0.3			
					
SOIL STRENGTH ANALYSIS					
Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s		Asset Dead Load Factor	Dead Load Factor	
0.6	0.75		1.2	1.2	
SOIL OVERTURNING ANALYSIS					
Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)		Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$		
0.84	3,347.51		0.0% 		
SOIL BEARING ANALYSIS					
Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (psf)		Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
3,811.00	5,220.00		Parallel to Pad Edge	73.0% 	
SOIL SLIDING SHEAR ANALYSIS					
Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$
0.12	137.15	550.0	13.20	90.21	0.0% 

MAT REINFORCING STEEL STRENGTH ANALYSIS

Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
29,000	0.9	0.75	0.65

MAT REINFORCING ONE WAY SHEAR ANALYSIS

One Way Design Shear, V_u (k)	Nominal One Way Shear Capacity, $\Phi_c V_n$ (k)	One Way Shear Controlling Load Direction	Mat One Way Shear Usage, $V_u / \Phi_c V_n$
85.98	236.62	Parallel to Pad Edge	36.3%

MAT REINFORCING PUNCHING SHEAR ANALYSIS

Punching Shear Design Stress, v_u (psi)	Nominal Punching Shear Capacity, $\Phi_c v_n$ (psi)	Mat Punching Shear Usage, $v_u / \Phi_c v_n$
85.1	164.3	51.8%

MAT REINFORCING MOMENT TRANSFER ANALYSIS

Moment Transfer Effective Flexural Width, w_f (in)	Neutral Axis Depth (in)	Pier Moment at Joint, M_{ut} (k-in)	Nominal Moment Transfer Capacity, $\Phi M_{sc,f}$ (k-in)	Mat Moment Transfer Usage, $0.6 M_{ut} / \Phi M_{sc,f}$
10.00	1.37	0.00	7,334.5	0.0%

MAT REINFORCING FLEXURE ANALYSIS - LOWER STEEL

Factored Moment, M_u (k-ft)	Nominal Flexural Capacity, ΦM_n (k-ft)	Flexural Steel Controlling Load Direction	Mat Lower Rebar Flexure Usage, $M_u / \Phi M_n$
331.30	691.50	Parallel to Pad Edge	47.9%

PIER REINFORCING STEEL STRENGTH ANALYSIS

Rebar Cage Diameter (in)	Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, Φ_b	Strength Shear Reduction Factor, Φ_v	Strength Compression Reduction Factor, Φ_c
40.25	29,000	0.9	0.75	0.65

PIER REINFORCING MOMENT ANALYSIS

Design Moment, M_u (k-ft)	Nominal Moment Capacity, $\Phi_b M_n$ (k-ft)	Bending Reinforcement Ratio	Pier Rebar Flexure Usage, $M_u / \Phi_b M_n$
0.60	569.97	0.003	0.1%

PIER REINFORCING COMPRESSION ANALYSIS

Design Compression, P_u (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$
416.07	2,415.74	17.2%

PIER REINFORCING SHEAR ANALYSIS

Design Shear, V_u (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$
0.12	197.44	0.1%