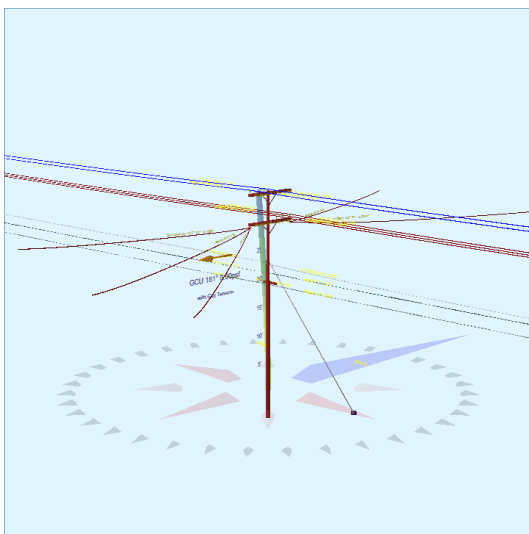


Pole Num:	901	Pole Length / Class:	40 / 5	Code:	GO 95	Structure Type:	Guyed Tangent
Pole Tag	602527H	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	5.00	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	32.00	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,827	Wind Speed (mph):	55.90	Pole Factor of Safety:	4.80
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	76.19
Latitude:	33.971631 Deg	Longitude:	-118.259090 Deg	Elevation:	0 Feet	Bending Factor of Safety:	4.88



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	0.0	181.2
Groundline	0.0	181.2
Vertical	22.0	270.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	189.1	181.2
Groundline	189.1	181.2
GL Allowable		

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
PROPOSED ANCHOR	20.0	90.0		7.7	181.2	11.5	270.0
EHS 1/4 (Down)			22.7	23.2	181.2	34.4	270.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 189.1°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	150	24.7	4,458	33.4	18.2	524	100	1	525	18.6
Comms	359	59.1	7,608	57.0	31.1	894	113	1	895	31.7
GuyBraces	-117	-19.3	-2,609	-19.6	-10.7	-307	874	11	-296	-10.5
Pole	188	30.9	3,254	24.4	13.3	382	771	9	392	13.9
Crossarms	19	3.2	402	3.0	1.6	47	256	3	50	1.8
Insulators	8	1.4	233	1.7	1.0	27	54	1	28	1.0
Pole Load	607	100.0	13,345	100.0	54.6	1,568	2,168	27	1,595	56.4
Pole Reserve Capacity			11,093		45.4	1,258			1,232	43.6

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 189.1°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	30	4.9	138	1.0	0.6	16	352	4	21	0.7
<Undefined>	134	22.1	4,706	35.3	19.3	553	9	0	553	19.6
U3	129	21.3	2,879	21.6	11.8	338	936	11	350	12.4
CATV	44	7.3	884	6.6	3.6	104	25	0	104	3.7
AT&T	68	11.3	1,231	9.2	5.0	145	47	1	145	5.1
Pole	188	30.9	3,254	24.4	13.3	382	771	9	392	13.9
TELCO	14	2.3	253	1.9	1.0	30	28	0	30	1.1
Totals:	607	100.0	13,345	100.0	54.6	1,568	2,168	27	1,595	56.4

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Primary	#6 COPPER SOLID	DWP	35.52	18.80	0.1620	0.69	0.079	133.0	90.0	133.0	384	-2,155	7	252	-1,896
Primary	#6 COPPER SOLID	DWP	35.52	18.80	0.1620	0.54	0.079	117.0	270.0	117.0	384	2,155	7	222	2,383
Primary	#6 COPPER SOLID	DWP	35.52	56.26	0.1620	0.69	0.079	133.0	90.0	133.0	384	-2,155	24	252	-1,879
Primary	#6 COPPER SOLID	DWP	35.52	56.26	0.1620	0.54	0.079	117.0	270.0	117.0	384	2,155	21	222	2,398
Secondary	#4 COPPER SOLID	DWP	30.52	36.45	0.2043	0.73	0.126	133.0	90.0	133.0	591	-2,850	-25	273	-2,603
Secondary	#4 COPPER SOLID	DWP	30.52	36.45	0.2043	0.57	0.126	117.0	270.0	117.0	591	2,850	-22	240	3,068
Secondary	#4 COPPER SOLID	DWP	30.52	18.89	0.2043	0.73	0.126	133.0	90.0	133.0	591	-2,850	-13	273	-2,590

Secondary	#4 COPPER SOLID	DWP	30.52	18.89	0.2043	0.57	0.126	117.0	270.0	117.0	591	2,850	-11	240	3,079
Secondary	#4 COPPER SOLID	DWP	30.52	56.29	0.2043	0.73	0.126	133.0	90.0	133.0	591	-2,850	-39	273	-2,617
Secondary	#4 COPPER SOLID	DWP	30.52	56.29	0.2043	0.57	0.126	117.0	270.0	117.0	591	2,850	-35	240	3,056
Secondary	TRIPLEX 2 AWG	DWP	29.15	56.29	0.8060	0.91	0.248	75.0	22.0	75.1	143	-4,059	-44	46	-4,056
Secondary	TRIPLEX 2 AWG	DWP	29.15	56.29	0.8060	0.52	0.248	44.0	340.0	44.0	143	-3,639	-26	61	-3,604
Secondary	TRIPLEX 4 AWG	DWP	29.15	56.29	0.6800	0.83	0.164	68.0	140.0	68.1	93	1,774	25	224	2,023
Secondary	TRIPLEX 2 AWG	DWP	29.15	56.29	0.8060	0.69	0.248	58.0	155.0	58.0	143	3,449	33	112	3,594
Secondary	TRIPLEX 2 AWG	DWP	29.15	56.29	0.8060	0.48	0.248	41.0	195.0	41.0	143	4,142	23	8	4,173
											Totals:	1,667	-76	2,938	4,529

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	1/4" EHS	U3	22.66	6.22	0.2500	0.69	0.121	117.0	270.0	117.0	1,330	4,761	1	470	5,231
Fiber	PROPOSED FIBER	U3	22.63	6.60	0.7800		0.294	117.0	270.0	117.0			2	469	471
Overlashed Bundle	1/4" EHS	U3	22.33	6.24	0.2500	0.89	0.121	133.0	90.0	133.0	333	-1,175	-1	526	-649
Fiber	PROPOSED FIBER	U3	22.30	5.86	0.7800		0.294	133.0	90.0	133.0			-1	525	524
Overlashed Bundle	6M	CATV	20.66	6.33	0.2420	0.39	0.104	133.0	90.0	133.0	1,200	-3,916	-4	242	-3,677
CATV	CATV .5"	CATV	20.64	6.33	0.3000		0.052	133.0	90.0	133.0			-2	242	240
Overlashed Bundle	6M	CATV	20.66	6.33	0.2420	0.30	0.104	117.0	270.0	117.0	1,200	3,916	-3	213	4,126
CATV	CATV .5"	CATV	20.64	6.33	0.3000		0.052	117.0	270.0	117.0			-2	213	211
Overlashed Bundle	10M	AT&T	18.66	6.44	0.3060	0.49	0.165	133.0	90.0	133.0	2,000	-5,895	-6	339	-5,561
Telco	Telco .5	AT&T	18.63	6.44	0.5000		0.170	133.0	90.0	133.0			-6	339	333
Overlashed Bundle	10M	AT&T	18.66	6.44	0.3060	0.38	0.165	117.0	270.0	117.0	2,000	5,895	-5	299	6,189
Telco	Telco .5	AT&T	18.63	6.44	0.5000		0.170	117.0	270.0	117.0			-5	298	293
											Totals:	3,586	-32	4,175	7,729

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)		
Normal	CROSSARM 4-3/4 X 5-3/4 X 10 HD	DWP	34.66	5.42	90.0	90.0	114.00	5.75	4.75	120.00	-8	90	82	
Normal	CROSSARM 4-3/4 X 5-3/4 X 10 HD	DWP	29.66	5.71	90.0	90.0	114.00	5.75	4.75	120.00	-9	77	69	
Normal	CROSSARM 3-1/2 X 4-1/2 X 4	TELCO	19.00	5.72	0.0	0.0	28.00	4.50	3.50	36.00	-13	270	257	
											Totals:	-30	438	408

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Pin	Pin Insulator - 5 kV	DWP	34.90	18.00	163.2	0.0	6.00	3.50	7.50	8	51	59
Pin	Pin Insulator - 5 kV	DWP	34.90	56.00	174.5	0.0	6.00	3.50	7.50	27	51	78
Pin	Pin Insulator - 5 kV	DWP	29.90	-36.00	9.0	0.0	6.00	3.50	7.50	-18	43	25
Pin	Pin Insulator - 5 kV	DWP	29.90	-18.00	17.6	0.0	6.00	3.50	7.50	-9	43	34
Pin	Pin Insulator - 5 kV	DWP	29.90	-56.00	5.8	0.0	6.00	3.50	7.50	-28	43	15
Underhung	Spool 3"	DWP	29.42	-56.00	5.8	340.0	2.00	3.00	3.19	-9	16	6

Underhung	Spool 3"	DWP	29.42	56.00	174.2	180.0	2.00	3.00	3.19	9	16	25
Bolt	NEW PROPOSED	U3	22.66	0.00	270.0	270.0	5.00	3.00	0.00	0	0	0
Bolt	NEW PROPOSED	U3	22.33	0.00	90.0	90.0	5.00	3.00	0.00	0	0	0
Bolt	CATV Three Bolt .5" w 6M messenger	CATV	20.66	0.00	0.0	270.0	5.00	3.00	0.00	-3	0	-3
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	18.66	0.00	0.0	270.0	5.00	3.00	0.00	-3	0	-3
Totals:										-26	262	237

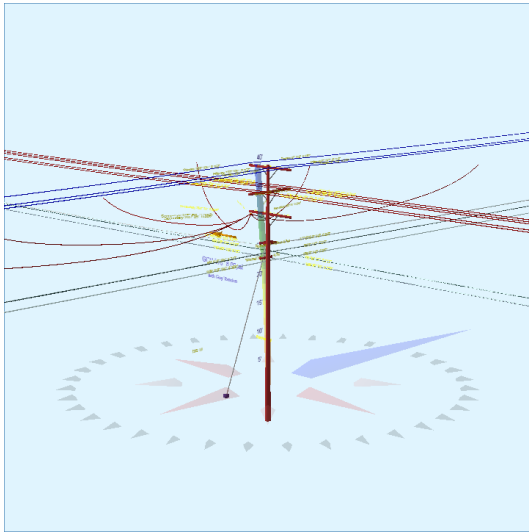
Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)	
EHS 1/4	Down	U3	22.66	0.00	20.00	0.25	75.00	90.0	48.4	0.121	32.45	0.53

Guy Wire and Brace (Loads and Reactions)	Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ² (lbs)	Maximum Tension ² (lbs)	Applied Tension ³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ³ (ft-lb)	
EHS 1/4	Down	2.30e+7	6,650	0.75	4,988	700	1,718	1,718	1,155	864	766	-121	-2,651
Totals:										864	766	-121	-2,651

Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ³ (lbs)	Max Required Capacity ² (%)
PROPOSED ANCHOR	U3	18.00	20.00	90.0	20,000	0.75	15,000	1,718	1,155	11.5

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	22.00	33.83	9.31	8.11	6.05	10.19	1.60e+6	60.00	57.00	35.00	62,150	619.52	28.57

Pole Num:	902	Pole Length / Class:	45 / 4	Code:	GO 95	Structure Type:	Guyed Tangent
Pole Tag	139560M	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	6.50	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	34.82	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,865	Wind Speed (mph):	55.90	Pole Factor of Safety:	3.11
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	46.78
Latitude:	33.971631 Deg	Longitude:	-118.258668 Deg	Elevation:	0 Feet	Bending Factor of Safety:	3.17



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	85.6	272.7
Groundline	85.6	272.7
Vertical	5.7	0.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	26,844	272.7
Groundline	26,844	272.7
GL Allowable	31,919	

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
PROPOSED ANCHOR	10.0	180.0		14.9	272.7	21.6	0.0
EHS 1/4 (Down)			24.8	56.1	272.7	81.0	0.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 286.1°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	195	18.0	6,244	23.3	19.6	573	144	1	574	20.0
Comms	848	78.4	20,392	76.0	63.9	1,870	183	2	1,872	65.3
GuyBraces	-280	-25.9	-6,792	-25.3	-21.3	-623	2,611	27	-596	-20.8
Pole	222	20.5	4,184	15.6	13.1	384	1,015	11	394	13.8
Crossarms	92	8.5	2,652	9.9	8.3	243	282	3	246	8.6
Insulators	5	0.4	164	0.6	0.5	15	48	0	16	0.5
Pole Load	1,081	100.0	26,844	100.0	84.1	2,462	4,283	44	2,506	87.5
Pole Reserve Capacity			5,075		15.9	403			359	12.5

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 286.1°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	249	23.1	8,058	30.0	25.2	739	360	4	743	25.9
U3	459	42.5	11,133	41.5	34.9	1,021	2,678	28	1,049	36.6
CATV	71	6.6	1,624	6.1	5.1	149	64	1	150	5.2
AT&T	38	3.5	846	3.2	2.7	78	81	1	78	2.7
Pole	222	20.5	4,184	15.6	13.1	384	1,015	11	394	13.8
DGA	28	2.6	681	2.5	2.1	63	56	1	63	2.2
TELCO	14	1.3	318	1.2	1.0	29	28	0	29	1.0
Totals:	1,081	100.0	26,844	100.0	84.1	2,462	4,283	44	2,506	87.5

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Primary	#6 COPPER SOLID	DWP	38.45	56.23	0.1620	0.79	0.079	142.0	0.0	142.0	384	4,102	26	283	4,411
Primary	#6 COPPER SOLID	DWP	38.45	56.23	0.1620	1.45	0.079	195.0	180.0	195.0	384	-4,102	35	389	-3,678
Primary	#6 COPPER SOLID	DWP	38.45	56.23	0.1620	0.79	0.079	142.0	0.0	142.0	384	4,102	-24	283	4,361
Primary	#6 COPPER SOLID	DWP	38.45	56.23	0.1620	1.45	0.079	195.0	180.0	195.0	384	-4,102	-34	389	-3,747
Primary	#6 COPPER SOLID	DWP	38.45	30.43	0.1620	0.79	0.079	142.0	0.0	142.0	384	4,102	-13	283	4,372
Primary	#6 COPPER SOLID	DWP	38.45	30.43	0.1620	1.45	0.079	195.0	180.0	195.0	384	-4,102	-18	389	-3,731
Secondary	#4 COPPER SOLID	DWP	34.45	36.40	0.2043	0.36	0.126	93.0	90.0	93.0	591	-19,565	2	3	-19,560
Secondary	#4 COPPER SOLID	DWP	34.45	36.40	0.2043	0.72	0.126	133.0	270.0	133.0	591	19,565	3	4	19,573

Secondary	#4 COPPER SOLID	DWP	34.45	18.78	0.2043	0.36	0.126	93.0	90.0	93.0	591	-19,565	0	3	-19,563
Secondary	#4 COPPER SOLID	DWP	34.45	18.78	0.2043	0.72	0.126	133.0	270.0	133.0	591	19,565	0	4	19,569
Secondary	#4 COPPER SOLID	DWP	34.45	56.25	0.2043	0.36	0.126	93.0	90.0	93.0	591	-19,565	5	3	-19,558
Secondary	#4 COPPER SOLID	DWP	34.45	56.25	0.2043	0.72	0.126	133.0	270.0	133.0	591	19,565	7	4	19,577
Secondary	#6 COPPER SOLID	DWP	34.45	56.25	0.1620	0.34	0.079	93.0	90.0	93.0	384	-12,712	-6	2	-12,716
Secondary	#6 COPPER SOLID	DWP	34.45	56.25	0.1620	0.69	0.079	133.0	270.0	133.0	384	12,712	-9	3	12,706
Secondary	#6 COPPER SOLID	DWP	34.45	36.40	0.1620	0.34	0.079	93.0	90.0	93.0	384	-12,712	-5	2	-12,714
Secondary	#6 COPPER SOLID	DWP	34.45	36.40	0.1620	0.69	0.079	133.0	270.0	133.0	384	12,712	-7	3	12,708
Secondary	TRIPLEX 2 AWG	DWP	29.55	56.28	0.8060	1.04	0.248	85.0	205.0	86.9	33	151	49	616	816
Secondary	TRIPLEX 2 AWG	DWP	29.55	56.28	0.8060	0.59	0.248	50.0	215.0	51.5	17	162	29	317	508
Secondary	TRIPLEX 2 AWG	DWP	29.55	56.28	0.8060	0.40	0.248	34.0	260.0	35.0	11	302	19	26	348
Secondary	TRIPLEX 2 AWG	DWP	29.55	56.28	0.8060	0.92	0.248	76.0	305.0	78.2	26	737	43	104	885
Secondary	TRIPLEX 4 AWG	DWP	29.55	56.28	0.6800	0.85	0.164	70.0	325.0	70.9	24	552	26	233	811
Secondary	TRIPLEX 4 AWG	DWP	29.55	56.28	0.6800	1.08	0.164	87.0	350.0	87.8	35	460	33	510	1,002
											Totals:	2,364	164	3,852	6,380

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	1/4" EHS	U3	24.83	6.62	0.2500	1.01	0.121	142.0	0.0	142.0	1,330	9,173	1	607	9,781
Fiber	PROPOSED FIBER	U3	24.80	6.48	0.7800		0.294	142.0	0.0	142.0			4	606	610
Overlashed Bundle	1/4" EHS	U3	24.66	6.63	0.2500	0.88	0.121	133.0	270.0	133.0	333	7,889	4	8	7,900
Fiber	PROPOSED FIBER	U3	24.63	7.01	0.7800		0.294	133.0	270.0	133.0			11	8	18
Overlashed Bundle	6M	CATV	23.66	6.69	0.2420	0.44	0.104	142.0	0.0	142.0	1,200	7,886	-4	288	8,171
CATV	CATV .5"	CATV	23.64	6.69	0.3000		0.052	142.0	0.0	142.0			-2	288	286
Overlashed Bundle	6M	CATV	23.66	6.69	0.2420	1.35	0.104	195.0	180.0	195.0	1,200	-7,886	-5	273	-7,619
CATV	CATV .5"	CATV	23.64	6.53	0.3000		0.052	195.0	180.0	195.0			-3	272	270
CATV	CATV .5"	CATV	23.64	6.84	0.3000		0.052	195.0	180.0	195.0			-3	272	270
CATV	CATV .5"	CATV	23.62	6.69	0.3000		0.052	195.0	180.0	195.0			-3	272	269
Overlashed Bundle	6M	CATV	23.66	6.69	0.2420	0.19	0.104	93.0	90.0	93.0	1,200	-27,275	1	3	-27,271
CATV	CATV .5"	CATV	23.64	6.69	0.3000		0.052	93.0	90.0	93.0			0	3	3
Overlashed Bundle	6M	CATV	23.66	6.69	0.2420	0.38	0.104	133.0	270.0	133.0	1,200	27,275	1	4	27,279
CATV	CATV .5"	CATV	23.64	6.69	0.3000		0.052	133.0	270.0	133.0			1	4	4
Overlashed Bundle	10M	AT&T	22.31	17.09	0.3060	0.24	0.165	93.0	90.0	93.0	2,000	-42,844	7	4	-42,834
Telco	Telco .5	AT&T	22.27	17.09	0.5000		0.170	93.0	90.0	93.0			7	4	11
Overlashed Bundle	10M	AT&T	22.31	17.09	0.3060	0.60	0.165	133.0	270.0	133.0	2,000	42,844	9	7	42,860
Telco	Telco .75	AT&T	22.27	17.09	0.7500		0.256	133.0	270.0	133.0			14	7	21
Overlashed Bundle	10M	AT&T	22.16	6.78	0.3060	0.27	0.165	142.0	0.0	142.0	2,000	12,311	-6	345	12,650
Overlashed Bundle	10M	AT&T	22.16	6.78	0.3060	0.52	0.165	195.0	180.0	195.0	2,000	-12,311	-9	474	-11,845
											Totals:	17,062	25	3,747	20,834

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	38.00	5.12	0.0	0.0	66.00	4.50	3.50	120.00	8	75	82

Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	34.00	5.35	90.0	90.0	66.00	4.50	3.50	120.00	-28	1,567	1,538
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	30.00	5.58	0.0	0.0	66.00	4.50	3.50	120.00	9	59	67
Normal	CROSSARM 3-1/2 X 4-1/2 X 4	DGA	25.16	5.85	90.0	90.0	28.00	4.50	3.50	36.00	0	696	696
Normal	CROSSARM 3-1/2 X 4-1/2 X 4	TELCO	22.50	6.01	270.0	270.0	28.00	4.50	3.50	36.00	13	311	325
Totals:											2	2,708	2,709

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Pin	Spool 3"	DWP	38.19	-56.00	275.2	0.0	2.00	3.00	3.19	9	20	29	
Pin	Spool 3"	DWP	38.19	56.00	84.8	0.0	2.00	3.00	3.19	-9	20	11	
Pin	Spool 3"	DWP	38.19	30.00	80.3	0.0	2.00	3.00	3.19	-5	20	15	
Pin	Spool 3"	DWP	34.19	-36.00	8.5	0.0	2.00	3.00	3.19	1	18	18	
Pin	Spool 3"	DWP	34.19	-18.00	16.6	0.0	2.00	3.00	3.19	0	18	18	
Pin	Spool 3"	DWP	34.19	-56.00	5.5	0.0	2.00	3.00	3.19	2	18	19	
Pin	Spool 3"	DWP	34.19	56.00	174.5	0.0	2.00	3.00	3.19	-3	18	14	
Pin	Spool 3"	DWP	34.19	36.00	171.5	0.0	2.00	3.00	3.19	-3	18	15	
Underhung	Spool 3"	DWP	29.81	-56.00	275.7	340.0	2.00	3.00	3.19	9	15	25	
Bolt	NEW PROPOSED	U3	24.83	0.00	0.0	0.0	5.00	3.00	0.00	1	0	1	
Bolt	NEW PROPOSED	U3	24.66	0.00	270.0	270.0	5.00	3.00	0.00	3	0	3	
Bolt	CATV Three Bolt .5" w 6M messenger	CATV	23.66	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3	
Bolt	CATV Three Bolt .5" w 6M messenger	CATV	23.66	0.00	0.0	270.0	5.00	3.00	0.00	1	0	1	
Underhung	AT&T Three Bolt .75" w 10M messenger	AT&T	22.31	16.00	339.4	0.0	5.00	3.00	0.00	4	0	4	
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	22.16	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3	
Totals:											5	163	168

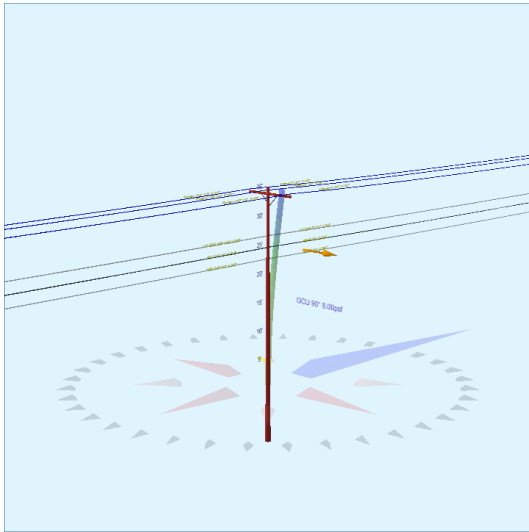
Guy Wire and Brace		Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
EHS 1/4	Down	U3	24.83	0.00	10.00	0.25	75.00	180.0	67.8	0.121	32.78	1.30

Guy Wire and Brace (Loads and Reactions)		Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ² (lbs)	Maximum Tension ² (lbs)	Applied Tension ³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ³ (ft-lb)
EHS 1/4	Down	2.30e+7	6,650	0.75	4,988	700	4,042	4,042	2,799	2,592	1,056	-293	-6,939
Totals:										2,592	1,056	-293	-6,939

Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ³ (lbs)	Max Required Capacity ² (%)
PROPOSED ANCHOR	U3	0.00	10.00	180.0	25,000	0.75	18,750	4,042	2,799	21.6

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	23.98	33.71	10.16	11.80	6.69	11.09	1.60e+6	60.00	57.00	38.50	74,392	751.32	17.54

Pole Num:	903	Pole Length / Class:	45 / 5	Code:	GO 95	Structure Type:	Unguyed Tangent
Pole Tag	346201M	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	10.25	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	32.50	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,834	Wind Speed (mph):	55.90	Pole Factor of Safety:	6.23
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	29.30
Latitude:	33.972018 Deg	Longitude:	-118.258680 Deg	Elevation:	0 Feet	Bending Factor of Safety:	6.29



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	42.8	90.0
Groundline	42.8	90.0
Vertical	9.1	90.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	10,885	89.8
Groundline	10,885	89.8
GL Allowable	25,673	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 89.8°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	53	11.3	1,785	16.4	7.0	198	39	0	198	7.0
Comms	224	47.6	5,693	52.3	22.2	631	129	2	632	22.3
Pole	190	40.4	3,303	30.3	12.9	366	781	9	375	13.2
Crossarms	1	0.3	47	0.4	0.2	5	66	1	6	0.2
Insulators	2	0.3	58	0.5	0.2	6	21	0	7	0.2
Pole Load	470	100.0	10,885	100.0	42.4	1,206	1,036	12	1,218	43.0
Pole Reserve Capacity			14,788		57.6	1,629			1,616	57.0

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 89.8°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	56	12.0	1,882	17.3	7.3	209	111	1	210	7.4
U3	118	25.1	3,151	29.0	12.3	349	73	1	350	12.3
CATV	68	14.5	1,688	15.5	6.6	187	38	0	187	6.6
AT&T	38	8.0	860	7.9	3.4	95	32	0	96	3.4
Pole	190	40.4	3,303	30.3	12.9	366	781	9	375	13.2
Totals:	470	100.0	10,885	100.0	42.4	1,206	1,036	12	1,218	43.0

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Primary	#6 COPPER SOLID	DWP	33.95	56.21	0.1620	1.34	0.079	187.0	0.0	187.0	384	53	-34	343	361
Primary	#6 COPPER SOLID	DWP	33.95	56.21	0.1620	0.79	0.079	142.0	180.0	142.0	384	-53	-26	260	181
Primary	#6 COPPER SOLID	DWP	33.95	56.21	0.1620	1.34	0.079	187.0	0.0	187.0	384	53	34	343	430
Primary	#6 COPPER SOLID	DWP	33.95	56.21	0.1620	0.79	0.079	142.0	180.0	142.0	384	-53	26	260	234
Primary	#6 COPPER SOLID	DWP	33.95	18.64	0.1620	1.34	0.079	187.0	0.0	187.0	384	53	-11	343	385
Primary	#6 COPPER SOLID	DWP	33.95	18.64	0.1620	0.79	0.079	142.0	180.0	142.0	384	-53	-8	260	199
Totals:											0	-19	1,810	1,791	

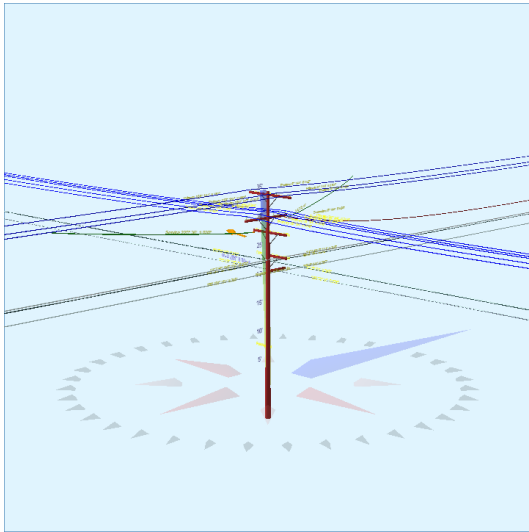
Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	1/4" EHS	U3	26.50	6.03	0.2500	1.72	0.121	187.0	0.0	187.0	1,330	143	6	889	1,038
Fiber	PROPOSED FIBER	U3	26.47	5.66	0.7800	0.294	187.0	0.0	187.0			13	888	901	
Overlashed Bundle	1/4" EHS	U3	26.50	6.03	0.2500	1.01	0.121	142.0	180.0	142.0	1,330	-143	4	675	536
Fiber	PROPOSED FIBER	U3	26.47	5.66	0.7800	0.294	142.0	180.0	142.0			10	674	684	
Overlashed Bundle	6M	CATV	24.50	6.09	0.2420	0.76	0.104	187.0	0.0	187.0	1,200	119	5	409	534
CATV	CATV .5"	CATV	24.48	6.09	0.3000	0.052	187.0	0.0	187.0			2	409	411	
Overlashed Bundle	6M	CATV	24.50	6.09	0.2420	0.73	0.104	142.0	180.0	142.0	1,200	-119	4	214	98
CATV	CATV .5"	CATV	24.48	5.93	0.3000	0.052	142.0	180.0	142.0			2	214	216	
CATV	CATV .5"	CATV	24.48	6.24	0.3000	0.052	142.0	180.0	142.0			2	214	216	
CATV	CATV .5"	CATV	24.46	6.09	0.3000	0.052	142.0	180.0	142.0			2	214	216	
Overlashed Bundle	10M	AT&T	22.50	6.20	0.3060	0.47	0.165	187.0	0.0	187.0	2,000	183	8	481	672
Overlashed Bundle	10M	AT&T	22.50	6.20	0.3060	0.27	0.165	142.0	180.0	142.0	2,000	-183	6	365	189
Totals:											0	64	5,648	5,711	

Crossarm		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	33.50	4.85	0.0	0.0	66.00	4.50	3.50	120.00	0	47	47
Totals:											0	47	47

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Pin	Spool 3"	DWP	33.69	-56.00	275.0	0.0	2.00	3.00	3.19	-9	18	9	
Pin	Spool 3"	DWP	33.69	56.00	85.0	0.0	2.00	3.00	3.19	9	18	27	
Pin	Spool 3"	DWP	33.69	-18.00	285.1	0.0	2.00	3.00	3.19	-3	18	15	
Bolt	NEW PROPOSED	U3	26.50	0.00	90.0	0.0	5.00	3.00	0.00	3	0	3	
Bolt	CATV Three Bolt .5" w 6M messenger	CATV	24.50	0.00	90.0	0.0	5.00	3.00	0.00	3	0	3	
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	22.50	0.00	90.0	0.0	5.00	3.00	0.00	3	0	3	
Totals:											5	54	58

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
2.00	19.12	33.43	9.55	9.14	6.05	10.35	1.60e+6	60.00	57.00	34.75	11,100	113.86	10.99

Pole Num:	904	Pole Length / Class:	40 / 4	Code:	GO 95	Structure Type:	Unguyed Tangent
Pole Tag	135668M	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	6.00	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	35.00	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,867	Wind Speed (mph):	55.90	Pole Factor of Safety:	4.57
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	22.99
Latitude:	33.972524 Deg	Longitude:	-118.258688 Deg	Elevation:	0 Feet	Bending Factor of Safety:	4.61



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	0.0	286.3
Groundline	0.0	286.3
Vertical	20.4	286.3

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	287.8	286.3
Groundline	287.8	286.3
GL Allowable		

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 287.8°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	279	35.4	8,168	43.6	25.2	724	123	1	725	25.3
Comms	223	28.3	4,751	25.3	14.7	421	206	2	423	14.8
Pole	202	25.6	3,454	18.4	10.7	306	902	9	315	11.0
Crossarms	75	9.5	2,067	11.0	6.4	183	241	2	186	6.5
Insulators	10	1.2	307	1.6	1.0	27	64	1	28	1.0
Pole Load	788	100.0	18,747	100.0	57.8	1,661	1,536	16	1,676	58.5
Pole Reserve Capacity			13,692		42.2	1,207			1,191	41.5

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 287.8°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	671	85.1	21,167	112.9	65.3	1,875	353	4	1,879	65.5
<Undefined>	-325	-41.2	-10,959	-58.5	-33.8	-971	22	0	-970	-33.8
U3	109	13.8	2,345	12.5	7.2	208	74	1	208	7.3
CATV	73	9.3	1,587	8.5	4.9	141	73	1	141	4.9
AT&T	59	7.5	1,152	6.2	3.6	102	112	1	103	3.6
Pole	202	25.6	3,454	18.4	10.7	306	902	9	315	11.0
Totals:	788	100.0	18,747	100.0	57.8	1,661	1,536	16	1,676	58.5

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Primary	#6 COPPER SOLID	DWP	33.78	56.24	0.1620	0.81	0.079	144.0	0.0	144.0	384	3,970	26	240	4,236
Primary	#6 COPPER SOLID	DWP	33.78	56.24	0.1620	1.33	0.079	187.0	180.0	187.0	384	-3,970	34	312	-3,624
Primary	#6 COPPER SOLID	DWP	33.78	56.24	0.1620	0.81	0.079	144.0	0.0	144.0	384	3,970	-25	240	4,185
Primary	#6 COPPER SOLID	DWP	33.78	56.24	0.1620	1.33	0.079	187.0	180.0	187.0	384	-3,970	-32	312	-3,690
Primary	#6 COPPER SOLID	DWP	33.78	18.72	0.1620	0.81	0.079	144.0	0.0	144.0	384	3,970	-7	240	4,202
Primary	#6 COPPER SOLID	DWP	33.78	18.72	0.1620	1.33	0.079	187.0	180.0	187.0	384	-3,970	-10	312	-3,668
Primary	#6 COPPER SOLID	DWP	30.14	56.26	0.1620	0.35	0.079	94.0	90.0	94.0	384	-11,022	-4	13	-11,013
Primary	#6 COPPER SOLID	DWP	30.14	56.26	0.1620	0.66	0.079	130.0	270.0	130.0	384	11,022	-5	18	11,035
Primary	#6 COPPER SOLID	DWP	30.14	18.79	0.1620	0.35	0.079	94.0	90.0	94.0	384	-11,022	0	13	-11,009
Primary	#6 COPPER SOLID	DWP	30.14	18.79	0.1620	0.66	0.079	130.0	270.0	130.0	384	11,022	0	18	11,040
Primary	#4 COPPER SOLID	DWP	30.14	56.26	0.2043	0.37	0.126	94.0	90.0	94.0	591	-16,965	11	17	-16,937
Primary	#4 COPPER SOLID	DWP	30.14	56.26	0.2043	0.69	0.126	130.0	270.0	130.0	591	16,965	15	23	17,003
Primary	#4 COPPER SOLID	DWP	30.14	36.96	0.2043	0.37	0.126	94.0	90.0	94.0	591	-16,965	8	17	-16,940
Primary	#4 COPPER SOLID	DWP	30.14	36.96	0.2043	0.69	0.126	130.0	270.0	130.0	591	16,965	11	23	16,999
Primary	#4 COPPER SOLID	DWP	30.14	22.22	0.2043	0.37	0.126	94.0	90.0	94.0	591	-16,965	6	17	-16,942
Primary	#4 COPPER SOLID	DWP	30.14	22.22	0.2043	0.69	0.126	130.0	270.0	130.0	591	16,965	8	23	16,996
Secondary	TRIPLEX 4 AWG	DWP	28.97	56.26	0.6800	1.91	0.164	144.0	0.0	144.5	93	823	22	863	1,708
Service	TRIPLEX 4 AWG	DWP	28.97	56.26	0.6800	0.70	0.164	58.0	330.0	58.0	93	1,994	9	176	2,179
Service	TRIPLEX 1/0	DWP	26.38	48.32	1.0300	0.44	0.399	36.0	225.0	36.0	178	2,142	28	254	2,424
Totals:											4,959	96	3,130	8,185	

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	1/4" EHS	U3	22.64	20.83	0.2500	1.04	0.121	144.0	0.0	144.0	1,330	9,209	-13	534	9,731

Fiber	PROPOSED FIBER	U3	22.61	20.42	0.7800		0.294	144.0	0.0	144.0			-30	534	504
Overlashed Bundle	1/4" EHS	U3	22.64	20.83	0.2500	1.72	0.121	187.0	180.0	187.0	1,330	-9,209	-16	694	-8,532
Fiber	PROPOSED FIBER	U3	22.61	20.42	0.7800		0.294	187.0	180.0	187.0			-39	693	654
Overlashed Bundle	6M	CATV	22.00	6.63	0.2420	0.45	0.104	144.0	0.0	144.0	1,200	8,077	-4	259	8,331
CATV	CATV .5"	CATV	21.98	6.63	0.3000		0.052	144.0	0.0	144.0			-2	258	256
Overlashed Bundle	6M	CATV	22.00	6.63	0.2420	1.24	0.104	187.0	180.0	187.0	1,200	-8,077	-5	231	-7,850
CATV	CATV .5"	CATV	21.98	6.47	0.3000		0.052	187.0	180.0	187.0			-3	231	229
CATV	CATV .5"	CATV	21.98	6.78	0.3000		0.052	187.0	180.0	187.0			-3	231	229
CATV	CATV .5"	CATV	21.96	6.63	0.3000		0.052	187.0	180.0	187.0			-3	231	228
Overlashed Bundle	6M	CATV	22.00	6.63	0.2420	0.19	0.104	94.0	90.0	94.0	1,200	-25,134	1	40	-25,093
CATV	CATV .5"	CATV	21.91	6.63	0.3000		0.052	94.0	90.0	94.0			0	40	41
Overlashed Bundle	6M	CATV	22.00	6.63	0.2420	0.70	0.104	130.0	270.0	130.0	1,200	25,134	1	21	25,156
CATV	CATV .5"	CATV	22.01	6.72	0.3000		0.052	130.0	270.0	130.0			1	21	22
CATV	CATV .5"	CATV	22.01	6.55	0.3000		0.052	130.0	270.0	130.0			1	21	22
CATV	CATV .75"	CATV	21.97	6.63	0.5500		0.096	130.0	270.0	130.0			1	21	22
Overlashed Bundle	10M	AT&T	20.14	20.88	0.3060	0.30	0.165	94.0	90.0	94.0	2,000	-38,329	0	28	-38,301
Telco	Telco .75	AT&T	20.10	20.88	0.7500		0.256	94.0	90.0	94.0			0	28	28
Overlashed Bundle	10M	AT&T	20.14	20.88	0.3060	0.58	0.165	130.0	270.0	130.0	2,000	38,329	0	38	38,368
Telco	Telco .75	AT&T	20.10	20.88	0.7500		0.256	130.0	270.0	130.0			1	38	39
Overlashed Bundle	10M	AT&T	20.00	6.76	0.3060	0.28	0.165	144.0	0.0	144.0	2,000	12,238	-6	301	12,532
Overlashed Bundle	10M	AT&T	20.00	6.76	0.3060	0.47	0.165	187.0	180.0	187.0	2,000	-12,238	-8	391	-11,855
Totals:											0	-125	4,886	4,761	

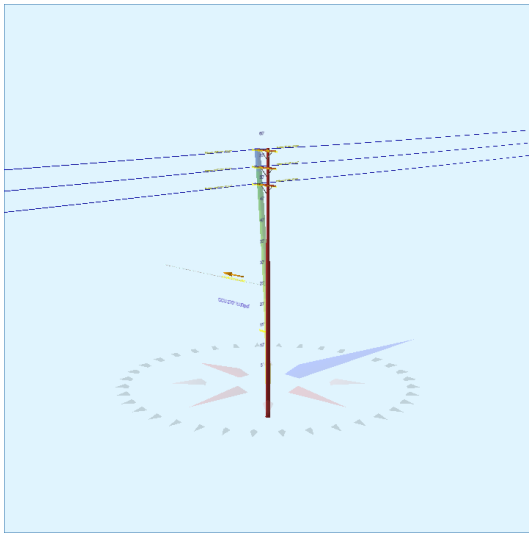
Crossarm		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	33.33	5.14	0.0	0.0	66.00	4.50	3.50	120.00	9	180	189
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	29.33	5.40	270.0	270.0	66.00	4.50	3.50	120.00	28	1,290	1,318
Normal	CROSSARM 3-1/2 X 4-1/2 X 8	DWP	26.83	5.56	0.0	0.0	53.00	4.50	3.50	96.00	8	123	130
Offset	CROSSARM 3-1/2 X 4-1/2 X 4	DWP	22.83	5.82	0.0	0.0	28.00	4.50	3.50	48.00	21	67	88
Normal	CROSSARM 3-1/2 X 4-1/2 X 4	AT&T	20.33	5.99	90.0	90.0	28.00	4.50	3.50	48.00	-13	359	346
Totals:											52	2,019	2,071

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Pin	Spool 3"	DWP	33.52	-56.00	275.2	0.0	2.00	3.00	3.19	9	18	27
Pin	Spool 3"	DWP	33.52	56.00	84.8	0.0	2.00	3.00	3.19	-9	18	9
Pin	Spool 3"	DWP	33.52	18.00	74.1	0.0	2.00	3.00	3.19	-3	18	15
Pin	Pin Insulator - 5 kV	DWP	29.52	-56.00	185.5	0.0	6.00	3.50	7.50	-6	43	37
Pin	Pin Insulator - 5 kV	DWP	29.52	-18.00	196.7	0.0	6.00	3.50	7.50	0	43	43
Pin	Pin Insulator - 5 kV	DWP	29.52	56.00	354.5	0.0	6.00	3.50	7.50	11	43	54

Pin	Pin Insulator - 5 kV	DWP	29.52	36.56	351.6	0.0	6.00	3.50	7.50	8	43	51
Pin	Pin Insulator - 5 kV	DWP	29.52	21.55	345.9	0.0	6.00	3.50	7.50	6	43	49
Underhung	Spool 2.5"	DWP	29.14	56.00	354.5	0.0	1.00	2.50	2.12	2	9	10
Underhung	Spool 3"	DWP	26.64	-48.00	276.6	225.0	2.00	3.00	3.19	8	14	22
Underhung	NEW PROPOSED	U3	22.64	20.00	73.8	0.0	5.00	3.00	0.00	-7	0	-7
Bolt	CATV Three Bolt .5" w 6M messenger	CATV	22.00	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3
Bolt	CATV Three Bolt .75" w 6M messenger	CATV	22.00	0.00	0.0	270.0	5.00	3.00	0.00	1	0	1
Underhung	AT&T Three Bolt .75" w 10M messenger	AT&T	20.14	-20.00	16.7	0.0	5.00	3.00	0.00	0	0	0
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	20.00	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3
Totals:										15	292	307

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
2.00	20.37	33.60	10.24	11.26	6.69	11.15	1.60e+6	60.00	57.00	34.00	12,977	132.44	8.62

Pole Num:	905	Pole Length / Class:	65 / 2	Code:	GO 95	Structure Type:	Unguyed Tangent
Pole Tag	391408M	Species:	DOUGLAS FIR	GO 95 Rule:	At Installation (New)	Pole Strength Factor:	0.25
Grid	6483-1812	Setting Depth (ft):	8.50	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	44.25	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	1,961	Wind Speed (mph):	55.90	Pole Factor of Safety:	5.89
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	19.90
Latitude:	33.972599 Deg	Longitude:	-118.258553 Deg	Elevation:	0 Feet	Bending Factor of Safety:	5.97



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	0.0	270.0
Groundline	0.0	270.0
Vertical	27.6	270.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	269.7	270.0
Groundline	269.7	270.0
GL Allowable		

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 269.7°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	183	19.4	9,726	32.4	21.7	418	142	1	419	21.4
Comms	333	35.3	8,133	27.1	18.1	350	8	0	350	17.8
Pole	415	44.0	11,487	38.2	25.6	494	2,304	15	509	26.0
Crossarms	4	0.4	222	0.7	0.5	10	120	1	10	0.5
Insulators	8	0.9	468	1.6	1.0	20	14	0	20	1.0
Pole Load	943	100.0	30,036	100.0	67.0	1,292	2,587	17	1,309	66.7
Pole Reserve Capacity			14,787		33.0	669			652	33.3

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 269.7°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	195	20.7	10,413	34.7	23.2	448	271	2	450	22.9
U3	333	35.3	8,136	27.1	18.2	350	13	0	350	17.9
Pole	415	44.0	11,487	38.2	25.6	494	2,304	15	509	26.0
Totals:	943	100.0	30,036	100.0	67.0	1,292	2,587	17	1,309	66.7

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Primary	ACSR 4/0 AWG 6/1 PENGUIN	DWP	56.00	49.09	0.5630	1.27	0.291	186.0	0.0	186.0	2,505	-630	9	1,955	1,334
Primary	ACSR 4/0 AWG 6/1 PENGUIN	DWP	56.00	49.09	0.5630	0.80	0.291	139.0	180.0	139.0	2,505	630	7	1,461	2,097
Primary	ACSR 4/0 AWG 6/1 PENGUIN	DWP	52.00	49.11	0.5630	1.27	0.291	186.0	0.0	186.0	2,505	-585	9	1,815	1,240
Primary	ACSR 4/0 AWG 6/1 PENGUIN	DWP	52.00	49.11	0.5630	0.80	0.291	139.0	180.0	139.0	2,505	585	7	1,356	1,948
Primary	ACSR 4/0 AWG 6/1 PENGUIN	DWP	48.00	49.14	0.5630	1.27	0.291	186.0	0.0	186.0	2,505	-540	10	1,675	1,146
Primary	ACSR 4/0 AWG 6/1 PENGUIN	DWP	48.00	49.14	0.5630	0.80	0.291	139.0	180.0	139.0	2,505	540	7	1,252	1,799
Totals:											0	50	9,515	9,564	

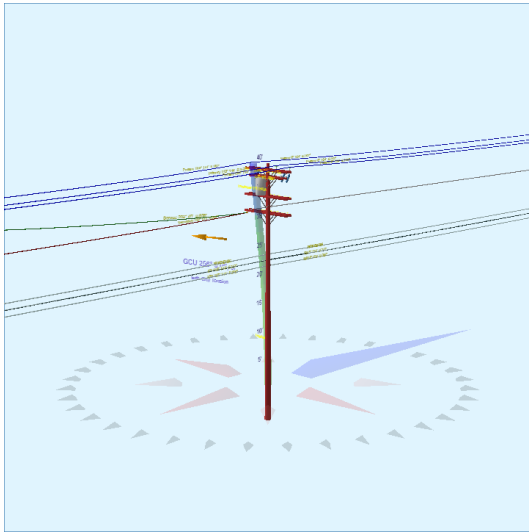
Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	1/4" EHS	U3	24.00	8.24	0.2500	0.07	0.121	38.0	270.0	38.0	333	7,992	2	0	7,993
Fiber	PROPOSED FIBER	U3	23.97	8.62	0.7800		0.294	38.0	270.0	38.0			4	0	4
Totals:											7,992	6	0	7,998	

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Normal	CROSSARM 3-1/2 X 4-1/2 X 6	DWP	56.00	5.76	180.0	180.0	40.00	4.50	3.50	72.00	0	78	78
Normal	CROSSARM 3-1/2 X 4-1/2 X 6	DWP	52.00	5.97	180.0	180.0	40.00	4.50	3.50	72.00	0	73	73
Normal	CROSSARM 3-1/2 X 4-1/2 X 6	DWP	48.00	6.19	180.0	180.0	40.00	4.50	3.50	72.00	0	67	67
Totals:											0	218	219

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Deadend	Deadend 12.75"	DWP	56.00	36.00	260.9	0.0	3.00	3.80	12.75	12	151	163
Deadend	Deadend 12.75"	DWP	52.00	36.00	260.6	0.0	3.00	3.80	12.75	12	140	152
Deadend	Deadend 12.75"	DWP	48.00	36.00	260.2	0.0	3.00	3.80	12.75	12	129	141
Bolt	NEW PROPOSED	U3	24.00	0.00	270.0	270.0	5.00	3.00	0.00	3	0	3
Totals:									40	420	460	

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
2.00	27.64	33.19	13.09	19.51	7.96	14.09	1.60e+6	60.00	57.00	56.50	12,556	128.73	4.98

Pole Num:	906	Pole Length / Class:	45 / 3	Code:	GO 95	Structure Type:	Guyed Tangent
Pole Tag	369104M	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	6.25	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	41.00	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,918	Wind Speed (mph):	55.90	Pole Factor of Safety:	8.09
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	126.98
Latitude:	33.972940 Deg	Longitude:	-118.258694 Deg	Elevation:	0 Feet	Bending Factor of Safety:	8.24



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	0.0	256.3
Groundline	0.0	256.3
Vertical	25.7	180.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	17,160	256.3
Groundline	17,160	256.3
GL Allowable	53,056	

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Anchor	182.0	0.0		6.0	256.3	7.8	180.0
HS 7/32 (Span/Head)			30.3	31.2	256.3	40.3	180.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 245.3°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	550	79.0	16,268	94.8	30.7	929	63	0	930	31.9
Comms	151	21.7	3,192	18.6	6.0	182	85	1	183	6.3
GuyBraces	-366	-52.6	-10,688	-62.3	-20.1	-611	9	0	-611	-20.9
GenericEquipments	12	1.7	344	2.0	0.7	20	60	0	20	0.7
PowerEquipments	41	5.9	1,609	9.4	3.0	92	335	3	94	3.2
Pole	258	37.1	4,769	27.8	9.0	273	1,350	10	283	9.7
Crossarms	46	6.6	1,518	8.9	2.9	87	528	4	91	3.1
Insulators	5	0.7	147	0.9	0.3	8	50	0	9	0.3
Pole Load	696	100.0	17,160	100.0	32.3	980	2,479	19	999	34.2
Pole Reserve Capacity			35,896		67.7	1,937			1,919	65.8

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 245.3°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	63	9.1	2,295	13.4	4.3	131	189	1	133	4.5
PWR	200	28.7	6,181	36.0	11.7	353	577	4	357	12.2
U3	27	3.9	594	3.5	1.1	34	25	0	34	1.2
CATV	91	13.0	1,927	11.2	3.6	110	43	0	110	3.8
AT&T	33	4.8	662	3.9	1.3	38	32	0	38	1.3
Pole	258	37.1	4,769	27.8	9.0	273	1,350	10	283	9.7
<Undefined>	24	3.4	731	4.3	1.4	42	264	2	44	1.5
Totals:	696	100.0	17,160	100.0	32.3	980	2,479	19	999	34.2

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Primary	#6 COPPER SOLID	DWP	38.47	56.27	0.1620	1.29	0.079	184.0	0.0	184.0	384	-6,180	-32	337	-5,875
Primary	#6 COPPER SOLID	DWP	38.47	56.27	0.1620	0.81	0.079	144.0	180.0	144.0	384	6,180	-25	264	6,419
Primary	#6 COPPER SOLID	DWP	38.47	58.26	0.1620	1.29	0.079	184.0	0.0	184.0	384	-6,180	31	337	-5,812
Primary	#6 COPPER SOLID	DWP	38.47	58.26	0.1620	0.81	0.079	144.0	180.0	144.0	384	6,180	24	264	6,468
Primary	#6 COPPER SOLID	DWP	38.47	18.82	0.1620	1.29	0.079	184.0	0.0	184.0	384	-6,180	-11	337	-5,854

Primary	#6 COPPER SOLID	DWP	38.47	18.82	0.1620	0.81	0.079	144.0	180.0	144.0	384	6,180	-9	264	6,436
Secondary	TRIPLEX 2 AWG	PWR	29.88	56.32	0.8060	1.90	0.248	144.0	180.0	144.0	855	10,672	79	1,019	11,771
Service	TRIPLEX 2 AWG	PWR	29.88	56.32	0.8060	0.57	0.248	48.0	202.0	48.0	143	3,107	26	214	3,348
Totals:											13,780	83	3,038	16,900	

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	PROPOSED OHG	U3	23.33	7.30	0.2500	0.51	0.121	184.0	0.0	184.0	1,330	-12,978	-6	354	-12,631
Overlashed Bundle	PROPOSED OHG	U3	23.33	7.30	0.2500	0.31	0.121	144.0	180.0	144.0	1,330	12,978	-5	277	13,251
Overlashed Bundle	6M	CATV	22.33	7.37	0.2420	1.18	0.104	184.0	0.0	184.0	1,200	-11,208	-5	429	-10,784
CATV	CATV .5"	CATV	22.35	7.37	0.3000		0.052	184.0	0.0	184.0			-3	430	427
CATV	CATV .75"	CATV	22.30	7.37	0.5500		0.096	184.0	0.0	184.0			-5	429	424
Overlashed Bundle	6M	CATV	22.33	7.37	0.2420	0.58	0.104	144.0	180.0	144.0	1,200	11,208	-4	369	11,573
CATV	CATV .75"	CATV	22.30	7.37	0.5500		0.096	144.0	180.0	144.0			-4	369	365
Overlashed Bundle	10M	AT&T	21.33	7.45	0.3060	0.46	0.165	184.0	0.0	184.0	2,000	-17,843	-9	396	-17,456
Overlashed Bundle	10M	AT&T	21.33	7.45	0.3060	0.28	0.165	144.0	180.0	144.0	2,000	17,843	-7	310	18,147
Totals:											0	-47	3,363	3,316	

GenericEquipment	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Cylinder	Disconnect Switch 1	PWR	36.44	45.90	360.0	0.0	20.00	18.00	--	4.00	--	57	143	201
Cylinder	Disconnect Switch 1	PWR	36.44	32.73	360.0	0.0	20.00	18.00	--	4.00	--	-55	143	89
Cylinder	Disconnect Switch 1	PWR	36.44	45.90	360.0	0.0	20.00	18.00	--	4.00	--	-76	143	68
Totals:											-73	430	357	

PowerEquipment	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Transformer	1PH-15KVA	PWR	35.00	20.94	180.0	180.0	335.00	34.00	--	22.00	--	244	1,427	1,672
Totals:											244	1,427	1,672	

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	37.66	5.49	180.0	180.0	66.00	4.50	3.50	120.00	0	450	450
Normal	8' CUT OUT - PWR	PWR	36.50	5.58	180.0	180.0	66.00	4.50	3.50	96.00	0	367	367
Normal	CROSSARM 3-1/2 X 4-1/2 X 10		33.16	5.82	0.0	0.0	66.00	4.50	3.50	120.00	0	397	397
Normal	CROSSARM 3-1/2 X 4-1/2 X 10		30.33	6.03	0.0	0.0	66.00	4.50	3.50	120.00	0	363	363
Totals:											0	1,577	1,577

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Pin	Pin Insulator - 5 kV	DWP	37.85	-56.00	84.4	0.0	6.00	3.50	7.50	-27	54	28
Pin	Pin Insulator - 5 kV	DWP	37.85	58.00	275.4	0.0	6.00	3.50	7.50	25	54	80
Pin	Pin Insulator - 5 kV	DWP	37.85	-18.00	73.0	0.0	6.00	3.50	7.50	-9	54	45
Bolt	Cutout	PWR	36.69	44.00	277.2	180.0	5.00	3.00	0.00	15	0	15
Bolt	Cutout	PWR	36.69	-30.00	79.5	180.0	5.00	3.00	0.00	-13	0	-13
Bolt	Cutout	PWR	36.69	-44.00	82.8	180.0	5.00	3.00	0.00	-18	0	-18
Underhung	Spool 3"	PWR	30.14	-56.00	263.9	202.0	2.00	3.00	3.19	9	16	25
Bolt	NEW PROPOSED	U3	23.33	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3
Bolt	CATV Three Bolt .75" w 6M messenger	CATV	22.33	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	21.33	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3
Totals:										-26	179	153

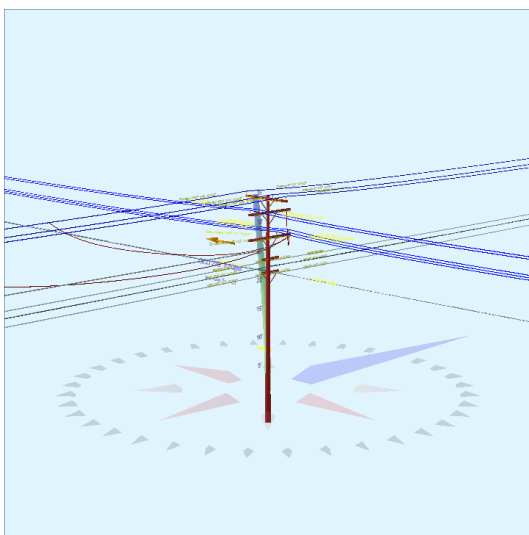
Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)	
HS 7/32	Span/Head	PWR	30.33	30.33	182.00	0.219	75.00	0.0	0.0	0.096	179.31	2.99

Guy Wire and Brace (Loads and Reactions)	Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension*2 (lbs)	Maximum Tension2 (lbs)	Applied Tension3 (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL3 (ft-lb)	
HS 7/32	Span/Head	2.30e+7	3,850	0.75	2,888	700	1,165	1,165	902	0	902	-377	-11,103
Totals:										0	902	-377	-11,103

Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load2 (lbs)	Load at Pole MCU3 (lbs)	Max Required Capacity2 (%)
Anchor	PWR	30.00	182.00	0.0	20,000	0.75	15,000	1,165	902	7.8

Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	25.74	34.37	11.74	9.45	7.32	13.06	1.60e+6	60.00	57.00	38.75	115,458	1180.64	47.62

Pole Num:	907	Pole Length / Class:	40 / 4	Code:	GO 95	Structure Type:	Guyed Tangent
Pole Tag	135667M	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	5.67	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	35.00	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,867	Wind Speed (mph):	55.90	Pole Factor of Safety:	6.05
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	177.78
Latitude:	33.973418 Deg	Longitude:	-118.258687 Deg	Elevation:	0 Feet	Bending Factor of Safety:	6.12



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	44.1	270.0
Groundline	44.1	270.0
Vertical	1.5	0.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	14,131	270.0
Groundline	14,131	270.0
GL Allowable	32,439	

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Anchor	184.0	180.0		0.0	270.0	2.1	0.0
HS 7/32 (Span/Head)			25.0	0.0	270.0	10.8	0.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 269.6°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	90	14.4	2,743	19.4	8.5	243	111	1	245	8.5
Comms	163	26.3	3,508	24.8	10.8	311	146	1	313	10.9
GuyBraces	13	2.2	334	2.4	1.0	30	9	0	30	1.0
Pole	204	32.9	3,517	24.9	10.8	312	911	9	321	11.2
Crossarms	139	22.3	3,687	26.1	11.4	327	263	3	330	11.5
Insulators	12	2.0	342	2.4	1.1	30	70	1	31	1.1
Pole Load	621	100.0	14,131	100.0	43.6	1,254	1,509	15	1,269	44.3
Pole Reserve Capacity			18,308		56.4	1,614			1,598	55.7

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 269.6°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	164	26.4	4,949	35.0	15.3	439	354	4	443	15.4
PWR	52	8.3	1,341	9.5	4.1	119	23	0	119	4.2
U3	49	7.9	1,115	7.9	3.4	99	52	1	99	3.5
CATV	97	15.5	2,108	14.9	6.5	187	41	0	187	6.5
AT&T	56	9.0	1,101	7.8	3.4	98	128	1	99	3.5
Pole	204	32.9	3,517	24.9	10.8	312	911	9	321	11.2
Totals:	621	100.0	14,131	100.0	43.6	1,254	1,509	15	1,269	44.3

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Primary	#6 COPPER SOLID	DWP	34.64	56.23	0.1620	0.73	0.079	137.0	0.0	137.0	384	-88	-25	256	143
Primary	#6 COPPER SOLID	DWP	34.64	56.23	0.1620	1.30	0.079	184.0	180.0	184.0	384	88	-34	344	398
Primary	#6 COPPER SOLID	DWP	34.64	58.23	0.1620	0.73	0.079	137.0	0.0	137.0	384	-88	26	256	194
Primary	#6 COPPER SOLID	DWP	34.64	58.23	0.1620	1.30	0.079	184.0	180.0	184.0	384	88	35	344	467
Primary	#6 COPPER SOLID	DWP	34.64	18.71	0.1620	0.73	0.079	137.0	0.0	137.0	384	-88	-8	256	160
Primary	#6 COPPER SOLID	DWP	34.64	18.71	0.1620	1.30	0.079	184.0	180.0	184.0	384	88	-11	344	421
Primary	#6 COPPER SOLID	DWP	32.31	56.25	0.1620	0.36	0.079	95.0	90.0	95.0	384	-12,410	-2	0	-12,412
Primary	#6 COPPER SOLID	DWP	32.31	56.25	0.1620	0.66	0.079	130.0	270.0	130.0	384	12,410	-2	0	12,408
Primary	#6 COPPER SOLID	DWP	32.31	36.38	0.1620	0.36	0.079	95.0	90.0	95.0	384	-12,410	-2	0	-12,412

Primary	#6 COPPER SOLID	DWP	32.31	36.38	0.1620	0.66	0.079	130.0	270.0	130.0	384	12,410	-2	0	12,408
Primary	#4 COPPER 3 STRAND	DWP	27.98	36.45	0.2543	0.56	0.128	95.0	90.0	95.0	564	-15,788	-3	0	-15,791
Primary	#4 COPPER 3 STRAND	DWP	27.98	36.45	0.2543	0.97	0.128	130.0	270.0	130.0	564	15,788	-4	0	15,784
Primary	#4 COPPER 3 STRAND	DWP	27.98	56.29	0.2543	0.56	0.128	95.0	90.0	95.0	564	-15,788	-3	0	-15,791
Primary	#4 COPPER 3 STRAND	DWP	27.98	56.29	0.2543	0.97	0.128	130.0	270.0	130.0	564	15,788	-4	0	15,784
Primary	#4 COPPER 3 STRAND	DWP	27.98	18.88	0.2543	0.56	0.128	95.0	90.0	95.0	564	-15,788	-3	0	-15,791
Primary	#4 COPPER 3 STRAND	DWP	27.98	18.88	0.2543	0.97	0.128	130.0	270.0	130.0	564	15,788	-4	0	15,784
Secondary	TRIPLEX 4 AWG	PWR	26.70	56.29	0.6800	0.79	0.164	65.0	195.0	66.1	15	104	-3	366	468
Secondary	TRIPLEX 4 AWG	PWR	26.70	56.29	0.6800	0.56	0.164	47.0	245.0	48.5	10	248	-2	50	297
Secondary	TRIPLEX 4 AWG	PWR	26.70	56.29	0.6800	0.40	0.164	34.0	315.0	35.2	7	131	-1	103	233
Totals:											484	-51	2,321	2,754	

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	PROPOSED OHG	U3	23.16	6.57	0.2500	0.28	0.121	137.0	0.0	137.0	1,330	-204	-5	296	88
Overlashed Bundle	PROPOSED OHG	U3	23.16	6.57	0.2500	0.51	0.121	184.0	180.0	184.0	1,330	204	-6	398	596
Overlashed Bundle	6M	CATV	22.16	6.63	0.2420	0.66	0.104	137.0	0.0	137.0	1,200	-176	-4	359	180
CATV	CATV .5"	CATV	22.18	6.63	0.3000	0.052	137.0	0.0	137.0				-2	360	358
CATV	CATV .75"	CATV	22.13	6.63	0.5500	0.096	137.0	0.0	137.0				-4	359	355
Overlashed Bundle	6M	CATV	22.16	6.63	0.2420	0.94	0.104	184.0	180.0	184.0	1,200	176	-5	531	701
CATV	CATV .75"	CATV	22.13	6.63	0.5500	0.096	184.0	180.0	184.0				-5	530	525
Overlashed Bundle	10M	AT&T	20.97	15.21	0.3060	0.31	0.165	95.0	90.0	95.0	2,000	-41,919	-4	0	-41,923
Telco	Telco .75	AT&T	20.92	15.21	0.7500	0.256	95.0	90.0	95.0				-6	0	-6
Overlashed Bundle	10M	AT&T	20.97	15.21	0.3060	0.91	0.165	130.0	270.0	130.0	2,000	41,919	-5	0	41,913
Telco	Telco 1.5	AT&T	20.90	15.21	1.5000	0.511	130.0	270.0	130.0				-17	0	-17
Overlashed Bundle	10M	AT&T	20.83	6.72	0.3060	0.26	0.165	137.0	0.0	137.0	2,000	-276	-6	326	44
Overlashed Bundle	10M	AT&T	20.83	6.72	0.3060	0.46	0.165	184.0	180.0	184.0	2,000	276	-8	438	705
Totals:											0	-77	3,598	3,521	

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	33.83	5.12	180.0	180.0	66.00	4.50	3.50	120.00	0	47	48
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	31.50	5.28	90.0	90.0	66.00	4.50	3.50	120.00	-29	1,512	1,483
Normal	CROSSARM 3-3/4 X 4-3/4 X 10	DWP	27.16	5.68	90.0	90.0	75.00	4.75	3.75	120.00	-36	1,376	1,341
Normal	CROSSARM 3-1/2 X 4-1/2 X 4	AT&T	21.16	5.95	90.0	90.0	28.00	4.50	3.50	48.00	-14	406	392

Normal	CROSSARM 3-1/2 X 4-1/2 X 4	U3	23.50	5.80	90.0	90.0	28.00	4.50	3.50	48.00	-14	451	438
Totals:											-92	3,793	3,701

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)		
Pin	Pin Insulator - 5 kV	DWP	34.02	-56.00	95.2	0.0	6.00	3.50	7.50	-28	50	22	
Pin	Pin Insulator - 5 kV	DWP	34.02	58.00	265.0	0.0	6.00	3.50	7.50	29	50	79	
Pin	Pin Insulator - 5 kV	DWP	34.02	-18.00	105.9	0.0	6.00	3.50	7.50	-9	50	41	
Pin	Pin Insulator - 5 kV	DWP	31.69	56.00	174.6	0.0	6.00	3.50	7.50	-2	46	44	
Pin	Pin Insulator - 5 kV	DWP	31.69	36.00	171.7	0.0	6.00	3.50	7.50	-3	46	44	
Pin	Pin Insulator - 5 kV	DWP	27.36	-36.00	9.0	0.0	6.00	3.50	7.50	-3	40	37	
Pin	Pin Insulator - 5 kV	DWP	27.36	-56.00	5.8	0.0	6.00	3.50	7.50	-3	40	37	
Pin	Pin Insulator - 5 kV	DWP	27.36	-18.00	17.5	0.0	6.00	3.50	7.50	-3	40	37	
Underhung	Spool 3"	PWR	26.96	-56.00	5.8	202.0	2.00	3.00	3.19	-1	14	13	
Bolt	NEW PROPOSED	U3	23.16	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3	
Bolt	CATV Three Bolt .75" w 6M messenger	CATV	22.16	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3	
Underhung	AT&T Three Bolt 1" w 10M messenger	AT&T	20.97	-14.00	23.0	0.0	5.00	3.00	0.00	-3	0	-3	
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	20.83	0.00	90.0	0.0	5.00	3.00	0.00	-3	0	-3	
Totals:											-34	377	343

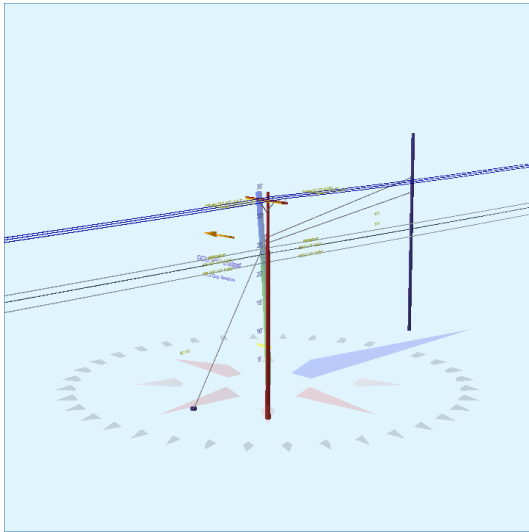
Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)	
HS 7/32	Span/Head	PWR	25.00	25.00	184.00	0.219	75.00	180.0	0.0	0.096	181.26	0.00

Guy Wire and Brace (Loads and Reactions)	Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension*2 (lbs)	Maximum Tension² (lbs)	Applied Tension³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL³ (ft-lb)		
HS 7/32	Span/Head	2.30e+7	3,850	0.75	2,888	700	311	311	0	0	0	335		
Totals:											0	0	0	335

Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load² (lbs)	Load at Pole MCU³ (lbs)	Max Required Capacity² (%)
Anchor	PWR	30.00	184.00	180.0	20,000	0.75	15,000	311	0	2.1

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	20.74	33.63	10.24	6.70	6.69	11.15	1.60e+6	60.00	57.00	34.33	102,565	1006.16	66.67

Pole Num:	908	Pole Length / Class:	40 / 4	Code:	GO 95	Structure Type:	Guyed Tangent
Pole Tag	189272M	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	6.17	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	33.44	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,848	Wind Speed (mph):	55.90	Pole Factor of Safety:	8.11
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	266.67
Latitude:	33.973812 Deg	Longitude:	-118.258684 Deg	Elevation:	0 Feet	Bending Factor of Safety:	8.22



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	0.0	268.6
Groundline	0.0	268.6
Vertical	18.5	82.5

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	268.5	268.6
Groundline	268.5	268.6
GL Allowable	28,093	

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Single Helix Anchor	19.0	175.0		0.0	268.6	6.2	80.0
HS 7/16 (Down)			26.2	0.0	268.6	8.5	80.0
Anchor	50.0	350.0		0.0	268.6	4.3	95.0
HS 3/8 (Span/Head)			26.2	0.0	268.6	4.4	100.0
HS 3/8 (Span/Head)			25.2	0.0	268.6	3.5	90.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 268.5°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	51	12.0	1,582	17.4	5.6	161	37	0	162	5.7
Comms	155	36.5	3,598	39.5	12.8	367	85	1	368	12.9
GuyBraces	18	4.2	457	5.0	1.6	47	24	0	47	1.6
Pole	195	45.9	3,338	36.6	11.9	340	845	10	350	12.3
Crossarms	1	0.3	47	0.5	0.2	5	66	1	6	0.2
Insulators	4	1.0	96	1.1	0.3	10	33	0	10	0.4
Pole Load	426	100.0	9,119	100.0	32.5	930	1,091	12	942	33.1
Pole Reserve Capacity			18,974		67.5	1,918			1,906	66.9

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 268.5°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	62	14.6	1,857	20.4	6.6	189	131	1	191	6.7
U3	30	6.9	722	7.9	2.6	74	24	0	74	2.6
CATV	90	21.1	2,090	22.9	7.4	213	45	1	214	7.5
AT&T	36	8.5	795	8.7	2.8	81	31	0	81	2.9
PWR	13	2.9	318	3.5	1.1	32	14	0	33	1.1
Pole	195	45.9	3,338	36.6	11.9	340	845	10	350	12.3
Totals:	426	100.0	9,119	100.0	32.5	930	1,091	12	942	33.1

Detailed Load Components:

Power		Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Primary	#6 COPPER SOLID	DWP	33.31	56.24	0.1620	1.23	0.079	179.0	0.0	179.0	384	-340	-33	322	-51
Primary	#6 COPPER SOLID	DWP	33.31	56.24	0.1620	0.73	0.079	137.0	180.0	137.0	384	340	-25	246	561
Primary	#6 COPPER SOLID	DWP	33.31	18.73	0.1620	1.23	0.079	179.0	0.0	179.0	384	-340	-11	322	-29
Primary	#6 COPPER SOLID	DWP	33.31	18.73	0.1620	0.73	0.079	137.0	180.0	137.0	384	340	-8	246	579
Primary	#6 COPPER SOLID	DWP	33.31	36.37	0.1620	1.23	0.079	179.0	0.0	179.0	384	-340	-21	322	-40
Primary	#6 COPPER SOLID	DWP	33.31	36.37	0.1620	0.73	0.079	137.0	180.0	137.0	384	340	-16	246	570
Totals:											0	-114	1,705	1,591	

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	PROPOSED OHG	U3	24.16	6.41	0.2500	0.48	0.121	179.0	0.0	179.0	1,330	-855	6	404	-445
Overlashed Bundle	PROPOSED OHG	U3	24.16	6.41	0.2500	0.28	0.121	137.0	180.0	137.0	1,330	855	4	309	1,168
Overlashed Bundle	6M	CATV	23.16	6.47	0.2420	1.11	0.104	179.0	0.0	179.0	1,200	-739	5	391	-343
CATV	CATV .5"	CATV	23.14	6.61	0.3000		0.052	179.0	0.0	179.0			3	391	394
CATV	CATV .75"	CATV	23.13	6.24	0.5500		0.096	179.0	0.0	179.0			4	391	396
Overlashed Bundle	6M	CATV	23.16	6.47	0.2420	0.66	0.104	137.0	180.0	137.0	1,200	739	4	301	1,044
CATV	CATV .75"	CATV	23.13	6.70	0.5500		0.096	137.0	180.0	137.0			4	301	305
CATV	CATV .5"	CATV	23.14	6.32	0.3000		0.052	137.0	180.0	137.0			2	301	303
Overlashed Bundle	10M	AT&T	21.66	6.55	0.3060	0.43	0.165	179.0	0.0	179.0	2,000	-1,152	8	443	-701
Overlashed Bundle	10M	AT&T	21.66	6.55	0.3060	0.26	0.165	137.0	180.0	137.0	2,000	1,152	6	339	1,498
Totals:											0	46	3,572	3,618	

Crossarm	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	32.50	5.17	180.0	180.0	66.00	4.50	3.50	120.00	1	46	47
Totals:											1	46	47

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Pin	Pin Insulator - 5 kV	DWP	32.69	-56.00	95.3	0.0	6.00	3.50	7.50	-28	48	20
Pin	Pin Insulator - 5 kV	DWP	32.69	-18.00	106.0	0.0	6.00	3.50	7.50	-9	48	39
Pin	Pin Insulator - 5 kV	DWP	32.69	-36.00	98.2	0.0	6.00	3.50	7.50	-18	48	30
Bolt	NEW PROPOSED	U3	24.16	0.00	270.0	0.0	5.00	3.00	0.00	3	0	3
Bolt	CATV Three Bolt .75" w 6M messenger	CATV	23.16	0.00	270.0	0.0	5.00	3.00	0.00	3	0	3
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	21.66	0.00	270.0	0.0	5.00	3.00	0.00	3	0	3
Totals:										-47	144	97

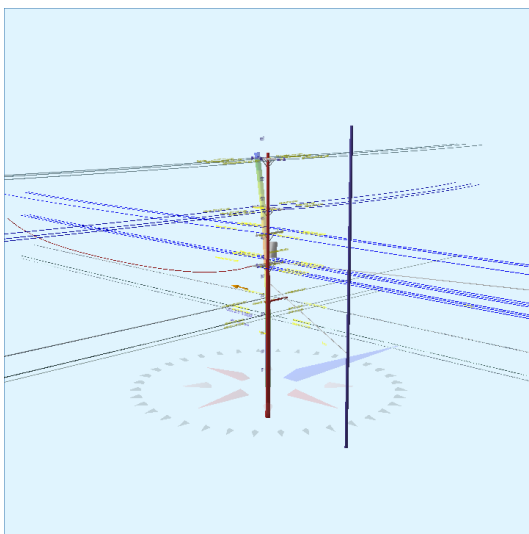
Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)	
HS 7/16	Down	DWP	26.16	0.00	19.00	0.438	75.00	175.0	53.8	0.399	35.84	0.00
HS 3/8	Span/Head	PWR	26.16	31.16	50.00	0.375	75.00	350.0	-5.7	0.273	47.20	0.00
HS 3/8	Span/Head	PWR	25.16	28.16	50.00	0.375	75.00	350.0	-3.4	0.273	47.28	0.00

Guy Wire and Brace (Loads and Reactions)		Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ^{*2} (lbs)	Maximum Tension ² (lbs)	Applied Tension ³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ³ (ft-lb)
HS 7/16	Down	2.30e+7	14,500	0.75	10,875	700	922	922	0	0	0	0	140
HS 3/8	Span/Head	2.30e+7	10,800	0.75	8,100	700	355	355	0	0	0	0	163
HS 3/8	Span/Head	2.30e+7	10,800	0.75	8,100	700	285	285	0	0	0	0	157
Totals:										0	0	0	460

Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ³ (lbs)	Max Required Capacity ² (%)
Single Helix Anchor	DWP	18.00	19.00	175.0	20,000	0.75	15,000	922	0	6.1
Anchor	PWR	30.00	50.00	350.0	20,000	0.75	15,000	641	0	4.3

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	18.52	33.05	9.93	5.51	6.69	10.65	1.60e+6	60.00	57.00	33.83	113,907	1090.57	100.00

Pole Num:	909	Pole Length / Class:	70 / 2	Code:	GO 95	Structure Type:	Junction
Pole Tag	431355M	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	8.50	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	49.00	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	2,923	Wind Speed (mph):	55.90	Pole Factor of Safety:	3.18
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	78.43
Latitude:	33.974313 Deg	Longitude:	0.000000 Deg	Elevation:	-118.258678 Feet	Bending Factor of Safety:	3.22



Pole Capacity Utilization (%) Crossarm allowance 300 lbs	Height (ft)	Wind Angle (deg)
Maximum	83.7	33.7
Groundline	43.9	0.0
Vertical	3.4	32.8

Pole Moments (ft-lb) Crossarm allowance 300 lbs	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	28,238	273.8
Groundline	11,975	131.0
GL Allowable	90,728	

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Anchor	98.0	90.0		7.8	274.8	10.4	230.0
HS 7/32 (Span/Head)			33.7	40.6	274.8	53.8	230.0
Anchor	46.0	113.0		9.3	274.8	14.4	330.0
EHS 3/8 (Span/Head)			28.2	12.0	274.8	18.7	330.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 131.0°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Powers	-311	-28.9	-31,356	-261.9	-34.6	-999	453	2	-996	-34.1
Comms	-176	-16.3	-4,543	-37.9	-5.0	-145	319	2	-143	-4.9
GuyBraces	2,194	203.6	67,425	563.1	74.3	2,147	161	1	2,148	73.5
PowerEquipments	-51	-4.7	-933	-7.8	-1.0	-30	640	3	-26	-0.9
Pole	-390	-36.1	-11,416	-95.3	-12.6	-364	2,890	15	-348	-11.9
Crossarms	-153	-14.2	-5,331	-44.5	-5.9	-170	533	3	-167	-5.7
Insulators	-37	-3.4	-1,871	-15.6	-2.1	-60	198	1	-59	-2.0
Pole Load	1,078	100.0	11,975	100.0	13.2	381	5,194	27	409	14.0
Pole Reserve Capacity			78,753		86.8	2,541			2,514	86.0

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 131.0°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
DWP	1,672	155.1	28,584	238.7	31.5	910	1,902	10	920	31.5
U3	-127	-11.8	-3,622	-30.3	-4.0	-115	270	1	-114	-3.9
CATV	-54	-5.0	-1,086	-9.1	-1.2	-35	56	0	-34	-1.2
AT&T	-24	-2.2	-485	-4.1	-0.5	-15	76	0	-15	-0.5
Pole	-390	-36.1	-11,416	-95.3	-12.6	-364	2,890	15	-348	-11.9
Totals:	1,078	100.0	11,975	100.0	13.2	381	5,194	27	409	14.0

Detailed Load Components:

Power	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Sub-Transmission	795 AAC	DWP	60.00	25.07	1.0260	1.27	0.745	90.0	0.0	90.0	2,580	-101,536	-11	-1,389	-102,937
Sub-Transmission	795 AAC	DWP	60.00	58.65	1.0260	1.27	0.745	90.0	0.0	90.0	2,580	-101,536	6	-1,389	-102,919
Sub-Transmission	795 AAC	DWP	60.00	58.65	1.0260	1.27	0.745	90.0	0.0	90.0	2,580	-101,536	-10	-1,389	-102,936
Sub-Transmission	795 AAC	DWP	60.00	58.65	1.0260	1.94	0.745	129.0	185.0	129.0	2,580	90,966	15	-2,142	88,839
Sub-Transmission	795 AAC	DWP	60.00	25.07	1.0260	1.94	0.745	129.0	185.0	129.0	2,580	90,966	-1	-2,142	88,823
Sub-Transmission	795 AAC	DWP	60.00	58.65	1.0260	1.94	0.745	129.0	185.0	129.0	2,580	90,966	-9	-2,142	88,816
Primary	#6 COPPER SOLID	DWP	47.50	57.75	0.1620	0.65	0.079	129.0	185.0	129.0	384	10,718	2	-268	10,453
Primary	#6 COPPER SOLID	DWP	47.50	22.86	0.1620	0.65	0.079	129.0	185.0	129.0	384	10,718	2	-268	10,453
Primary	#6 COPPER SOLID	DWP	47.50	57.75	0.1620	0.65	0.079	129.0	185.0	129.0	384	10,718	-1	-268	10,450

Primary	#6 COPPER SOLID	DWP	47.50	22.86	0.1620	0.32	0.079	90.0	0.0	90.0	384	-11,964	0	-174	-12,137
Primary	#6 COPPER SOLID	DWP	47.50	57.75	0.1620	0.32	0.079	90.0	0.0	90.0	384	-11,964	1	-174	-12,137
Primary	#6 COPPER SOLID	DWP	47.50	57.75	0.1620	0.32	0.079	90.0	0.0	90.0	384	-11,964	-1	-174	-12,139
Primary	1/0 COPPER 7 STRAND	DWP	41.81	56.44	0.3684	0.52	0.326	98.0	90.0	98.0	1,425	44,991	-42	-27	44,922
Primary	1/0 COPPER 7 STRAND	DWP	41.81	56.44	0.3684	0.81	0.326	125.0	270.0	125.0	1,425	-44,991	-53	-35	-45,080
Primary	1/0 COPPER 7 STRAND	DWP	41.81	56.44	0.3684	0.52	0.326	98.0	90.0	98.0	1,425	44,991	56	-27	45,020
Primary	1/0 COPPER 7 STRAND	DWP	41.81	56.44	0.3684	0.81	0.326	125.0	270.0	125.0	1,425	-44,991	71	-35	-44,955
Primary	1/0 COPPER 7 STRAND	DWP	41.81	36.67	0.3684	0.52	0.326	98.0	90.0	98.0	1,425	44,991	-24	-27	44,940
Primary	1/0 COPPER 7 STRAND	DWP	41.81	36.67	0.3684	0.81	0.326	125.0	270.0	125.0	1,425	-44,991	-31	-35	-45,058
Primary	#4 COPPER 3 STRAND	DWP	33.81	56.00	0.2543	0.59	0.128	98.0	90.0	98.0	564	14,399	-19	-15	14,365
Primary	#4 COPPER 3 STRAND	DWP	33.81	56.00	0.2543	0.91	0.128	125.0	270.0	125.0	564	-14,399	-24	-20	-14,443
Primary	#4 COPPER 3 STRAND	DWP	33.81	18.00	0.2543	0.59	0.128	98.0	90.0	98.0	564	14,399	-6	-15	14,378
Primary	#4 COPPER 3 STRAND	DWP	33.81	18.00	0.2543	0.91	0.128	125.0	270.0	125.0	564	-14,399	-8	-20	-14,427
Primary	#4 COPPER 3 STRAND	DWP	33.81	36.00	0.2543	0.59	0.128	98.0	90.0	98.0	564	14,399	-12	-15	14,372
Primary	#4 COPPER 3 STRAND	DWP	33.81	36.00	0.2543	0.91	0.128	125.0	270.0	125.0	564	-14,399	-16	-20	-14,435
Primary	AAC 4 AWG 7 STRAND ROSE	DWP	33.00	57.85	0.2320	0.70	0.039	98.0	90.0	98.0	264	6,584	1	-14	6,571
Primary	AAC 4 AWG 7 STRAND ROSE	DWP	33.00	39.33	0.2320	0.70	0.039	98.0	90.0	98.0	264	6,584	1	-14	6,571
Primary	AAC 4 AWG 7 STRAND ROSE	DWP	33.00	25.97	0.2320	0.70	0.039	98.0	90.0	98.0	264	6,584	1	-14	6,571
Secondary	TRIPLEX 1/0	DWP	33.00	38.81	1.0300	1.71	0.399	125.0	270.0	126.3	115	-2,865	4	-77	-2,938
											Totals:	-18,561	-111	-12,327	-30,999

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Overlashed Bundle	U3	24.00	8.81	0.2500	0.12	0.121	90.0	0.0	90.0	1,330	-20,937	-3	-152	-21,092
Overlashed Bundle	U3	24.00	8.81	0.2500	3.47	0.121	179.0	180.0	179.0	1,330	20,937	-6	-676	20,255
Fiber	U3	23.97	9.19	0.7800		0.294	179.0	180.0	179.0			-15	-675	-690
Telco	U3	23.96	8.33	1.1000		0.590	179.0	180.0	179.0			-28	-675	-703
Overlashed Bundle	U3	22.64	80.41	0.2500	1.11	0.121	98.0	90.0	98.0	1,330	22,721	-29	-25	22,667
Fiber	U3	22.61	80.30	0.7800		0.294	98.0	90.0	98.0			-71	-25	-96
Telco	U3	22.60	80.56	1.1000		0.590	98.0	90.0	98.0			-141	-25	-166
Overlashed Bundle	U3	22.64	80.41	0.2500	1.76	0.121	125.0	270.0	125.0	1,330	-22,721	-37	-32	-22,790

Fiber	288 FIBERS (OFSSA)	U3	22.61	80.30	0.7800		0.294	125.0	270.0	125.0			-90	-32	-122
Telco	19 GA. 50 PR.	U3	22.60	80.56	1.1000		0.590	125.0	270.0	125.0			-179	-32	-212
Overlashed Bundle	6M	CATV	19.50	9.09	0.2420	0.03	0.104	49.0	0.0	49.0	1,200	-15,349	-1	-65	-15,415
Overlashed Bundle	6M	CATV	19.50	9.09	0.2420	1.12	0.104	179.0	180.0	179.0	1,200	15,349	-5	-311	15,032
CATV	CATV .5"	CATV	19.52	9.09	0.3000		0.052	179.0	180.0	179.0			-3	-311	-314
CATV	CATV .75"	CATV	19.47	9.09	0.5500		0.096	179.0	180.0	179.0			-5	-310	-315
Overlashed Bundle	6M	CATV	19.50	9.09	0.2420	0.21	0.104	98.0	90.0	98.0	1,200	17,663	-3	-9	17,651
CATV	CATV .5"	CATV	19.48	9.03	0.3000		0.052	98.0	90.0	98.0			-1	-9	-11
Overlashed Bundle	6M	CATV	19.50	9.09	0.2420	0.45	0.104	125.0	270.0	125.0	1,200	-17,663	-3	-9	-17,675
CATV	CATV .5"	CATV	19.48	9.03	0.3000		0.052	125.0	270.0	125.0			-2	-9	-11
CATV	CATV .5"	CATV	19.48	9.15	0.3000		0.052	125.0	270.0	125.0			-2	-9	-11
Overlashed Bundle	10M	AT&T	18.50	9.15	0.3060	0.03	0.165	49.0	0.0	49.0	2,000	-24,269	-2	-78	-24,349
Overlashed Bundle	10M	AT&T	18.50	9.15	0.3060	0.43	0.165	179.0	180.0	179.0	2,000	24,269	-8	-285	23,976
Overlashed Bundle	10M	AT&T	18.50	9.15	0.3060	0.33	0.165	98.0	90.0	98.0	2,000	27,929	-4	-17	27,908
Telco	Telco .75	AT&T	18.46	9.15	0.7500		0.256	98.0	90.0	98.0			-6	-17	-23
Overlashed Bundle	10M	AT&T	18.50	9.15	0.3060	0.53	0.165	125.0	270.0	125.0	2,000	-27,929	-5	-22	-27,955
Telco	Telco .75	AT&T	18.46	9.15	0.7500		0.256	125.0	270.0	125.0			-8	-22	-29
Totals:												0	-658	-3,834	-4,491

PowerEquipment		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Transformer	1PH-50KVA	DWP	36.96	23.50	90.0	90.0	640.00	47.00	--	24.00	--	946	-1,868	-922
Totals:												946	-1,868	-922

Crossarm		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Height (in)	Unit Depth (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Normal	CROSSARM 3-3/4 X 4-3/4 X 10	DWP	60.00	5.95	0.0	0.0	75.00	4.75	3.75	120.00	0	-474	-474	
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	47.50	6.60	180.0	180.0	66.00	4.50	3.50	120.00	0	-349	-349	
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	41.00	7.00	90.0	90.0	66.00	4.50	3.50	120.00	29	-1,484	-1,454	
Normal	CROSSARM 3-1/2 X 4-1/2 X 10	DWP	33.00	7.50	90.0	90.0	66.00	4.50	3.50	120.00	0	-2,388	-2,388	
Offset	CROSSARM 3-1/2 X 4-1/2 X 8	U3	22.83	8.13	270.0	270.0	53.00	4.50	3.50	96.00	56	-661	-605	
Totals:												85	-5,356	-5,270

Insulator		Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)
Deadend	Post Insulator - 15 kV	DWP	60.00	-18.00	288.3	0.0	11.00	4.75	11.50	-23	-147	-170
Deadend	Post Insulator - 15 kV	DWP	60.00	56.00	83.9	0.0	11.00	4.75	11.50	28	-147	-119
Deadend	Post Insulator - 15 kV	DWP	60.00	-56.00	276.1	0.0	11.00	4.75	11.50	-49	-147	-196
Deadend	Post Insulator - 15 kV	DWP	60.00	56.00	96.1	180.0	11.00	4.75	11.50	49	-147	-98

Deadend	Post Insulator - 15 kV	DWP	60.00	-18.00	251.7	180.0	11.00	4.75	11.50	-2	-147	-149
Deadend	Post Insulator - 15 kV	DWP	60.00	-56.00	263.9	180.0	11.00	4.75	11.50	-28	-147	-175
Deadend	Pin Insulator - 5 kV	DWP	47.50	-56.00	96.7	0.0	6.00	3.50	7.50	26	-56	-30
Deadend	Pin Insulator - 5 kV	DWP	47.50	-18.00	110.1	0.0	6.00	3.50	7.50	11	-56	-44
Deadend	Pin Insulator - 5 kV	DWP	47.50	56.00	263.3	0.0	6.00	3.50	7.50	-17	-56	-72
Deadend	Pin Insulator - 5 kV	DWP	47.50	-18.00	69.9	180.0	6.00	3.50	7.50	2	-56	-54
Deadend	Pin Insulator - 5 kV	DWP	47.50	-56.00	83.3	180.0	6.00	3.50	7.50	17	-56	-39
Deadend	Pin Insulator - 5 kV	DWP	47.50	56.00	276.7	180.0	6.00	3.50	7.50	-26	-56	-82
Pin	Pin Insulator - 5 kV	DWP	41.19	-56.00	7.1	0.0	6.00	3.50	7.50	-16	-49	-64
Pin	Pin Insulator - 5 kV	DWP	41.19	56.00	172.9	0.0	6.00	3.50	7.50	21	-49	-28
Pin	Pin Insulator - 5 kV	DWP	41.19	-36.00	11.0	0.0	6.00	3.50	7.50	-9	-49	-58
Pin	Pin Insulator - 5 kV	DWP	33.19	-56.00	7.6	0.0	6.00	3.50	7.50	-37	-78	-115
Pin	Pin Insulator - 5 kV	DWP	33.19	-18.00	22.6	0.0	6.00	3.50	7.50	-12	-78	-90
Pin	Pin Insulator - 5 kV	DWP	33.19	-36.00	11.8	0.0	6.00	3.50	7.50	-24	-78	-102
Deadend	Deadend 12.75"	DWP	33.00	56.00	172.4	0.0	3.00	3.80	7.00	12	-39	-27
Deadend	Deadend 12.75"	DWP	33.00	36.56	168.4	0.0	3.00	3.80	7.00	9	-39	-31
Deadend	Deadend 12.75"	DWP	33.00	21.55	160.8	0.0	3.00	3.80	7.00	6	-39	-33
Deadend	Deadend 12.75"	DWP	33.00	36.00	191.8	180.0	3.00	3.80	7.00	3	-39	-36
Bolt	CC - 288 FOC 2 PAIR CU Proposed	U3	24.00	0.00	270.0	0.0	5.00	3.00	0.00	-3	0	-3
Underhung	Three Bolt	U3	22.64	80.00	354.2	0.0	5.00	3.00	0.00	-24	0	-24
Bolt	CATV Three Bolt .75" w 6M messenger	CATV	19.50	0.00	270.0	0.0	5.00	3.00	0.00	-3	0	-3
Bolt	CATV Three Bolt .5" x2 w 6M messenger	CATV	19.50	0.00	0.0	90.0	5.00	3.00	0.00	-2	0	-2
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	18.50	0.00	270.0	0.0	5.00	3.00	0.00	-3	0	-3
Bolt	AT&T Three Bolt .75" w 10M messenger	AT&T	18.50	0.00	0.0	90.0	5.00	3.00	0.00	-3	0	-3
Totals:										-95	-1,755	-1,850

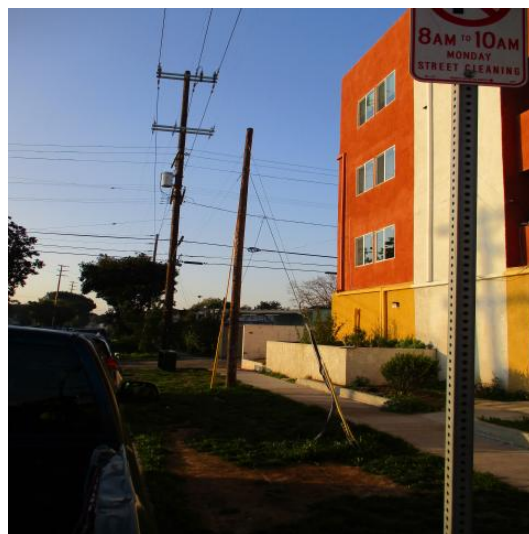
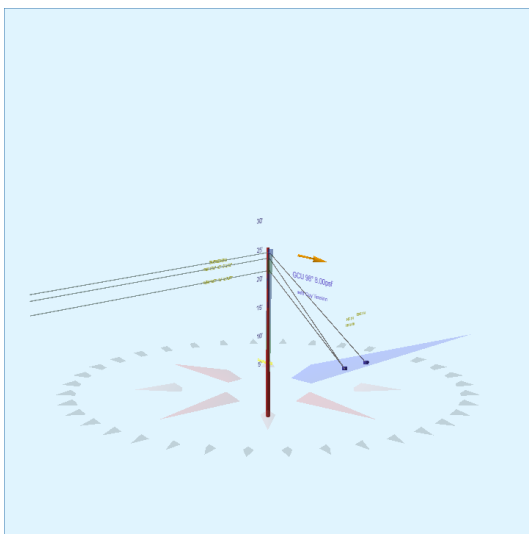
Guy Wire and Brace	Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)	
HS 7/32	Span/Head	DWP	33.66	38.66	98.00	0.219	75.00	90.0	-2.9	0.096	95.09	2.06
EHS 3/8	Span/Head	DWP	28.16	21.16	46.00	0.375	75.00	113.0	8.6	0.273	45.56	0.40

Guy Wire and Brace (Loads and Reactions)	Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ^{*2} (lbs)	Maximum Tension ² (lbs)	Applied Tension ³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ³ (ft-lb)	
HS 7/32	Span/Head	2.30e+7	3,850	0.75	2,888	700	1,554	1,554	1,173	-60	1,171	884	29,767
EHS 3/8	Span/Head	2.30e+7	15,400	0.75	11,550	700	2,164	2,164	1,392	209	1,376	1,309	36,891
Totals:										149	2,547	2,193	66,658

Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ³ (lbs)	Max Required Capacity ² (%)
Anchor	DWP	30.00	98.00	90.0	20,000	0.75	15,000	1,554	1,173	10.4
Anchor	DWP	30.00	46.00	113.0	20,000	0.75	15,000	2,164	1,392	14.4

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	32.82	33.92	14.21	15.60	7.96	15.61	1.60e+6	60.00	57.00	61.50	152,628	1527.52	29.41

Pole Num:	910	Pole Length / Class:	30 / 5	Code:	GO 95	Structure Type:	Deadend
Pole Tag	NT	Species:	DOUGLAS FIR	GO 95 Rule:	At Replace (Existing)	Pole Strength Factor:	0.38
Grid	6483-1812	Setting Depth (ft):	4.84	Construction Grade:	A	Transverse Wind LF:	1.00
Segment	002_LASC_108	G/L Circumference (in):	26.00	Loading District:	Light	Wire Tension LF:	1.00
Job #	S100019	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Vertical LF:	1.00
Project	Project Name	Allowable Stress (psi):	3,000	Wind Speed (mph):	55.90	Pole Factor of Safety:	11.67
Client	Client Name	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	8.00	Vertical Factor of Safety:	15.33
Latitude:	33.974453 Deg	Longitude:	-118.258690 Deg	Elevation:	0 Feet	Bending Factor of Safety:	13.48



Pole Capacity Utilization (%)	Height (ft)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Maximum	22.9	97.7
Groundline	22.9	97.7
Vertical	17.4	180.0

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Crossarm allowance 300 lbs		
Max Cap Util	2,752	97.7
Groundline	2,752	97.7
GL Allowable	13,913	

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load	
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max Load Capacity (%)	Wind Angle (deg)
Single Helix Anchor	26.0	0.0		11.1	97.7	11.2	180.0
EHS 1/4 (Down)			24.3	33.5	97.7	33.6	180.0
Single Helix Anchor	20.0	0.0		30.1	97.7	30.5	180.0
HS 1/4 (Down)			23.3	48.1	97.7	48.5	180.0
HS 5/16 (Down)			21.2	46.7	97.7	47.6	180.0
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 129.2°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
Comms	2,874	936.0	29,354	1066.6	211.0	14,046	10	0	14,046	468.2
GuyBraces	-2,669	-869.3	-27,228	-989.4	-195.7	-13,029	4,516	84	-12,945	-431.5
Pole	103	33.4	624	22.7	4.5	299	426	8	306	10.2
Insulators	0	0.0	2	0.1	0.0	1	15	0	1	0.0
Pole Load	307	100.0	2,752	100.0	19.8	1,317	4,966	92	1,409	47.0
Pole Reserve Capacity			11,161		80.2	1,683			1,591	53.0

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 129.2°										
	Shear Load* (lbs)	Applied Load (%)	Bending Moment (ft-lb)	Applied Moment (%)	Pole Capacity (%)	Bending Stress (+/- psi)	Vertical Load (lbs)	Vertical Stress (psi)	Total Stress (psi)	Pole Capacity (%)
U3	79	25.6	863	31.4	6.2	413	1,158	22	434	14.5
CATV	63	20.6	667	24.2	4.8	319	1,319	25	344	11.5
AT&T	63	20.4	598	21.7	4.3	286	2,063	38	325	10.8
Pole	103	33.4	624	22.7	4.5	299	426	8	306	10.2
Totals:	307	100.0	2,752	100.0	19.8	1,317	4,966	92	1,409	47.0

Detailed Load Components:

Comm	Owner	Height (ft)	Horiz. Offset (in)	Cable Diameter (in)	Sag at Max Temp (ft)	Cable Weight (lbs/ft)	Lead/Span Length (ft)	Span Angle (deg)	Wire Length (ft)	Tension (lbs)	Tension Moment* (ft-lb)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Overlashed Bundle	PROPOSED OHG	U3	24.33	5.56	0.2500	0.04	0.121	49.0	180.0	49.0	1,330	20,448	1	86	20,534
Overlashed Bundle	6M	CATV	23.33	5.60	0.2420	0.03	0.104	49.0	180.0	49.0	1,200	17,691	1	79	17,771
Overlashed Bundle	10M	AT&T	21.16	5.70	0.3060	0.03	0.165	49.0	180.0	49.0	2,000	26,742	1	91	26,835
Totals:											64,881	3	256	65,140	

Insulator	Owner	Height (ft)	Horiz. Offset (in)	Offset Angle (deg)	Rotate Angle (deg)	Unit Weight (lbs)	Unit Diameter (in)	Unit Length (in)	Offset Moment* (ft-lb)	Wind Moment* (ft-lb)	Moment at GL* (ft-lb)	
Bolt	NEW PROPOSED	U3	24.33	0.00	180.0	180.0	5.00	3.00	0.00	1	0	1
Bolt	CATV Three Bolt .75" w 6M messenger	CATV	23.33	0.00	180.0	180.0	5.00	3.00	0.00	1	0	1
Bolt	AT&T Three Bolt .5" w 10M messenger	AT&T	21.16	0.00	180.0	180.0	5.00	3.00	0.00	2	0	2
Totals:										4	0	4

Guy Wire and Brace		Owner	Attach Height (ft)	End Height (ft)	Lead/Span Length (ft)	Wire Diameter (in)	Percent Solid (%)	Lead Angle (deg)	Incline Angle (deg)	Wire Weight (lbs/ft)	Rest Length (ft)	Stretch Length (in)
EHS 1/4	Down	U3	24.33	0.00	26.00	0.25	75.00	0.0	43.0	0.121	37.41	0.89
HS 1/4	Down	CATV	23.33	0.00	20.00	0.25	75.00	0.0	49.3	0.121	32.90	0.80
HS 5/16	Down	AT&T	21.16	0.00	20.00	0.312	75.00	0.0	46.5	0.205	31.14	0.79

Guy Wire and Brace (Loads and Reactions)		Elastic Modulus (psi)	Rated Tensile Strength (lbs)	Guy Strength Factor	Allowable Tension (lbs)	Initial Tension (lbs)	Loaded Tension ² (lbs)	Maximum Tension ² (lbs)	Applied Tension ³ (lbs)	Vertical Load (lbs)	Shear Load In Guy Dir (lbs)	Shear Load At Report Angle (lbs)	Moment at GL ³ (ft-lb)
EHS 1/4	Down	2.30e+7	6,650	0.75	4,988	700	1,676	1,676	1,670	1,139	1,222	-772	-18,621
HS 1/4	Down	2.30e+7	4,750	0.75	3,563	700	1,727	1,727	1,715	1,299	1,119	-707	-16,293
HS 5/16	Down	2.30e+7	8,000	0.75	6,000	700	2,853	2,853	2,802	2,032	1,928	-1,219	-25,508
Totals:										4,471	4,269	-2,698	-60,422

Anchor/Rod Load Summary		Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load ² (lbs)	Load at Pole MCU ³ (lbs)	Max Required Capacity ² (%)
Single Helix Anchor		U3	18.00	26.00	0.0	20,000	0.75	15,000	1,676	1,670	11.2
Single Helix Anchor		CATV	18.00	20.00	0.0	20,000	0.75	15,000	4,579	4,515	30.5

Pole Buckling													
Buckling Constant	Buckling Column Height* (ft)	Buckling Section Height (% Buckling Col. Hgt.)	Buckling Section Diameter (in)	Minimum Buckling Diameter at GL (in)	Diameter at Tip (in)	Diameter at GL (in)	Modulus of Elasticity (psi)	Pole Density (pcf)	Ice Density (pcf)	Pole Tip Height (ft)	Buckling Load Capacity at Height (lbs)	Buckling Load Applied at Height (lbs)	Buckling Load Factor of Safety
0.71	21.90	33.52	7.63	11.99	6.05	8.28	1.60e+6	60.00	57.00	25.16	28,061	285.41	5.75