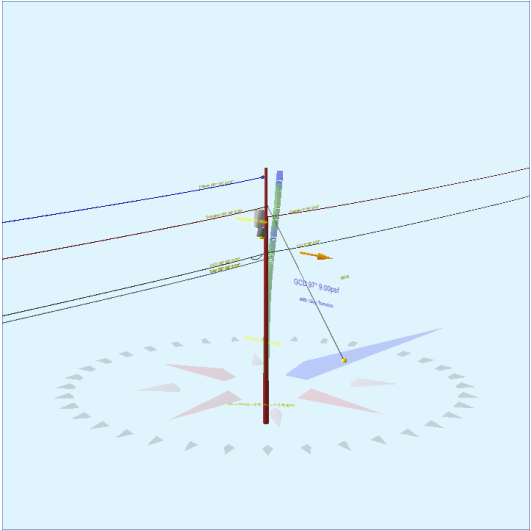


Pole Num:	914460160_P.F2894	Pole Length / Class:	45 / 4	Code:	NESC	Structure Type:	Guyed Tangent
Aux Data 1	Unset	Species:	SOUTHERN PINE	NESC Rule:	Rule 250B	Status	Guy Wires Adequate
Aux Data 2	Unset	Setting Depth (ft):	6.50	Construction Grade:	C	Pole Strength Factor:	0.85
Aux Data 3	Unset	G/L Circumference (in):	34.82	Loading District:	Light	Transverse Wind LF:	1.75
Aux Data 4	Unset	G/L Fiber Stress (psi):	8,000	Ice Thickness (in):	0.00	Wire Tension LF:	1.30
Aux Data 5	Unset	Allowable Stress (psi):	6,800	Wind Speed (mph):	59.29	Vertical LF:	1.90
Aux Data 6	Unset	Fiber Stress Ht. Reduc:	No	Wind Pressure (psf):	9.00		
Latitude:	0.000000 Deg	Longitude:	0.000000 Deg	Elevation:	0 Feet		



Pole Capacity Utilization (%)		Height (ft)	Wind Angle (deg)
Maximum	34.2	0.0	96.9
Groundline	34.2	0.0	96.9
Vertical	11.0	29.5	180.0

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	24,602	122.4	96.9
Groundline	24,602	122.4	96.9
GL Allowable	75,750		

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	23.0	0.0		32.7	96.9	35.0	181.2
EHS 3/8 (Down)			32.0	47.2	96.9	55.5	181.2
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 122.4°										
	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	929	73.4	35,661	145.0	47.1	3,201	171	2	3,203	47.1
Comms	1,797	141.9	41,440	168.4	54.7	3,720	228	2	3,722	54.7
GuyBraces	-2,017	-159.2	-65,413	-265.9	-86.4	-5,872	8,006	83	-5,789	-85.1
PowerEquipments	74	5.8	2,807	11.4	3.7	252	636	7	259	3.8
Pole	405	32.0	7,156	29.1	9.5	642	1,928	20	662	9.7
Streetlights	58	4.6	2,371	9.6	3.1	213	142	1	214	3.2
Insulators	20	1.5	579	2.4	0.8	52	34	0	52	0.8
Pole Load	1,267	100.0	24,602	100.0	32.5	2,209	11,146	116	2,324	34.2
Pole Reserve Capacity			51,148		67.5	4,592			4,476	65.8

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 122.4°										
	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 (%)
FPL	1,335	105.4	42,817	174.0	56.5	3,844	2,099	22	3,865	56.8
CATV	64	5.0	1,578	6.4	2.1	142	114	1	143	2.1
AT&T	1,733	136.8	39,862	162.0	52.6	3,578	114	1	3,580	52.6
<Undefined>	-1,865	-147.2	-59,655	-242.5	-78.8	-5,355	8,819	91	-5,264	-77.4
Totals:	1,267	100.0	24,602	100.0	32.5	2,209	11,146	116	2,324	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	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	30,880	9	1,160	32,048
Secondary	FPL	FPL	31.97	5.71	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	26,703	23	1,003	27,729
Secondary	FPL	FPL	29.97	5.83	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	-25,033	-23	940	-24,116
Totals:											32,550	8	3,102	35,661	

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)
CATV	CATV	CATV	23.97	6.17	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	-20,021	25	752	-19,244
CATV	CATV	CATV	23.97	6.17	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	20,021	25	777	20,822

Telco	AT&T	AT&T	22.97	6.23	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	19,185	25	720	19,931
Telco	AT&T	AT&T	22.97	6.23	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	19,185	25	720	19,931
Totals:												38,371	99	2,969	41,440

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	30.00	20.83	180.0	180.0	335.00	34.00	--	22.00	--	592	2,215	2,807
Totals:												592	2,215	2,807

Streetlight		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)
General		Streetlight - 8 ft. Arm	27.00	4.00	145.0	145.0	75.00	24.00	20.00	3.00	96.00	804	1,567	2,371
Totals:												804	1,567	2,371

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"		37.00	0.00	180.0	180.0	3.00	3.80	12.75	4	177	181
Bolt	Deadend 12.75"		32.00	0.00	90.0	90.0	3.00	2.00	15.00	2	95	97
Bolt	Deadend 12.75"		30.00	0.00	270.0	270.0	3.00	2.00	15.00	-2	89	87
Bolt	Deadend 12.75"		24.00	0.00	90.0	90.0	3.00	2.00	15.00	2	71	74
Bolt	Deadend 12.75"		23.00	0.00	90.0	90.0	3.00	2.00	15.00	2	68	71
Bolt	Deadend 12.75"		23.00	0.00	90.0	90.0	3.00	2.00	15.00	2	68	71
									Totals:	12	568	579

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 3/8		Down	32.00	0.00	23.00	0.375	75.00	0.0	54.1	0.273	37.73	1.55

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)
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	7,691	6,992	6,537	5,296	3,832	-2,052	-65,412
									Totals:	5,296	3,832	-2,052	-65,412

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 (%)
Single Helix Anchor			18.00	23.00	0.0	20,000	1.00	20,000	6,992	6,537	35.0

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	29.53	34.57	9.92	17.03	6.69	11.09	1.60e+6	60.00	57.00	38.50	101,539	1013.28	9.09

Notes		
Date	Author	Description
1/27/2021		Power Company Request
Power company load data has been requested. Email sent to Elmer Pole		
1/27/2021		General Description
General Statement: Non-AT&T facilities may not be accurately identified pending attachment information from attaching party.		