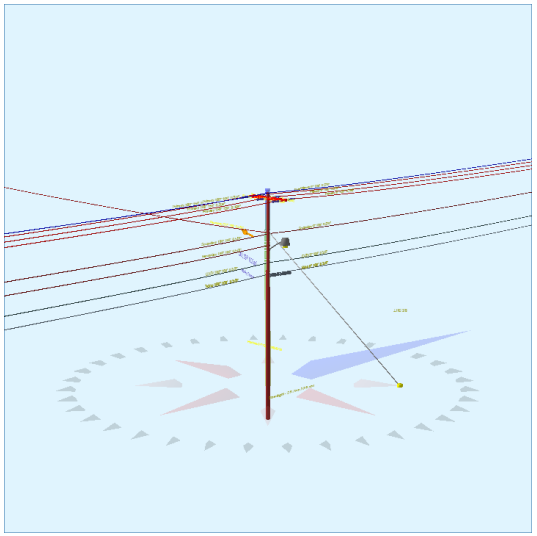
Pole Num:	**P.F1224_116858710**	Pole Length / Class:	**40 / 5**	Code:	**NESC**	Structure Type:	**Guyed Tangent**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**6.00**	Construction Grade:	**C**	Pole Strength Factor:	**0.85**
Aux Data 3	**Unset**	G/L Circumference (in):	**31.00**	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	**49.4**	0.0	297.2
Groundline	**49.4**	0.0	297.2
Vertical	**7.6**	25.2	225.0

Pole Moments (ft-lb)		**Load Angle (deg)**	**Wind Angle (deg)**
Max Cap Util	**25,709**	308.0	297.2
Groundline	**25,709**	308.0	297.2
GL Allowable	**53,452**		

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	45.0		**18.6**	297.2	**21.0**	245.6
EHS 3/8 (Down)			27.0	**26.8**	297.2	**33.4**	245.6
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 308.0°

	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	609	59.3	**19,558**	76.1	**36.6**	**2,488**	466	6	**2,494**	**36.7**
Comms	183	17.8	**3,624**	14.1	**6.8**	**461**	342	4	**465**	**6.8**
GuyBraces	-285	-27.8	**-7,793**	-30.3	**-14.6**	**-991**	4,269	56	**-936**	**-13.8**
Pole	349	34.0	**5,456**	21.2	**10.2**	**694**	1,364	18	**712**	**10.5**
Crossarms	46	4.5	**1,530**	6.0	**2.9**	**195**	190	2	**197**	**2.9**
Streetlights	44	4.3	**866**	3.4	**1.6**	**110**	86	1	**111**	**1.6**
Insulators	81	7.9	**2,468**	9.6	**4.6**	**314**	142	2	**316**	**4.6**
Pole Load	1,026	100.0	**25,709**	100.0	**48.1**	**3,271**	6,860	90	**3,360**	**49.4**
Pole Reserve Capacity			**27,743**		**51.9**	**3,529**			**3,440**	**50.6**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 308.0°

	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 (%)
FPL	793	77.2	**19,573**	76.1	**36.6**	**2,490**	1,706	22	**2,512**	**36.9**
<Undefined>	51	4.9	**2,512**	9.8	**4.7**	**320**	4,811	63	**382**	**5.6**
CATV	53	5.1	**1,110**	4.3	**2.1**	**141**	114	1	**143**	**2.1**
AT&T	130	12.7	**2,514**	9.8	**4.7**	**320**	228	3	**323**	**4.7**
Totals:	1,026	100.0	**25,709**	100.0	**48.1**	**3,271**	6,860	90	**3,360**	**49.4**

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	FPL	FPL	33.97	5.02	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	32,593	-19	891	33,466
Primary	FPL	FPL	33.97	5.02	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-32,593	-19	891	-31,721
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.00	34.83	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	69,345	3	907	70,255
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.00	56.12	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	69,345	-1	907	70,250
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.00	56.12	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	69,345	5	907	70,257
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.00	34.83	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-69,345	-3	907	-68,441
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.00	56.12	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-69,345	1	907	-68,437

Primary	ACSR 1/0 AWG 6/1 RAVEN		33.00	56.12	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-69,345	-5	907	-68,443
Secondary	FPL	FPL	26.97	5.42	0.5700	1.19	0.600	100.0	272.0	100.0	1,200	34,054	15	252	34,321
Secondary	FPL	FPL	26.97	5.42	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	25,877	-20	708	26,564
Secondary	FPL	FPL	26.97	5.42	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-25,877	-20	708	-25,189
Secondary	FPL	FPL	24.97	5.53	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-23,958	-21	655	-23,323
											Totals:	**10,097**	**-84**	**9,545**	**19,558**

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	21.97	5.70	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	21,079	-21	576	21,634
CATV	CATV	CATV	21.97	5.70	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-21,079	-21	576	-20,524
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	19,160	-22	754	19,892
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-19,160	-22	524	-18,658
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	19,160	-22	800	19,938
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-19,160	-22	524	-18,658
											Totals:	**0**	**-130**	**3,754**	**3,624**

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	8' x 3.5" x 4.5" SP - 3 Deadend		33.00	4.83	0.0	0.0	50.00	4.50	3.50	96.00	24	765	788
Normal	8' x 3.5" x 4.5" SP - 3 Deadend		33.00	4.83	180.0	180.0	50.00	4.50	3.50	96.00	-24	765	741
										Totals:	**0**	**1,530**	**1,530**

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 - 3 ft. Arm		24.00	3.59	90.0	90.0	45.00	24.00	20.00	3.00	36.00	-186	1,052	866
											Totals:	**-186**	**1,052**	**866**

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	Deadend 12.75"		34.00	0.00	90.0	90.0	3.00	2.00	15.00	-2	110	108
Deadend	Deadend Insulator		33.00	0.00	0.0	0.0	8.99	3.00	30.00	30	319	350
Deadend	Deadend Insulator		33.00	44.00	83.7	0.0	8.99	3.00	30.00	-19	319	300
Deadend	Deadend Insulator		33.00	-44.00	276.3	0.0	8.99	3.00	30.00	80	319	399
Deadend	Deadend Insulator		33.00	0.00	180.0	0.0	8.99	3.00	30.00	-30	319	289
Deadend	Deadend Insulator		33.00	44.00	263.7	0.0	8.99	3.00	30.00	19	319	338
Deadend	Deadend Insulator		33.00	-44.00	96.3	0.0	8.99	3.00	30.00	-80	319	239
Bolt	Deadend 12.75"		27.00	0.00	2.0	2.0	3.00	2.00	15.00	2	87	89
Bolt	Deadend 12.75"		27.00	0.00	90.0	90.0	3.00	2.00	15.00	-2	87	85

Bolt	Deadend 12.75"	25.00	0.00	90.0	90.0	3.00	2.00	15.00	-2	81	79
Bolt	Deadend 12.75"	22.00	0.00	90.0	90.0	3.00	2.00	15.00	-2	71	69
Bolt	Deadend 12.75"	20.00	0.00	90.0	90.0	3.00	2.00	15.00	-2	64	62
Bolt	Deadend 12.75"	20.00	0.00	90.0	90.0	3.00	2.00	15.00	-2	64	62
								Totals:	**-11**	**2,479**	**2,468**

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		27.00	0.00	23.00	0.375	75.00	45.0	49.4	0.273	33.78	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 3/8	Down	2.30e+7	15,400	0.90	13,860	700	4,629	4,208	3,714	2,821	2,416	-296	-7,793
									Totals:	**2,821**	**2,416**	**-296**	**-7,793**

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		18.00	23.00	45.0	20,000	1.00	20,000	4,208	3,714	21.0

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	25.21	34.30	8.90	12.36	6.05	9.87	1.60e+6	60.00	57.00	34.00	90,207	**902.60**	**13.16**

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.		