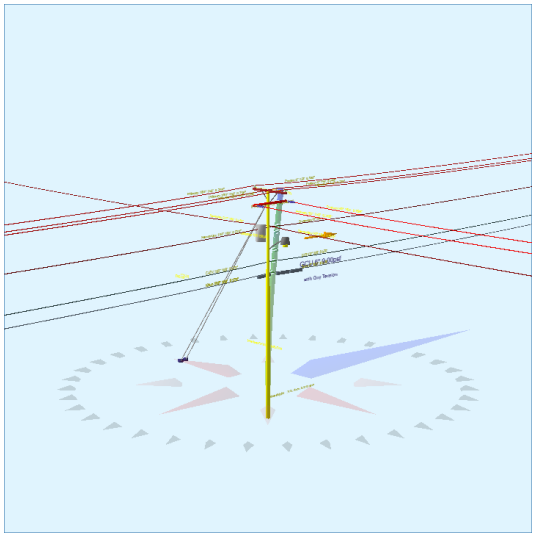
Pole Num:	**P.F1017_116857741**	Pole Length / Class:	**40 / 5**	Code:	**NESC**	Structure Type:	**Junction**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**6.00**	Construction Grade:	**C**	Pole Strength 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	**44.0**	0.0	5.6
Groundline	**44.0**	0.0	5.6
Vertical	**31.6**	30.6	91.5

Pole Moments (ft-lb)		**Load Angle (deg)**	**Wind Angle (deg)**
Max Cap Util	**21,757**	9.7	5.6
Groundline	**21,757**	9.7	5.6
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	270.0		**36.0**	5.6	**36.9**	40.0
EHS 3/8 (Down)			32.0	**51.9**	5.6	**58.6**	40.0
Single Helix Anchor	23.0	273.0		**22.3**	5.6	**33.4**	150.0
EHS 3/8 (Down)			32.0	**32.2**	5.6	**52.9**	150.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 9.7°

	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	1,313	141.0	**41,830**	192.3	**78.3**	**5,321**	393	5	**5,327**	**78.3**
Comms	5	0.5	**128**	0.6	**0.2**	**16**	342	4	**21**	**0.3**
GuyBraces	-991	-106.4	**-32,074**	-147.4	**-60.0**	**-4,080**	14,278	187	**-3,894**	**-57.3**
PowerEquipments	82	8.8	**1,136**	5.2	**2.1**	**145**	636	8	**153**	**2.2**
Pole	354	38.0	**5,540**	25.5	**10.4**	**705**	1,364	18	**723**	**10.6**
Crossarms	78	8.4	**2,693**	12.4	**5.0**	**343**	190	2	**345**	**5.1**
Streetlights	45	4.8	**1,108**	5.1	**2.1**	**141**	86	1	**142**	**2.1**
Insulators	46	4.9	**1,396**	6.4	**2.6**	**178**	114	1	**179**	**2.6**
Pole Load	931	100.0	**21,757**	100.0	**40.7**	**2,768**	17,403	228	**2,995**	**44.0**
Pole Reserve Capacity			**31,695**		**59.3**	**4,032**			**3,805**	**56.0**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 9.7°

	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 (%)
<Undefined>	497	53.4	**13,927**	64.0	**26.1**	**1,772**	15,469	202	**1,974**	**29.0**
FPL	429	46.1	**7,703**	35.4	**14.4**	**980**	1,592	21	**1,001**	**14.7**
CATV	1	0.1	**36**	0.2	**0.1**	**5**	114	1	**6**	**0.1**
AT&T	4	0.4	**91**	0.4	**0.2**	**12**	228	3	**15**	**0.2**
Totals:	931	100.0	**21,757**	100.0	**40.7**	**2,768**	17,403	228	**2,995**	**44.0**

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	ACSR 1/0 AWG 6/1 RAVEN		34.60	44.26	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	116,571	21	23	116,615
Primary	ACSR 1/0 AWG 6/1 RAVEN		34.60	44.26	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-116,571	21	23	-116,528
Primary	ACSR 1/0 AWG 6/1 RAVEN		34.60	44.26	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	116,571	-5	23	116,589
Primary	ACSR 1/0 AWG 6/1 RAVEN		34.60	44.26	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-116,571	-5	23	-116,554
Primary	ACSR 1/0 AWG 6/1 RAVEN		34.60	18.62	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	116,571	13	23	116,607

Primary	ACSR 1/0 AWG 6/1 RAVEN		34.60	18.62	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-116,571	13	23	-116,536
Primary	ACSR 1/0 AWG 6/1 RAVEN		32.00	56.15	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	18,506	-4	1,230	19,732
Primary	ACSR 1/0 AWG 6/1 RAVEN		32.00	56.15	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	18,506	5	1,230	19,740
Secondary	FPL	FPL	27.97	5.36	0.5700	1.19	0.600	100.0	92.0	100.0	1,200	5,880	25	1,035	6,940
Secondary	FPL	FPL	27.97	5.36	0.5700	1.19	0.600	100.0	272.0	100.0	1,200	-5,880	25	1,035	-4,821
Secondary	FPL	FPL	27.97	5.36	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	43,001	4	17	43,023
Secondary	FPL	FPL	27.97	5.36	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-43,001	4	17	-42,979
											Totals:	**37,012**	**119**	**4,698**	**41,829**

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	33,776	5	14	33,794
CATV	CATV	CATV	21.97	5.70	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-33,776	5	14	-33,758
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	30,701	5	20	30,726
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-30,701	5	20	-30,676
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	30,701	5	20	30,726
Telco	AT&T	AT&T	19.97	5.81	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-30,701	5	12	-30,684
											Totals:	**0**	**28**	**100**	**128**

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		27.00	20.42	180.0	180.0	335.00	34.00	--	22.00	--	-1,067	2,203	1,136
											Totals:	**-1,067**	**2,203**	**1,136**

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 Pin		34.00	4.77	0.0	0.0	50.00	4.50	3.50	96.00	37	2,523	2,560
Normal	8' x 3.5" x 4.5" SP - 3 Deadend		32.00	4.89	90.0	90.0	50.00	4.50	3.50	96.00	7	127	133
										Totals:	**44**	**2,649**	**2,693**

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	40	1,068	1,108
											Totals:	**40**	**1,068**	**1,108**

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	15kV Pin Insulator		34.19	44.00	83.8	0.0	8.99	6.00	5.00	17	112	129

Pin	15kV Pin Insulator	34.19	-44.00	276.2	0.0	8.99	6.00	5.00	-4	112	108
Pin	15kV Pin Insulator	34.19	18.00	75.1	0.0	8.99	6.00	5.00	11	112	123
Deadend	Deadend Insulator	32.00	44.00	173.7	0.0	8.99	3.00	30.00	-53	314	261
Deadend	Deadend Insulator	32.00	-44.00	6.3	0.0	8.99	3.00	30.00	70	314	384
Bolt	Deadend 12.75"	28.00	0.00	2.0	2.0	3.00	2.00	15.00	3	92	94
Bolt	Deadend 12.75"	28.00	0.00	90.0	90.0	3.00	2.00	15.00	0	92	92
Bolt	Deadend 12.75"	22.00	0.00	90.0	90.0	3.00	2.00	15.00	0	72	72
Bolt	Deadend 12.75"	20.00	0.00	90.0	90.0	3.00	2.00	15.00	0	65	66
Bolt	Deadend 12.75"	20.00	0.00	90.0	90.0	3.00	2.00	15.00	0	65	66
								Totals:	**46**	**1,350**	**1,396**

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	270.0	54.1	0.273	37.76	1.71
EHS 3/8	Down		32.00	0.00	23.00	0.375	75.00	273.0	54.1	0.273	37.76	1.06

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	8,120	7,382	7,200	5,833	4,220	-714	-22,546
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	7,337	6,670	4,466	3,618	2,617	-307	-9,527
									Totals:	**9,451**	**6,837**	**-1,022**	**-32,073**

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	270.0	20,000	1.00	20,000	7,382	7,200	36.9
Single Helix Anchor		18.00	23.00	273.0	20,000	1.00	20,000	6,670	4,466	33.4

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	30.55	35.22	8.66	21.56	6.05	9.87	1.60e+6	60.00	57.00	34.00	55,098	**550.74**	**3.16**

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.		