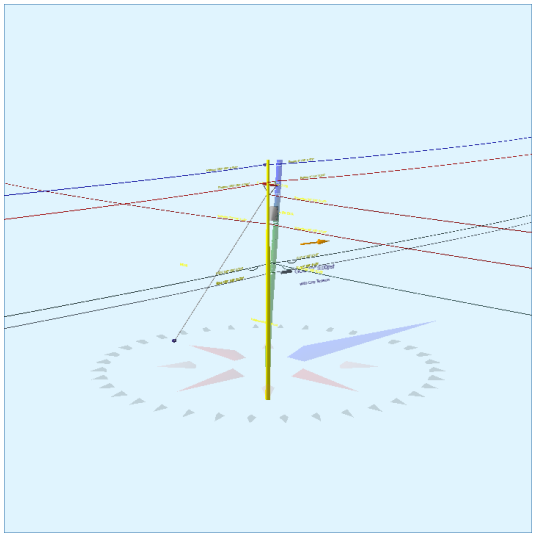
Pole Num:	**64978480_P.F541**	Pole Length / Class:	**50 / 3**	Code:	**NESC**	Structure Type:	**Junction**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**7.00**	Construction Grade:	**C**	Pole Strength Factor:	**0.85**
Aux Data 3	**Unset**	G/L Circumference (in):	**38.64**	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	27.1	0.0	10.0
Groundline	27.1	0.0	10.0
Vertical	5.4	30.3	90.0

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	**26,998**	36.4	10.0
Groundline	**26,998**	36.4	10.0
GL Allowable	**103,482**		

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	30.0	270.0		17.1	10.0	20.7	90.0
EHS 3/8 (Down)			36.0	24.7	10.0	32.8	90.0
			System Capacity Summary:	Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 36.4°

	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	1,030	75.8	**36,865**	136.6	**35.6**	**2,423**	326	3	**2,425**	**35.7**
Comms	982	72.3	**21,673**	80.3	**20.9**	**1,424**	399	3	**1,428**	**21.0**
GuyBraces	-1,280	-94.2	**-46,596**	-172.6	**-45.0**	**-3,062**	3,964	33	**-3,029**	**-44.5**
PowerEquipments	73	5.4	**3,255**	12.1	**3.2**	**214**	636	5	**219**	**3.2**
Pole	496	36.5	**9,762**	36.2	**9.4**	**642**	2,628	22	**664**	**9.8**
Crossarms	30	2.2	**1,186**	4.4	**1.2**	**78**	95	1	**79**	**1.2**
Insulators	27	2.0	**853**	3.2	**0.8**	**56**	59	0	**57**	**0.8**
Pole Load	1,359	100.0	**26,998**	100.0	**26.1**	**1,774**	8,108	68	**1,842**	**27.1**
Pole Reserve Capacity			**76,484**		**73.9**	**5,026**			**4,958**	**72.9**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 36.4°

	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	1,518	111.7	**46,260**	171.4	**44.7**	**3,040**	2,913	25	**3,064**	**45.1**
<Undefined>	-1,141	-84.0	**-40,935**	-151.6	**-39.6**	**-2,690**	4,796	40	**-2,650**	**-39.0**
CATV	964	70.9	**21,239**	78.7	**20.5**	**1,396**	171	1	**1,397**	**20.5**
AT&T	18	1.3	**434**	1.6	**0.4**	**29**	228	2	**30**	**0.4**
Totals:	1,359	100.0	**26,998**	100.0	**26.1**	**1,774**	8,108	68	**1,842**	**27.1**

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	FPL	FPL	41.97	16.47	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	52,712	-10	162	52,863
Primary	FPL	FPL	41.97	16.47	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-52,712	-10	162	-52,561
Primary	ACSR 1/0 AWG 6/1 RAVEN		38.85	18.88	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	106,919	26	157	107,102
Primary	ACSR 1/0 AWG 6/1 RAVEN		38.85	18.88	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-106,919	26	157	-106,736
Secondary	FPL	FPL	35.97	6.07	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	33,279	23	1,067	34,369
Secondary	FPL	FPL	29.97	6.41	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	27,728	25	889	28,641
Secondary	FPL	FPL	29.97	6.41	0.5700	1.19	0.600	100.0	270.0	100.0	1,200	-27,728	25	889	-26,815
											Totals:	**33,279**	**104**	**3,482**	**36,865**

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	6.88	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	20,326	26	673	21,025
CATV	CATV	CATV	21.97	6.88	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	27,592	19	87	27,699
CATV	CATV	CATV	21.97	6.88	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-27,592	19	87	-27,485
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	25,080	20	77	25,177
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-25,080	20	77	-24,984
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	25,080	20	124	25,224
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-25,080	20	77	-24,984
											Totals:	**20,326**	**144**	**1,203**	**21,673**

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		32.00	21.30	0.0	0.0	335.00	34.00	--	22.00	--	910	2,345	3,255
											Totals:	**910**	**2,345**	**3,255**

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	4' x 3.5" x 4.5" SP - 2 Pin		38.00	5.70	0.0	0.0	50.00	4.50	3.50	48.00	36	1,150	1,186
										Totals:	**36**	**1,150**	**1,186**

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"		42.00	0.00	270.0	270.0	3.00	3.80	12.75	-5	199	195
Pin	15 kV Pin Insulator 6" Dia x 8"		38.19	18.00	72.4	0.0	10.00	6.00	8.00	24	180	204
Bolt	Deadend 12.75"		36.00	0.00	0.0	0.0	3.00	2.00	15.00	2	106	108
Bolt	Deadend 12.75"		30.00	0.00	0.0	0.0	3.00	2.00	15.00	2	88	91
Bolt	Deadend 12.75"		22.00	0.00	0.0	0.0	3.00	2.00	15.00	3	65	67
Bolt	Deadend 12.75"		22.00	0.00	90.0	90.0	3.00	2.00	15.00	2	65	67
Bolt	Deadend 12.75"		20.00	0.00	90.0	90.0	3.00	2.00	15.00	2	59	61
Bolt	Deadend 12.75"		20.00	0.00	90.0	90.0	3.00	2.00	15.00	2	59	61
									Totals:	**33**	**821**	**853**

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		36.00	0.00	30.00	0.375	75.00	270.0	50.0	0.273	45.15	0.97

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	4,551	4,137	3,417	2,619	2,195	-1,302	-46,596
									Totals:	**2,619**	**2,195**	**-1,302**	**-46,596**

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	30.00	270.0	20,000	1.00	20,000	4,137	3,417	20.7

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	30.30	34.28	11.10	14.81	7.32	12.30	1.60e+6	60.00	57.00	43.00	151,056	**1501.49**	**18.52**

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.		