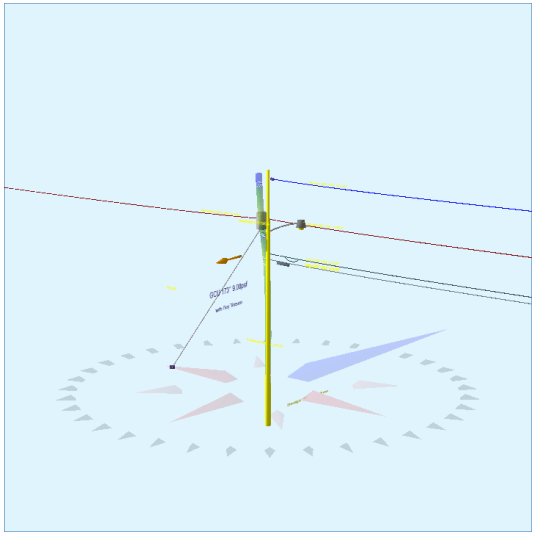
Pole Num:	**914584462_P.F176**	Pole Length / Class:	**45 / 4**	Code:	**NESC**	Structure Type:	**Guyed Tangent**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**6.50**	Construction Grade:	**C**	Pole Strength 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	**43.6**	30.3	172.7
Groundline	**38.0**	0.0	172.7
Vertical	**11.4**	28.3	90.0

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	**10,435**	93.2	172.7
Groundline	**27,311**	137.9	172.7
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	270.0		**41.0**	172.7	**43.4**	90.0
EHS 3/8 (Down)			30.0	**59.2**	172.7	**68.9**	90.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 137.9°

	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	1,128	72.8	**41,275**	151.1	**54.5**	**3,705**	171	2	**3,707**	**54.5**
Comms	3,233	208.7	**75,273**	275.6	**99.4**	**6,757**	171	2	**6,759**	**99.4**
GuyBraces	-3,309	-213.6	**-100,682**	-368.7	**-132.9**	**-9,038**	9,828	102	**-8,936**	**-131.4**
PowerEquipments	67	4.3	**2,838**	10.4	**3.8**	**255**	636	7	**261**	**3.8**
Pole	369	23.8	**6,517**	23.9	**8.6**	**585**	1,928	20	**605**	**8.9**
Streetlights	46	3.0	**1,664**	6.1	**2.2**	**149**	114	1	**151**	**2.2**
Insulators	15	1.0	**427**	1.6	**0.6**	**38**	28	0	**39**	**0.6**
Pole Load	1,550	100.0	**27,311**	100.0	**36.1**	**2,452**	12,877	133	**2,585**	**38.0**
Pole Reserve Capacity			**48,439**		**63.9**	**4,348**			**4,215**	**62.0**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 137.9°

	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	1,497	96.6	**47,792**	175.0	**63.1**	**4,290**	2,099	22	**4,312**	**63.4**
CATV	1,074	69.3	**25,710**	94.1	**33.9**	**2,308**	57	1	**2,309**	**33.9**
AT&T	2,160	139.4	**49,563**	181.5	**65.4**	**4,449**	114	1	**4,450**	**65.4**
<Undefined>	-3,181	-205.3	**-95,754**	-350.6	**-126.4**	**-8,596**	10,607	110	**-8,486**	**-124.8**
Totals:	1,550	100.0	**27,311**	100.0	**36.1**	**2,452**	12,877	133	**2,585**	**38.0**

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	FPL	FPL	36.97	16.18	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	38,636	11	1,018	39,665
Secondary	FPL	FPL	29.97	5.83	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	31,320	-21	825	32,125
Secondary	FPL	FPL	29.97	5.83	0.5700	1.19	0.600	100.0	270.0	100.0	1,200	-31,320	-21	825	-30,515
											Totals:	**38,636**	**-30**	**2,669**	**41,275**

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	90.0	100.0	1,200	25,050	-22	682	25,710
Telco	AT&T	AT&T	22.97	6.23	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	24,004	-22	966	24,948

Telco	AT&T	AT&T	22.97	6.23	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	24,004	-22	633	24,615
											Totals:	**73,059**	**-66**	**2,280**	**75,273**

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	--	820	2,017	2,838
											Totals:	**820**	**2,017**	**2,838**

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 - 6 ft. Arm		28.00	3.94	90.0	90.0	60.00	24.00	20.00	3.00	72.00	365	1,299	1,664
											Totals:	**365**	**1,299**	**1,664**

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	90.0	90.0	3.00	3.80	12.75	5	161	166
Bolt	Deadend 12.75"		30.00	0.00	0.0	0.0	3.00	2.00	15.00	-2	81	79
Bolt	Deadend 12.75"		24.00	0.00	0.0	0.0	3.00	2.00	15.00	-2	65	63
Bolt	Deadend 12.75"		23.00	0.00	0.0	0.0	3.00	2.00	15.00	-2	62	60
Bolt	Deadend 12.75"		23.00	0.00	0.0	0.0	3.00	2.00	15.00	-2	62	60
									Totals:	**-3**	**431**	**427**

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		30.00	0.00	23.00	0.375	75.00	270.0	52.4	0.273	36.11	1.87

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	9,556	8,687	8,208	6,499	5,013	-3,359	-100,682
									Totals:	**6,499**	**5,013**	**-3,359**	**-100,682**

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	270.0	20,000	1.00	20,000	8,687	8,208	43.4

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	28.29	34.37	9.97	17.91	6.69	11.09	1.60e+6	60.00	57.00	38.50	113,105	**1129.55**	**8.77**

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.		