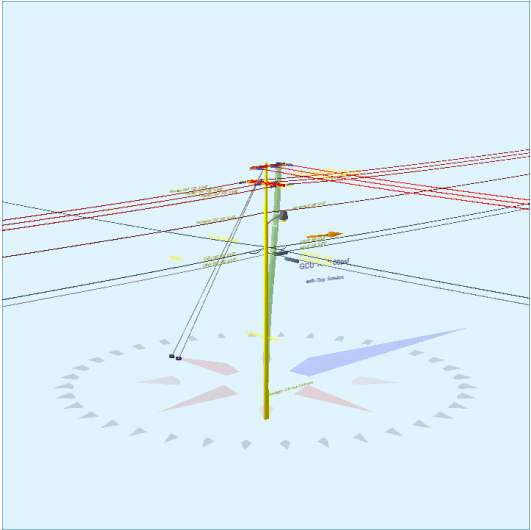


Pole Num:	P.F1313_116855007	Pole Length / Class:	45 / 4	Code:	NESC	Structure Type:	Junction
Aux Data 1	Unset	Species:	SOUTHERN PINE	NESC Rule:	Rule 250B	Status	Guy Wires Adequate
Aux Data 2	Unset	Setting Depth (ft):	6.50	Construction Grade:	C	Pole Strength Factor:	0.85
Aux Data 3	Unset	G/L Circumference (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	49.9	0.0
Groundline	49.9	0.0
Vertical	50.1	36.7

Pole Moments (ft-lb)	Load Angle (deg)	Wind Angle (deg)
Max Cap Util	34,465	41.4
Groundline	34,465	41.4
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	25.0	270.0		50.6	14.1	53.2	85.6
EHS 3/8 (Down)			38.0	73.1	14.1	84.4	85.6
Single Helix Anchor	23.0	270.0		50.2	14.1	52.0	91.2
EHS 3/8 (Down)			38.0	72.4	14.1	82.5	91.2
System Capacity Summary:				Adequate		Adequate	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 41.4°

	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	5,748	341.6	235,727	684.0	311.2	21,161	357	4	21,165	311.2
Comms	2,322	138.0	53,530	155.3	70.7	4,805	342	4	4,809	70.7
GuyBraces	-7,042	-418.5	-270,762	-785.6	-357.4	-24,306	25,674	266	-24,040	-353.5
Pole	399	23.7	7,043	20.4	9.3	632	1,928	20	652	9.6
Crossarms	125	7.4	4,446	12.9	5.9	399	285	3	402	5.9
Streetlights	40	2.4	1,267	3.7	1.7	114	86	1	115	1.7
Insulators	90	5.4	3,214	9.3	4.2	289	182	2	290	4.3
Pole Load	1,683	100.0	34,465	100.0	45.5	3,094	28,854	299	3,393	49.9
Pole Reserve Capacity			41,285		54.5	3,706			3,407	50.1

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 41.4°

	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 (%)
<Undefined>	114	6.8	277	0.8	0.4	25	26,413	274	299	4.4
FPL	411	24.4	7,379	21.4	9.7	663	2,042	21	684	10.1
Other	-1,164	-69.2	-26,721	-77.5	-35.3	-2,399	57	1	-2,398	-35.3
CATV	67	4.0	1,685	4.9	2.2	151	228	2	154	2.3
AT&T	2,255	134.0	51,845	150.4	68.4	4,654	114	1	4,655	68.5
Totals:	1,683	100.0	34,465	100.0	45.5	3,094	28,854	299	3,393	49.9

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	38.00	35.12	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	85,845	4	1,083	86,932
Primary	ACSR 1/0 AWG 6/1 RAVEN	38.00	56.30	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	85,845	-1	1,083	86,927
Primary	ACSR 1/0 AWG 6/1 RAVEN	38.00	56.30	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	85,845	6	1,083	86,934
Primary	ACSR 1/0 AWG 6/1 RAVEN	35.00	35.29	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	89,701	5	220	89,926
Primary	ACSR 1/0 AWG 6/1 RAVEN	35.00	56.41	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	89,701	6	220	89,927

Primary	ACSR 1/0 AWG 6/1 RAVEN		35.00	56.41	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	89,701	0	220	89,921
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.00	35.29	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-89,701	-5	220	-89,485
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.00	56.41	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-89,701	-6	220	-89,487
Primary	ACSR 1/0 AWG 6/1 RAVEN		35.00	56.41	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-89,701	0	220	-89,480
Secondary	FPL	FPL	29.97	3.83	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	35,071	-12	180	35,239
Secondary	FPL	FPL	29.97	3.83	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-35,071	-12	180	-34,903
Other	Other	Other	22.97	6.23	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-26,879	20	138	-26,721
											Totals:	230,656	4	5,070	235,730

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	24,724	22	652	25,399
CATV	CATV	CATV	23.97	6.17	0.5700	1.19	0.600	100.0	270.0	100.0	1,200	-24,724	22	652	-24,050
CATV	CATV	CATV	23.97	6.17	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	28,049	19	149	28,218
CATV	CATV	CATV	23.97	6.17	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-28,049	19	149	-27,881
Telco	AT&T	AT&T	22.97	6.23	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	23,693	22	1,009	24,724
Telco	AT&T	AT&T	22.97	6.23	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	26,879	20	223	27,121
											Totals:	50,572	124	2,834	53,531

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		38.00	5.12	90.0	90.0	50.00	4.50	3.50	96.00	27	538	565
Normal	8' x 3.5" x 4.5" SP - 3 Deadend		35.00	5.29	0.0	0.0	50.00	4.50	3.50	96.00	31	1,941	1,972
Normal	8' x 3.5" x 4.5" SP - 3 Deadend		35.00	5.29	180.0	180.0	50.00	4.50	3.50	96.00	-31	1,941	1,910
										Totals:	27	4,420	4,447

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		28.00	3.94	90.0	90.0	45.00	24.00	20.00	3.00	36.00	157	1,110	1,267
											Totals:	157	1,110	1,267

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 Insulator		38.00	0.00	90.0	0.0	8.99	3.00	30.00	33	332	365
Deadend	Deadend Insulator		38.00	44.00	173.4	0.0	8.99	3.00	30.00	-14	332	318
Deadend	Deadend Insulator		38.00	-44.00	6.6	0.0	8.99	3.00	30.00	80	332	412
Deadend	Deadend Insulator		35.00	0.00	0.0	0.0	8.99	3.00	30.00	38	306	344

Deadend	Deadend Insulator	35.00	44.00	83.1	0.0	8.99	3.00	30.00	79	306	385
Deadend	Deadend Insulator	35.00	-44.00	276.9	0.0	8.99	3.00	30.00	-4	306	302
Deadend	Deadend Insulator	35.00	0.00	180.0	0.0	8.99	3.00	30.00	-38	306	268
Deadend	Deadend Insulator	35.00	44.00	263.1	0.0	8.99	3.00	30.00	-79	306	227
Deadend	Deadend Insulator	35.00	-44.00	96.9	0.0	8.99	3.00	30.00	4	306	310
Deadend	Deadend 12.75"	30.00	0.00	270.0	270.0	3.00	3.80	0.00	-1	0	-1
Bolt	Deadend 12.75"	24.00	0.00	0.0	0.0	3.00	2.00	15.00	2	70	72
Bolt	Deadend 12.75"	24.00	0.00	90.0	90.0	3.00	2.00	15.00	2	70	72
Bolt	Deadend 12.75"	23.00	0.00	0.0	0.0	3.00	2.00	15.00	2	67	69
Bolt	Deadend 12.75"	23.00	0.00	90.0	90.0	3.00	2.00	15.00	2	67	69
Totals:									106	3,107	3,214

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		38.00	0.00	25.00	0.375	75.00	270.0	56.5	0.273	43.83	2.80
EHS 3/8	Down		38.00	0.00	23.00	0.375	75.00	270.0	58.6	0.273	42.77	2.71

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	11,703	10,639	10,126	8,441	5,593	-3,698	-140,003
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	11,435	10,395	10,041	8,572	5,229	-3,458	-130,763
Totals:										17,012	10,822	-7,156	-270,766

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	25.00	270.0	20,000	1.00	20,000	10,639	10,126	53.2
Single Helix Anchor			18.00	23.00	270.0	20,000	1.00	20,000	10,395	10,040	52.0

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	36.67	35.67	9.59	30.40	6.69	11.09	1.60e+6	60.00	57.00	38.50	57,548	575.93	2.00

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.		