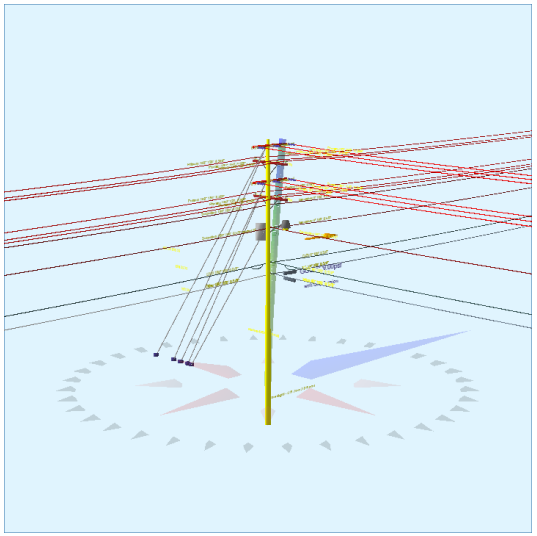
Pole Num:	**64978476_P.F430**	Pole Length / Class:	**50 / 3**	Code:	**NESC**	Structure Type:	**Guyed Tangent**
Aux Data 1	**Unset**	Species:	**SOUTHERN PINE**	NESC Rule:	**Rule 250B**	Status	**Guy Wires Adequate**
Aux Data 2	**Unset**	Setting Depth (ft):	**7.00**	Construction Grade:	**C**	Pole Strength 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	**53.9**	0.0	6.3
Groundline	**53.9**	0.0	6.3
Vertical	**65.6**	36.1	90.0

Pole Moments (ft-lb)		**Load Angle (deg)**	**Wind Angle (deg)**
Max Cap Util	**47,636**	35.4	6.3
Groundline	**47,636**	35.4	6.3
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		**44.3**	6.3	**45.9**	90.7
EHS 3/8 (Down)			42.0	**64.0**	6.3	**72.9**	90.7
Single Helix Anchor	25.0	270.0		**43.1**	6.3	**43.5**	16.9
EHS 3/8 (Down)			42.0	**62.2**	6.3	**69.0**	16.9
Single Helix Anchor	23.0	270.0		**46.6**	6.3	**49.2**	91.4
EHS 3/8 (Down)			36.0	**67.2**	6.3	**78.2**	91.4
Single Helix Anchor	21.0	270.0		**46.0**	6.3	**47.6**	80.0
EHS 3/8 (Down)			36.0	**66.3**	6.3	**75.6**	80.0
Single Helix Anchor	20.0	270.0		**50.6**	6.3	**56.1**	92.8
EHS 3/8 (Down)			28.0	**73.1**	6.3	**89.1**	92.8
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 35.4°

	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	10,510	446.4	**448,029**	940.5	**433.0**	**29,440**	771	6	**29,447**	**433.0**
Comms	5,374	228.3	**109,352**	229.6	**105.7**	**7,186**	399	3	**7,189**	**105.7**
GuyBraces	-14,355	-609.7	**-530,334**	-1113.3	**-512.5**	**-34,849**	58,276	491	**-34,358**	**-505.3**
PowerEquipments	72	3.0	**1,266**	2.7	**1.2**	**83**	636	5	**89**	**1.3**
Pole	484	20.5	**9,521**	20.0	**9.2**	**626**	2,628	22	**648**	**9.5**
Crossarms	137	5.8	**5,099**	10.7	**4.9**	**335**	380	3	**338**	**5.0**
Streetlights	39	1.7	**1,192**	2.5	**1.2**	**78**	86	1	**79**	**1.2**
Insulators	95	4.0	**3,510**	7.4	**3.4**	**231**	256	2	**233**	**3.4**
Pole Load	2,354	100.0	**47,636**	100.0	**46.0**	**3,130**	63,432	534	**3,664**	**53.9**
Pole Reserve Capacity			**55,846**		**54.0**	**3,670**			**3,136**	**46.1**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 35.4°

	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>	-1,910	-81.1	**-47,127**	-98.9	**-45.5**	**-3,097**	60,006	505	**-2,592**	**-38.1**
FPL	1,428	60.7	**36,043**	75.7	**34.8**	**2,368**	2,913	25	**2,393**	**35.2**
Other	-2,538	-107.8	**-50,632**	-106.3	**-48.9**	**-3,327**	114	1	**-3,326**	**-48.9**
CATV	941	39.9	**20,725**	43.5	**20.0**	**1,362**	171	1	**1,363**	**20.0**
AT&T	4,434	188.3	**88,627**	186.1	**85.6**	**5,824**	228	2	**5,826**	**85.7**
Totals:	2,354	100.0	**47,636**	100.0	**46.0**	**3,130**	63,432	534	**3,664**	**53.9**

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		42.00	35.47	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	83,178	4	1,333	84,515
Primary	ACSR 1/0 AWG 6/1 RAVEN		42.00	56.52	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	83,178	-2	1,333	84,509
Primary	ACSR 1/0 AWG 6/1 RAVEN		42.00	56.52	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	83,178	6	1,333	84,517
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.60	44.36	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	110,297	52	99	110,448
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.60	44.36	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-110,297	52	99	-110,146
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.60	44.36	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	110,297	-36	99	110,360
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.60	44.36	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-110,297	-36	99	-110,234
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.60	18.86	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	110,297	26	99	110,422
Primary	ACSR 1/0 AWG 6/1 RAVEN		39.60	18.86	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-110,297	26	99	-110,172
Primary	ACSR 1/0 AWG 6/1 RAVEN		36.00	35.82	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	71,296	4	1,142	72,442
Primary	ACSR 1/0 AWG 6/1 RAVEN		36.00	56.73	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	71,296	-2	1,142	72,436
Primary	ACSR 1/0 AWG 6/1 RAVEN		36.00	56.73	0.3980	0.23	0.145	150.0	90.0	150.0	2,628	71,296	7	1,142	72,445
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.60	44.41	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	93,594	52	84	93,731
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.60	44.41	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-93,594	52	84	-93,458
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.60	44.41	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	93,594	-36	84	93,643
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.60	44.41	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-93,594	-36	84	-93,546

Primary	ACSR 1/0 AWG 6/1 RAVEN		33.60	18.97	0.3980	0.23	0.145	150.0	0.0	150.0	2,628	93,594	26	84	93,705
Primary	ACSR 1/0 AWG 6/1 RAVEN		33.60	18.97	0.3980	0.23	0.145	150.0	180.0	150.0	2,628	-93,594	26	84	-93,484
Secondary	FPL	FPL	31.97	6.30	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	40,637	17	76	40,730
Secondary	FPL	FPL	31.97	6.30	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-40,637	17	76	-40,543
Secondary	FPL	FPL	27.97	6.53	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	25,292	25	847	26,165
Secondary	FPL	FPL	27.97	6.53	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	35,552	18	67	35,637
Secondary	FPL	FPL	27.97	6.53	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-35,552	18	67	-35,467
Other	Other	Other	19.97	6.99	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-25,383	19	48	-25,316
Other	Other	Other	19.97	6.99	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-25,383	19	48	-25,316
											Totals:	**437,949**	**322**	**9,754**	**448,025**

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	19,866	27	688	20,580
CATV	CATV	CATV	21.97	6.88	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	27,925	19	53	27,997
CATV	CATV	CATV	21.97	6.88	0.5700	1.19	0.600	100.0	180.0	100.0	1,200	-27,925	19	54	-27,852
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	18,058	27	923	19,008
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	90.0	100.0	1,200	18,058	27	605	18,690
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	25,383	19	48	25,450
Telco	AT&T	AT&T	19.97	6.99	0.5700	1.19	0.600	100.0	0.0	100.0	1,200	25,383	19	77	25,479
											Totals:	**106,747**	**157**	**2,447**	**109,351**

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	21.59	270.0	270.0	335.00	34.00	--	22.00	--	-664	1,930	1,266
											Totals:	**-664**	**1,930**	**1,266**

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		42.00	5.47	90.0	90.0	50.00	4.50	3.50	96.00	25	297	322
Normal	8' x 3.5" x 4.5" SP - 3 Pin		39.00	5.64	0.0	0.0	50.00	4.50	3.50	96.00	36	2,395	2,431
Normal	8' x 3.5" x 4.5" SP - 3 Deadend		36.00	5.82	90.0	90.0	50.00	4.50	3.50	96.00	27	254	281
Normal	8' x 3.5" x 4.5" SP - 3 Pin		33.00	5.99	0.0	0.0	50.00	4.50	3.50	96.00	39	2,026	2,065
										Totals:	**127**	**4,972**	**5,099**

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		27.00	4.59	90.0	90.0	45.00	24.00	20.00	3.00	36.00	139	1,053	1,192
											Totals:	**139**	**1,053**	**1,192**

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		42.00	0.00	90.0	0.0	8.99	3.00	30.00	29	361	391
Deadend	Deadend Insulator		42.00	44.00	172.9	0.0	8.99	3.00	30.00	-22	361	339
Deadend	Deadend Insulator		42.00	-44.00	7.1	0.0	8.99	3.00	30.00	80	361	442
Pin	15kV Pin Insulator		39.19	44.00	82.7	0.0	8.99	6.00	5.00	43	112	155
Pin	15kV Pin Insulator		39.19	-44.00	277.3	0.0	8.99	6.00	5.00	-30	112	83
Pin	15kV Pin Insulator		39.19	18.00	72.6	0.0	8.99	6.00	5.00	21	112	134
Deadend	Deadend Insulator		36.00	0.00	90.0	0.0	8.99	3.00	30.00	30	310	339
Deadend	Deadend Insulator		36.00	44.00	172.5	0.0	8.99	3.00	30.00	-21	310	288
Deadend	Deadend Insulator		36.00	-44.00	7.5	0.0	8.99	3.00	30.00	81	310	390
Pin	15kV Pin Insulator		33.19	44.00	82.2	0.0	8.99	6.00	5.00	43	95	138
Pin	15kV Pin Insulator		33.19	-44.00	277.8	0.0	8.99	6.00	5.00	-29	95	66
Pin	15kV Pin Insulator		33.19	18.00	71.6	0.0	8.99	6.00	5.00	22	95	117
Bolt	Deadend 12.75"		32.00	0.00	90.0	90.0	3.00	2.00	15.00	2	92	93
Bolt	Deadend 12.75"		28.00	0.00	0.0	0.0	3.00	2.00	15.00	3	80	83
Bolt	Deadend 12.75"		28.00	0.00	90.0	90.0	3.00	2.00	15.00	2	80	82
Bolt	Deadend 12.75"		22.00	0.00	0.0	0.0	3.00	2.00	15.00	3	63	66
Bolt	Deadend 12.75"		22.00	0.00	90.0	90.0	3.00	2.00	15.00	2	63	65
Bolt	Deadend 12.75"		20.00	0.00	0.0	0.0	3.00	2.00	15.00	3	57	60
Bolt	Deadend 12.75"		20.00	0.00	0.0	0.0	3.00	2.00	15.00	3	57	60
Bolt	Deadend 12.75"		20.00	0.00	90.0	90.0	3.00	2.00	15.00	2	57	59
Bolt	Deadend 12.75"		20.00	0.00	90.0	90.0	3.00	2.00	15.00	2	57	59
									Totals:	**267**	**3,243**	**3,510**

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		42.00	0.00	30.00	0.375	75.00	270.0	54.3	0.273	49.93	2.79
EHS 3/8	Down		42.00	0.00	25.00	0.375	75.00	270.0	59.0	0.273	47.22	2.56
EHS 3/8	Down		36.00	0.00	23.00	0.375	75.00	270.0	57.2	0.273	41.04	2.41
EHS 3/8	Down		36.00	0.00	21.00	0.375	75.00	270.0	59.5	0.273	40.01	2.32
EHS 3/8	Down		28.00	0.00	20.00	0.375	75.00	270.0	54.3	0.273	32.69	2.09

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	10,103	9,185	8,869	7,200	5,178	-3,001	-125,508
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	9,562	8,693	8,618	7,389	4,434	-2,570	-107,253
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	10,832	9,847	9,316	7,833	5,042	-2,923	-104,805
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	10,475	9,523	9,196	7,926	4,662	-2,702	-96,789
EHS 3/8	Down	2.30e+7	15,400	0.90	13,860	700	12,349	11,227	10,129	8,223	5,913	-3,428	-95,973
									Totals:	**38,572**	**25,229**	**-14,625**	**-530,328**

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	30.00	270.0	20,000	1.00	20,000	9,184	8,868	45.9
Single Helix Anchor		18.00	25.00	270.0	20,000	1.00	20,000	8,693	8,618	43.5
Single Helix Anchor		18.00	23.00	270.0	20,000	1.00	20,000	9,847	9,316	49.2
Single Helix Anchor		18.00	21.00	270.0	20,000	1.00	20,000	9,522	9,196	47.6
Single Helix Anchor		18.00	20.00	270.0	20,000	1.00	20,000	11,226	10,128	56.1

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	36.10	35.10	10.83	44.72	7.32	12.30	1.60e+6	60.00	57.00	43.00	96,634	**966.96**	**1.52**

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.		