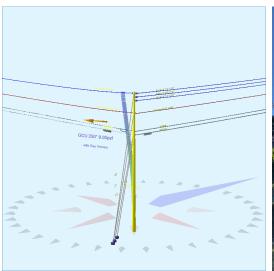
| Pole Num: | 113890851_P5 | Pole Length / | Class: | 40 / 3 | Code: | NESC | Structure Type: | | Angle |
|------------|--------------|-----------------|---------------|------------|----------------------|----------------|---------------------|---------|-------------|
| Aux Data 1 | A05366S | Species: | sou | THERN PINE | NESC Rule: | Rule 250B | Status G | Suy Wir | es Adequate |
| Aux Data 2 | Unset | Setting Depth | n (ft): | 6.00 | Construction Grade: | С | Pole Strength Facto | r: | 0.85 |
| Aux Data 3 | Unset | : G/L Circumfe | erence (in): | 36.00 | Loading District: | Light | Transverse Wind LF | : | 1.75 |
| Aux Data 4 | Unset | : G/L Fiber Str | ess (psi): | 8,000 | Ice Thickness (in): | 0.00 | Wire Tension LF: | | 1.30 |
| Aux Data 5 | Unset | : Allowable Str | ess (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: | | 26.20932 | 20 Deg Longit | ude: | | -80.115900 Deg | Elevation: | | 0 Feet |





| Pole Capacity Ut | lization (%) | Height (ft) | Wind Angle (deg) |
|------------------|--------------|----------------|---------------------|
| Maximum | 38.2 | 0.0 | 250.0 |
| Groundline | 38.2 | 0.0 | 250.0 |
| Vertical | 6.2 | 24.5 | 325.0 |

| Pole Moments (ft- | (b) | Load Angle (deg) | Wind Angle (deg) |
|-------------------|--------|---------------------|---------------------|
| Max Cap Util | 30,626 | 244.3 | 250.0 |
| Groundline | 30,626 | 244.3 | 250.0 |
| GL Allowable | 83,712 | | |

| Guy System Component Summary | | | | Load From Angle o | Worst Wind 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) | |
| Expanding - 10" 8-Way - Soil Class 4 | 30.0 | 145.0 | | 18.3 | 250.0 | 19.5 | 280.0 | |
| EHS 3/8 (Down) | | | 33.5 | 5.5 | 250.0 | 6.5 | 280.0 | |
| EHS 3/8 (Down) | | | 33.5 | 5.5 | 250.0 | 6.5 | 280.0 | |
| EHS 3/8 (Down) | | | 28.0 | 12.9 | 250.0 | 14.9 | 299.3 | |
| Expanding - 10" 8-Way - Soil Class 4 | 28.0 | 145.0 | | 13.6 | 250.0 | 14.8 | 340.0 | |
| EHS 3/8 (Down) | | | 23.0 | 17.7 | 250.0 | 21.1 | 340.0 | |
| Expanding - 10" 8-Way - Soil Class 4 | 25.0 | 145.0 | | 14.6 | 250.0 | 15.4 | 330.0 | |
| EHS 3/8 (Down) | | | 22.0 | 19.0 | 250.0 | 22.1 | 330.0 | |
| | | System Capac | ity Summary: | Adec | ıuate | Aded | ıuate | |

| Groundline Load Summary | y - Reporting A | Angle Mode: L | oad - Reportii | ng Angle: 244 | .3° | | | | | |
|-------------------------|-------------------------|------------------------|------------------------------|--------------------------|-------------------------|--------------------------------|---------------------------|-----------------------------|--------------------------|-------------------------|
| | 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 | 225 | 14.3 | 6,410 | 20.9 | 7.7 | 521 | 46 | 0 | 521 | 7.7 |
| Comms | 1,852 | 117.9 | 41,177 | 134.5 | 49.2 | 3,345 | 768 | 7 | 3,352 | 49.3 |
| GuyBraces | -944 | -60.1 | -24,194 | -79.0 | -28.9 | -1,965 | 8,558 | 83 | -1,882 | -27.7 |
| Pole | 417 | 26.5 | 6,567 | 21.4 | 7.9 | 534 | 1,894 | 18 | 552 | 8.1 |
| Insulators | 21 | 1.3 | 666 | 2.2 | 0.8 | 54 | 61 | 1 | 55 | 0.8 |
| Pole Load | 1,571 | 100.0 | 30,626 | 100.0 | 36.6 | 2,488 | 11,327 | 110 | 2,598 | 38.2 |
| Pole Reserve Capacity | | | 53,086 | | 63.4 | 4,312 | | | 4,202 | 61.8 |

| Load Summary by Owner | Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 244.3° | | | | | | | | | | | | | | |
|------------------------------|--|------------------------|------------------------------|--------------------------|-------------------------|--------------------------------|---------------------------|-----------------------------|--------------------------|-------------------------|--|--|--|--|--|
| | Shear Load* (Ibs) | 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 | 642 | 40.8 | 12,977 | 42.4 | 15.5 | 1,054 | 1,941 | 19 | 1,073 | 15.8 | | | | | |
| CATV | 855 | 54.5 | 19,547 | 63.8 | 23.4 | 1,588 | 246 | 2 | 1,590 | 23.4 | | | | | |
| AT&T | 996 | 63.4 | 21,630 | 70.6 | 25.8 | 1,757 | 522 | 5 | 1,762 | 25.9 | | | | | |
| <undefined></undefined> | -923 | -58.7 | -23,528 | -76.8 | -28.1 | -1,911 | 8,619 | 84 | -1,828 | -26.9 | | | | | |
| Totals: | 1,571 | 100.0 | 30,626 | 100.0 | 36.6 | 2,488 | 11,327 | 110 | 2,598 | 38.2 | | | | | |

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 | AAC 4 AWG 7 STRAND ROSE | FPL | 33.47 | 13.27 | 0.2320 | 0.44 | 0.039 | 98.0 | 270.0 | 98.1 | 291 | 11,395 | 1 | 74 | 11,470 |
| Primary | AAC 4 AWG 7 STRAND ROSE | FPL | 33.47 | 13.27 | 0.2320 | 2.61 | 0.039 | 270.0 | 0.0 | 270.0 | 291 | -5,492 | -2 | 1,165 | -4,330 |
| Primary | AAC 4 AWG 7 STRAND ROSE | FPL | 32.47 | 13.29 | 0.2320 | 2.61 | 0.039 | 270.0 | 0.0 | 270.0 | 291 | -5,328 | -2 | 1,130 | -4,200 |
| Primary | AAC 4 AWG 7 STRAND ROSE | FPL | 31.47 | 13.31 | 0.2320 | 2.61 | 0.039 | 270.0 | 0.0 | 270.0 | 291 | -5,164 | -2 | 1,095 | -4,071 |
| Secondary | ACSR 6 AWG 6/1 TURKEY | FPL | 27.97 | 6.53 | 0.1980 | 0.23 | 0.036 | 98.0 | 270.0 | 98.0 | 393 | 12,862 | -1 | 53 | 12,914 |
| Secondary | ACSR 6 AWG 6/1 TURKEY | FPL | 27.97 | 6.53 | 0.1980 | 1.57 | 0.036 | 270.0 | 0.0 | 270.0 | 393 | -6,199 | -5 | 831 | -5,373 |
| | | | | | | | | | | | Totals: | 2,074 | -11 | 4,347 | 6,410 |

| Comm | | Owner | Height (ft) | Horiz. Offset (in) | Cable Diameter (in) | Sag at Max Temp | 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) |
|-------------------|-------------------------------------|-------|----------------|--------------------------|---------------------------|-----------------------|-----------------------------|-----------------------------|------------------------|------------------------|------------------|-------------------------------|------------------------------|----------------------------|-----------------------------|
| Overlashed Bundle | 6M STRAND | CATY | 22.00 | 6.83 | 0.2420 | (ft) 5.92 | 0.104 | 270.0 | 0.0 | 270.0 | 1 200 | 15 570 | -14 | 1 277 | 14 045 |
| - | | CATV | 23.00 | | | 5.92 | | | | | 1,200 | -15,578 | | 1,377 | -14,215 |
| CATV | CATV | CATV | 22.97 | 6.83 | 0.5700 | | 0.600 | 270.0 | 0.0 | 270.0 | | | -79 | 1,375 | 1,296 |
| Overlashed Bundle | 6M STRAND | CATV | 23.00 | 6.83 | 0.2420 | 0.86 | 0.104 | 98.0 | 270.0 | 98.0 | 1,200 | 32,322 | -5 | 88 | 32,404 |
| CATV | CATV | CATV | 22.97 | 6.83 | 0.5700 | | 0.600 | 98.0 | 270.0 | 98.0 | | | -29 | 90 | 62 |
| Overlashed Bundle | 6M STRAND | AT&T | 22.00 | 6.89 | 0.2420 | 12.30 | 0.104 | 270.0 | 0.0 | 270.0 | 1,200 | -14,901 | -14 | 1,712 | -13,203 |
| Fiber Irregular | FlexNap Ribbon Cable - 72 FIBERS | AT&T | 21.98 | 6.60 | 0.5980 | | 0.057 | 270.0 | 0.0 | 270.0 | | | -7 | 2,137 | 2,130 |
| Telco | BKTS 200 PR. | AT&T | 21.96 | 7.29 | 0.9300 | | 1.400 | 270.0 | 0.0 | 270.0 | | | -199 | 1,709 | 1,510 |
| Overlashed Bundle | 6M STRAND | AT&T | 22.00 | 6.89 | 0.2420 | 1.50 | 0.104 | 98.0 | 270.0 | 98.0 | 1,200 | 30,916 | -5 | 89 | 31,000 |
| Fiber Irregular | FlexNap Ribbon Cable - 72 FIBERS | AT&T | 21.97 | 6.61 | 0.5980 | | 0.057 | 98.0 | 270.0 | 98.0 | | | -3 | 89 | 86 |
| Telco | BKTS 100 PR. | AT&T | 21.97 | 7.19 | 0.6700 | | 1.140 | 98.0 | 270.0 | 98.0 | | | -58 | 164 | 106 |
| | | | | | | | | | | | Totals: | 32,758 | -411 | 8,830 | 41,177 |

| 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 - 15 kV | | 33.50 | 0.00 | 0.0 | 0.0 | 3.00 | 3.80 | 12.75 | 5 | 177 | 181 |
| Deadend | Deadend Insulator - 15 kV | | 33.50 | 0.00 | 90.0 | 90.0 | 3.00 | 3.80 | 12.75 | -4 | 177 | 172 |
| Deadend | Deadend Insulator - 15 kV | | 32.50 | 0.00 | 90.0 | 90.0 | 3.00 | 3.80 | 12.75 | -4 | 171 | 167 |
| Deadend | Deadend Insulator - 15 kV | | 31.50 | 0.00 | 90.0 | 90.0 | 3.00 | 3.80 | 12.75 | -4 | 166 | 162 |
| Bolt | Single Bolt | | 28.00 | 0.00 | 0.0 | 0.0 | 5.00 | 3.00 | 0.00 | -2 | 0 | -2 |
| Bolt | Single Bolt | | 28.00 | 0.00 | 90.0 | 90.0 | 5.00 | 3.00 | 0.00 | -5 | 0 | -5 |
| Bolt | Single Bolt | | 23.00 | 0.00 | 90.0 | 0.0 | 5.00 | 3.00 | 0.00 | -5 | 0 | -5 |

O-Calc® Pro Analysis Report

Thursday, January 16, 2025 11:13 AM

| Bolt | Single Bolt | 22.00 | 0.00 | 90.0 | 0.0 | 5.00 | 3.00 | 0.00 | -5 | 0 | -5 |
|------|-------------|-------|------|------|-----|------|------|---------|-----|-----|-----|
| | | | | | | | | Totals: | -25 | 691 | 666 |

| 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 | | 33.50 | 0.00 | 30.00 | 0.375 | 75.00 | 145.0 | 48.0 | 0.273 | 44.27 | 0.21 |
| EHS 3/8 | Down | | 33.50 | 0.00 | 30.00 | 0.375 | 75.00 | 145.0 | 48.0 | 0.273 | 44.27 | 0.21 |
| EHS 3/8 | Down | | 28.00 | 0.00 | 30.00 | 0.375 | 75.00 | 145.0 | 42.9 | 0.273 | 40.29 | 0.45 |
| EHS 3/8 | Down | | 23.00 | 0.00 | 28.00 | 0.375 | 75.00 | 145.0 | 39.3 | 0.273 | 35.46 | 0.55 |
| EHS 3/8 | Down | | 22.00 | 0.00 | 25.00 | 0.375 | 75.00 | 145.0 | 41.2 | 0.273 | 32.53 | 0.54 |

| Guy Wire and (Loads and Re | | 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 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 | 899 | 817 | 760 | 565 | 509 | -82 | -2,396 |
| EHS 3/8 | Down | 2.30e+7 | 15,400 | 0.90 | 13,860 | 700 | 899 | 817 | 760 | 565 | 509 | -82 | -2,396 |
| EHS 3/8 | Down | 2.30e+7 | 15,400 | 0.90 | 13,860 | 700 | 2,064 | 1,877 | 1,785 | 1,215 | 1,308 | -211 | -5,651 |
| EHS 3/8 | Down | 2.30e+7 | 15,400 | 0.90 | 13,860 | 700 | 2,923 | 2,657 | 2,450 | 1,551 | 1,896 | -305 | -6,872 |
| EHS 3/8 | Down | 2.30e+7 | 15,400 | 0.90 | 13,860 | 700 | 3,056 | 2,779 | 2,629 | 1,732 | 1,977 | -318 | -6,879 |
| | | | | | | | | | Totals: | 5,628 | 6,199 | -998 | -24,194 |

| 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 MCU ³ (lbs) | Max Required Capacity² (%) |
|--------------------------------------|-------|---------------------------|---------------------|---------------------|----------------------------------|----------------------------------|----------------------------|--------------------|---|----------------------------------|
| Expanding - 10" 8-Way - Soil Class 4 | | 6.00 | 30.00 | 145.0 | 18,000 | 1.00 | 18,000 | 3,506 | 3,301 | 19.5 |
| Expanding - 10" 8-Way - Soil Class 4 | | 6.00 | 28.00 | 145.0 | 18,000 | 1.00 | 18,000 | 2,657 | 2,450 | 14.8 |
| Expanding - 10" 8-Way - Soil Class 4 | | 6.00 | 25.00 | 145.0 | 18,000 | 1.00 | 18,000 | 2,778 | 2,629 | 15.4 |

| Pole Buckling | | | | | | | | | | | | | |
|---------------------|----------|--|---|--|----------------------------|---------------------------|-----------------------------------|--------------------------|----------------------|----------------------------|--|---|--------------------------------------|
| Buckling Constan | | 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 24.46 | 33.90 | 10.45 | 15.63 | 7.32 | 11.46 | 1.60e+6 | 60.00 | 57.00 | 34.00 | 182,369 | 1826.91 | 16.13 |

| 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 | | | | |

User:Giulliana DESKTOP-80LQLSV OCP:5.02

General Statement: Non-AT&T facilities may not be accurately identified pending attachment information from attaching party.