SAP Equip ID:	**TBA**	Pole Length / Class:	**50 / 3**	Code:	**GO 95**	Structure Type:	**Angle**
PM Order Number	**35378297**	Species:	**DOUGLAS FIR**	GO 95 Rule:	**At Installation (New)**	Pole Strength Factor:	**0.25**
Estimator LAN ID	**B4LB**	Setting Depth (ft):	**8.0**	Construction Grade:	**A**	Transverse Wind LF:	**1.00**
Sketch Location	**LOC_1**	G/L Circumference (in):	**38.27**	Loading District:	**Heavy**	Wire Tension LF:	**1.00**
Joint Pole Number	**PG225283XB-1**	G/L Fiber Stress (psi):	**7,600**	Ice Thickness (in):	**0.50**	Vertical LF:	**1.00**
Notification	**117820328**	Allowable Stress (psi):	**1,819**	Wind Speed (mph):	**48.41**	Pole Factor of Safety:	**4.77**
Aux Data 6	**Unset**	Fiber Stress Ht. Reduc:	**No**	Wind Pressure (psf):	**6.00**	Vertical Factor of Safety:	**8.89**
Latitude:	**38.23402**	Longitude:	**-120.518361**	Elevation:	**2660.4'**	Bending Factor of Safety:	**5.48**

Pole Capacity Utilization (%) Crossarm allowance 300 lbs		**Height (ft)**	**Wind Angle (deg)**
Maximum	**83.9**	40.0	181.2
Groundline	**49.4**	0.0	155.6
Vertical	**45.0**	35.5	151.0

Pole Moments (ft-lb) Crossarm allowance 300 lbs		**Load Angle (deg)**	**Wind Angle (deg)**
Max Cap Util	**4,010**	205.0	181.2
Groundline	**12,980**	155.7	155.6
GL Allowable	**26,905**		
Overturn	**91,000**		

Guy System Component Summary				Load From Worst Wind Angle on Pole		Individual Maximum Load With Overload Applied	
Description	**Lead Length (ft)**	**Lead Angle (deg)**	**Height (ft)**	**Nominal Capacity (%)**	**Wind Angle (deg)**	**Max* Load Capacity (%)**	**Wind Angle (deg)**
Anchor - 20M	20.0	27.0		**46.4**	181.2	**46.5**	175.6
EHS 7/16 (Down)			40.0	**73.7**	181.2	**73.7**	175.6
EHS 7/32 (Down)			24.0	**62.5**	181.2	**62.5**	175.6
Anchor - 20M	20.0	275.0		**43.3**	181.2	**45.3**	125.0
EHS 7/16 (Down)			37.0	**69.6**	181.2	**72.5**	130.0
EHS 7/32 (Down)			24.0	**54.0**	181.2	**58.1**	120.0
			System Capacity Summary:	**Adequate**		**Adequate**	

Groundline Load Summary - Reporting Angle Mode: Load - Reporting Angle: 155.7°										
	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	3,957	456.5	**72,770**	560.6	**270.5**	**10,608**	723	6	**10,614**	**583.6**
Comms	1,506	173.7	**16,873**	130.0	**62.7**	**2,460**	550	5	**2,464**	**135.5**
GuyBraces	-4,864	-561.1	**-79,725**	-614.2	**-296.3**	**-11,622**	15,795	136	**-11,486**	**-631.5**
GenericEquipments	14	1.6	**369**	2.9	**1.4**	**54**	490	4	**58**	**3.2**
Pole	185	21.3	**1,779**	13.7	**6.6**	**259**	1,334	11	**271**	**14.9**
Crossarms	15	1.8	**273**	2.1	**1.0**	**40**	108	1	**41**	**2.2**
Risers	39	4.5	**371**	2.9	**1.4**	**54**	0	0	**54**	**3.0**
Insulators	15	1.7	**269**	2.1	**1.0**	**39**	37	0	**39**	**2.2**
Pole Load	867	100.0	**12,980**	100.0	**48.2**	**1,892**	19,038	163	**2,055**	**113.0**
Pole Reserve Capacity			**13,925**		**51.8**	**-73**			**-237**	**-13.0**

Load Summary by Owner - Reporting Angle Mode: Load - Reporting Angle: 155.7°

	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 (%)
PG&E	281	32.4	**6,625**	51.0	**24.6**	**966**	14,682	126	**1,092**	**60.0**
Comm	401	46.2	**4,576**	35.3	**17.0**	**667**	3,021	26	**693**	**38.1**
Pole	185	21.3	**1,779**	13.7	**6.6**	**259**	1,334	11	**271**	**14.9**
JOINTLY OWNED	0	0.0	**0**	0.0	**0.0**	**0**	0	0	**0**	**0.0**
Totals:	867	100.0	**12,980**	100.0	**48.2**	**1,892**	19,038	163	**2,055**	**113.0**

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	2 (7/1) ACSR (SPARATE) HVY	PG&E	41.00	43.70	0.3250	0.48	0.107	205.9	205.7	205.9	1,690	2,857	-4	58	2,910
Primary	2 (7/1) ACSR (SPARATE) HVY	PG&E	41.00	43.72	0.3250	0.49	0.107	206.8	206.7	206.8	1,690	2,795	6	61	2,862
Primary	2 (7/1) ACSR (SPARATE) HVY	PG&E	38.00	43.83	0.3250	1.49	0.107	281.0	94.5	281.0	1,690	2,009	1	201	2,211
Primary	2 (7/1) ACSR (SPARATE) HVY	PG&E	38.00	43.83	0.3250	1.49	0.107	281.4	94.4	281.4	1,690	2,005	-1	201	2,205
											Totals:	**9,665**	**3**	**521**	**10,189**

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)
Overlashed Bundle	1.25" Communication Bundle	Comm	24.00	7.20	0.2420	7.29	0.121	281.5	94.5	282.0	1,200	900	4	156	1,060
Telco	CU CABLE	Comm	23.95	7.20	1.0000		0.600	281.5	94.5	282.0			6	60	66
Overlashed Bundle	1.25" Communication Bundle	Comm	24.00	7.20	0.2420	3.78	0.121	206.9	206.5	207.1	1,200	1,171	2	43	1,216
Telco	CU CABLE	Comm	23.95	7.20	1.0000		0.600	206.9	206.5	207.1			4	17	20
											Totals:	**2,071**	**16**	**275**	**2,363**

GenericEquipment		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)
Imported	15 kVA 1PH TX	PG&E	34.50	16.72	93.0	0.0	490.00	--	--	--	--	20	31	52
											Totals:	**20**	**31**	**52**

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	8L Composite Dead-End Arm	PG&E	41.00	-6.03	206.6	206.6	54.00	3.63	4.63	96.00	-1	36	35
Normal	8L Composite Dead-End Arm	PG&E	38.00	-6.20	94.6	94.6	54.00	3.63	4.63	96.00	-1	4	3
										Totals:	**-2**	**40**	**38**

Riser		**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)**
Riser 4" PG&&E 45.0° H:31.0	Riser 4" PG&&E	PG&E	31.00	6.32	45.0	45.0	31.00	372.00	4.00	4.00	372.00	0	52	52
											Totals:	**0**	**52**	**52**

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)**
Pin	Pin-Poly Light 7.5	PG&E	41.15	-44.00	108.8	0.0	6.00	5.50	7.50	0	4	4
Deadend	Dead-End Insulator	PG&E	41.00	42.00	304.7	-0.6	4.00	3.90	18.75	0	7	7
Deadend	Dead-End Insulator	PG&E	41.00	-42.00	108.4	0.5	4.00	3.90	18.75	0	7	7
Pin	Pin-Poly Light 7.5	PG&E	38.15	44.00	192.7	0.0	6.00	5.50	7.50	0	4	4
Deadend	Dead-End Insulator	PG&E	38.00	42.00	193.0	0.0	4.00	3.90	18.75	0	7	7
Deadend	Dead-End Insulator	PG&E	38.00	-42.00	356.2	0.0	4.00	3.90	18.75	0	7	7
Bolt	Insulator	Comm	24.00	0.00	147.4	147.4	8.99	3.00	8.00	0	1	1
									Totals:	**0**	**38**	**38**

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 7/16	Down	PG&E	40.00	0.00	20.00	0.438	75.00	27.0	63.2	0.399	49.38	1.75
EHS 7/32	Down	Comm	24.00	0.00	20.00	0.219	75.00	27.0	50.0	0.096	35.03	1.09
EHS 7/16	Down	PG&E	37.00	0.00	20.00	0.438	75.00	275.0	61.4	0.399	46.61	1.56
EHS 7/32	Down	Comm	24.00	0.00	20.00	0.219	75.00	275.0	50.0	0.096	35.03	0.95

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 7/16	Down	2.30e+7	20,800	0.50	10,400	700	7,668	7,668	7,664	6,841	3,454	-2,159	-84,374
EHS 7/32	Down	2.30e+7	5,400	0.50	2,700	700	1,688	1,688	1,686	1,292	1,083	-677	-15,925
EHS 7/16	Down	2.30e+7	20,800	0.50	10,400	700	7,538	7,538	7,238	6,354	3,465	-1,697	-61,001
EHS 7/32	Down	2.30e+7	5,400	0.50	2,700	700	1,568	1,568	1,458	1,118	937	-459	-10,614
									Totals:	**15,605**	**8,939**	**-4,991**	**-171,914**

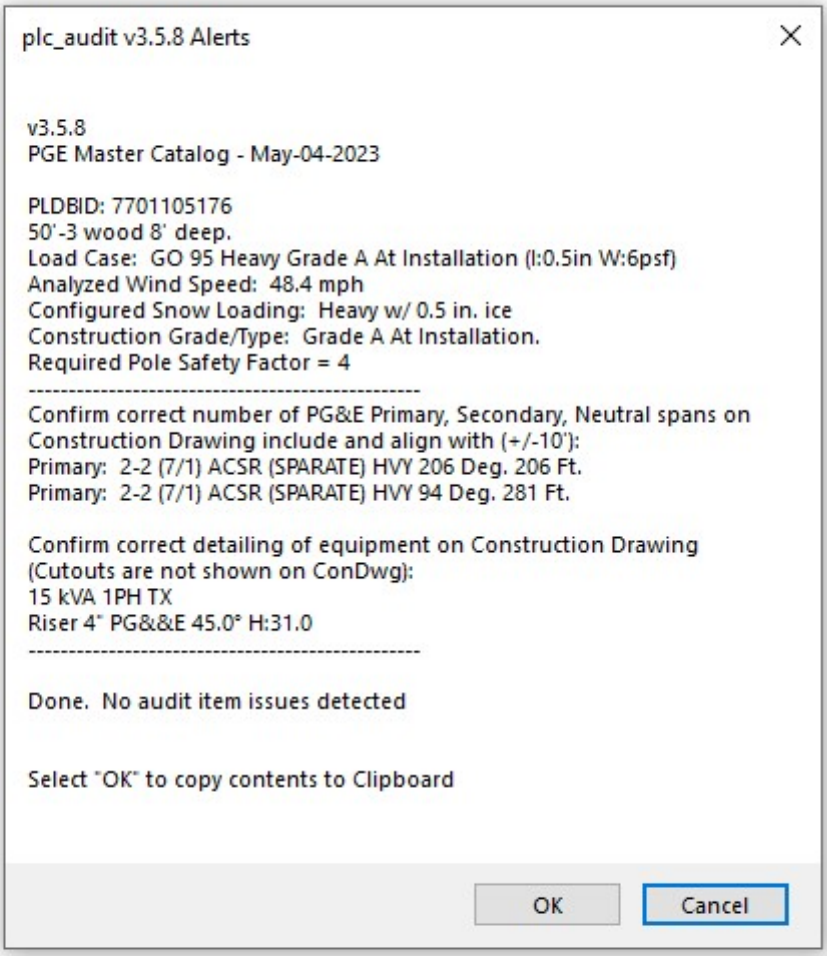
Anchor/Rod Load Summary	Owner	Rod Length AGL (in)	Lead Length (ft)	Lead Angle (deg)	Strength of Assembly (lbs)	Anchor/Rod Strength Factor	Allowable Load (lbs)	Max Load[2] (lbs)	Load at Pole MCU[3] (lbs)	Max Required Capacity[2] (%)
Anchor - 20M	JOINTLY OWNED	30.00	20.00	27.0	40,000	0.50	20,000	9,294	9,288	46.5
Anchor - 20M	JOINTLY OWNED	30.00	20.00	275.0	40,000	0.50	20,000	9,062	8,653	45.3

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	35.50	35.06	10.74	10.00	7.32	12.19	2.38e+6	60.00	57.00	42.00	41,935	**423.06**	**2.22**

Notes

Date	Author	Description
10/4/2015	BEN1	Set Height to Minimum of 3.25 ft Below Primary Conductor


plc_audit v3.5.8 Alerts
v3.5.8
PGE Master Catalog - May-04-2023
PLDBID: 7701105176
50'-3 wood 8' deep.
Load Case: GO 95 Heavy Grade A At Installation (I:0.5in W:6psf)
Analyzed Wind Speed: 48.4 mph
Configured Snow Loading: Heavy w/ 0.5 in. ice
Construction Grade/Type: Grade A At Installation.
Required Pole Safety Factor = 4

Confirm correct number of PG&E Primary, Secondary, Neutral spans on Construction Drawing include and align with (+/-10'):
Primary: 2-2 (7/1) ACSR (SPARATE) HVY 206 Deg. 206 Ft.
Primary: 2-2 (7/1) ACSR (SPARATE) HVY 94 Deg. 281 Ft.
Confirm correct detailing of equipment on Construction Drawing (Cutouts are not shown on ConDwg):
15 kVA 1PH TX
Riser 4" PG&&E 45.0° H:31.0

Done. No audit item issues detected
Select "OK" to copy contents to Clipboard
OK
Cancel