

# A review of “Overview Reports”



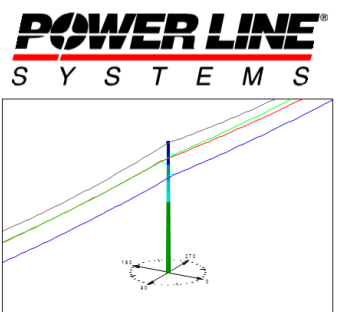
Graeme Louw P.E. & Ryan Rickgauer  
June, 2026

# Original vision

- A simple overview of a distribution pole's usage = a "1 pager"
- Color coding based on Usage of elements:
  - **Yellow** |  $75\% \leq \text{USAGE} < 100\%$
  - **Red** |  $\text{USAGE} \geq 100\%$
- Quickly realized this could offer a lot more information.

TP-690-1.075.PDL LOADS BASED ON EXAMPLE.CRI (K) AND WRITTEN 3:38:05 PM 5/20/2026 BY QMARIE LOUW WITH PLS-GADD 21.01 LICENSED TO POWER LINE SYSTEMS, INC.

LINE ORIGINAL	POLE NUMBER 25	TYPE TP-69G
NOTES TANGENT HORIZONTAL LINE POST		
LOCATION		
COMMENTS		
LATITUDE (DMS) 42°58'20.517"N	LONGITUDE (DMS) 89°32'21.694"W	GROUND ELEVATION (FT) 960.5



TYPE	USAGE	LABEL	LOAD CASE
POLE	99.99	WOOD POLE 25	RULE 250C GRADE C NA+J NA+
INSULATOR	37.50	POST 25	RULE 250B GRADE C NA+J NA+

WOOD POLE LABEL	PROPERTY LABEL	STOCK NUMBER	SPECIES	CLASS	LENGTH (FT)	EMBED (FT)	MODELS	OL DIAL (IN)	OL ORG (IN)
P	SP-175	175	SP - PINE, SOUTHERN	1	75.0	9.5		15.3	51.2

WOOD POLE LABEL	MAXIMUM USAGE %	LOAD CASE	WEIGHT ADJ. (FT)	WEIGHT (LBS)
P	99.99	RULE 250C GRADE C NA+J NA+	12.8	4310.7

INSULATOR LABEL	INSULATOR TYPE	MAXIMUM USAGE %	LOAD CASE	WEIGHT (LBS)
B	SUSPENSION	3.18	RULE 250C GRADE C NA+J NA+	3.3
C	POST	33.80	RULE 250B GRADE C NA+J NA+	37.0
L	POST	35.76	RULE 250B GRADE C NA+J NA+	37.0
R	POST	37.83	RULE 250B GRADE C NA+J NA+	37.0

LOAD CASE	FOUNDATION DESCRIPTION	AXIAL FORCE (KIPS)	BURST FORCE (KIPS)	RESULTANT FORCE (KIPS)	BENDING MOMENT (FT-K)	FOUNDATION USAGE %
RULE 250B GRADE C NA+J NA+	P/O	0.85	1.45	9.95	94.75	0.00
RULE 250B GRADE C NA+J NA+	P/O	0.85	1.70	10.00	90.85	0.00
RULE 250B GRADE C UPLIFT NA+J NA+	P/O	5.23	1.48	5.40	81.06	0.00
RULE 250B GRADE C UPLIFT NA+J NA+	P/O	5.20	1.70	5.47	80.43	0.00
RULE 250C GRADE C NA+J NA+	P/O	4.44	2.32	5.01	107.77	0.00
RULE 250C GRADE C NA+J NA+	P/O	4.44	2.45	5.07	112.80	0.00
RULE 250C GRADE C NA+J NA+	P/O	0.59	1.15	0.89	75.80	0.00
RULE 250C GRADE C NA+J NA+	P/O	0.59	1.35	0.73	78.83	0.00
RULE 277 INSULATORS NA+J NA+	P/O	5.18	0.81	5.24	45.10	0.00
RULE 277 INSULATORS NA+J NA+	P/O	5.18	1.00	5.27	52.08	0.00
EXTREME ICE NA+J NA+	P/O	5.19	0.08	5.19	2.07	0.00
EXTREME ICE NA+J NA+	P/O	5.19	0.08	5.19	2.07	0.00
UPLIFT NA+	P/O	4.31	0.10	4.31	4.88	0.00
RULE 2514 GRADE C & GRADE C WIND (WIND TOWARDS 40)	P/O	3.45	1.15	3.65	35.95	0.00

PAGE 1 OF 11

PAGE 1 OF 11

LOAD CASE	MAXIMUM USAGE %	ELEMENT LABEL	ELEMENT TYPE
RULE 250B GRADE C NA+J NA+	100.87	P	WOOD POLE
RULE 250B GRADE C NA+J NA+	67.07	C	POST
RULE 250B GRADE C NA-J NA-	94.63	P	WOOD POLE
RULE 250B GRADE C NA-J NA-	71.24	C	POST
RULE 250B GRADE C UPLIFT NA+J NA+	70.96	P	WOOD POLE
RULE 250B GRADE C UPLIFT NA+J NA+	35.30	C	POST
RULE 250B GRADE C UPLIFT NA-J NA-	73.41	P	WOOD POLE
RULE 250B GRADE C UPLIFT NA-J NA-	37.50	C	POST
RULE 250C GRADE C NA+J NA+	81.75	P	WOOD POLE
RULE 250C GRADE C NA+J NA+	19.94	C	POST
RULE 250C GRADE C NA-J NA-	83.95	P	WOOD POLE
RULE 250C GRADE C NA-J NA-	21.17	C	POST
RULE 250D GRADE C NA+J NA+	93.42	P	WOOD POLE
RULE 250D GRADE C NA+J NA+	60.06	C	POST
RULE 250D GRADE C NA-J NA-	85.10	P	WOOD POLE
RULE 250D GRADE C NA-J NA-	63.29	C	POST
RULE 277 INSULATORS NA+J NA+	0.00	C	WOOD POLE

# Overview Report updates

- Configure Geometry details:
  - Draw Style
  - Color
  - Labels
  - Structure Compass
  - Wires
  - Placement
  - Dimension lines (auto-program generated)
  - Usage "Heat Map" Legend
  - Scaling
  - View Rotation
  - Landscape/portrait

The image shows two overlapping software configuration windows. The top window, titled "Structure Overview Report Configuration", contains fields for "Location", "Comments", and "Picture", each with a dropdown arrow. Below these is a checkbox for "Display Longitude and Latitude in Degrees, Minutes, Seconds" and a "Minimum Text Height (in)" input field. A yellow button labeled "Configure Geometry Details" is highlighted, with a red arrow pointing from it to the second window. The second window, titled "Structure Overview Report Geometry Configuration", displays a table of settings:

Structure Draw Style	Render
Structure Color	Usage
Structure Joint Label	Set:Phase
Show Structure Compass	No
Show Wires	No
Geometry Placement	Enlarged On First Page
Show Dimension Lines	No
Show Heat Map Legend	Yes
Scaling	1
Longitude Horizontal Rotation (deg)	30.000000
Latitude Vertical Rotation (deg)	20.000000
Geometry Orientation	Portrait

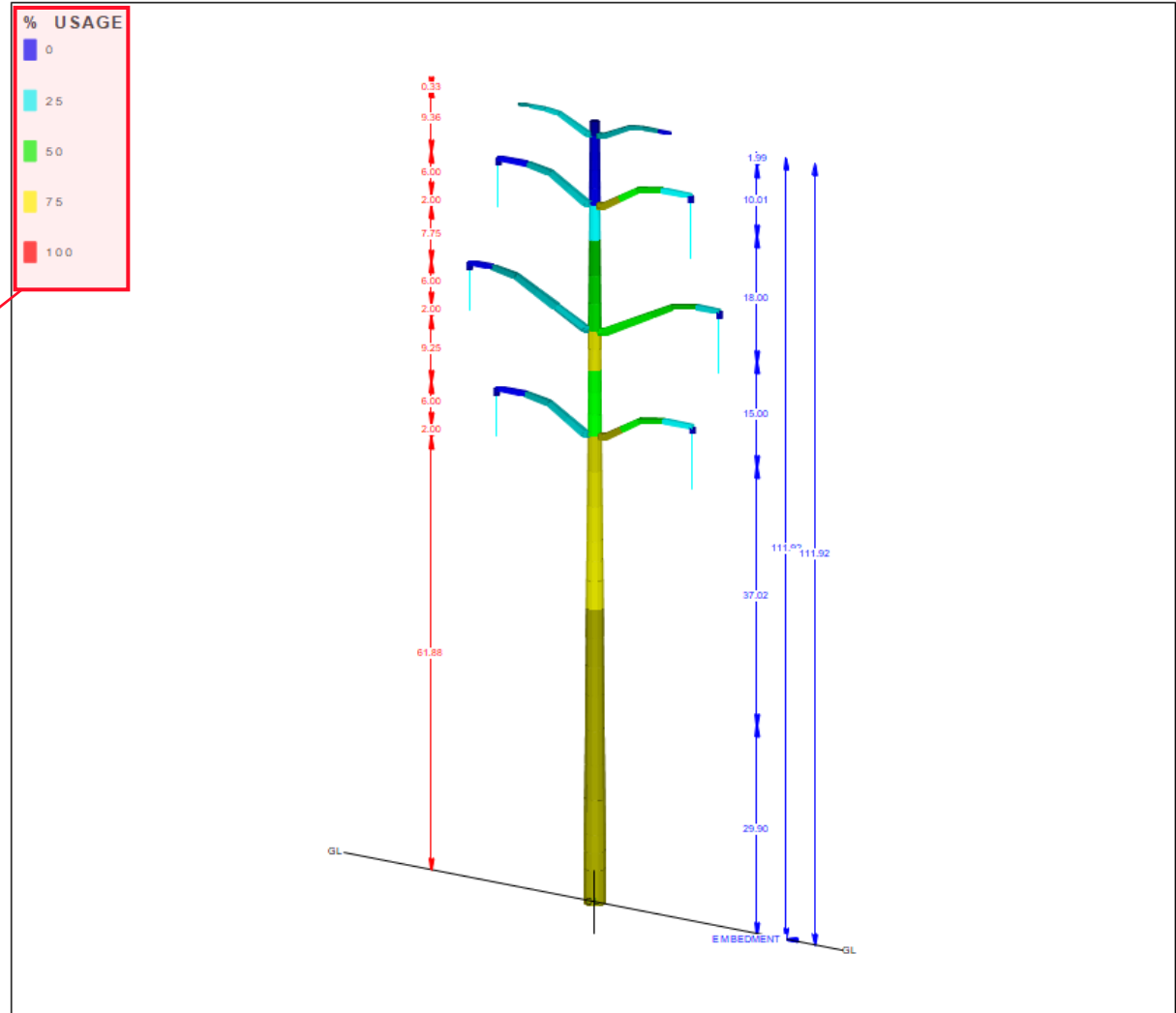
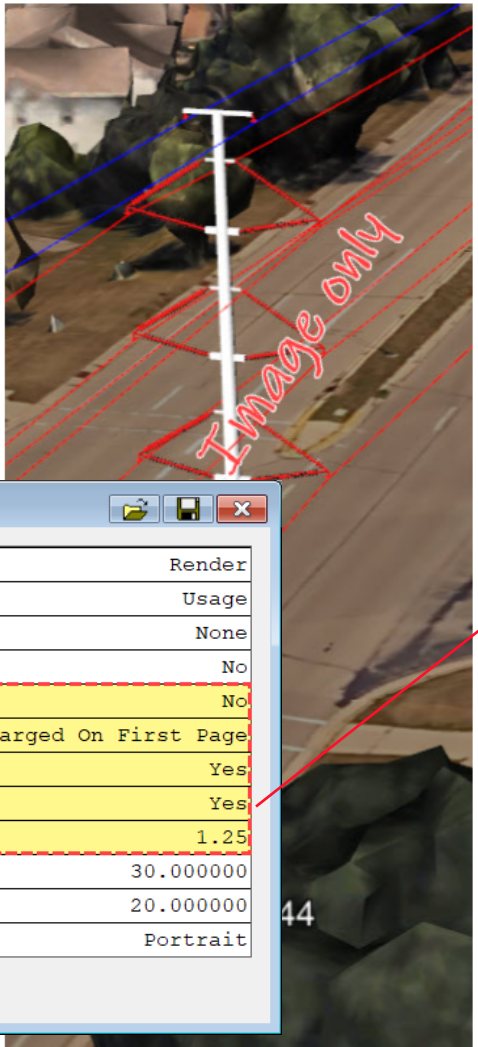
Below the table are "OK" and "Cancel" buttons. At the bottom of the overall configuration area, there is a checkbox for "Save Report to PDF" and a dropdown menu for "Copy PDF into Structure Comment:" with "OK" and "Cancel" buttons.

<b>LINE</b>	ORIGINAL	<b>POLE NUMBER</b>	7	<b>TYPE</b>	DOUBLE CIRCUIT TUBULAR STEEL DAVIT...
<b>NOTES</b>	STRUCTURE FOR DEMO PROJECT				
<b>LOCATION</b>					
<b>COMMENTS</b>					
<b>LATITUDE (DEG)</b>	41.76026755	<b>LONGITUDE (DEG)</b>	-97.20897313	<b>GROUND ELEVATION (FT)</b>	1351.0



ANALYSIS RESULTS MAXIMUM USAGE				
TYPE	USAGE	LABEL	LOAD CASE	
POLE	92.30	STEEL POLE "P"	RULE 250B NA+.S NA+	
ELEMENT	78.07	TUBULAR DAVIT "TR"	RULE 250D NA+.S NA+	
INSULATOR	41.84	SUSPENSION "I4"	RULE 250D NA-.S NA-	
FOUNDATION	11.04	FOUNDATION "P:G"	RULE 250C NA-.S NA-	
POLE DEFLECTION	90.45	"P"	RULE 250C NA+.S NA+	

STEEL POLE PROPERTIES AND EMBEDMENT									
POLE LABEL	PROPERTY LABEL	STOCK NUMBER	BASE PLATE	SHAPE	TUBES	LENGTH (FT)	EMBED. (FT)	MODELED GL DIAM. (IN)	GL CIRC. (IN)
P	DEMTAN3-20		NO	12F	4 TUBES	111.9	0.0	33.6	105.6



Structure Overview Report Geometry Configuration

Structure Draw Style	Render
Structure Color	Usage
Structure Joint Label	None
Show Structure Compass	No
Show Wires	No
Geometry Placement	Enlarged On First Page
Show Dimension Lines	Yes
Show Heat Map Legend	Yes
Scaling	1.25
Longitude Horizontal Rotation (deg)	30.000000
Latitude Vertical Rotation (deg)	20.000000
Geometry Orientation	Portrait

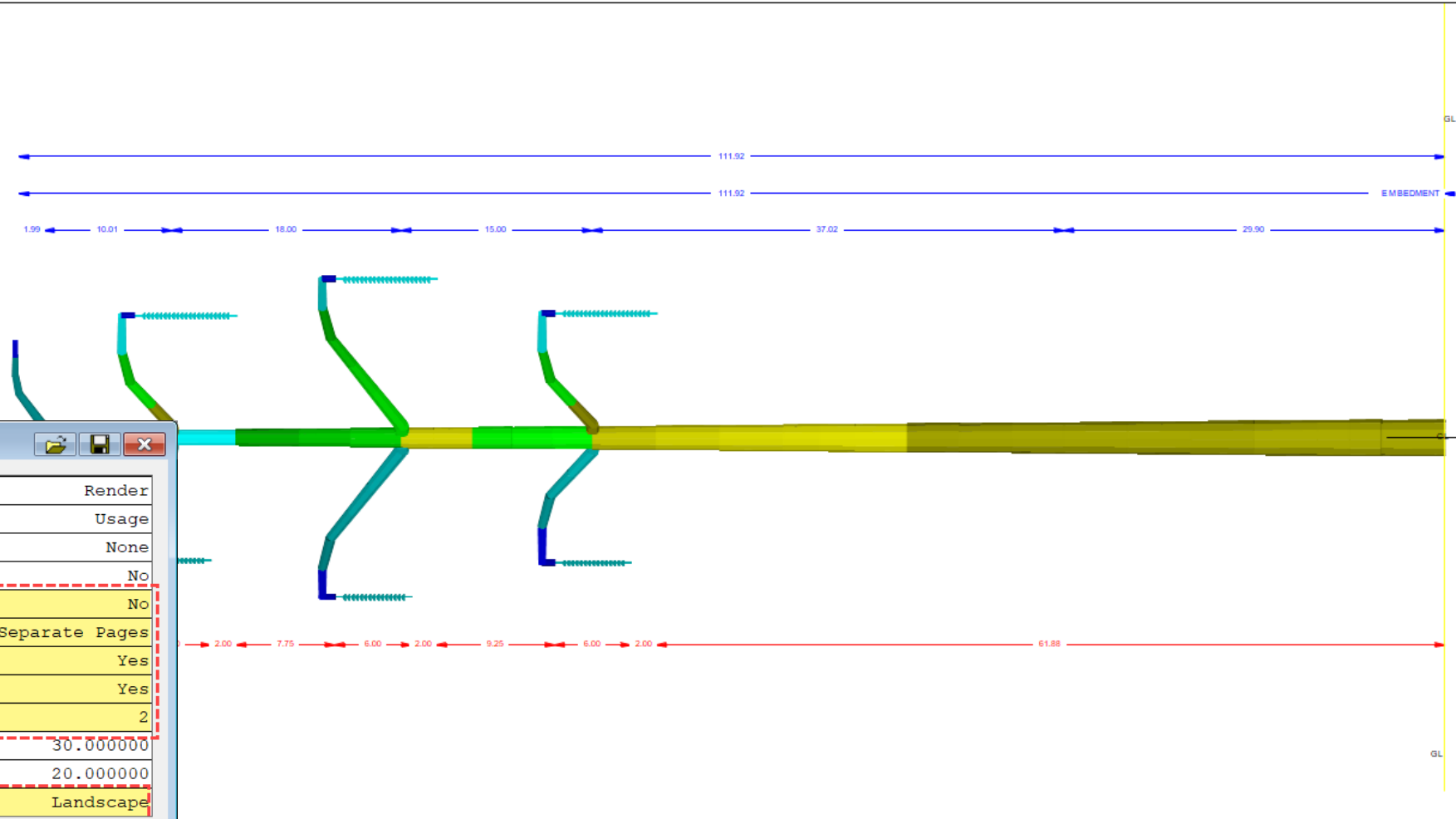
OK Cancel

<b>LINE</b>	ORIGINAL	<b>POLE NUMBER</b>	7	<b>TYPE</b>	DOUBLE CIRCUIT TUBULAR STEEL DAVIT...
<b>NOTES</b>	STRUCTURE FOR DEMO PROJECT				
<b>LOCATION</b>					
<b>COMMENTS</b>					
<b>LATITUDE (DEG)</b>	41.76026755	<b>LONGITUDE (DEG)</b>	-97.20897313	<b>GROUND ELEVATION (FT)</b>	1351.0



ANALYSIS RESULTS MAXIMUM USAGE				
TYPE	USAGE	LABEL	LOAD CASE	
POLE	92.30	STEEL POLE "P"	RULE 250B NA+.S NA+	
ELEMENT	78.07	TUBULAR DAVIT "TR"	RULE 250D NA+.S NA+	
INSULATOR	41.84	SUSPENSION "I4"	RULE 250D NA-.S NA-	
FOUNDATION	11.04	FOUNDATION "P:G"	RULE 250C NA-.S NA-	
POLE DEFLECTION	90.45	"P"	RULE 250C NA+.S NA+	

STEEL POLE PROPERTIES AND EMBEDMENT									
POLE LABEL	PROPERTY LABEL	STOCK NUMBER	BASE PLATE	SHAPE	TUBES	LENGTH (FT)	EMBED. (FT)	MODELED GL DIAM. (IN)	GL CIRC. (IN)
P	DEMTAN3-20		NO	12F	4 TUBES	111.9	0.0	33.6	105.6



Structure Overview Report Geometry Configuration

Structure Draw Style	Render
Structure Color	Usage
Structure Joint Label	None
Show Structure Compass	No
Show Wires	No
Geometry Placement	On Separate Pages
Show Dimension Lines	Yes
Show Heat Map Legend	Yes
Scaling	2
Longitude Horizontal Rotation (deg)	30.000000
Latitude Vertical Rotation (deg)	20.000000
Geometry Orientation	Landscape

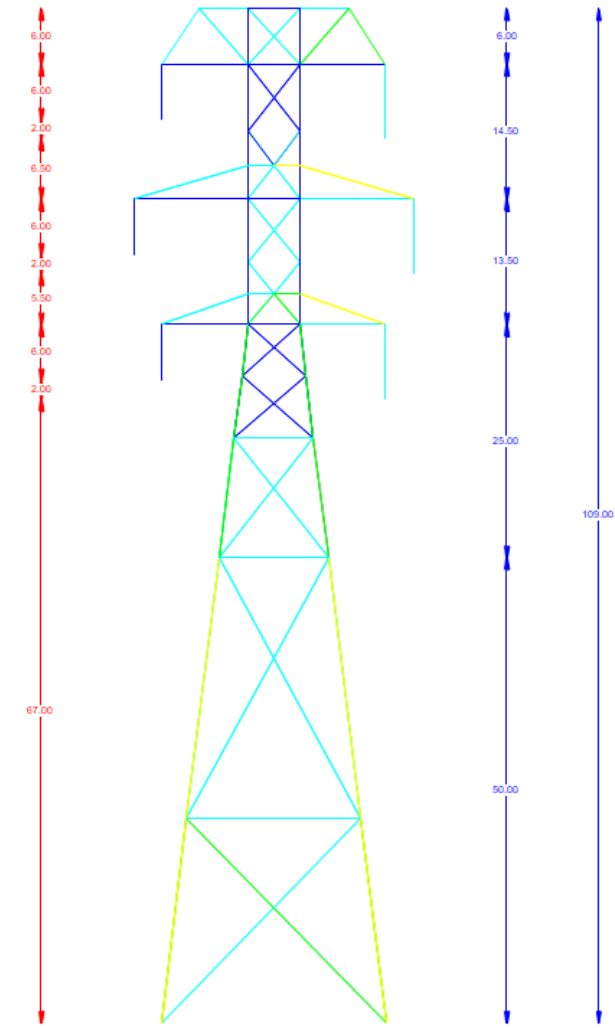
OK Cancel

<b>LINE</b>	ORIGINAL	<b>TOWER NUMBER</b>	4	<b>TYPE</b>	TANGENT TOWER A1
<b>NOTES</b>					
<b>LOCATION</b>					
<b>COMMENTS</b>					
<b>LATITUDE (DEG)</b>	41.76418565	<b>LONGITUDE (DEG)</b>	-97.21288793	<b>GROUND ELEVATION (FT)</b>	1408.5



ANALYSIS RESULTS MAXIMUM USAGE				
TYPE	USAGE	LABEL	LOAD CASE	
ELEMENT	97.63	ANGLE "46Y"	RULE 250D NA-,S NA-	
INSULATOR	32.52	SUSPENSION "16"	RULE 250D NA-,S NA-	

SUMMARY OF INSULATOR USAGES					
INSULATOR LABEL	INSULATOR TYPE	MAXIMUM USAGE %	LOAD CASE		WEIGHT (LBS)
C1	CLAMP	2.17	RULE 250D NA-,S NA-		0.0
C2	CLAMP	3.11	RULE 250D NA+,S NA+		0.0
I1	SUSPENSION	23.70	RULE 250D NA+,S NA+		200.0
I2	SUSPENSION	23.68	RULE 250D NA+,S NA+		200.0
I3	SUSPENSION	23.70	RULE 250D NA+,S NA+		200.0
I4	SUSPENSION	32.52	RULE 250D NA-,S NA-		300.0
I5	SUSPENSION	32.39	RULE 250D NA-,S NA-		300.0
I6	SUSPENSION	32.52	RULE 250D NA-,S NA-		300.0



Structure Overview Report Geometry Configuration

Structure Draw Style	Line
Structure Color	Usage
Structure Joint Label	None
Show Structure Compass	No
Show Wires	No
Geometry Placement	Enlarged On First Page
Show Dimension Lines	Yes
Show Heat Map Legend	Yes
Scaling	1.25
Longitude Horizontal Rotation (deg)	
Latitude Vertical Rotation (deg)	
Geometry Orientation	Portrait


OK Cancel

# Overview Report updates

- Additional Data fields – to enrich the output:
  - General Data
  - Structure Labels
  - Section Labels

LOADS BASED ON DEMO2\_OVERVIEW\_REPORTS.CRI (FE L2) AND WRITTEN 11:03:12 AM 8/15/2026 BY GRAEME LOUW WITH PLS-CADD 21.16 LICENSED TO POWER LINE SYSTEMS, INC.

<b>LINE</b>	ORIGINAL	<b>POLE NUMBER</b>	9	<b>TYPE</b>	DOUBLE CIRCUIT TUBULAR STEEL DAVIT...
<b>NOTES</b>	STRUCTURE FOR DEMO PROJECT				
<b>LOCATION</b>					
<b>COMMENTS</b>					
<b>LATITUDE (DEG)</b>	41.76079589	<b>LONGITUDE (DEG)</b>	-97.20082708	<b>GROUND ELEVATION (FT)</b>	1291.3



ANALYSIS RESULTS MAXIMUM USAGE				
TYPE	USAGE	LABEL	LOAD CASE	
POLE	91.05	STEEL POLE "P"	RULE 250B NA+S NA+	
ELEMENT	86.45	TUBULAR DAVIT "TR"	RULE 250D NA+S NA+	
INSULATOR	46.28	SUSPENSION "I4"	RULE 250D NA-S NA-	
FOUNDATION	11.32	FOUNDATION "P:G"	RULE 250C NA-S NA-	
POLE DEFLECTION	98.51	"P"	RULE 250C NA+S NA+	

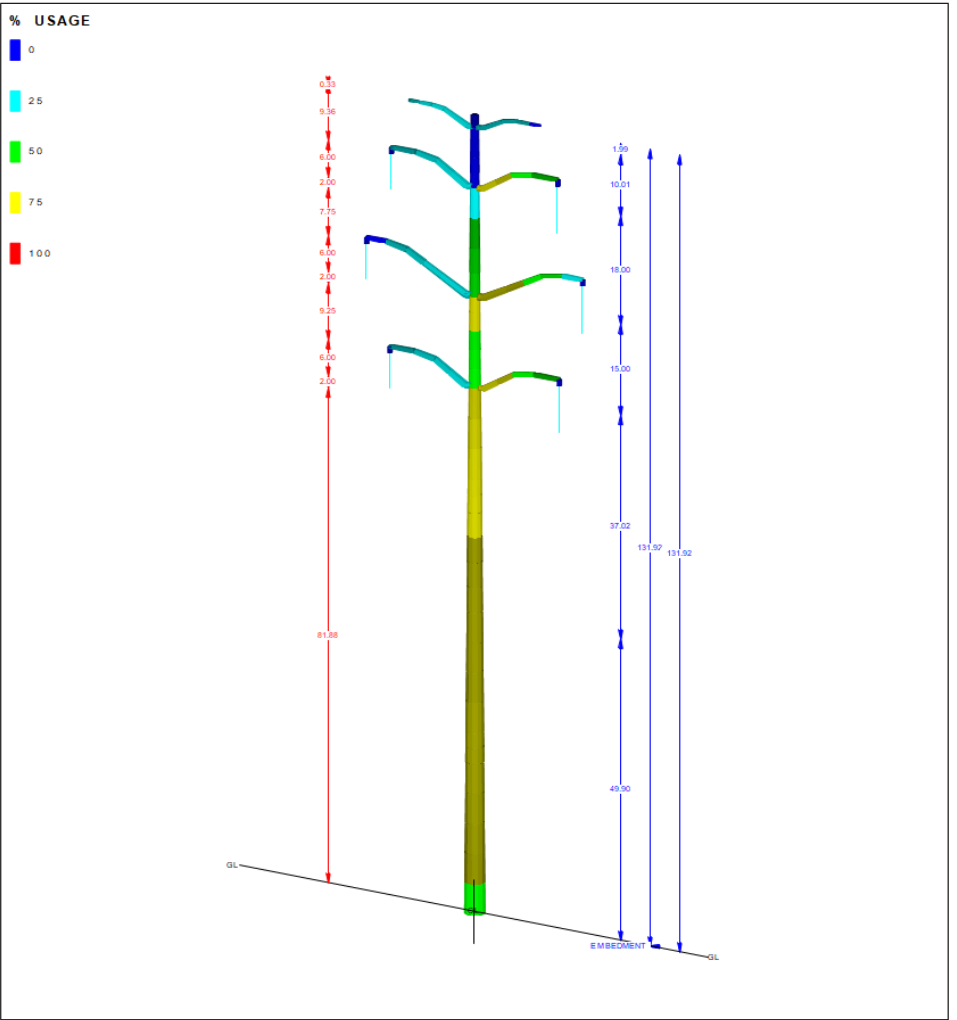
STEEL POLE PROPERTIES AND EMBEDMENT									
POLE LABEL	PROPERTY LABEL	STOCK NUMBER	BASE PLATE	SHAPE	TUBES	LENGTH (FT)	EMBED. (FT)	MODELED GL DIAM. (IN)	GL CIRC. (IN)
P	DEMOTAN3		NO	12F	4 TUBES	131.9	0.0	38.0	119.4

GENERAL DATA	
LABEL	VALUE
PROJECT NAME	DEMO2_OVERVIEW REPORTS
LINE NAME	ORIGINAL
PLS-GRID LINK	
VOLTAGE	138   345 (KV)
PLS-CADD MODEL STATUS	IFC
WORK ORDERS	RECONDUCTOR: #011235813
SUBSTATIONS	DE -- MO
MAXIMUM OPERATING TEMP	212 DEG F
RIGHT OF WAY WIDTH	100 (FT)

STRUCTURE LABELS	
LABEL	VALUE
HEIGHT AND ELEVATION	HT=132.24 ELE=1291.31
FOUNDATION TYPE:	STANDARD FOUNDATION
SOIL NOMINATION:	SOFT ROCK
STRUCTURE NUMBER:	9
STRUCTURE DESCRIPTION:	DOUBLE CIRCUIT TUBULAR STEEL DAVIT ARM STRUCTURE
STR DRG:	POL:TAN_00A-130

SUMMARY OF STEEL POLE USAGES				
STEEL POLE LABEL	MAXIMUM USAGE %	LOAD CASE	HEIGHT AGL (FT)	WEIGHT (LBS)
P	91.05	RULE 250B NA+S NA+	64.2	23692.1

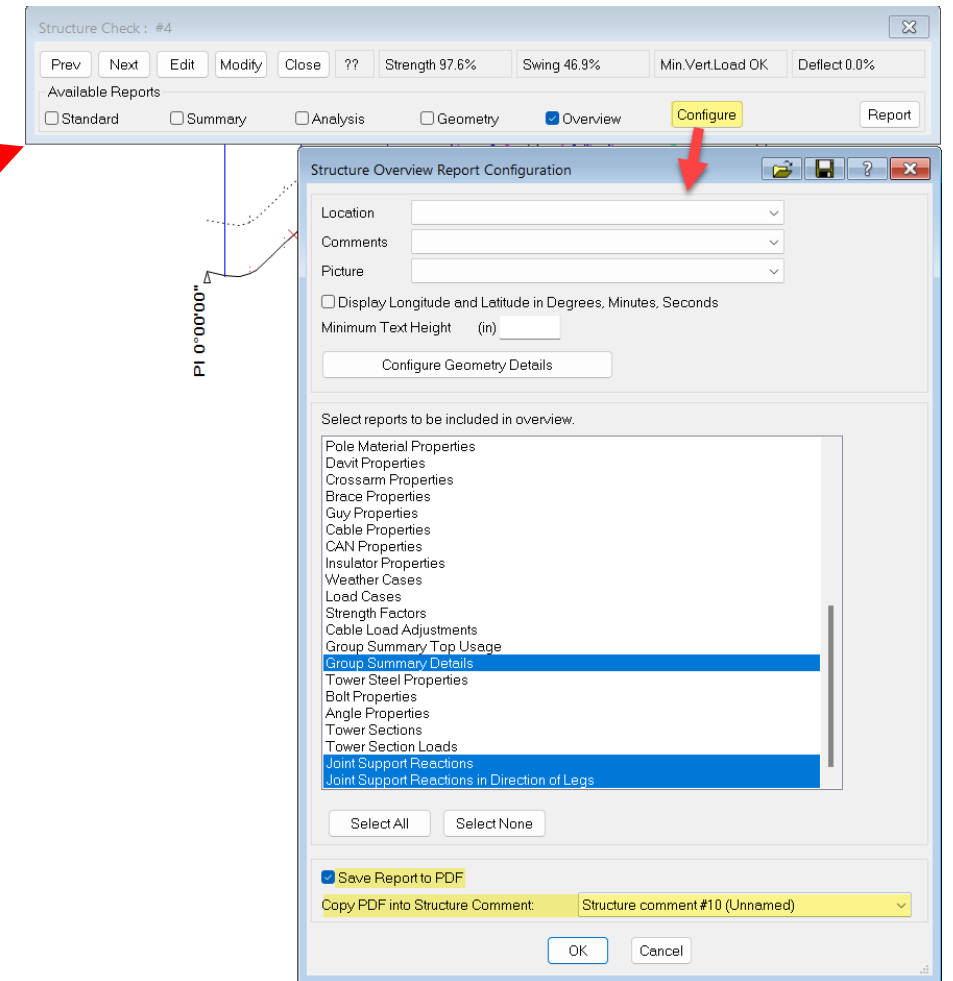
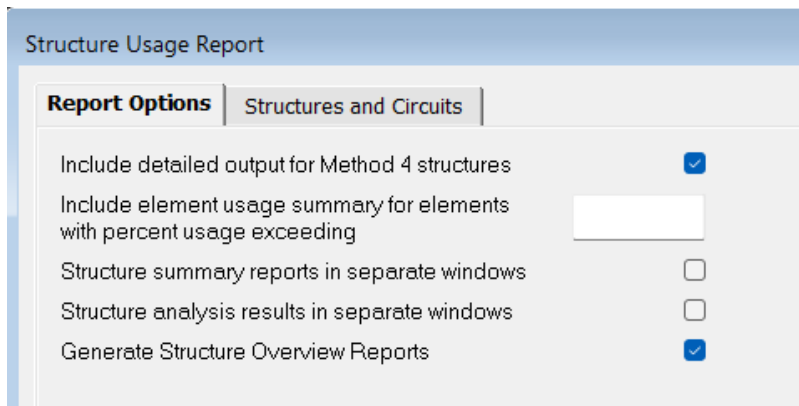
**% USAGE**



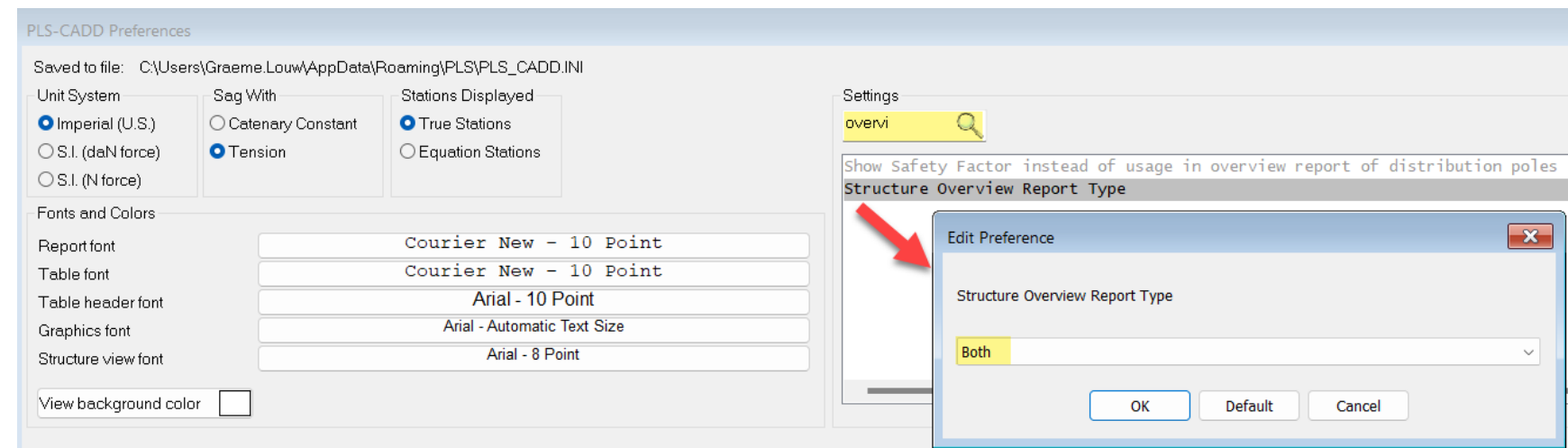
STRUCTURE #9 PAGE 1 OF 3

# Overview Report updates

- How do I :
  - Save the Report to PDF (for a single check)
  - Under **Lines/Reports/Structure Usage...** Can choose to Generate Overview reports



- **File/Preferences...** – look for “Structure Overview Report Type”. Can be:
  - *Graphic Report*
  - *Text Report*
  - *Or Both*




# Overview Report updates

- "Framing Connectivity" is now also reported along with "Framing Properties"
- Auto-added dimension lines now also add dimensions for framing elements, was unintentionally omitted in prior versions.

TH-MJGX-1.070.POL LOADS BASED ON EXAMPLE.CRI (RS) AND WRITTEN 11:28:15 AM 6/15/2026 BY GRAEME LOUW WITH PLS-CADD 21.16 LICENSED TO

LINE	ORIGINAL	POLE NUMBER	11	TYPE	TH-MJGX
NOTES	TANGENT H-FRAME				
LOCATION					
COMMENTS					
LATITUDE (DEG)	42.97266685	LONGITUDE (DEG)	-89.52399465	GROUND ELEVATION (FT)	999.7



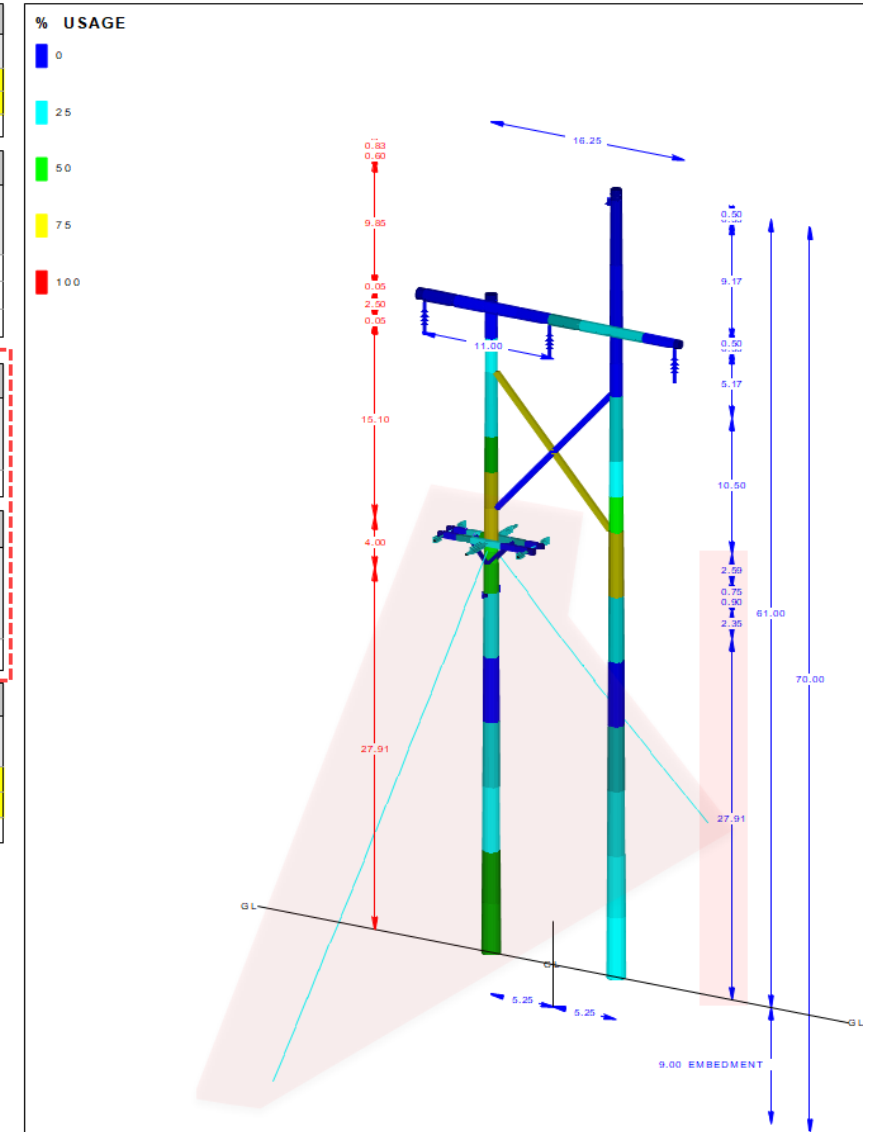
ANALYSIS RESULTS MAXIMUM USAGE				
TYPE	USAGE	LABEL	LOAD CASE	
POLE	81.30	WOOD POLE "LP"	RULE 250B GRADE C NA-,I NA-	
ELEMENT	81.34	BRACE "XB1"	RULE 250D GRADE C NA-,I NA-	
INSULATOR	36.88	STRAIN "I3B"	RULE 250B GRADE C NA-,I NA-	

WOOD POLE PROPERTIES AND EMBEDMENT								
POLE LABEL	PROPERTY LABEL	STOCK NUMBER	SPECIES	CLASS	LENGTH (FT)	EMBED. (FT)	GL DIAM. (IN)	GL CIRC. (IN)
LP	SP-H1-60	H1-60	SP - PINE, SOUTHERN	H1	60.0	9.0	15.8	49.8
RP	SP-1-70	1-70	SP - PINE, SOUTHERN	1	70.0	9.0	15.9	49.9
SPAR	SP-3-40	3-40	SP - PINE, SOUTHERN	3	40.0	0.0	12.2	38.3

FRAMING LIBRARY					
FRAMING PROPERTY LABEL	STOCK NUMBER	KEYWORDS	INSERTION POSITION	INSERTION DISTANCE (FT)	
VC6.21		24KV	FROM TIP	1.500	

FRAMING CONNECTIVITY						
FRAMING LABEL	FRAMING PROPERTY SET	POLE	AZIMUTH (DEG)	INSERTION POSITION	INSERTION DISTANCE (FT)	SET OVERRIDE
F1	VC6.21	LP	0	FROM TIP	19.093	

SUMMARY OF WOOD POLE USAGES					
WOOD POLE LABEL	MAXIMUM USAGE %	LOAD CASE	HEIGHT AGL (FT)	WEIGHT (LBS)	
LP	81.30	RULE 250B GRADE C NA-,I NA-	33.2	3479.7	
RP	78.40	RULE 250D GRADE C NA-,I NA-	32.0	3870.1	
SPAR	38.96	RULE 250B GRADE C NA-,I NA-	50.2	544.2	



STRUCTURE #11

