



PPE66R PLAN VIEW

**GENERAL NOTES**  
 ALL DIMENSIONS IN METERS UNLESS NOTED OTHERWISE.  
 LIDAR SURVEY DATA CAPTURED BY ENERGYLINE IN NOV 2024.  
 CURRENT CONDUCTOR AND EARTHWIRE TO BE CONFIRMED.  
 CLEARANCES HAVE BEEN ASSESSED IN ACCORDANCE WITH NGED ST OH1A.4 AND ENA TS 43-8  
 -> 7.0M TO GROUND AT MAXIMUM OPERATING TEMPERATURE

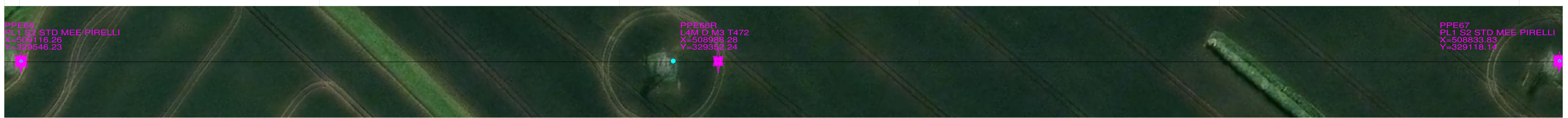
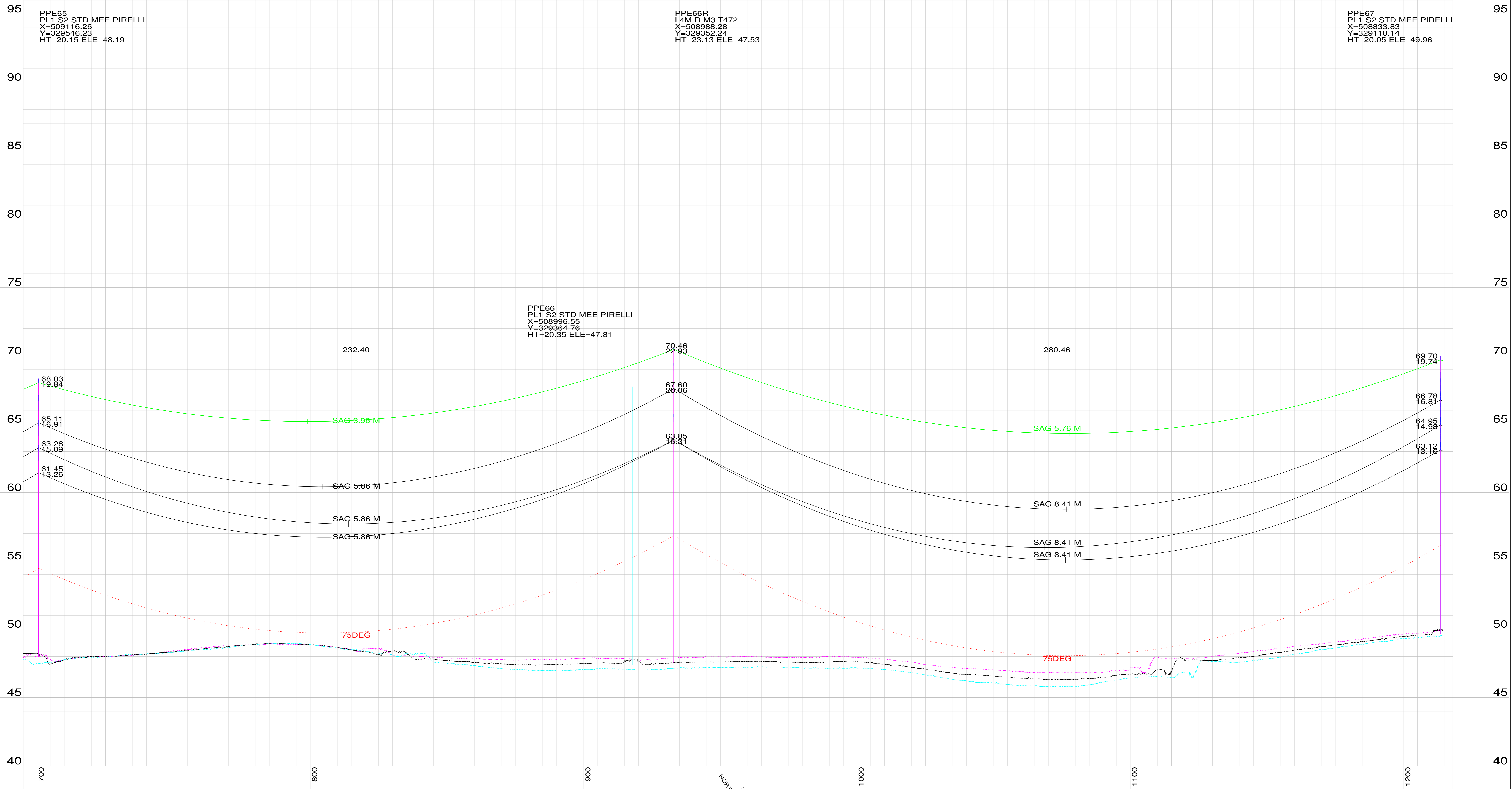
— LYNX ACSR CONDUCTOR AT 75° C  
 — HORSE ACSR EARTHWIRE AT 5° C

**PHASE CONDUCTOR PARAMETERS**

CONDUCTOR DESIGNATION	LYNX ACSR	HORSE ACSR
OVERALL DIAMETER	19.53 MM	13.95 MM
MASS (GHEASD)	0.876 KG/M	0.546 KG/M
CROSS-SECTIONAL AREA	226.2 MM <sup>2</sup>	116.2 MM <sup>2</sup>
NOMINAL BREAKING LOAD	79.8 KN	61.2 KN
MODULUS OF ELASTICITY	84.5 E+03 MN/M <sup>2</sup>	10.5 E+04 MN/M <sup>2</sup>
COEFFICIENT OF LINEAR EXPANSION	1.80 E-05 /°C	1.53 E-05 /°C
<b>PHASE CONDUCTOR LIMIT STATE SAGGING BASIS</b>		
EVERYDAY TENSION	14.47 KN AT 5°C	9.27 KN AT 15°C
MAXIMUM ERECTION TENSION	36 KN AT -5.6°C	27 KN AT -5.6°C
MAXIMUM WORKING TENSION	-	-
MWT TENSIONS BASED ON 380PA WIND PRESSURE AND 12.5MM RADIAL ICE	-	-

ISSUE	DATE	REVISION	DRN.	CHKD.	APPD.
1	09/12/24	ISSUED FOR REVIEW	APH	SY	MR

		<b>TITLE</b> 132KV TRANSMISSION LINE PPE66R PLAN VIEW		
		<b>ROUTE / CIRCUIT</b> PPE ROUTE		
		<b>ENERGYLINE PROJECT / DRG NO.</b> 90NP1484-22-002	<b>SHEET</b> 1	<b>SHEETS</b> OF 2
		<b>SCALE</b> REFER TO SCALE FACTORS 1	<b>ELEC FORM</b> SHT SIZE	<b>PDF</b> A0



**GENERAL NOTES**

ALL DIMENSIONS IN METERS UNLESS NOTED OTHERWISE  
 LIDAR SURVEY DATA CAPTURED BY ENERGYLINE IN NOV 2024  
 CURRENT CONDUCTOR AND EARTHWIRE TO BE CONFIRMED  
 CLEARANCES HAVE BEEN ASSESSED IN ACCORDANCE WITH NGED ST OH1A.4 AND ENA TS 43-8  
 -> 7.0M TO GROUND AT MAXIMUM OPERATING TEMPERATURE

ISSUE	DATE	REVISION	APH	SY	MR
1	09/12/24	ISSUED FOR REVIEW			

— LYNX ACSR CONDUCTOR AT 75°C  
— HORSE ACSR EARTHWIRE AT 5°C  
- - - SIDE SLOPE AT 7M LEFT  
- - - SIDE SLOPE AT 7M RIGHT  
- - - 7.0M 75°C GROUND CLEARANCE

5.0 M HORIZ. SCALE  
 1.0 M VERT. SCALE

**PHASE CONDUCTOR PARAMETERS**

CONDUCTOR DESIGNATION	LYNX ACSR	HORSE ACSR
OVERALL DIAMETER	19.53 MM	13.95 MM
MASS (GRADED)	0.876 KG/M	0.548 KG/M
CROSS-SECTIONAL AREA	226.2 MM <sup>2</sup>	116.2 MM <sup>2</sup>
NOMINAL BREAKING LOAD	79.8 KN	61.2 KN
MODULUS OF ELASTICITY	84.0 E+03 MN/M <sup>2</sup>	10.5 E+04 MN/M <sup>2</sup>
COEFFICIENT OF LINEAR EXPANSION	1.80 E-05 /°C	1.53 E-05 /°C

**PHASE CONDUCTOR LIMIT STATE SAGGING BASIS**

EVERYDAY TENSION	14.47 KN AT 5°C	9.27 KN AT 15°C
MAXIMUM ERECTION TENSION	36 KN AT -5.6°C	27 KN AT -5.6°C
MAXIMUM WORKING TENSION		
MWT TENSIONS BASED ON 380PA WIND PRESSURE AND 12.5MM RADIAL ICE		

**NorPower**    nationalgrid

**TITLE**  
132KV TRANSMISSION LINE  
PPE66R PROFILE VIEW

**ROUTE / CIRCUIT**  
PPE ROUTE

**ENERGYLINE PROJECT / DRG NO.**  
90NP1484-22-002

**SCALE** REFER TO SCALE FACTORS

SHEET	SHEETS	ELEC FORM	PDF
2	OF 2	SHT SIZE	A0