

# SP MANWEB



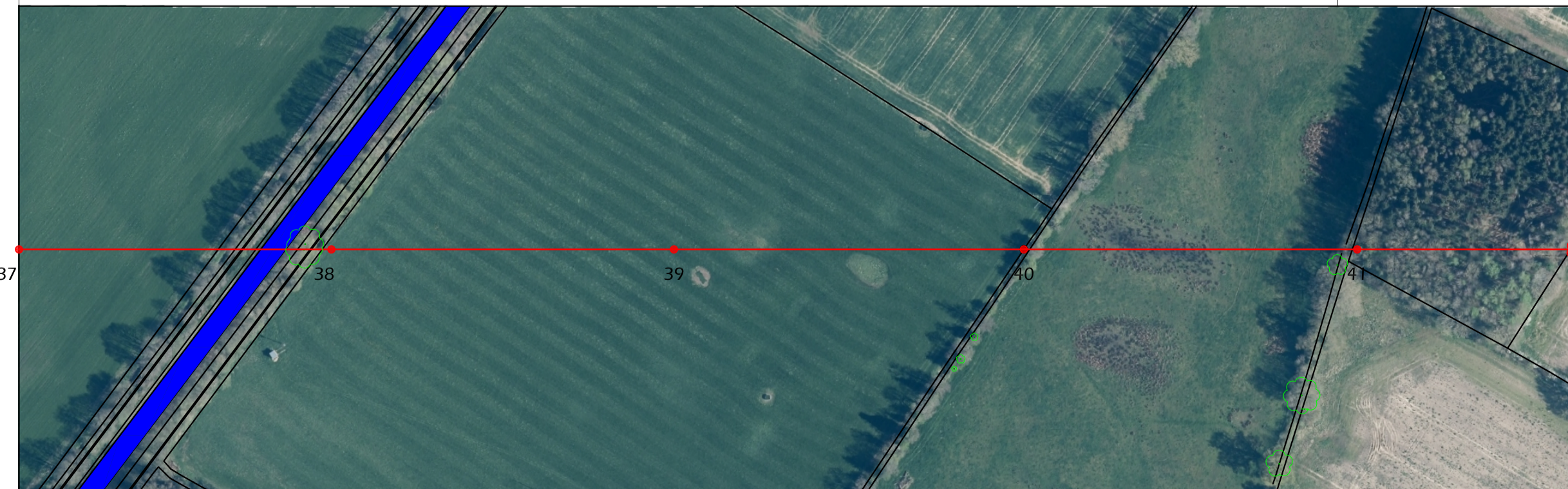
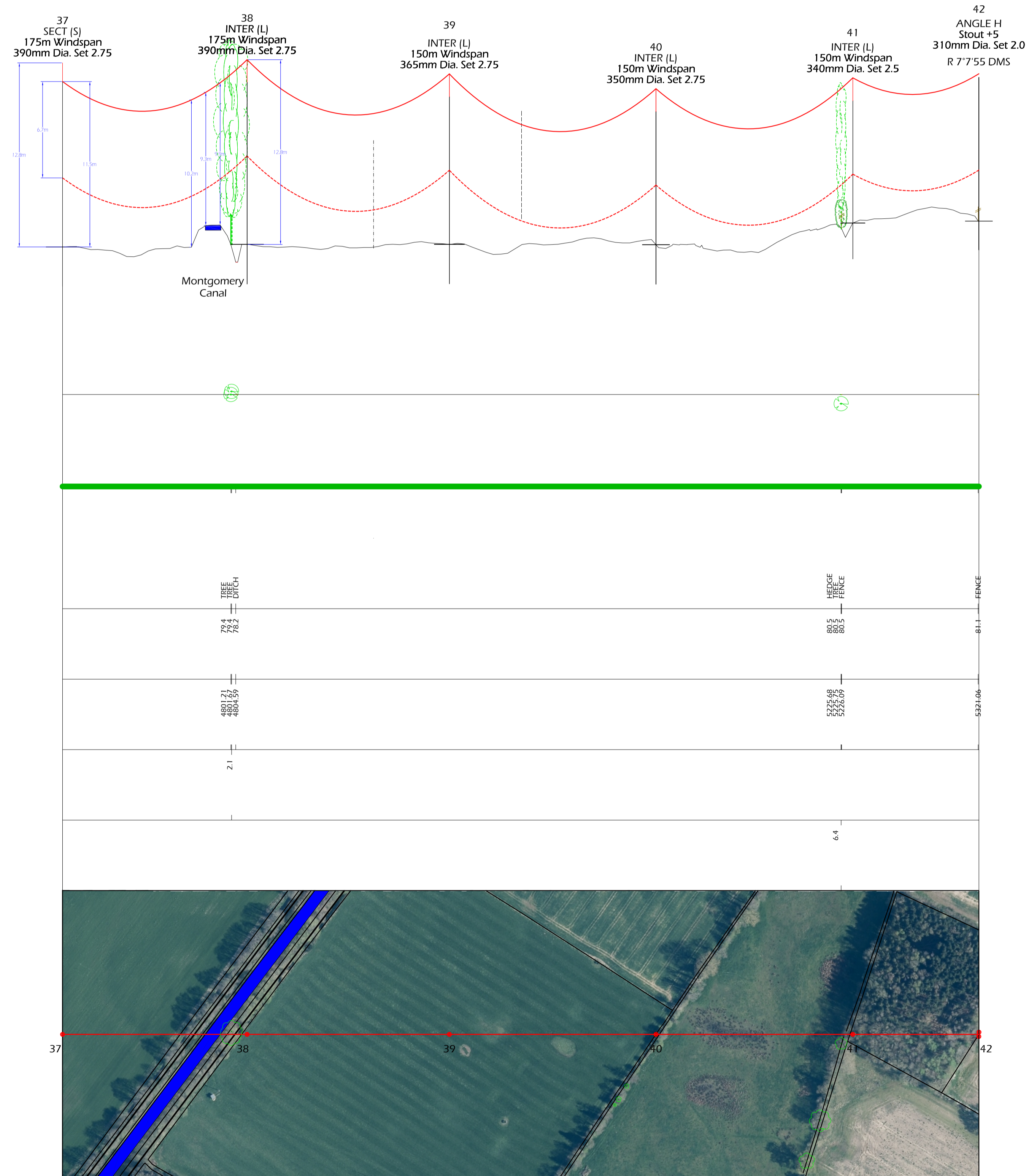
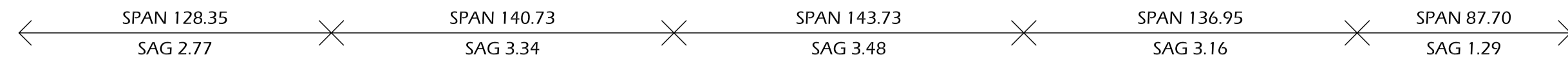
## **Reinforcement to the North Shropshire Electricity Distribution Network**

Deadline 5 Submission

Application Reference: EN020021

**Overhead Line Profile  
Montgomery Canal Crossing**

200mm OPPC POPLAR  
 TEMP. 75.00 deg C ,WEIGHT bare  
 SECTION 637.47 metres  
 TENSION 503.54 kg  
 EQUI. SPAN 130.00 metres



Unit 14 Gwentro  
 Wrexham Technology Park  
 Wrexham  
 LL13 7YP  
 Phone: 0845 8382303  
 Fax: 0700 3494255  
 Email: mail@linedesigntechnology.com

**LINE DESIGN TECHNOLOGY**

UVDB Verify  
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bsi ISO 9001 Quality Management  
 FS 592223

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- CDM ADVICE**
- ONLY COMPETENT CONTRACTORS SHALL BE APPOINTED TO UNDERTAKE THIS WORK.
  - THIS DRAWING IS TO READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ANY OTHER ASSOCIATED DOCUMENTS ISSUED BY THE CLIENT.
  - CONTRACTORS SHALL CONSIDER ALL PHASES OF WORK AND ENSURE SAFETY RULES ARE ADHERED TO AND MEASURES TO MITIGATE RISK ARE TAKEN.
  - CONTRACTOR SHALL ADHERED TO ALL MANUFACTURES GUIDELINES AND INSTALLATION PROCEDURES.
  - CONTRACTOR SHALL HAVE ASSESSED RISKS AND USE SAFE WORKING METHODS TO COMPLY WITH CURRENT HEALTH AND SAFETY LEGISLATION AND CDM REGULATIONS.

**CONDUCTOR DETAILS**

Units:	Metric
Conductor:	200mm OPPC POPLAR
Mnemonic:	POPF
Type:	ACSR [2]
Basis tensions:	horizontal
Wt loaded:	2.12169 kg/m
Wt bare:	0.677999 kg/m
Wt ice:	1.4857 kg/m
Wt winded:	1.03224 kg/m
Wind pres:	380 N/m <sup>2</sup>
Rad. ice:	9.5 mm
Area:	226.42 sq.mm
Diameter:	20.09 mm
Cold temp:	-5.6 deg C
LTS:	66.79 kN
Clearance: By temp and tension shift	
Tension:	10 %
Temp:	15 deg C
Erection: By temp and tension shift	
Tension:	10 %
Temp:	15 deg C
For spans <= 137.423 metres	
Tension:	13.36 kN
Temp:	5 deg C
Weight:	Wt bare initial
And for spans > 137.423 metres	
Tension:	22.6 kN
Temp:	-5.6 deg C
Weight:	Wt loaded initial
Young's modulus	57000 N/mm <sup>2</sup>
Coeff. expansion	2.3e-005 /deg C
C1 [sqrt(YA/24)]	234.167 sqt.kg
C2 [YEA]	30.2685 kg/C
finial	
Young's modulus	57000 N/mm <sup>2</sup>
Coeff. expansion	2.3e-005 /deg C
C1 [sqrt(YA/24)]	234.167 sqt.kg
C2 [YEA]	30.2685 kg/C
Erection temps	0.5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75 deg C
Load case 1. MWT	
Tension:	22.6 kN
Temp:	-5.6 deg C
Wind pres:	0.38 kN/m <sup>2</sup>
Rad. ice:	9.5 mm
Wt loaded:	0.020807 kN/m
Wt winded:	0.014854 kN/m
Load case 2. Vibration Limit	
Tension:	13.36 kN
Temp:	5 deg C

**CLEARANCE CURVE & TEMPERATURE**

6.7m @ 75°C  
 MAXIMUM DESIGN TEMPERATURE

STATUS	REVISION	SCALE
<b>ISSUED</b>	<b>C</b>	V1:200 H1:2000 VP Locked - YES
DRAWN	CHECKED	APPROVED
PWJ	SMJ	PWJ
		DATE PLOTTED
		26.03.2019

LOCATION  
**OSWESRTY - WEM**

TITLE  
**LINE PROFILES DF6**  
**SECTION 7 POLES 37 - 42**