

SUBSTATION MINIMUM ELECTRICAL CLEARANCES					
REQUIREMENTS TO BE IN ACCORDANCE WITH SSE SUBSTATION DESIGN SPECIFICATIONS DOC NO. SP-NET-SST-501					
REF	CLEARANCE (mm)	NOMINAL SYSTEM VOLTAGE			
		400kV	275kV	132kV	33kV
E	PHASE TO EARTH	2800	2100	1100	500
Ph	PHASE TO PHASE	3600	2400	1400	430
S	DESIGN CLEARANCE FOR SAFETY	5500	4800	3500	2900
SD	SAFETY DISTANCE	3100	2400	1400	800
Ds	WORKING & ACCESS CLEARANCE (VERTICAL)	5200	4500	3500	2900
Dsh	WORKING & ACCESS CLEARANCE (HORIZONTAL)	4600	3900	2900	2300
IH	INSULATION HEIGHT (PEDESTRIAN ACCESS)	2400	2400	2400	2400
S+2	MEWP DESIGN CLEARANCE FOR SAFETY	7500	6800	5500	4900
-	MEWP ACCESS CORRIDOR TO DEAD CIRCUIT	3000	3000	3000	3000

- NOTES:**
- THIS DRAWING IS FOR PLANNING PURPOSES ONLY SUBJECT TO DETAILED DESIGN.
  - DIMENSION IS IN METRES UNLESS STATED OTHERWISE.
  - THE FOLLOWING FENCING REQUIREMENTS HAVE BEEN ASSUMED:  
INTERNAL FENCE: 2.4m HIGH NON-ELECTRIC FENCE  
EXTERNAL FENCE: 2.4m HIGH PHYSICAL MESH / PALISADE BARRIER WITH ELECTRIC PULSE FENCE.
  - REQUIREMENT FOR NOISE ENCLOSURE ON STGS AND SHUNT REACTORS SHALL BE CONFIRMED.
  - MAINTENANCE CLEARANCE CONSIDERED AS 25m RADIUS CIRCLE FROM TOWER CENTRE. CONSTRUCTION CLEARANCE CONSIDERED AS SQUARE WITH 70m SIDES CENTRED ON THE TERMINAL TOWER.

- KEY:**
- CSE - CABLE SEALING END
  - SA - SURGE ARRESTER
  - ES - EARTH SWITCH
  - PI - POST INSULATOR
  - MPI - MEDIUM LEVEL POST INSULATOR
  - HPI - HIGH LEVEL POST INSULATOR
  - CT - CURRENT TRANSFORMER
  - CVT - CAPACITIVE VOLTAGE TRANSFORMER
  - WVT - WOUND VOLTAGE TRANSFORMER
  - CB - CIRCUIT BREAKER
  - DISC.+2ES - DISCONNECTOR WITH TWO EARTH SWITCH
  - PD+ES - PANTOGRAPH WITH EARTH SWITCH
  - SHR - SHUNT REACTOR
  - PRR - PORTABLE RELAY ROOM
  - SGT - SUPERGRID TRANSFORMER
  - NER - NEUTRAL EARTHING RESISTOR
  - ET - EARTHING TRANSFORMER
  - AVR - AUTOMATIC VOLTAGE REGULATOR
  - MK - MARSHALLING KIOSK
  - CCC - CENTRAL CONTROL CUBICLE
  - LC - LIGHTING COLUMN

- LEGEND:**
- PROPOSED EQUIPMENT
  - PROPOSED EQUIPMENT - SCOPE TBD
  - FIRE DAMAGE ZONE
  - PROPOSED EQUIPMENT (BY OTHERS)
  - CABLE TRENCH
  - EXCLUSION ZONE

- REFERENCE DRAWINGS:**
- ELECTRICAL LAYOUT - 162507-BMD-PL-HR-DPL-TP-0003 (SHEET 1 OF 2)
  - ELECTRICAL ELEVATIONS - 162507-BMD-PL-HR-DEL-TP-0001

**Drawing Status:** ISSUED FOR PLANNING

Software:	Status Code:	Scale:	Paper Size:
AUTOCAD	Not Used	1:500	A0
Drawn By:	Checked By:	Approved By:	Date:
RB	JF	RC	27/SEP/24

Contractor: **BURNS & MCDONNELL**

Client: **Scottish & Southern Electricity Networks**

Supplier / Subcontractor:

**Drawing Title:**

ELECTRICAL LAYOUT  
(SHEET 2 OF 2)

**Project Name:** HURLIE 400kV SUBSTATION

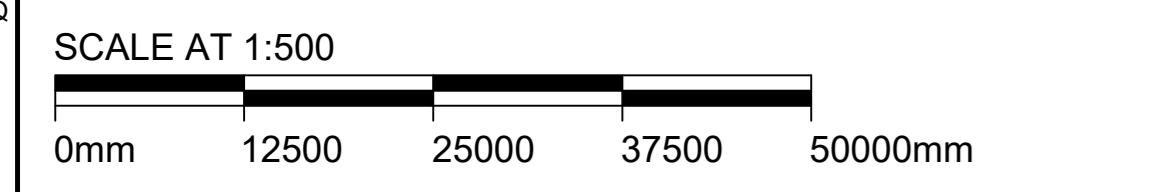
**Site Name:** HURLIE 400kV SUBSTATION

**Contractor Drawing No.:** 162507-BMD-PL-HR-DPL-TP-0004

**Client Drawing No.:** 162507-BMD-PL-HR-DPL-TP-0004

**Supplier / Subcontractor Drawing No.:** XXX

Sheet: 02  
Next: -  
Issue / Revision: 01



Issue / Revision:	01	Drawn By:	RB
Investment No.:	N/A	Checked By:	JF
Date:	27/SEP/24	Approved By:	RC

**Description / Remarks:**

ISSUED FOR PLANNING

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