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:

1. THIS DRAWING IS FOR PLANNING PURPOSES ONLY SUBJECT TO DETAILED DESIGN.
2. DIMENSION IS IN METRES UNLESS STATED OTHERWISE.
3. 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.
4. REQUIREMENT FOR NOISE ENCLOSURE ON STGS AND SHUNT REACTORS SHALL BE CONFIRMED.
5. MAINTENANCE CLEARANCE CONSIDERED AS 25m RADIUS CIRCLE FROM TOWER CENTRE. CONSTRUCTION CLEARANCE CONSIDERED AS SQUARE WITH 70m SIDES CENTRED ON THE TERMINAL TOWER.

KEY:

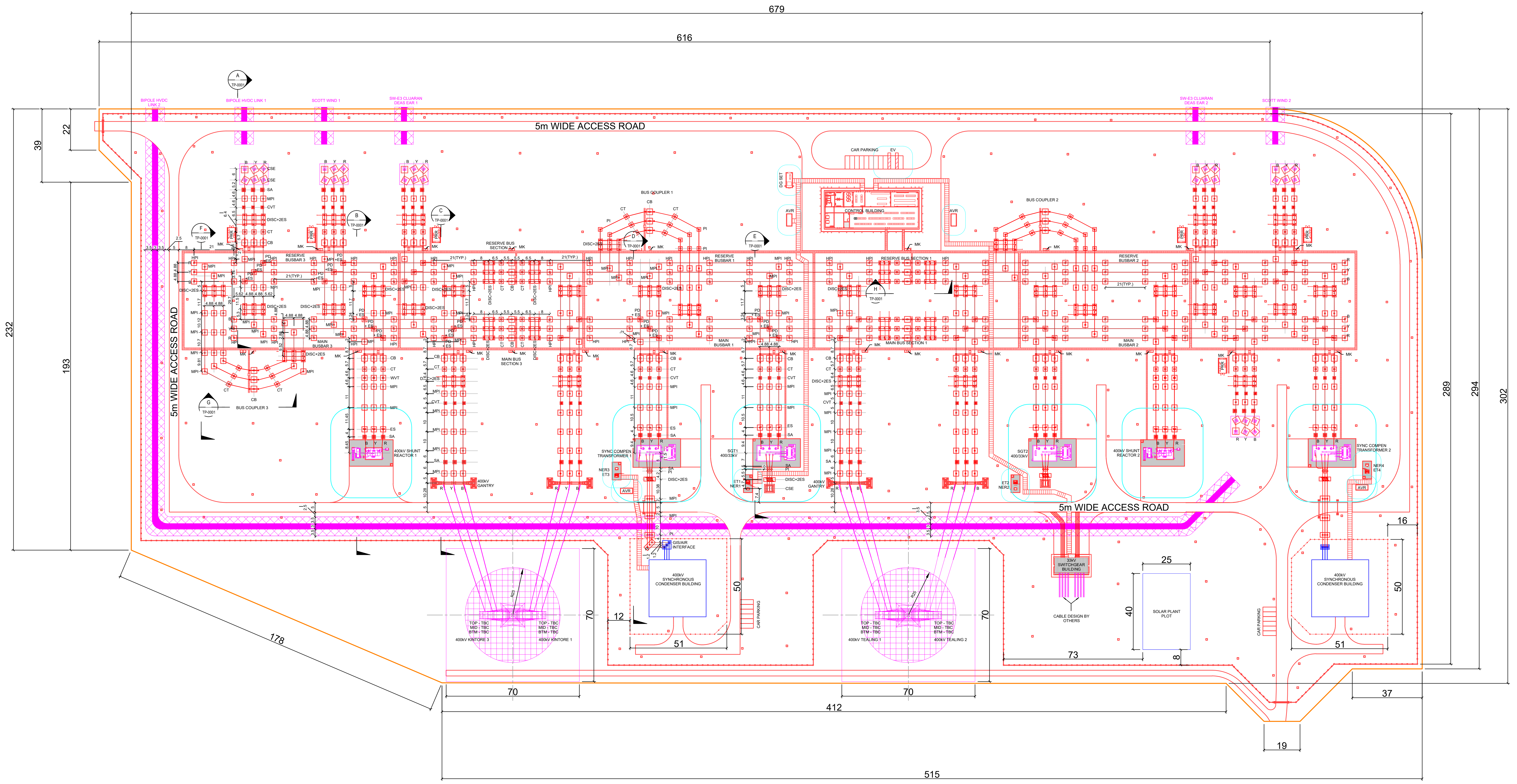
CSE - CABLE SEALING END
SA - SURGE ARRESTER
ES - EARTH SWITCH
PI - POST INSULATOR
MPI - MEDIUM LEVEL POST INSULATOR
HPI - HIGH LEVEL POST INSULATOR
CT - CURRENT TRANSFORMER
CVT - CAPACITIVE VOLTAGE TRANSFORMER
WVT - WOUND VOLTAGE TRANSFORMER
CB - CIRCUIT BREAKER
DISC.+2ES - DISCONNECTOR WITH TWO EARTH 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 REGUALTOR
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 ELEVATIONS - 162507-BMD-PL-HR-DEL-TP-0001



ELECTRICAL LAYOUT
1:1000

SCALE AT 1:1000
0mm 25000 50000 75000 100000mm

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

Description / Remarks
ISSUED FOR PLANNING

Drawing Status:
ISSUED FOR PLANNING

Software:	**Status Code:**	**Scale:**	**Paper Size:**
AUTOCAD	Not Used	1:1000	A0
Drawn By:	**Checked By:**	**Approved By:**	**Date:**
RB	JF	RC	27/SEP/24

Contractor:
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Client:
Scottish & Southern Electricity Networks

Supplier / Subcontractor:

Drawing Title:
ELECTRICAL LAYOUT

Project Name:
HURLIE 400kV SUBSTATION

Site Name:
HURLIE 400kV SUBSTATION

Contractor Drawing No.:
162507-BMD-PL-HR-DPL-TP-0001

Client Drawing No.:
162507-BMD-PL-HR-DPL-TP-0001

Sheet: 1 OF 1
Next: -

Supplier / Subcontractor Drawing No.:
XXX

Issue / Revision:
01