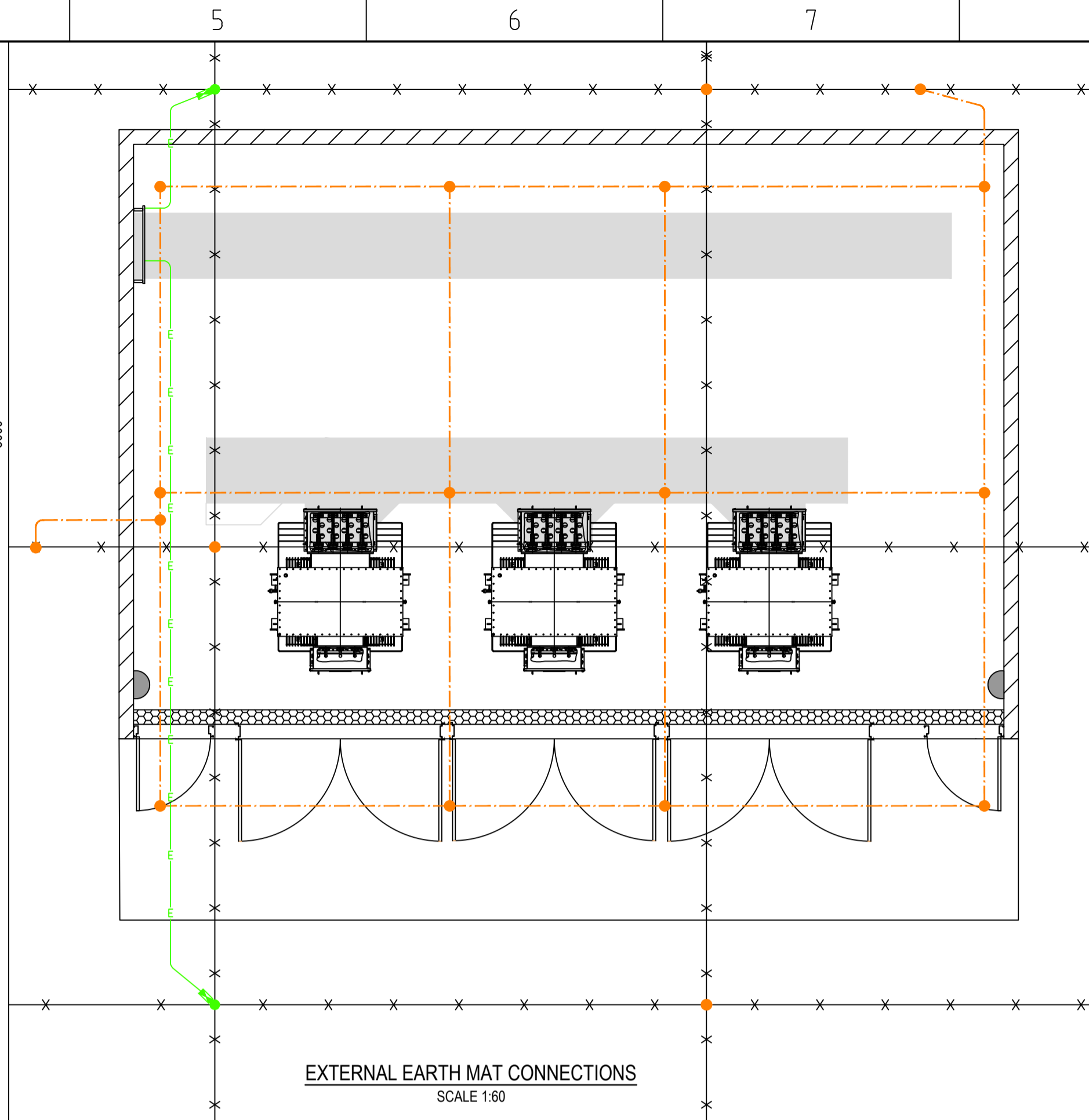
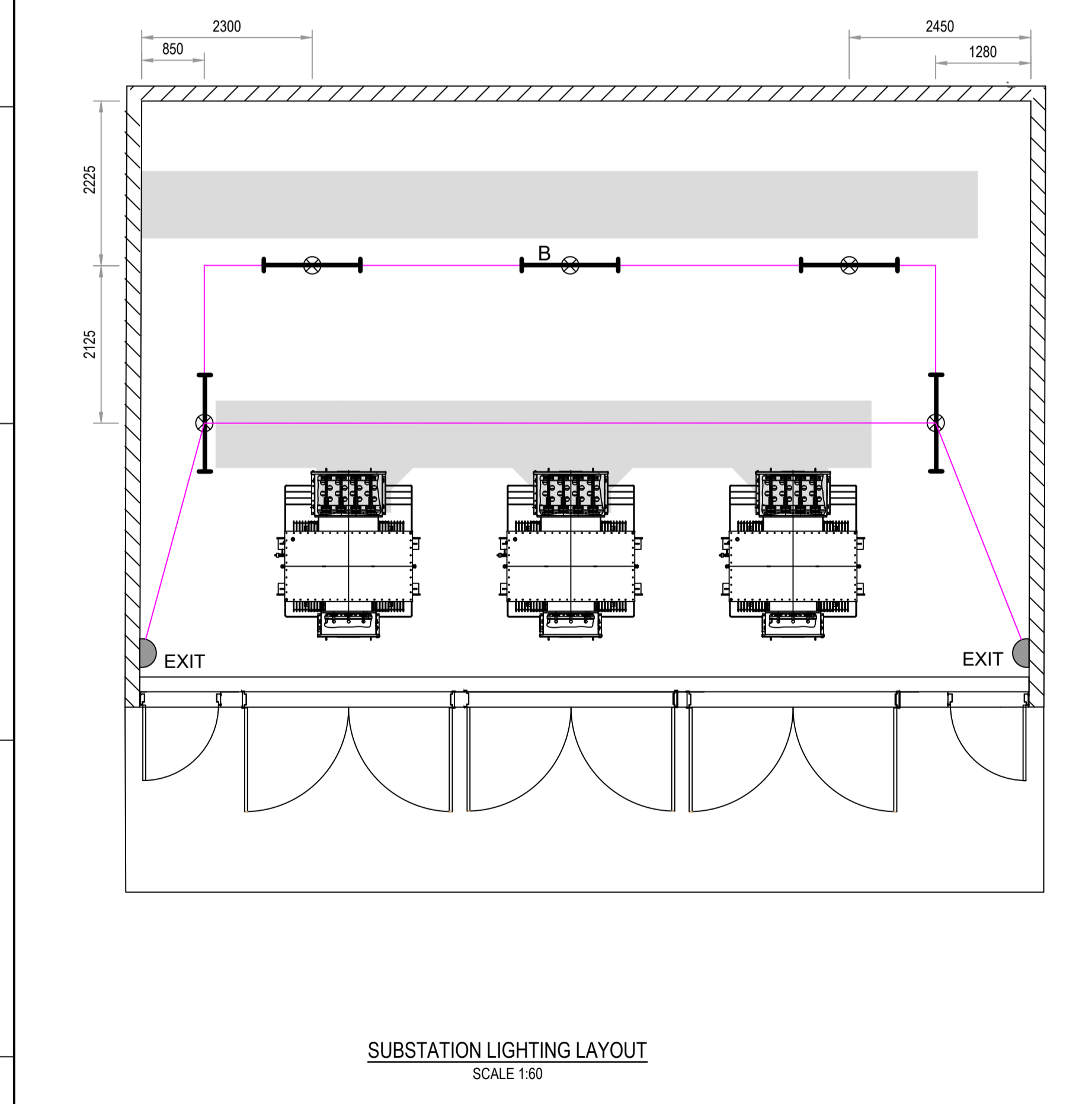


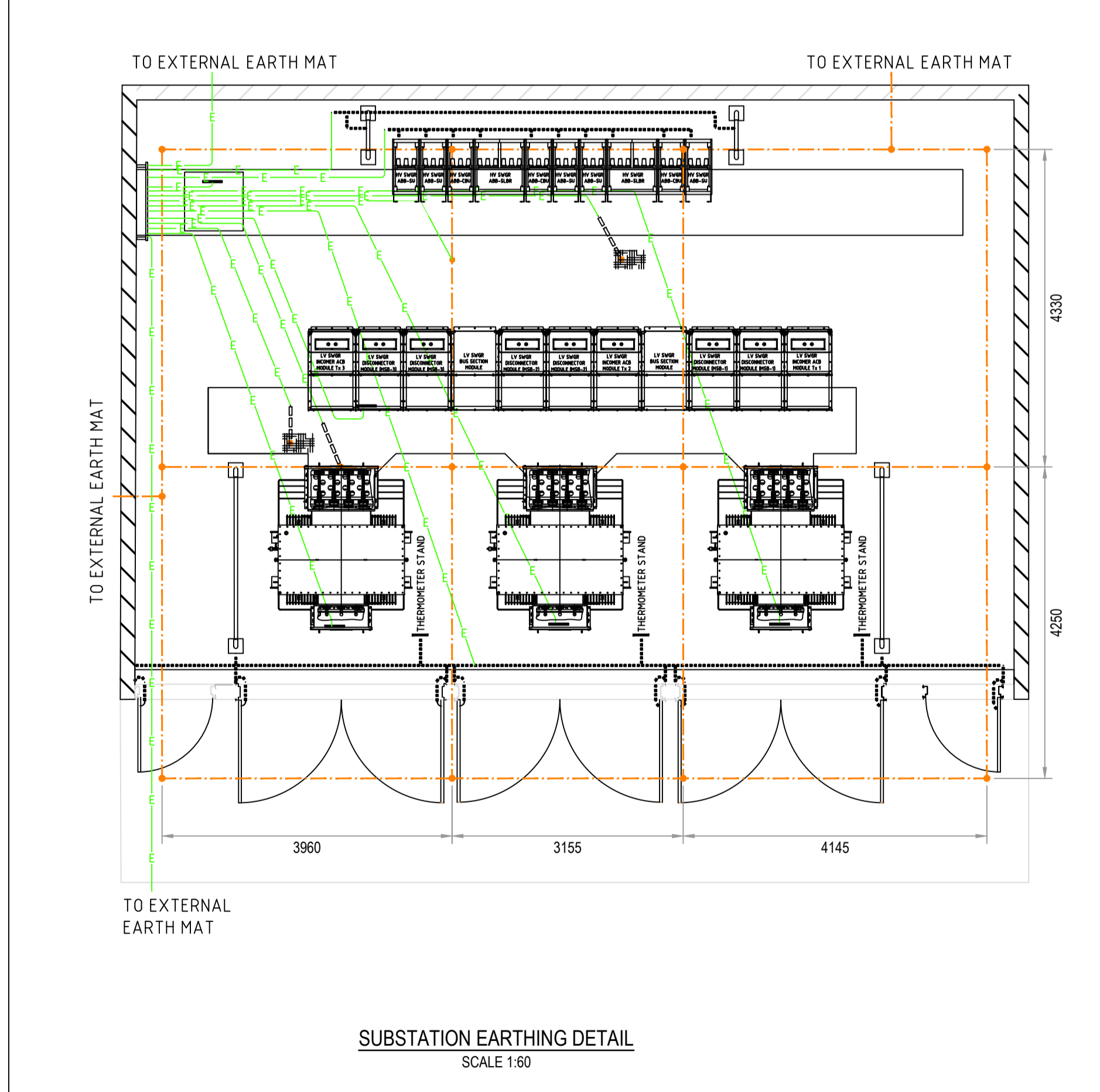
**SUBSTATION FLOORPLAN**  
SCALE 1:60 (FOR 500 - 1500KVA TRANSFORMER)



**EXTERNAL EARTH MAT CONNECTIONS**  
SCALE 1:60



**SUBSTATION LIGHTING LAYOUT**  
SCALE 1:60



**SUBSTATION EARTHING DETAIL**  
SCALE 1:60

LEGEND		REFERENCE
(F)	4.5 kg DRY CHEMICAL FIRE EXTINGUISHER SUPPLIED AND INSTALLED BY THE DEVELOPER	PO07201
●	EXOTHERMIC WELD JOINT	
●	EARTH CABLE CONNECTION POINT	D110-0005, D110-0006
▧	CONCRETE FLOOR RE-BAR MESH	
—E—	70mm <sup>2</sup> STRANDED COPPER PVC INSULATED EARTH CABLE (DIRECT BURIED/ IN TRENCH/ IN FLOOR CONDUIT)	
×	EXTERNAL EARTH MAT	
—	FLOOR GRADING RING COMPRISING 70mm <sup>2</sup> HDPC HORIZONTAL CONDUCTOR	4961-03
—	25X3MM COPPER STRAP ATTACHED TO FLOOR SURFACE	
—	25X3MM COPPER STRAP EMBEDDED IN CONCRETE FLOOR WITH 600MM TAIL BROUGHT INTO TRENCH	
—	CONNECTION POINT TO EQUIPMENT EARTH TERMINAL	
—	SUBSTATION EARTH BAR SUPPLIED & INSTALLED BY DEVELOPER.	094-010, PO07201
▲	WARNING SIGN (WORDING TO SUIT LOCATION. SEE 094-009)	094-009
⊔	HAULAGE EYE	4951-09
⊗	DRY SUMP -600 x 600 x 300	4931-01
⊕	TRANSFORMER & HV SWGR SAFETY BARRIERS SUPPLIED BY THE DEVELOPER	4951-22
⊕	COMBINED POWER POINT AND 2 WAY LIGHT SWITCH TO BE INSTALLED ON SIDE WALL NEXT TO ENTRY DOOR.	
⊗	JUNCTION BOX C/W COVERS SUPPLIED AND INSTALLED BY DEVELOPER	
—	BARE BATTEN 36W FLUORESCENT LIGHT FITTINGS SUPPLIED AND INSTALLED BY DEVELOPER.	PO07201
—	BARE BATTEN 36W FLUORESCENT LIGHT FITTING WITH BATTERY BACKUP SUPPLIED AND INSTALLED BY DEVELOPER.	
EXIT	RUNNING MAN EXIT SIGNS COMPLYING WITH AS 2293.3 SUPPLIED & INSTALLED BY DEVELOPER.	
—	1 x Ø25 HD uPVC CONDUIT INSTALLED IN CONCRETE FLOOR SLAB	
—	1 x Ø25 HD uPVC CONDUIT INSTALLED IN CEILING SLAB	4931-03
—	Ø150 HD uPVC CONDUIT INSTALLED IN CONCRETE FLOOR SLAB ( 1-OFF UNLESS SHOWN OTHERWISE)	4931-06
—	Ø63 HD uPVC CONDUIT INSTALLED IN CONCRETE FLOOR SLAB( 1-OFF UNLESS SHOWN OTHERWISE)	4931-11
—	HV SWITCHGEAR SUPPORT RAIL SUPPLIED AND INSTALLED BY DEVELOPER	4951-31
—	100 x 100 PRECAST BUND - MAX LENGTH 600 - SUPPLY ONLY	
—	LOUVRE DOOR - STAFF ACCESS	4951-28
—	LOUVRE DOOR - EQUIPMENT ACCESS	4951-29
—	EQUIPMENT/CHECKER PLATE SUPPORT BRACKETS (SEE NOTE 5)	4931-02

- NOTES:**
- DETAILS SHOWN REPRESENT TYPICAL LAYOUT AND CLEARANCE REQUIREMENTS. THIS DRAWING IS TO BE USED AS THE BASIS FOR DEVELOPING A CONSTRUCTION DRAWING THAT MEETS SPECIFIC PROJECT CONDITIONS AND SUBMITTED TO EVOENERGY FOR APPROVAL PRIOR TO CONSTRUCTION WORK.
  - SUBSTATION CHAMBER TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH EVOENERGY CHAMBER TYPE SUBSTATION DESIGN & CONSTRUCTION STANDARD PO07201.
  - CHAMBER TO BE FREE OF ANY OTHER BUILDING SERVICES.
  - TRENCH TO BE SOLID CONCRETE. DIMENSIONS AS SHOWN. REFER TO DRAWING 4931-01 FOR CONSTRUCTION DETAILS AND DRAWING 4931-02 FOR TRENCH EDGE FRAME DETAILS.
  - EQUIPMENT/CHECKER SUPPORT BRACKETS SUPPLIED BY DEVELOPER. QUANTITY REQUIRED WILL BE NOMINATED IN THE PROJECT DRAWINGS.
  - SUPPLY CHECKER PLATES AS PER CUT-OUT PLAN PROVIDED BY EVOENERGY SUBSTATION FITOUT TEAM.
  - LEVEL FLOOR SURFACE WITH TOLERANCE OF ±1MM in 1000MM REQUIRED FOR INSTALLATION OF TRANSFORMERS, HV AND LV SWITCHBOARDS. REMAINDER OF FLOOR TO FALL TOWARDS CABLE TRENCH WITH A SLOPE OF 1:100. NO ABRUPT CHANGES TO FINISHED FLOOR SURFACE.
  - CONSUMER MAINS PASSING THROUGH THE FOUNDATION ARE TO BE INSTALLED IN A SET OF uPVC CONDUITS. ALL PENETRATIONS MUST BE SEALED AS PER RELEVANT STANDARDS - REFER TO PO07201 FOR DETAILS.
  - uPVC CONDUITS FOR HV & LV CABLES AND EARTH BONDING CABLE ARE TO BE INSTALLED TO SUIT INDIVIDUAL SUBSTATION LOCATIONS. WHERE THE CONDUIT ENTRY IS AT 90 DEG TO THE HV TRENCH A HIDDEN TRENCH MUST BE PROVIDED. THE HV/LV TRENCH DRY SUMPS AND ADJACENT HAULAGE EYES TO BE INSTALLED AT OPPOSITE ENDS TO WHERE HV MAINS CABLES ENTER THE TRENCH.
  - EMBEDDED CABLES TO BE RUN IN RIGID CONDUIT AND RECESSED WITHIN THE FLOOR, CEILING SLAB OR WALL.
  - CONSUMER MAINS TO LV SWITCHGEAR TO BE BOTTOM CONNECTED.
  - PROVIDE SAFETY SIGNAGE MOUNTED ON TRANSFORMER BARRIER PANEL AND REAR WALL AS SHOWN.
  - HARDSTAND AREA TO EXTEND FROM THE LOUVRES A MIN OF 2.5m AND WITH A FALL OF 1:100 AWAY FROM THE SUBSTATION FRONT.
  - DEVELOPER TO SUPPLY AND INSTALL LUMINAIRES AND ASSOCIATED WIRING AND 2-WAY SWITCHES, LEAVING A 5m TAIL IN THE TRENCH FOR CONNECTION BY EVOENERGY.
  - FIRE DETECTORS AND ALARMS ARE NOT REQUIRED UNLESS MANDATED BY THE DEVELOPER.
  - TYPICAL ARRANGEMENT OF HV AND LV SWITCHGEAR SHOWN. FINAL ARRANGEMENT OF SWITCHGEAR TO SUIT PROJECT REQUIREMENTS.
  - TYPICAL EARTH CABLE ROUTING INTO SUBSTATION SHOWN. FINAL ARRANGEMENT TO SUIT PROJECT REQUIREMENTS.
  - REFER TO DWG. 4961-03 FOR DETAILS OF DEVELOPER'S SCOPE OF EARTHING INSTALLATION WORK.
  - CONDUIT FOR ANTENNA; EXACT LOCATION TO BE DISCUSSED & AGREED WITH BUILDER AND COMMS SPECIALIST.

No	Revision	Date	Checked	Approved
M	DIMENSIONS AMENDED	3/07/2020	N. Azizi	W. Cleland
N	"ON HOLD" STAMP ADDED - KV	24/10/2022	N. Azizi	W. Cleland
O	STATUS CHANGED, MINOR UPDATES ADDED NEW TX & SCALED - KV	1/02/2023	N. Azizi	W. Cleland
P	TRENCH WIDTH REVISED, DIMENSIONS AMENDED	30/08/2023	J.Ryan	W. Cleland

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Drawn: P. Wagemaker  
Designed: E. Amaratunga  
Checked:  
Approved: F. Argue  
Project No:

**THREE TRANSFORMER INDOOR SUBSTATION TYPICAL LAYOUT**

Scale: Date: Sheet No: 1 OF 1  
Work Pack No: File:  
Status: Current  
A1 4921-13 Rev P