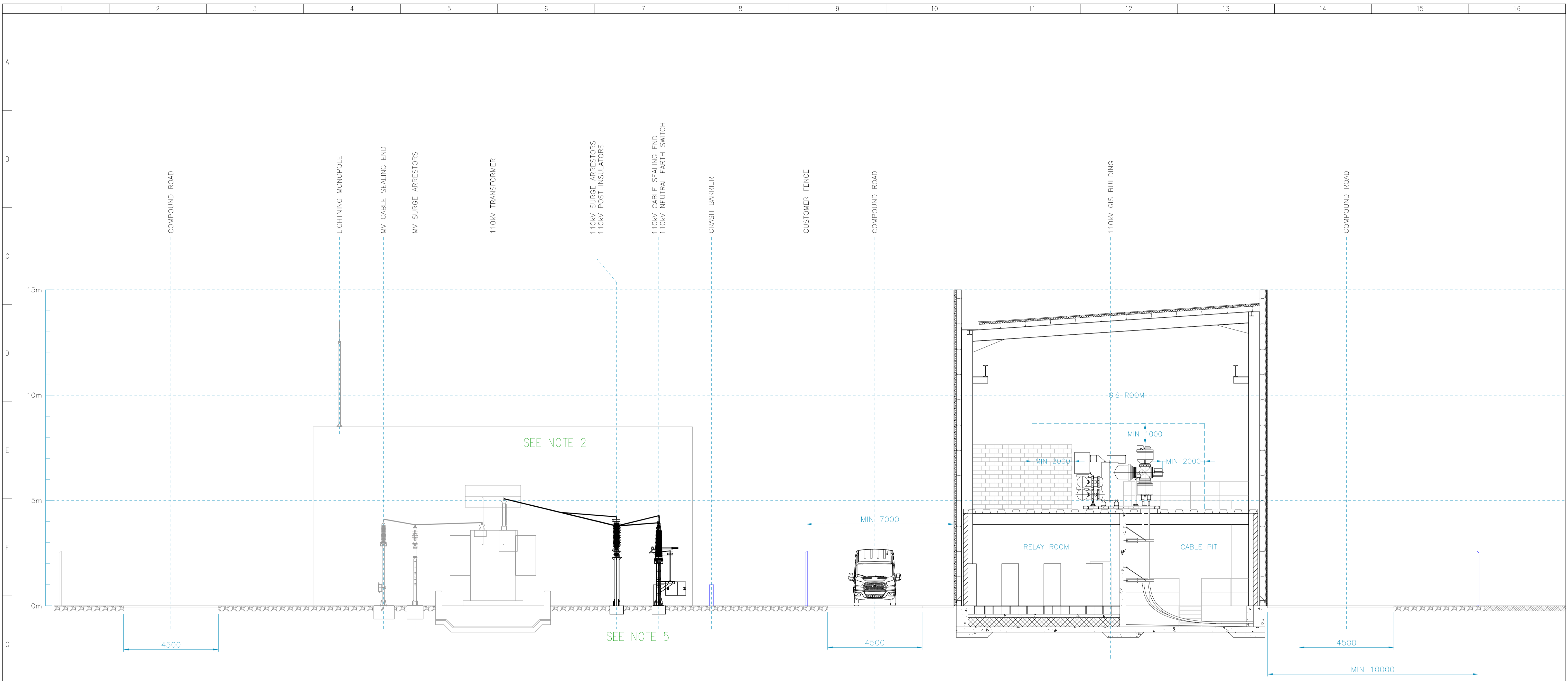


- NOTE 1:**  
THIS IS A CONCEPTUAL DESIGN. DETAILED DESIGN IS REQUIRED PENDING CONFIRMATION OF SPECIFIC EQUIPMENT SUPPLIER AND SITE DETAILS.
- NOTE 2:**  
THIS DRAWING IS PRODUCED FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS, REFERENCES (EG. LIGHTNING MAST LOCATIONS ETC.) GIVEN ARE INDICATIVE AND SHOULD NOT BE USED AS PART OF A DETAILED DESIGN.
- NOTE 3:**  
HV AND LV CABLE ROUTES ARE NOT SHOWN BUT SHOULD BE AND INCORPORATED INTO THE OVERALL SUBSTATION DESIGN.
- NOTE 4:**  
LIGHTING DESIGN HAS NOT BEEN IDENTIFIED IN THIS LAYOUT.
- NOTE 5:**  
110KV BUILDING HAS BEEN SPECIFICALLY DESIGNED TO ACCOMMODATE 4 No. TRANSFORMER BAYS (CABLE CONNECTION), 2 No. SECTIONALISING CIRCUIT BREAKERS, 2 No. WING COUPLERS, AND 4 No. FEEDER BAYS (CABLE CONNECTION). THE FINAL BUILDING DESIGN SHALL MATCH THE APPROPRIATE SINGLE LINE DIAGRAM.
- NOTE 6:**  
SUFFICIENT SPACE TO BE IDENTIFIED IN THE VICINITY OF THE 110KV BUILDING TO ALLOW FOR HV CABLE INSTALLATION.
- NOTE 7:**  
INDICATIVE LIGHTNING PROTECTION SYSTEM SHOWN. DETAILED DESIGN TO BE IN ACCORDANCE WITH EIRGRID FUNCTIONAL SPECIFICATIONS.
- NOTE 8:**  
ELECTRICAL, SAFETY, ACCESS AND MAINTENANCE CLEARANCES TO BE INCORPORATED IN DETAILED DESIGN AS PER EIRGRID FUNCTIONAL SPECIFICATIONS.
- NOTE 9:**  
ACCESS AND SET DOWN AREAS TO BE CONSIDERED AND PROVISION MADE FOR SITE ACTIVITIES DURING CONSTRUCTION, INSTALLATION AND FUTURE DECOMMISSIONING.
- NOTE 10:**  
VEHICULAR PARKING TO BE IDENTIFIED AND INCORPORATED.
- NOTE 11:**  
DETAILED ACCESS ROUTES TO ENSURE SAFE DELIVERY OF EQUIPMENT TO BE ASSESSED. PARTICULAR ATTENTION TO BE CONSIDERED FOR THE INSTALLATION OF POWER TRANSFORMER UNITS.
- NOTE 12:**  
OVERALL COMPOUND SECURITY DESIGN TO BE IN ACCORDANCE WITH EIRGRID FUNCTIONAL SPECIFICATIONS. ENHANCED SECURITY MAY BE REQUIRED IN CERTAIN LOCATIONS.
- NOTE 13 (AS ILLUSTRATED ON DRAWING):**  
LOCATION AND DETAIL OF CUSTOMER TRANSFORMERS IS INDICATIVE ONLY. CUSTOMER SHALL IDENTIFY A SUITABLE LOCATION, TAKING INTO ACCOUNT CABLE LAYOUT DESIGN AND INSTALLATION CONSTRAINTS. CUSTOMER SHALL DEVELOP THEIR OWN SPECIFIC LAYOUT FOR TRANSFORMERS.
- NOTE 14 (AS ILLUSTRATED ON DRAWING):**  
LOCATION OF INTERFACE ASSETS (SEALING ENDS, SURGE ARRESTERS, ETC) TO BE AGREED BASED ON CUSTOMER COMPOUND DESIGN.
- NOTE 15:**  
VEHICULAR ACCESS SHOULD BE PROVIDED TO ALL SIDES OF THE GIS BUILDING.
- NOTE 16:**  
REFER TO PROJECT SPECIFIC SLD TO DETERMINE ULTIMATE SIZE OF BUILDING.
- NOTE 17 (AS ILLUSTRATED ON DRAWING):**  
FOR CUSTOMER PROJECTS THE INTERFACE KIOSKS SHALL BE INCORPORATED INTO THE FENCE.
- NOTE 18:**  
FOR CLEARANCE REQUIREMENTS, REFER TO THE LATEST REVISION OF EIRGRID 110/220/400KV STATION GENERAL REQUIREMENTS FUNCTIONAL SPECIFICATION XDS-GFS-00-001.
- NOTE 19:**  
FOR GIS INFORMATION, REFER TO THE LATEST REVISION OF EIRGRID 110/220/400KV STATION GENERAL REQUIREMENTS FUNCTIONAL SPECIFICATION XDS-GFS-25-001.
- NOTE 20 (AS ILLUSTRATED ON DRAWING):**  
A DETAILED ARRANGEMENT TO PREVENT PROPERTY BOUNDARY BEING USED AS A CLIMBING AID TO BE AGREED WITH EIRGRID.

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		DRAWING NUMBER XDN-LAY-ELV-STND-H-012	REV 00		



SECTION A  
NTS

**NOTE 1:**  
THIS DRAWING IS PRODUCED FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS, REFERENCES (EG. LIGHTNING MAST LOCATIONS ETC.) GIVEN ARE INDICATIVE AND SHOULD NOT BE USED AS PART OF A DETAILED DESIGN.

**NOTE 2 (AS ILLUSTRATED ON DRAWING):**  
INDICATIVE CUSTOMER COMPOUND SHOWN. CUSTOMER SHALL DEVELOP THEIR OWN SPECIFIC LAYOUT.

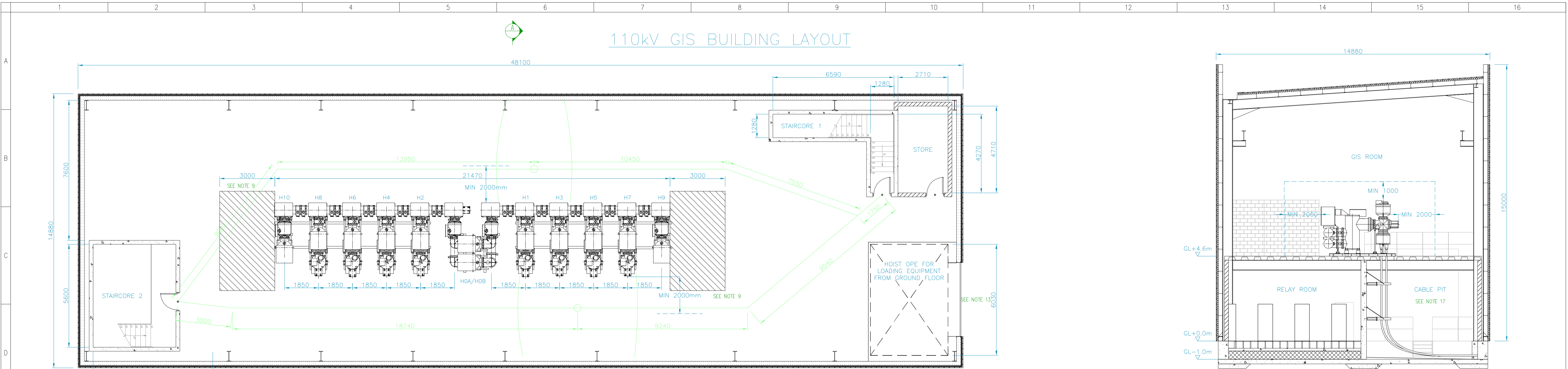
**NOTE 3:**  
FOR CLEARANCE REQUIREMENTS, REFER TO THE LATEST REVISION OF EIRGRID 110/220/400kV STATION GENERAL REQUIREMENTS FUNCTIONAL SPECIFICATION XDS-GFS-00-001.

**NOTE 4:**  
FOR GIS INFORMATION, REFER TO THE LATEST REVISION OF EIRGRID 110/220/400kV STATION GENERAL REQUIREMENTS FUNCTIONAL SPECIFICATION XDS-GFS-25-001.

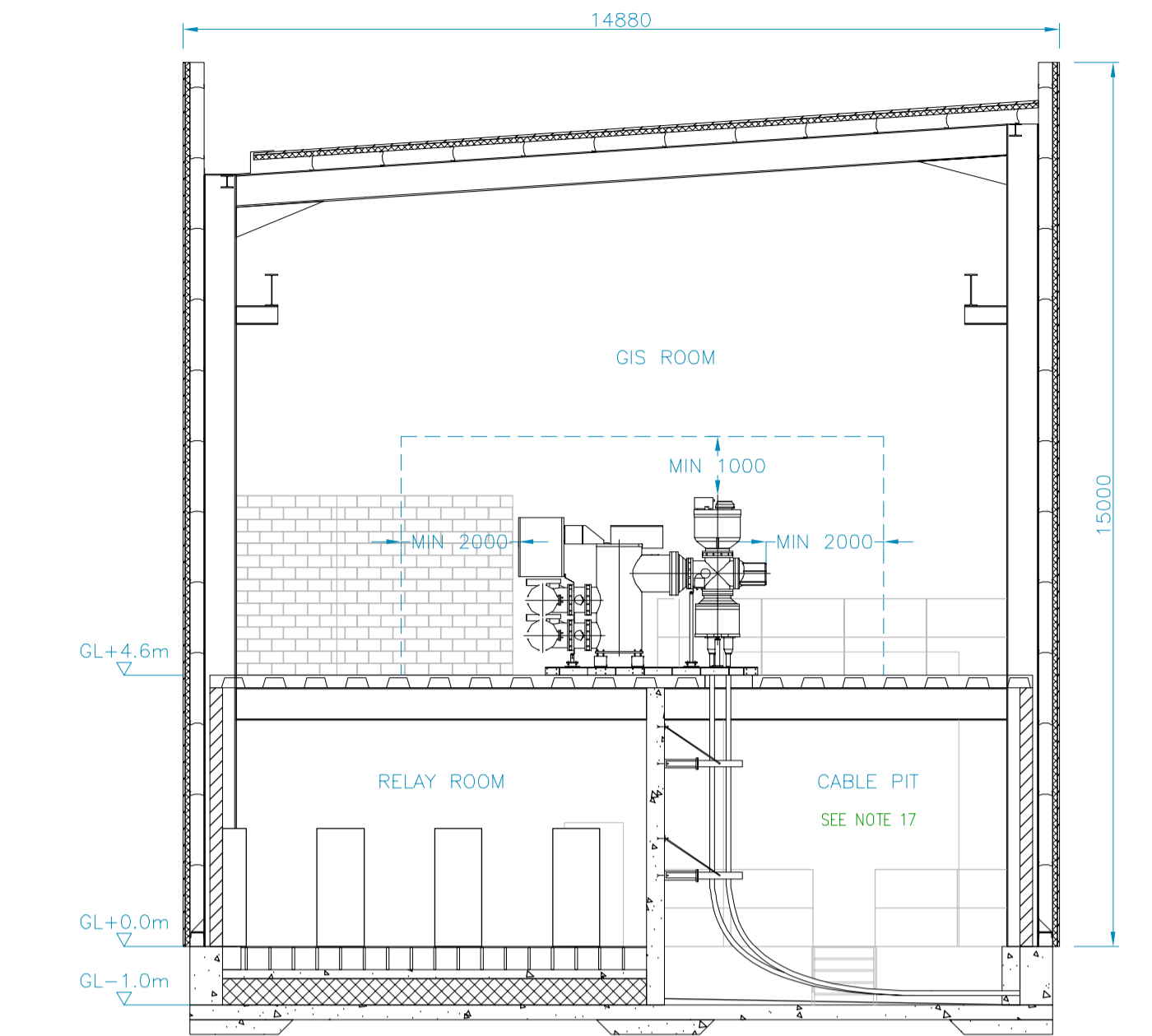
**NOTE 5 (AS ILLUSTRATED ON DRAWING):**  
LOCATION OF INTERFACE ASSETS (SEALING ENDS, SURGE ARRESTERS, ETC) TO BE AGREED BASED ON CUSTOMER COMPOUND DESIGN.

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DRAWING NUMBER XDN-LAY-ELV-STND-H-012		REV 00			

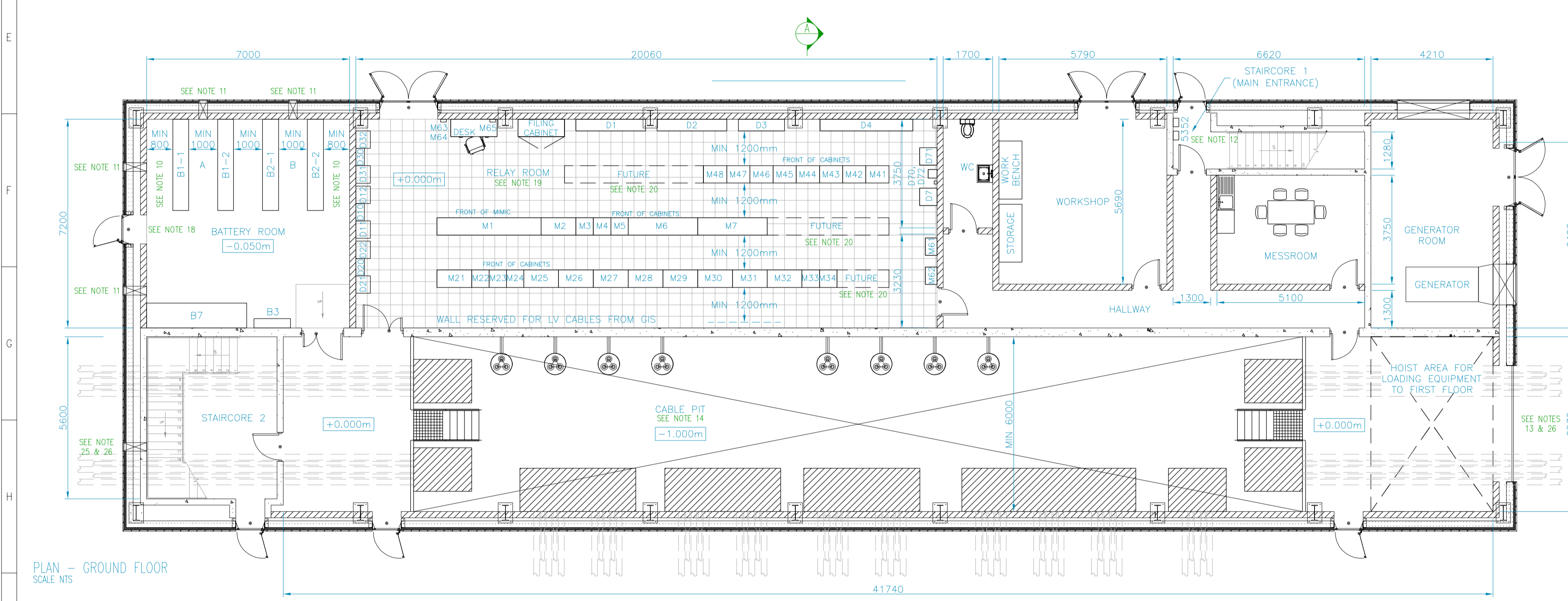
# 110kV GIS BUILDING LAYOUT



PLAN - FIRST FLOOR  
SCALE NTS



SECTION A-A  
SCALE NTS



PLAN - GROUND FLOOR  
SCALE NTS

LIST OF CABINETS		
CABINET DESIGNATION	DESCRIPTION	DIMENSIONS
B1-1	220V DC BATTERY 1, STAND 1	3150x550
B1-2	220V DC BATTERY 2, STAND 2	3150x550
B2-1	220V DC BATTERY 2, STAND 1	3150x550
B2-2	220V DC BATTERY 2, STAND 2	3150x550
B3	24V DC STATION BATTERY	3450x660
B7	48V DC TELECOMS BATTERY	1260x320
D1	220V DC DISTRIBUTION BOARD 1	2400x400
D2	220V DC DISTRIBUTION BOARD 2	2400x400
D3	24/48V DC DISTRIBUTION BOARD	1600x400
D4	AC DISTRIBUTION BOARD	3200x400
D7	48V (TELECOMS) DISTRIBUTION	600x600
D10	220V BATTERY No.1: CHARGER CHANGEOVER SWITCH & FUSE BOX	600x300
D11	220V BATTERY No.1: CHARGER 1 & BATTERY SUPERVISION	600x600
D12	220V BATTERY No.1: CHARGER 2 & BATTERY SUPERVISION	600x600
D20	220V BATTERY No.2: CHARGER CHANGEOVER SWITCH & FUSE BOX	600x300
D21	220V BATTERY No.2: CHARGER 1 & BATTERY SUPERVISION	600x600
D22	220V BATTERY No.2: CHARGER 2 & BATTERY SUPERVISION	600x600
D30	24/48V BATTERY: CHARGER CHANGEOVER SWITCH & FUSE BOX	600x300
D31	24/48V BATTERY: CHARGER 1 & BATTERY SUPERVISION	600x600
D32	24/48V BATTERY: CHARGER 2 & BATTERY SUPERVISION	600x600
D70	48V TELECOMS CONNECTION/FUSE BOX	600x600
S71	48V SMPS (TELECOMS)	600x600
D72	TELECOMS ISOLATION SWITCH	100x100
M1	MMC	3600x600
M2	SYNCHRONISING PANEL	1200x600
M3	EVENT RECORDER/AMP	600x600
M4	BACKUP AMP	600x600
M5	BATTERY SUPERVISION	600x600
M6	SIGNAL INTERPOSING	2400x600
M7	CUSTOMER INTERFACE	2400x600
M21	BUSBAR PROTECTION	1200x600
M22	REMOTE INTERROGATION/DISTURBANCE RECORDER	600x600
M23	H10 COUPLER PROTECTION	600x600
M24	H9 COUPLER PROTECTION	600x600
M25	H8 BAY PROTECTION	1200x600
M26	H7 BAY PROTECTION	1200x600
M27	H6 BAY PROTECTION	1200x600
M28	H5 BAY PROTECTION	1200x600
M29	H4 BAY PROTECTION	1200x600
M30	H3 BAY PROTECTION	1200x600
M31	H2 BAY PROTECTION	1200x600
M32	H1 BAY PROTECTION	1200x600
M33	H0B SECTIONALISER PROTECTION	600x600
M34	H0A SECTIONALISER PROTECTION	600x600
M41	OPI/MUX 1	800x600
M42	OPI/MUX 2	800x600
M43	ODF	800x600
M44	IP SERVICES	800x600
M45	MAN DISTRIBUTION FRAME	800x600
M46	NCC RTU (INCL. GPS CLOCK)	800x600
M47	TELEMETERING	800x600
M48	ENERGY ENERGY METERING	800x600
M61	DCC RTU SEE NOTE 22	600x400
M62	ETIE	600x400
M63	INTRUDER ALARM PANEL	
M64	FIRE ALARM PANEL	
M65	TELEPHONE POINTS (2No.)	

- NOTE 1:** THIS DRAWING IS PRODUCED FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS, REFERENCES (EG. LIGHTNING MAST LOCATIONS ETC.) GIVEN ARE INDICATIVE AND SHOULD NOT BE USED AS PART OF A DETAILED DESIGN.
- NOTE 2:** THIS IS A CONCEPTUAL DESIGN. DETAILED DESIGN IS REQUIRED PENDING CONFIRMATION OF SPECIFIC EQUIPMENT SUPPLIER AND SITE DETAILS.
- NOTE 3:** BUILDING HAS BEEN SPECIFICALLY DESIGNED TO ACCOMMODATE 4 NO. TRANSFORMER BAYS (CABLE CONNECTION) AND 4 NO. FEEDER BAYS (CABLE CONNECTION).
- NOTE 4:** SWITCHGEAR SHOWN ON THIS DRAWING IS INDICATIVE ONLY.
- NOTE 5:** REQUIREMENT FOR GIS OVERPRESSURE VENTS TO BE CONFIRMED BY GIS SUPPLIER.
- NOTE 6:** WHERE THERE IS MORE THAN ONE MINIMUM DISTANCE STATED FOR A SPECIFIC AREA THE LARGEST MINIMUM DISTANCE SHOULD BE ADHERED TO.
- NOTE 7:** ALL OPENS IN GIS ROOM FOR LV AND HV CABLES TO BE FIRE SEALED.
- NOTE 8:** THE MAXIMUM LENGTH OF A CABLE THAT CAN BE PUSHED INTO THE CABLE ROOM IS 100m ROUTE LENGTH.
- NOTE 9:** (AS ILLUSTRATED ON DRAWING): MINIMUM CLEAR AREA ON BOTH SIDES OF THE GIS FOR THE HV TEST EQUIPMENT IS 3000mm.
- NOTE 10:** (AS ILLUSTRATED ON DRAWING): MINIMUM CLEAR DISTANCE BETWEEN 220V BATTERY STANDS AND WALLS IS 800mm.
- NOTE 11:** (AS ILLUSTRATED ON DRAWING): SCREENED VENTS (2 HIGH LEVEL AND 2 LOW LEVEL) ARE TO BE INSTALLED IN THE BATTERY ROOM AS PER IEC 60448-2 ON ADJACENT EXTERNAL WALL.
- NOTE 12:** (AS ILLUSTRATED ON DRAWING): FIRE AND ALARM PANELS TO BE LOCATED IN THE VICINITY OF THE MAIN ENTRANCE.
- NOTE 13:** (AS ILLUSTRATED ON DRAWING): EQUIPMENT ACCESS DOOR TO BE SIZED SUCH THAT A STANDARD ESB TRUCK CAN BE REVERSED IN THE HOIST AREA (MIN 4000mm WIDTH).
- NOTE 14:** (AS ILLUSTRATED ON DRAWING): THERE ARE TO BE NO OBSTRUCTIONS LOCATED 2m DIRECTLY IN FRONT OF THE CABLE DUCTS AND 300mm TO THE SIDE OF THE CABLE DUCT WHERE THE DUCT ENTERS THE CABLE ROOM.
- NOTE 15:** ADEQUATE AREA TO BE PROVIDED IN THE VICINITY OF THE GIS BUILDING TO ALLOW SPACE FOR SETTING UP THE EQUIPMENT NEEDED FOR CABLE PULLING OPERATIONS. THIS AREA IS APPROX. 12m X 12m FOR EACH CABLE CIRCUIT. CABLE DESIGNER TO ADVISE.
- NOTE 16:** AN OPENING MUST BE PROVIDED FOR EACH CIRCUIT TO ALLOW FOR SUITABLE CABLE PULLING DUCTS.
- NOTE 17:** (AS ILLUSTRATED ON DRAWING): CABLE SUPPORT STEELWORK TO BE PROVIDED BY THE CONTRACTOR. WALL TO BE CAPABLE OF SUPPORTING HV CABLES, RING CT'S etc.
- NOTE 18:** (AS ILLUSTRATED ON DRAWING): ADDITIONAL EXIT DOOR IN BATTERY ROOM, REQUIREMENT TBC IN LINE WITH FIRE REGULATIONS.
- NOTE 19:** (AS ILLUSTRATED ON DRAWING): RELAY ROOM MUST BE SIZED APPROPRIATELY TO ALLOW FOR ULTIMATE DEVELOPMENT OF STATION.
- NOTE 20:** (AS ILLUSTRATED ON DRAWING): SPACE SHOULD BE PROVIDED FOR FUTURE TELECOMS AND PROTECTION PANELS.
- NOTE 21:** INDICATIVE CABLE ACCESS SHOWN.
- NOTE 22:** A TELECOMS EARTH BAR SHALL BE INSTALLED IN CLOSE PROXIMITY TO THE DCC RTU.
- NOTE 23:** ONLY SINGLE ROW BATTERY STANDS MAY BE LOCATED AGAINST A WALL.
- NOTE 24:** NO ELECTRICAL EQUIPMENT (INCL. BATTERIES) SHALL BE INSTALLED DIRECTLY IN FRONT OF VENTS.
- NOTE 25:** (AS ILLUSTRATED ON DRAWING): AN OPENING SHALL BE PROVIDED UNDER THE STAIRS FOR CABLE PULLING.
- NOTE 26:** (AS ILLUSTRATED ON DRAWING): SUITABLE ANCHOR POINTS SHALL BE INSTALLED FOR CABLE PULLING.
- NOTE 27:** FIRE AND ATEX ZONES NOT SHOWN, THIS SHOULD BE CONSIDERED DURING DETAILED CUSTOMER DESIGN.

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XDN-LAY-ELV-STND-H-012		SCALE NTS		