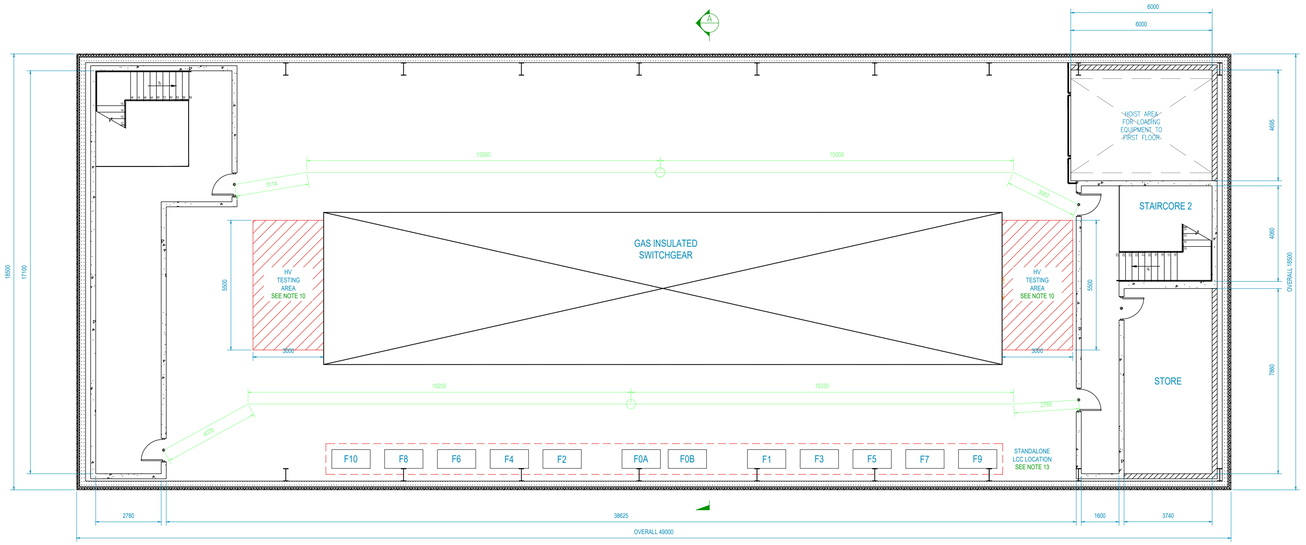
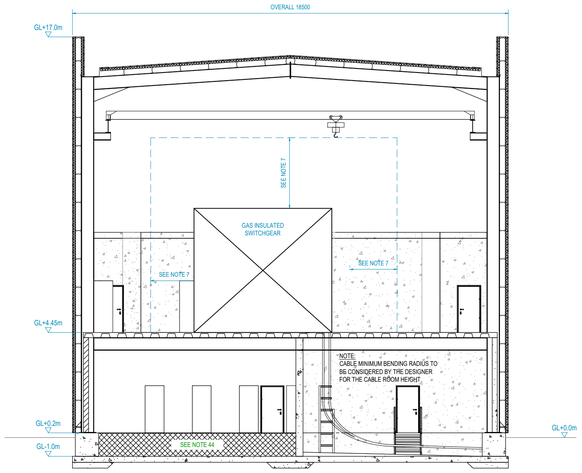
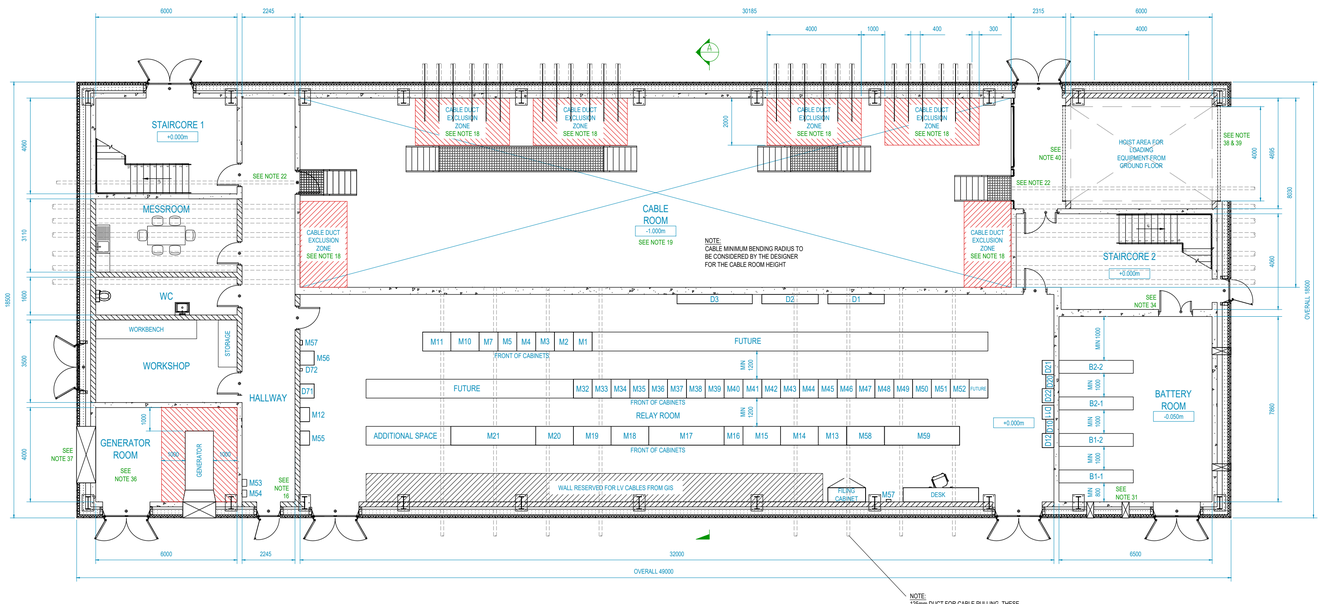


PLAN - FIRST FLOOR
SCALE: NTS



ELEVATION - SECTION A-A
SCALE: NTS



NOTE:
125mm DUCT FOR CABLE PULLING. THESE DUCTS SHOULD BE TERMINATED IN THE STATION YARD, IN A CABLE PIT. TO FACILITATE THE PULLING & FUTURE PULLING ACTIVITIES.

PLAN - GROUND FLOOR
SCALE: NTS

CABINET DESIGNATION	DESCRIPTION	DIMENSIONS
B1-1	220V DC BATTERY 1, STAND 1	3150x550
B1-2	220V DC BATTERY 1, STAND 2	3150x550
B2-1	220V DC BATTERY 2, STAND 1	3150x550
B2-2	220V DC BATTERY 2, STAND 2	3150x550
D1	220V DC DISTRIBUTION BOARD 1	2400x400
D2	220V DC DISTRIBUTION BOARD 2	2400x400
D3	AC DISTRIBUTION BOARD	3200x400
D10	220V BATTERY No.1 CHARGER CHANGEOVER SWITCH & FUSE BOX	600x350
D11	220V BATTERY No.1: CHARGER 1 & BATTERY SUPERVISION	600x500
D12	220V BATTERY No.1: CHARGER 2 & BATTERY SUPERVISION	600x500
D20	220V BATTERY No.2 CHARGER CHANGEOVER SWITCH & FUSE BOX	600x350
D21	220V BATTERY No.2: CHARGER 1 & BATTERY SUPERVISION	600x500
D22	220V BATTERY No.2: CHARGER 2 & BATTERY SUPERVISION	600x500
M1	OPMUX 1	800x800
M2	OPMUX 2	800x800
M3	OPMUX 3	800x800
M4	ODF	800x800
M5	IP SERVICES	800x800
M7	MAIN DISTRIBUTION FRAME	800x800
M10	TELEMETERING 1	1200x800
M11	TELEMETERING 2	1200x800
M12	DCC RTU	600x400
M13	SYNCHRONISING PANEL	1200x800
M14	EVENT RECORDER/AAP 1	1600x800
M15	EVENT RECORDER/AAP 2	1600x800
M16	BATTERY SUPERVISION	800x800
M17	SIGNAL INTERPOSING	3200x800
M18	BUSBAR PROTECTION 1	1600x800
M19	BUSBAR PROTECTION 2	1600x800
M20	BUSBAR PROTECTION 3	1600x800
M21	ESBN INTERFACE	3200x800
M33	F7 PROTECTION	800x800
M34	F7 PROTECTION	800x800
M35	F5 PROTECTION	800x800
M36	F5 PROTECTION	800x800
M37	F3 PROTECTION	800x800
M38	F3 PROTECTION	800x800
M39	F1 PROTECTION	800x800
M40	F1 PROTECTION	800x800
M41	FOA SECTIONALISER PROTECTION	800x800
M43	F2 PROTECTION	800x800
M44	F2 PROTECTION	800x800
M45	F4 PROTECTION	800x800
M46	F4 PROTECTION	800x800
M47	F6 PROTECTION	800x800
M48	F6 PROTECTION	800x800
M49	F8 PROTECTION	800x800
M50	F8 PROTECTION	800x800
M52	REMOTE INTERROGATION/DISTURBANCE RECORDER	800x800
M53	INTRUDER ALARM PANEL	
M54	FIRE ALARM PANEL	
M55	ETIE	600x400
M56	EIRGRID ENERGY METERING	800x800
M57	TELEPHONE POINTS (2No.)	1600x800
M58	SCS CENTRAL CABINET	1600x800
M59	DTS & DAS CABINETS	3200x800

GENERAL

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. THIS IS A CONCEPTUAL DESIGN FOR AN 8-BAY SUBSTATION WITH DOUBLE BUSBARS, BUS SECTIONALISERS AND COUPLERS. THE PROJECT SPECIFIC DRAWINGS SHALL BE DEVELOPED BY THE CUSTOMER. OCC SINGLE BUSBAR SWITCHGEAR IS ACCEPTABLE.

NOTE 2:
IF REQUIRED, CUSTOMER'S ROOM(S) CAN BE INCLUDED IN THE BUILDING, BUT THEY HAVE TO BE SEGREGATED WITH SEPERATE ENTRIES. INTERFACE SHALL BE AGREED WITH EIRGRID.

NOTE 3:
THE LIST OF CABINETS SHOWN ON THIS DRAWING IS INDICATIVE ONLY BASED ON AN EIGHT BAY GIS WITH SECTIONALISERS AND BUS-COUPLERS. THE CABINETS SHALL BE MODIFIED TO MATCH PROJECT REQUIREMENTS. SCADA, SUBSTATION CONTROL SYSTEM CABINETS SHALL ALSO BE ADDED.

NOTE 4:
WHERE THERE IS MORE THAN ONE MINIMUM DISTANCE STATED FOR A SPECIFIC AREA THE LARGEST MINIMUM DISTANCE SHOULD BE ADHERED TO.

NOTE 5:
NOT USED.

NOTE 6:
CIVIL CALCULATIONS ARE TO BE CARRIED OUT AT THE DETAIL DESIGN STAGE AND TAKE INTO ACCOUNT SPECIFIC, EXISTING SITE GROUND CONDITIONS.

SWITCH GEAR

NOTE 7 (AS ILLUSTRATED ON DRAWING):
THE SWITCHGEAR SHOWN ON THIS DRAWING IS INDICATIVE ONLY. DIMENSIONS OF THE OVERALL BUILDING SHALL BE DESIGNED TO SUIT MANUFACTURER SPECIFIC DIMENSIONS, ENVELOPE AROUND THE SWITCHGEAR SHALL BE WITH MANUFACTURER RECOMMENDATIONS FOR ON-GOING OPERATION, MAINTENANCE AND REPLACEMENT OF HV PLANT.

NOTE 8:
REQUIREMENT FOR GIS OVERPRESSURE VENTS TO BE CONFIRMED BY GIS SUPPLIER.

NOTE 9:
ALL OPENINGS IN GIS ROOM FOR LV AND HV CABLES TO BE FIRE SEALED.

NOTE 10 (AS ILLUSTRATED ON DRAWING):
MINIMUM CLEAR AREA ON BOTH SIDES OF THE GIS FOR THE HV TEST EQUIPMENT IS 3000mm.

NOTE 11:
LV CABLE ROUTING FOR FUTURE SWITCHGEAR BAYS, IF APPLICABLE, SHALL BE CONSIDERED AS PART OF THE DETAILED DESIGN. DIFFERENCES IN LENGTH BETWEEN THE RELAY ROOM AND THE SWITCHGEAR HALL MUST BE NOTED AT THE DETAIL DESIGN PHASE, WITH LV CABLING ROUTED ACCORDINGLY.

NOTE 12:
SPECIFIC SWITCHROOM FLOOR REQUIREMENTS ARE TO SUIT THE MANUFACTURER'S SPECIFICATIONS AND ARE TO BE EVALUATED AT THE DETAIL DESIGN STAGE.

NOTE 13:
LCC CAN BE EITHER STAND-ALONE OR COMBINED WITH GIS.

NOTE 14:
HIGH FREQUENCY MESH IS TO BE LAID WITHIN THE GIS FLOOR AND SUIT SWITCHGEAR MANUFACTURER REQUIREMENTS. FOR FURTHER DETAILS ON EIRGRID EARTHING REQUIREMENTS, REFER TO EIRGRID'S FUNCTIONAL SPECIFICATION OFS-SSS-407.

NOTE 15:
GIS ACCESS PLATFORMS SHOWN ARE INDICATIVE ONLY AND SHALL BE EVALUIATED AT THE DETAIL DESIGN PHASE.

HALLWAY

NOTE 16 (AS ILLUSTRATED ON DRAWING):
FIRE AND ALARM PANELS TO BE LOCATED IN THE VICINITY OF THE MAIN ENTRANCE.

CABLE ROOM

NOTE 17:
THE MAXIMUM LENGTH OF A CABLE THAT CAN BE PUSHED INTO THE CABLE ROOM IS 100m ROUTE LENGTH.

NOTE 18 (AS ILLUSTRATED ON DRAWING):
BUILDING DESIGNER AND CABLE DESIGNER SHALL CO-ORDINATE WORKS TO ENSURE THERE ARE 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 19 (AS ILLUSTRATED ON DRAWING):
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 CONSIDER.

NOTE 20:
AN OPENING MUST BE PROVIDED FOR EACH CIRCUIT TO ALLOW FOR SUITABLE CABLE PULLING DUCTS.

NOTE 21:
CABLE SUPPORT STEELWORK TO BE PROVIDED BY THE CONTRACTOR. WALL TO BE CAPABLE OF SUPPORTING HV CABLES, RING CT's etc.

NOTE 22 (AS ILLUSTRATED ON DRAWING):
AN OPENING SHALL BE PROVIDED UNDER THE STAIRS FOR CABLE PULLING.

NOTE 23:
SUITABLE ANCHOR POINTS SHALL BE INSTALLED FOR CABLE PULLING IN ADDITION TO PULLING DUCTS.

NOTE 24 (AS ILLUSTRATED ON DRAWING):
INDICATIVE MODULAR/RELOCATABLE WALKWAY BRIDGES HAVE BEEN SHOWN WITHIN THE CABLE PIT AND ARE INTENDED TO PROVIDE AN UNIMPEDED ROUTE OF ESCAPE FROM THE PIT IN THE EVENT OF AN EMERGENCY. BRIDGES ARE TO CONSTRUCTED WITH A NON-METALLIC MATERIAL, i.e. GLASS REINFORCED PLASTIC.

NOTE 25:
CABLE ROOM ENTRY DUCTS LOCATIONS ARE INDICATIVE ONLY. DUCTING SHALL BE FACILITATED TO SUIT THE ULTIMATE DEVELOPMENT OF THE STATION TO REDUCE THE POSSIBILITY OF WATER INGRESS.

NOTE 26:
RISK ASSESSMENT TO BE CARRIED OUT AT DETAIL DESIGN STAGE TO EVALUATE THE REQUIREMENT FOR FORCED VENTILATION WITHIN CABLE PIT.

NOTE 27:
LINK BOXES LOCATED IN THE CABLE BASEMENTS SHALL BE READILY ACCESSIBLE FOR OPERATIONS STAFF FOR MAINTENANCE PURPOSES WITH SAFETY SIGNAGE AS OUTLINE IN THE EIRGRID CABLE SPECIFICATIONS.

NOTE 28:
TELECOMMUNICATION DUCTS SHALL BE ROUTED DIRECTLY TO THE RELAY ROOM.

NOTE 29:
EXTERNAL OUTDOOR EQUIPMENT LOCATIONS AND OTHER BUILDINGS TO BE PROPOSED BY CUSTOMER.

NOTE 30:
NOT USED.

BATTERY ROOM

NOTE 31 (AS ILLUSTRATED ON DRAWING):
MINIMUM CLEAR DISTANCE BETWEEN 220V BATTERY STANDS AND WALLS IS 800mm. BATTERIES SHOULD BE LOCATED AWAY FROM THE WALL TO ENSURE ACCESS TO ALL BATTERY CELLS FOR MAINTENANCE. BATTERIES SHOULD NOT BE LOCATED IN FRONT OF AIR VENTS.

NOTE 32:
NOT USED

NOTE 33:
NOT USED.

NOTE 34 (AS ILLUSTRATED ON DRAWING):
ACCESS DOOR TO STAIRCORE 2 FROM HOIST AREA, AND ADDITIONAL DOUBLE DOOR EXIT IN BATTERY ROOM TO BE SIZED APPROPRIATELY. SIZE REQUIREMENT TBC IN LINE WITH FIRE REGULATIONS.

NOTE 35:
DETAIL DESIGN IS TO CARRY OUT APPROPRIATE RISK ASSESSMENT & VENTILATION CALCULATIONS TO EVALUATE BATTERY ROOM VENTILATION REQUIREMENTS.

GENERATOR ROOM

NOTE 36:
GENERATOR PACKAGE ENCLOSURES CAN ALSO BE INSTALLED OUTDOORS AS A WEATHER PROOF PACKAGE TO HOUSE DIESEL ENGINE, GENERATOR AND THEIR ASSOCIATE EQUIPMENT. REFER TO OFS-SSS-403.

NOTE 37 (AS ILLUSTRATED ON DRAWING):
MINIMUM DIESEL GENERATOR LOUVRE DIMENSIONS 1200 x 1200mm.

HOIST AREA

NOTE 38 (AS ILLUSTRATED ON DRAWING):
EQUIPMENT ACCESS DOOR TO BE SIZED SUCH THAT A STANDARD EIRGRID TRUCK CAN BE REVERSED IN THE HOIST AREA (MIN 4000mm WIDTH).

NOTE 39 (AS ILLUSTRATED ON DRAWING):
ROLLER SHUTTER DOOR EXTENDS TO CEILING LEVEL OF THE GROUND FLOOR OF THE GIS BUILDING.

NOTE 40 (AS ILLUSTRATED ON DRAWING):
ROLLER SHUTTER DOOR TO BE INSTALLED BETWEEN THE HOIST AREA AND THE CABLE PIT AND IS INTENDED TO PREVENT VERTICAL FIRE TRAVEL BETWEEN THE FIRST AND SECOND FLOORS OF THE BUILDING, INLINE WITH FIRE REGULATIONS.

RELAY ROOM

NOTE 41 (AS ILLUSTRATED ON DRAWING):
RELAY ROOM MUST BE SIZED APPROPRIATELY TO ALLOW FOR ULTIMATE DEVELOPMENT OF STATION. QUANTITY, NUMBER AND TYPE OF THE CABINETS SHALL BE AS PER PROJECT REQUIREMENTS.

NOTE 42 (AS ILLUSTRATED ON DRAWING):
SPACE SHOULD BE CONSIDERED FOR ADDITIONAL TELECOMS AND PROTECTION PANELS.

NOTE 43:
INDICATIVE CABLE ACCESS SHOWN.

NOTE 43:
NO ELECTRICAL EQUIPMENT (INCL. BATTERIES) SHALL BE INSTALLED DIRECTLY IN FRONT OF VENTS.

NOTE 44 (AS ILLUSTRATED ON DRAWING):
RELAY ROOM FLOOR CONSTRUCTION TO SUIT ROOM REQUIREMENTS.

ROOF ACCESS

NOTE 45:
ROOF ACCESS IS TO BE EVALUATED AT THE DETAIL DESIGN STAGE BY CONDUCTING A RISK ASSESSMENT.

REV	DESC	DRAWN	CHECKED	APPROVED	DATE
00	FIRST ISSUE	CHC	VG/LN/JS	NC/DG	07/11/2022

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PROJECT
GENERIC DESIGN STANDARD
220kV GIS STATION

DRAWING TITLE
INDICATIVE 220kV GIS ONSHORE COMPENSATION COMPOUND LAYOUT DRAWING - PLAN VIEW

No of Shts	SIZE	SCALE	SHEET	REV
2	A1	NTS	002	00

DRAWING NUMBER
OFD-SSS-503