

SECTION A-A
SCALE 1:50

SECTION B-B
SCALE 1:50

PLAN SHOWING EQUIPMENT LAYOUT
SCALE 1:50

PLAN SHOWING PIT & CONDUIT LAYOUT
SCALE 1:50

PLAN SHOWING LIGHT AND POWER LAYOUT
SCALE 1:50

LINE DIAGRAM
NOT TO SCALE

ABB SAFELINK

SIEMENS 8DJH RTR

DETAIL 1
HV SWITCH SET OUT
SCALE 1:50

EQUIPMENT TABLE		REFER NOTE 1	
NAME	TYPE	WEIGHT	STOCKCODE
HV SWITCH	SIEMENS 8DJH RTR WITH INTEGRATED EFI	360kg	185192
	ABB SAFELINK 2 WITH INTEGRATED EFI	280kg	184921
TRANSFORMER	750kVA	3400kg	180357
	1000kVA	4000kg	180358
LV BOARD	SAIF CHAMBER TYPE	210kg	181790 TO 181793, 181834, & 181835

REFERENCE DRAWINGS		
	EARTH ROD INSTALLATION	25121
13	DETAILS OF WEATHERPROOF LOUVRED DOORS	43140
	CONSTRUCTION DETAILS - MISCELLANEOUS	48008
6	HV CABLE SUPPORT MOUNTING STAND	162655
4	HV PIT CONSTRUCTION AND SUPPORT STEELWORK	191085
	INSTALLATION OF SIEMENS 8DJH RTR (RMI)	234377
	INSTALLATION OF ABB SAFELINK 2	224420

CONDUIT SCHEDULE				
NUMBER	DIAMETER	MATERIAL	RADIUS mm BEND	FUNCTION
1-2	125	UPVC	1000	HV FEEDERS
3-6	125	UPVC	1000	LV NETWORK DISTRIBUTORS
7	100	UPVC	1000	EARTHING
8	100	UPVC	1000	FUTURE DM&C

NOTES

1. THIS DRAWING SHOWS THE LAYOUT OF EQUIPMENT FOR A STANDARD SINGLE 750 OR 1000kVA TRANSFORMER SURFACE CHAMBER TYPE DISTRIBUTION SUBSTATION AND UTILISES THE EQUIPMENT SHOWN IN THE EQUIPMENT TABLE ONLY. EQUIPMENT SELECTED FROM THE OPTIONS SHOWN IN THE EQUIPMENT TABLE MUST BE SHOWN ON THE DESIGN PLAN FOR THE SUBSTATION. THE DRAWING MUST BE READ IN CONJUNCTION WITH NETWORK STANDARDS 113 AND 114.
2. TO ENSURE ACCEPTABLE TRANSFORMER VENTILATION, THE SUBSTATION CHAMBER MUST BE LOCATED ON THE OUTSIDE FACE OF THE BUILDING, ADJACENT TO A SUITABLE ROADWAY AND NOT BEHIND FENCING. PARTICULAR ATTENTION MUST BE GIVEN TO COMPLYING WITH NETWORK STANDARD REQUIREMENTS ASSOCIATED WITH FIRE RATING AND VENTILATION SEPARATION OF THE BUILDING SURROUNDING THE SUBSTATION VENTILATION LOUVRES.
3. ALL DIMENSIONS SHOWN ARE FINISHED SIZES.
4. BOTH THE HV AND LV PITS AND THEIR ASSOCIATED STEELWORK ARE CONSTRUCTED TO THE DETAILS SHOWN ON DRAWING 191085 BUT TO THE DEPTHS SHOWN ON THIS DRAWING.
5. IF THE SUBSTATION FLOOR IS OF SUSPENDED CONSTRUCTION OR CONDUITS ARE CONTAINED IN A VOID UNDER THE SUBSTATION FLOOR, ALL CONDUITS ARE REQUIRED TO BE ENCASED IN 150mm OF CONCRETE FOR THEIR ENTIRE RUN.
6. THE HV CABLE SUPPORT BRACKET IS TO BE CONSTRUCTED TO THE DETAILS FOR THE NON CT SUPPORT BRACKET SHOWN ON DRAWING 162655 BUT WITH THE LEGS EXTENDED TO THE PIT FLOOR AND THE FOOT DELETED. THE EXTENDED LEGS ARE TO BE FIXED TO THE PIT WALL WITH UNISTRUT SADDLES. SADDLES ARE TO BE 150mm BELOW THE FINISHED SUBSTATION FLOOR LEVEL AND 150mm ABOVE THE PIT FLOOR.
7. DM&C EQUIPMENT MAY BE FITTED TO THE SUBSTATION BY AUSGRID AFTER COMMISSIONING.
8. GENERAL POWER FOR THE CHAMBER IS PROVIDED BY A 240 VOLT SINGLE PHASE DOUBLE OUTLET WHICH IS PART OF THE LV BOARD.
9. SINGLE 36 WATT FLUORESCENT BATTENS ARE TO BE FITTED IN THE POSITIONS SHOWN. THEY ARE TO BE POWERED FROM THE 240 VOLT OUTLET ON THE LV BOARD VIA AN IMPACT RESISTANT SINGLE WAY LIGHT SWITCH IN THE POSITION SHOWN. LIGHTING POWER IS TO BE WIRED VIA SOLID UPVC CONDUIT TO THE JUNCTION BOX SHOWN. THE JUNCTION BOX IS TO BE A CLIPSA 265 SERIES OR SIMILAR AND IS TO BE PROVIDED WITH A SUITABLE CABLE TERMINAL BLOCK. A DOUBLE INSULATED 3 CORE CABLE IS TO BE PROVIDED FROM THE JUNCTION BOX TO THE POWER OUTLET ON THE LV BOARD. THE LV BOARD END OF THE CABLE IS TERMINATE IN A 3 PIN PLUG WHILST THE JUNCTION BOX END IS TO TERMINATE IN THE BOX'S TERMINAL BLOCK.
10. TRANSFORMER LV AND CUSTOMER CABLES SHOULD BE ARRANGED SUCH THAT CROSSINGS ARE MINIMISED AND CABLE BENDING RADI IS NOT EXCEEDED. ALL USED AND UNUSED CUSTOMER'S CONDUITS ARE TO BE FIRE STOPPED AS INDICATED IN NETWORK STANDARD 177 AFTER THE INSTALLATION OF THE CUSTOMERS CABLES. THE EXACT LOCATION AND NUMBER OF CUSTOMER CONDUITS IS TO BE SHOWN ON PROJECT DESIGN PLANS.
11. AN EARTHING DESIGN IS REQUIRED FOR EACH SITE. THE LOCATION OF EARTH RODS SHOWN ON THIS DRAWING ARE TYPICAL ONLY.
12. THE AREA BETWEEN THE LOUVRED DOORS IS TO BE FILLED WITH TWO FULL HEIGHT REMOVABLE LOUVRED PANELS OF EQUAL WIDTH.
13. LOUVRED DOORS AND REMOVABLE PANELS SHOULD NOT EXCEED 3500mm IN HEIGHT. ANY AREA ABOVE THE MAXIMUM 3500mm SHOULD BE FILLED WITH REMOVABLE LOUVRED PANELS.
14. THE LOCATION OF THE TRANSFORMER IS TO BE ADJUSTED SO THAT THE WHEELS ARE EQUALLY SPACED FROM BOTH PIT EDGES.

SCALE	AS SHOWN
DESIGNED	P.JARVIS
DRAWN	P.JARVIS
CHECKED	P.TURRIN
APPROVED	D.GRCEV
DATE	09/08/2018

STANDARD SURFACE CHAMBER
DISTRIBUTION SUBSTATION
SINGLE 750 OR 1000KVA TRANSFORMER
LAYOUT 2

DRAWING No	224408	SHEET	1	AMD	5	SIZE	A1
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