

CABLE NAME	ORIGIN	DESTINATION	SIZE	CORE FERRULE	CORE NUMBER	CORE COLOUR	CORE FUNCTION	CABLE FUNCTION
1A	SERVICE BOARD FUSES	SERVICE BOARD	4 CABLES 1C x 16mm <sup>2</sup>	-	-	R W B Bk	A PHASE B PHASE C PHASE NEUTRAL	SERVICE BOARD SUPPLY
2A 3A 4A	TRANSFORMER ACB PANEL	SERVICE BOARD	3 CABLES 1C x 16mm <sup>2</sup>	-	-	W	B PHASE	SERVICE BOARD ALTERNATE SUPPLY
5A	SERVICE BOARD	30V 'A' BATTERY CHARGER	2C 7/0.67	A N	1 2	R Bk	ACTIVE NEUTRAL	30V 'A' BATTERY CHARGER AC SUPPLY
6A 7A	SERVICE BOARD	SUBSTATION LIGHTING CIRCUITS	2C 7/0.67	A N	1 2	R Bk	ACTIVE NEUTRAL	SUBSTATION LIGHTING
8A 9A 10A	SERVICE BOARD	TRANSFORMER	2C 7/0.67	A N	1 2	R Bk	ACTIVE NEUTRAL	DRY TYPE TRANSFORMER COOLING FAN SUPPLY
11A	SERVICE BOARD	CONTROL POINT SERVICE BOARD	SEE NOTE 10 DWG 227355Sh01	A N	1 2	R Bk	ACTIVE NEUTRAL	CONTROL POINT SUPPLY
12A	SERVICE BOARD	48V 'B' BATTERY CHARGER	2C 7/0.67	A N	1 2	R Bk	ACTIVE NEUTRAL	48V 'B' BATTERY CHARGER AC SUPPLY
13A	SERVICE BOARD	TRANSFORMER 1 PROTECTION PANEL	4C 7/0.67	L1 L2 L3 N	1 2 3 4	R W B Bk	A PHASE B PHASE C PHASE NEUTRAL	415V BUSBAR ENERGISED CHECK SUPPLY
14A	SERVICE BOARD	TRANSFORMER 2 PROTECTION PANEL	4C 7/0.67	L1 L2 L3 N	1 2 3 4	R W B Bk	A PHASE B PHASE C PHASE NEUTRAL	415V BUSBAR ENERGISED CHECK SUPPLY
15A	SERVICE BOARD	TRANSFORMER 3 PROTECTION PANEL	4C 7/0.67	L1 L2 L3 N	1 2 3 4	R W B Bk	A PHASE B PHASE C PHASE NEUTRAL	415V BUSBAR ENERGISED CHECK SUPPLY
1ACB 2ACB 3ACB	TRANSFORMER ACB PANEL	TRANSFORMER PROTECTION PANEL	4C 7/0.67	2B/LV 1B/LV 2A/LV 1A/LV	1 2 3 4	R W B Bk	'B' TRIP 'B' NEG 'A' TRIP 'A' NEG	TRANSFORMER ACB TRIP
1AD	30V 'A' BATTERY CHARGER	30V 'A' TRIPPING BATTERIES	2C 7/0.67	10Au 1Au	1 2	R Bk	'A' PROT N +VE 'A' PROT N -VE	30V 'A' DC PROTECTION SUPPLY
2AD	30V 'A' TRIPPING BATTERIES	TRANSFORMER 1 PROTECTION PANEL	2C 7/0.85	10Au 1Au	1 2	R Bk	'A' PROT N +VE 'A' PROT N -VE	30V 'A' DC PROTECTION SUPPLY
3AD	TRANSFORMER 1 PROTECTION PANEL	TRANSFORMER 2 PROTECTION PANEL	2C 7/0.85	10Au 1Au	1 2	R Bk	'A' PROT N +VE 'A' PROT N -VE	30V 'A' DC PROTECTION SUPPLY
4AD	TRANSFORMER 2 PROTECTION PANEL	TRANSFORMER 3 PROTECTION PANEL	2C 7/0.85	10Au 1Au	1 2	R Bk	'A' PROT N +VE 'A' PROT N -VE	30V 'A' DC PROTECTION SUPPLY
5AD	TRANSFORMER 3 PROTECTION PANEL	CUSTOMER OC 1 PROTECTION PANEL	2C 7/0.85	10Au 1Au	1 2	R Bk	'A' PROT N +VE 'A' PROT N -VE	30V 'A' DC PROTECTION SUPPLY
6AD	CUSTOMER OC 1 PROTECTION PANEL	CUSTOMER OC 2 PROTECTION PANEL	2C 7/0.85	10Au 1Au	1 2	R Bk	'A' PROT N +VE 'A' PROT N -VE	30V 'A' DC PROTECTION SUPPLY
7AD	CUSTOMER OC 2 PROTECTION PANEL	'A' BATTERY TEST BOX	2C 7/0.67	10Au 1Au	1 2	R Bk	'A' PROT N +VE 'A' PROT N -VE	30V 'A' DC PROTECTION SUPPLY
1BD	48V 'B' BATTERY CHARGER	'B' BATTERY TERMINATION BOX	4C 7/0.67	a10Bu 1Bu 3 4	1 2 3 4	R W B Bk	48V SUPPLY +VE SPARE 'B' PROT N -VE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
1BD/1	48V RELAY SUPPLY & 30V 'B' TRIPPING BATTERY	'B' BATTERY TERMINATION BOX	4C 7/0.67	a10Bu 1Bu 3 4	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
1BD/2	'B' BATTERY TEST POINT BOX	'B' BATTERY TERMINATION BOX	4C 7/0.67	a10Bu 1Bu 3 4	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
2BD	'B' BATTERY TERMINATION BOX	TRANSFORMER 1 PROTECTION PANEL	4C 7/0.67	a10Bu 10Bu 2 1Bu 3 SP	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
3BD	TRANSFORMER 1 PROTECTION PANEL	TRANSFORMER 2 PROTECTION PANEL	4C 7/0.67	a10Bu 10Bu 2 1Bu 3 SP	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
4BD	TRANSFORMER 2 PROTECTION PANEL	TRANSFORMER 3 PROTECTION PANEL	4C 7/0.67	a10Bu 10Bu 2 1Bu 3 SP	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
5BD	TRANSFORMER 3 PROTECTION PANEL	CUSTOMER OC 1 PROTECTION PANEL	4C 7/0.67	a10Bu 10Bu 2 1Bu 3 SP	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
6BD	CUSTOMER OC 1 PROTECTION PANEL	CUSTOMER OC 2 PROTECTION PANEL	4C 7/0.67	a10Bu 10Bu 2 1Bu 3 SP	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
7BD	CUSTOMER OC 2 PROTECTION PANEL	SCADA RTU AND SIGNAL MARSHALLING BOX	4C 7/0.67	a10Bu 10Bu 2 1Bu 3 SP	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
8BD	SCADA RTU AND SIGNAL MARSHALLING BOX	'B' BATTERY TERMINATION BOX	4C 7/0.67	a10Bu 10Bu 2 1Bu 3 SP	1 2 3 4	R W B Bk	48V SUPPLY +VE 30V 'B' PROT N +VE 'B' PROT N -VE SPARE	48V RELAY & 30V 'B' DC PROTECTION SUPPLY
1CS 2CS	CUSTOMER SUPPLY OVERCURRENT CTS	CUSTOMER OC PROTECTION PANELS	8C 7/0.67	21 22 23 24 25 26 SP 7 8	1 2 3 4 5 6 7 8	-	A PHASE B PHASE C PHASE A NON POL B NON POL C NON POL SPARE SPARE	CUSTOMER SUPPLY OVERCURRENT PROTECTION
1CT 2CT 3CT	HV DIFFERENTIAL CTS	TRANSFORMER PROTECTION PANEL	8C 7/0.67	31H 32H 33H 34H 35H 36H SP 7 8	1 2 3 4 5 6 7 8	-	A PHASE B PHASE C PHASE A NON POL B NON POL C NON POL SPARE SPARE	TRANSFORMER DIFFERENTIAL PROTECTION

4CT 5CT 6CT	LV DIFFERENTIAL / OVERCURRENT CTS	TRANSFORMER PROTECTION PANEL	8C 7/0.67	31 32 33 34 35 36 SP 7 8	1 2 3 4 5 6 7 8	-	A PHASE B PHASE C PHASE A NON POL B NON POL C NON POL SPARE SPARE	TRANSFORMER DIFFERENTIAL AND OVERCURRENT PROTECTION
1EF 2EF 3EF	TRANSFORMER	TRANSFORMER PROTECTION PANEL	2C 7/0.67	C1 C2	1 2	R Bk	PHASE NON POL	TRANSFORMER EARTH FAULT PROTECTION
EFI	EFI CT	EFI	CT LEADS	C1 C2	1 2	R Bk	PHASE NON POL	11kV FEEDER EARTH FAULT INDICATOR
1HV 2HV 3HV	TRANSFORMER PROTECTION PANEL	RMICB	4C 7/0.67	2B/HV 1B/HV 2A/HV 1A/HV	1 2 3 4	R W B Bk	'B' TRIP 'B' NEG 'A' TRIP 'A' NEG	RMICB TRIP
1M	TRANSFORMER 1 ACB PANEL	TRANSFORMER 2 ACB PANEL	2C 7/0.67	2B 2Bn	1 2	R Bk	B PHASE B NON POL	MDI
2M	TRANSFORMER 2 ACB PANEL	TRANSFORMER 3 ACB PANEL	2C 7/0.67	2B 2Bn	1 2	R Bk	B PHASE B NON POL	MDI
3M	TRANSFORMER 3 ACB PANEL	SUBSTATION MDI MOUNTED ON SERVICE BOARD	2C 7/0.67	2B 2Bn	1 2	R Bk	B PHASE B NON POL	MDI
1S 2S 3S	TRANSFORMER PROTECTION PANEL	SCADA RTU AND SIGNAL MARSHALLING BOX	4 PAIR + SHIELD 7/0.30	a10Bi TB 8D 1A 2B AD VC 3Bk SP SP	-	1W 1Bk 2W 2Bk AD VC 3Bk 4W 4Bk	ALARM +VE 'B' TRIP 'B' RELAY DEFECT 'A' TRIP 'A' RELAY DEFECT VOLTS CHECK SPARE SPARE	TRANSFORMER PROTECTION ALARMS AND SIGNALS
4S 5S	CUSTOMER OC PROTECTION PANEL	SCADA RTU AND SIGNAL MARSHALLING BOX	2 PAIR + SHIELD 7/0.30	a10Bi COCID SP SP	-	1W 1Bk 2W 2Bk	ALARM +VE RELAY DEFECT SPARE SPARE	CUSTOMER OC PROTECTION ALARMS AND SIGNALS
6S	48V 'B' BATTERY CHARGER	SCADA RTU AND SIGNAL MARSHALLING BOX	2 PAIR + SHIELD 7/0.30	VCb GF SP SP	-	1W 1Bk 2W 2Bk	CHECKED +VE DEFECT SPARE SPARE	48V 'B' BATTERY CHARGER DEFECT
7S	SCADA RTU AND SIGNAL MARSHALLING BOX	ARC FLASH DETECTION INDICATION PANEL	2 PAIR + SHIELD 7/0.30	AFT1 AFT2 AFT3 1B	-	1W 1Bk 2W 2Bk	AF TX 1 HEALTHY AF TX 2 HEALTHY AF TX 3 HEALTHY 'B' -VE	ARC FLASH STATUS INDICATION
10S 11S 12S	TRANSFORMER	SCADA RTU AND SIGNAL MARSHALLING BOX	2 PAIR + SHIELD 7/0.30	a10Bi aTh SP SP	-	1W 1Bk 2W 2Bk	ALARM +VE TEMP HIGH SPARE SPARE	DRY TYPE TRANSFORMER THERMAL ALARM
13S 14S 15S	TRANSFORMER ACB PANEL	SCADA RTU AND SIGNAL MARSHALLING BOX	2 PAIR + SHIELD 7/0.30	a10Bi 6 7 SP	-	1W 1Bk 2W 2Bk	ALARM +VE ACB CLOSED SPARE SPARE	TRANSFORMER ACB SIGNAL
16S	FIRST RMICB INCOMING FEEDER LEFT HAND SIDE SWITCH	SCADA RTU AND SIGNAL MARSHALLING BOX	2 PAIR + SHIELD 7/0.30	a10Bi 6 7 6ES	-	1W 1Bk 2W 2Bk	ALARM +VE SWITCH CLOSED SWITCH OPEN SWITCH EARTHED	RMICB FEEDER SWITCH SIGNAL
17S	LAST RMICB OUTGOING FEEDER RIGHT HAND SIDE SWITCH	SCADA RTU AND SIGNAL MARSHALLING BOX	2 PAIR + SHIELD 7/0.30	a10Bi 6 7 6ES	-	1W 1Bk 2W 2Bk	ALARM +VE SWITCH CLOSED SWITCH OPEN SWITCH EARTHED	RMICB FEEDER SWITCH SIGNAL
1T 2T 3T	TRANSFORMER PROTECTION PANEL	TRANSFORMER	2C 7/0.67	10A/20 2A/Tb	1 2	R Bk	'A' PROT N +VE THERMAL TRIP	DRY TYPE TRANSFORMER THERMAL TRIP
21T	TRANSFORMER 1 PROTECTION PANEL	TRANSFORMER 2 PROTECTION PANEL	4C 7/0.67	10B/1T1 2B/6bT1 2B/8T1 2B/8cT1	1 2 3 4	R W B Bk	'B' PROT N +VE AF TRIP CURRENT CHECK CC TRIP	TRANSFORMER PROTECTION PANELS INTERCONNECTIONS
31T	TRANSFORMER 1 PROTECTION PANEL	TRANSFORMER 3 PROTECTION PANEL	4C 7/0.67	10B/11T1 2B/11bT1 2B/13T1 2B/13cT1	1 2 3 4	R W B Bk	'B' PROT N +VE AF TRIP CURRENT CHECK CC TRIP	TRANSFORMER PROTECTION PANELS INTERCONNECTIONS
12T	TRANSFORMER 2 PROTECTION PANEL	TRANSFORMER 1 PROTECTION PANEL	4C 7/0.67	10B/2T2 2B/2bT2 2B/4T2 2B/4cT2	1 2 3 4	R W B Bk	'B' PROT N +VE AF TRIP CURRENT CHECK CC TRIP	TRANSFORMER PROTECTION PANELS INTERCONNECTIONS
32T	TRANSFORMER 2 PROTECTION PANEL	TRANSFORMER 3 PROTECTION PANEL	4C 7/0.67	10B/11T2 2B/11bT2 2B/13T2 2B/13cT2	1 2 3 4	R W B Bk	'B' PROT N +VE AF TRIP CURRENT CHECK CC TRIP	TRANSFORMER PROTECTION PANELS INTERCONNECTIONS
13T	TRANSFORMER 3 PROTECTION PANEL	TRANSFORMER 1 PROTECTION PANEL	4C 7/0.67	10B/2T3 2B/2bT3 2B/4T3 2B/4cT3	1 2 3 4	R W B Bk	'B' PROT N +VE AF TRIP CURRENT CHECK CC TRIP	TRANSFORMER PROTECTION PANELS INTERCONNECTIONS
23T	TRANSFORMER 3 PROTECTION PANEL	TRANSFORMER 2 PROTECTION PANEL	4C 7/0.67	10B/1T3 2B/6bT3 2B/8T3 2B/8cT3	1 2 3 4	R W B Bk	'B' PROT N +VE AF TRIP CURRENT CHECK CC TRIP	TRANSFORMER PROTECTION PANELS INTERCONNECTIONS
44T 54T	CUSTOMER OC PROTECTION PANEL	TRANSFORMER 1 PROTECTION PANEL	2C 7/0.67	2A/T1 SP	1 2	R Bk	'A' TRIP SPARE	CUSTOMER OC TRIP
45T 55T	CUSTOMER OC PROTECTION PANEL	TRANSFORMER 2 PROTECTION PANEL	2C 7/0.67	2A/T2 SP	1 2	R Bk	'A' TRIP SPARE	CUSTOMER OC TRIP
46T 56T	CUSTOMER OC PROTECTION PANEL	TRANSFORMER 3 PROTECTION PANEL	2C 7/0.67	2A/T3 SP	1 2	R Bk	'A' TRIP SPARE	CUSTOMER OC TRIP

CAD DRAWING  
DO NOT MANUALLY AMEND  
AMENDMENTS  
1. CABLE SIZES FOR CABLES '1S' - '1T'  
WERE 7/0.03" - CABLE SIZES  
UPDATED ON EXCEL DATA LINK  
SHEET AS WELL.  
HOKA  
CHECKED:  
APPROVED:  
23-08-2012  
M.BENNETT  
M.BENNETT  
PKL-SH-6711-1-2  
2. REF D3 TO F3  
ADDED CABLES '1BD/1' & '1BD/2' TO  
MATCH AMENDMENTS TO CABLING  
DIAGRAM DRAWING. AMENDED  
DESTINATIONS OF CABLES '1BD',  
'2BD' AND '8BD'.  
REF CC TO F4.  
DC CABLE SIZE AMENDED TO MATCH  
CABLES '1AD' TO '1TD' WORK STANDARD.  
CABLES '1AD' TO '1TD'  
WERE 7C/7/0.85  
NOW 7C/7/0.67  
AND CABLES '1BD' TO '8BD'  
WERE 4C/7/0.85  
NOW 4C/7/0.67  
28-05-2013  
L.MARTINUZZI  
M.BENNETT  
CHECKED:  
APPROVED:  
3. REF AS MARKED BY REVISION  
CLOUDS IN RED, WHEEL COLOUR  
PRINTED: AMENDED CABLE SIZE WAS  
7/0.67 NOW 7/0.85 FOR CABLES 2AD  
TO 6AD.  
35-05-2018  
L.MARTINUZZI  
M.BENNETT  
CHECKED:  
APPROVED:  
PKL-XXXXXX  
XXXXXX  
TRIM REF:

TO BE READ WITH  
DRAWING 227355Sh01



SCALE	AS SHOWN
DESIGNED	-
DRAWN	L.MARTINUZZI
CHECKED	W.BYRNE
APPROVED	M.BENNETT
DATE	15/06/2012
TRIM REF	-

RMICB SUBSTATIONS  
WITH E TYPE LV BOARD  
AND OPTICAL ARC FLASH DETECTION  
CABLE SCHEDULE

PROJECT NUMBER SM 6717-1-2  
DRAWING No 227355  
SHEET 2  
AMD 3  
SIZE A1  
C&P - Distribution Substations