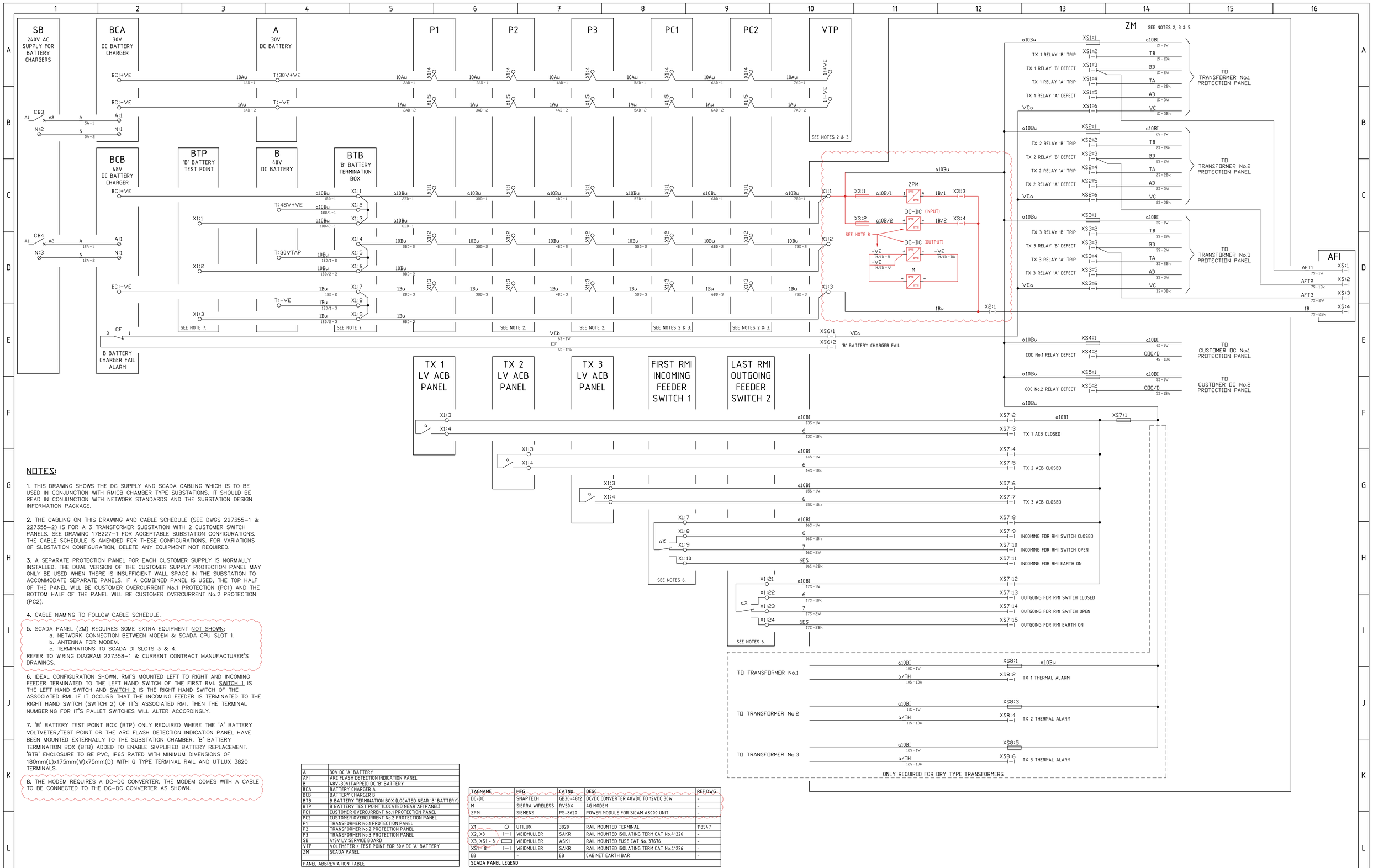

NOTES:

1. THIS DRAWING SHOWS THE DC SUPPLY AND SCADA CABLING WHICH IS TO BE USED IN CONJUNCTION WITH RMICB CHAMBER TYPE SUBSTATIONS. IT SHOULD BE READ IN CONJUNCTION WITH NETWORK STANDARDS AND THE SUBSTATION DESIGN INFORMATION PACKAGE.

2. THE CABLING ON THIS DRAWING AND CABLE SCHEDULE (SEE DWGS 227355-1 & 227355-2) IS FOR A 3 TRANSFORMER SUBSTATION WITH 2 CUSTOMER SWITCH PANELS. SEE DRAWING 178227-1 FOR ACCEPTABLE SUBSTATION CONFIGURATIONS. THE CABLE SCHEDULE IS AMENDED FOR THESE CONFIGURATIONS. FOR VARIATIONS OF SUBSTATION CONFIGURATION, DELETE ANY EQUIPMENT NOT REQUIRED.

3. A SEPARATE PROTECTION PANEL FOR EACH CUSTOMER SUPPLY IS NORMALLY INSTALLED. THE DUAL VERSION OF THE CUSTOMER SUPPLY PROTECTION PANEL MAY ONLY BE USED WHEN THERE IS INSUFFICIENT WALL SPACE IN THE SUBSTATION TO ACCOMMODATE SEPARATE PANELS. IF A COMBINED PANEL IS USED, THE TOP HALF OF THE PANEL WILL BE CUSTOMER OVERCURRENT No.1 PROTECTION (PC1) AND THE BOTTOM HALF OF THE PANEL WILL BE CUSTOMER OVERCURRENT No.2 PROTECTION (PC2).

4. CABLE NAMING TO FOLLOW CABLE SCHEDULE.

5. SCADA PANEL (ZM) REQUIRES SOME EXTRA EQUIPMENT NOT SHOWN:
   a. NETWORK CONNECTION BETWEEN MODEM & SCADA CPU SLOT 1.
   b. ANTENNA FOR MODEM.
   c. TERMINATIONS TO SCADA DI SLOTS 3 & 4.

REFER TO WIRING DIAGRAM 227358-1 & CURRENT CONTRACT MANUFACTURER'S DRAWINGS.

6. IDEAL CONFIGURATION SHOWN. RMI'S MOUNTED LEFT TO RIGHT AND INCOMING FEEDER TERMINATED TO THE LEFT HAND SWITCH OF THE FIRST RMI. SWITCH 1 IS THE LEFT HAND SWITCH AND SWITCH 2 IS THE RIGHT HAND SWITCH OF THE ASSOCIATED RMI. IF IT OCCURS THAT THE INCOMING FEEDER IS TERMINATED TO THE RIGHT HAND SWITCH (SWITCH 2) OF IT'S ASSOCIATED RMI, THEN THE TERMINAL NUMBERING FOR IT'S PALLET SWITCHES WILL ALTER ACCORDINGLY.

7. 'B' BATTERY TEST POINT BOX (BTP) ONLY REQUIRED WHERE THE 'A' BATTERY VOLTMETER/TEST POINT OR THE ARC FLASH DETECTION INDICATION PANEL HAVE BEEN MOUNTED EXTERNALLY TO THE SUBSTATION CHAMBER. 'B' BATTERY TERMINATION BOX (BTB) ADDED TO ENABLE SIMPLIFIED BATTERY REPLACEMENT. 'BTB' ENCLOSURE TO BE PVC, IP65 RATED WITH MINIMUM DIMENSIONS OF 180mm(L)x175mm(W)x75mm(D) WITH G TYPE TERMINAL RAIL AND UTILUX 3820 TERMINALS.

8. THE MODEM REQUIRES A DC-DC CONVERTER. THE MODEM COMES WITH A CABLE TO BE CONNECTED TO THE DC-DC CONVERTER AS SHOWN.

A	30V DC 'A' BATTERY
AFI	ARC FLASH DETECTION INDICATION PANEL
B	48V-30V(TAPPED) DC 'B' BATTERY
BCA	BATTERY CHARGER A
BCB	BATTERY CHARGER B
BTB	B BATTERY TERMINATION BOX (LOCATED NEAR 'B' BATTERY)
BTP	B BATTERY TEST POINT (LOCATED NEAR AFI PANEL)
PC1	CUSTOMER OVERCURRENT No.1 PROTECTION PANEL
PC2	CUSTOMER OVERCURRENT No.2 PROTECTION PANEL
P1	TRANSFORMER No.1 PROTECTION PANEL
P2	TRANSFORMER No.2 PROTECTION PANEL
P3	TRANSFORMER No.3 PROTECTION PANEL
SB	415V LV SERVICE BOARD
VTP	VOLTMETER / TEST POINT FOR 30V DC 'A' BATTERY
ZM	SCADA PANEL
PANEL ABBREVIATION TABLE	

TAGNAME	MFG	CATNO	DESC	REF DWG
DC-DC	SNAPTECH	GB30-4812	DC/DC CONVERTER 48VDC TO 12VDC 30W	-
M	SIERRA WIRELESS	RV50X	4G MODEM	-
ZPM	SIEMENS	PS-8620	POWER MODULE FOR SICAM A8000 UNIT	-
X1	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X2, X3	WEIDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41226	-
X3, XS1 - 8	WEIDMULLER	ASK1	RAIL MOUNTED FUSE CAT No. 37676	-
XS1 - 8	WEIDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41226	-
EB	-	EB	CABINET EARTH BAR	-
SCADA PANEL LEGEND				

CAD DRAWING
DO NOT MANUALLY AMEND

AMENDMENTS

1. REF C3 TO C5. ADDED NEW 'B' BATTERY CONNECTION DETAILS AND CABLES. ADDED 'B' BATTERY TEST POINT BOX AND 'B' BATTERY TERMINATION BOX.
REF J1: ADDED NOTE 7.
REF E2: BATTERY CHARGER FAIL CONTACT CHANGED.
REF K6: AMENDED PANEL ABBREVIATION TABLE REFERENCES.
REF D11: ADDED 3G MODEM 48V DC SUPPLY TO SCADA PANEL WIRING.
L.MARTINUZZI 27/05/2013
CHECKED: B.HAINES
APPROVED: A.TURNER

2. BORDER & TITLE BLOCK UPDATED. REF IN RED REVISION CLOUDS. ADDED DC-DC CONVERTER, X3 AND 2 FUSES. X1 & X2 WERE AMENDED. MODEM & SCADA UNIT TYPE IN SCHEMATIC. AMENDED LEGEND FOR CHANGES. AMENDED NOTE 5 & ADDED NOTE 8.
L.MARTINUZZI 23/05/2023
CHECKED: M.BENNETT
APPROVED: L.MARTINUZZI

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ISSUED FOR
CONSTRUCTION

SCALE	NTS
DESIGNED	-
DRAWN	L.MARTINUZZI
CHECKED	B.HAINES
APPROVED	A.TURNER
DATE	13/06/2012
TRIM REF	-
PROJECT NUMBER	SM-06717

RMICB SUBSTATIONS WITH E TYPE LV BOARD DC SUPPLY CABLE LOOPING AND SCADA SCHEMATIC

DRAWING No 227350 | SHEET 4 | AMD 2 | SIZE B1

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