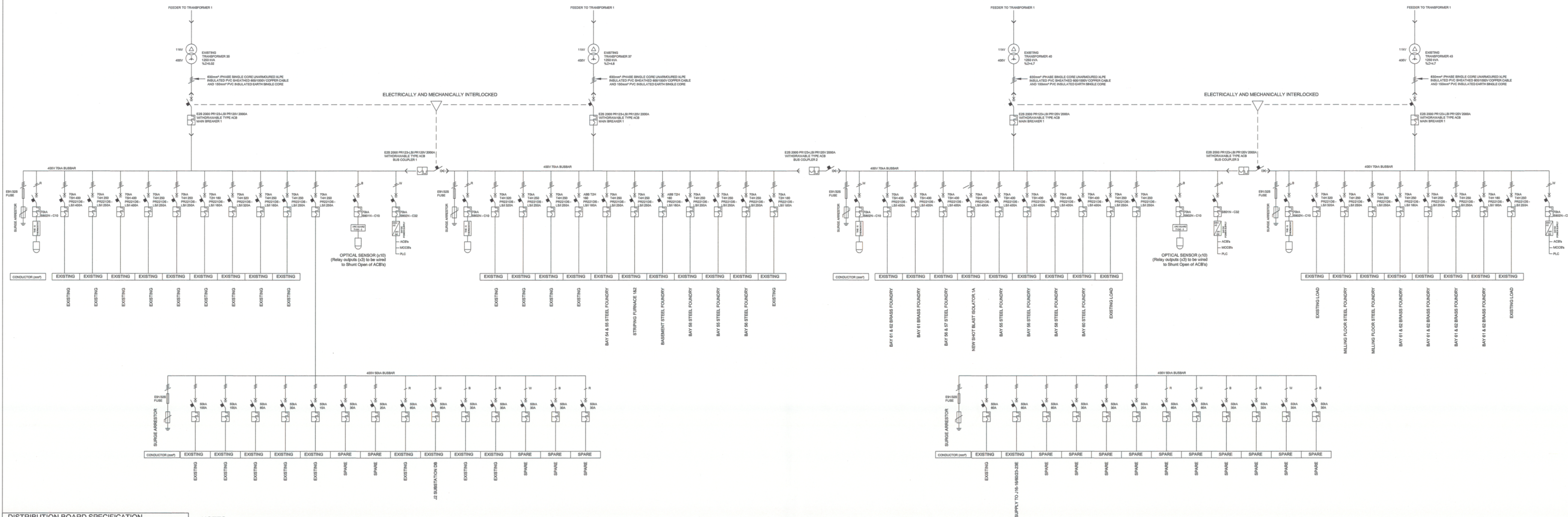


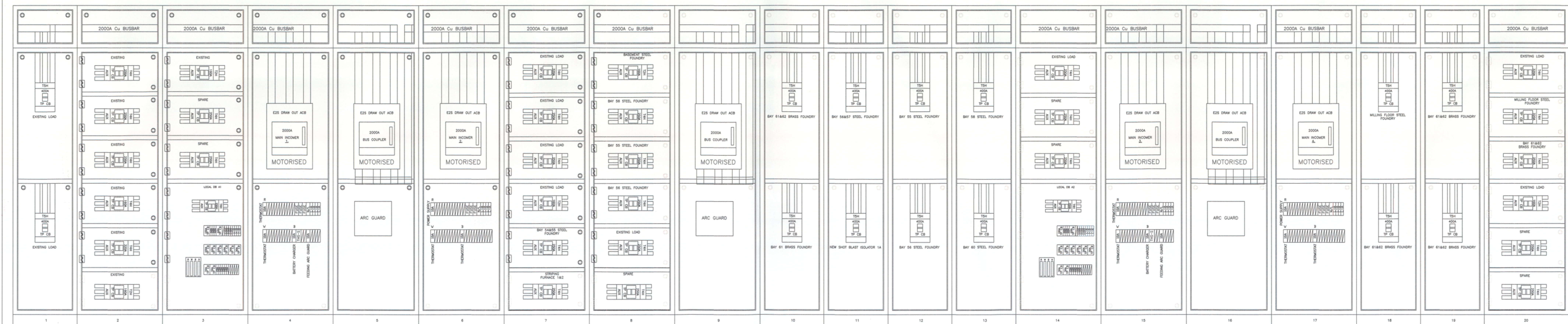
PROPOSED LOW VOLTAGE SINGLE LINE DIAGRAM SUBSTATION - J



DISTRIBUTION BOARD SPECIFICATION	
DISTRIBUTION BOARD TYPE	FLOOR STANDING
MATERIAL	3CR12
THICKNESS OF MATERIAL	2mm
PAINT TYPE	POWDER COATED (40 MICRONS)
FRAME COLOUR	ORANGE
CABLE ENTRY/EXIT	BOTTOM
MANUFACTURER	
ACBMCB / MCB MAKE	EQUAL OR SIMILAR APPROVED TO ABB
PPR MAKE	EQUAL OR SIMILAR APPROVED TO ABB CM-IPVE
TERMINALS MAKE	EQUAL OR SIMILAR APPROVED TO ABB ZS-RANGE

NOTES			
TERMINATION:	CONTRACTOR TO ENSURE THAT ALL NEW CABLE TERMINATIONS BE MADE ON GUES APPROVED TERMINAL PALS AND SHALL BE LOCATED IN THE SAME POSITIONS AS PER EXISTING INSTALLATIONS.		
	INCOMERS SHALL BE OF TOP ENTRY	PLC :	PLC SHALL BE INSTALLED AND PROGRAMMED FOR, FOR AUTOMATIC OPENING/CLOSING OF MAIN BREAKERS AND BUS COUPLERS
	NO CABLE JOINTS WILL BE PERMITTED. (UNLESS OTHERWISE APPROVED BY TRNCEIT ENGINEER)		FAILURE AND RESTORATION OF INCOMING SUPPLIES
			OSM MODEM FOR TRIP STATUS AND DATA ACQUISITION SHALL BE FITTED.
ACBS :	SHALL BE FITTED WITH INTERLOCK FOR ISOLATED POSITION	HEATERS:	ANTI-CONDENSATION HEATERS 230V SHALL BE PROVIDED FOR ALL PANEL SECTIONS, AND BE CONTROLLED BY THIS - S AS SPECIFIED.
	SHALL BE FITTED WITH 220V OPENING SHUNT FOR ARC PROTECTION/AUTOMATION.	ARC GUARD:	RELAY (R1) TO OPEN MAIN BREAKER 1 DURING ARCFLASH
	SHALL BE FITTED WITH 220V CLOSING SHUNT FOR PROTECTION.		RELAY (R2) TO OPEN MAIN BREAKER 2 DURING ARCFLASH
	SHALL BE FITTED WITH 110V OPENING SHUNT FOR LVLAY INTER - TRIPPING		RELAY (R3) TO OPEN MAIN BREAKER 3 DURING ARCFLASH
	SHALL BE FITTED WITH 220V GEARED MOTOR FOR AUTOMATION		RELAY (R4) TO OPEN MAIN BREAKER 3 DURING ARCFLASH
	SHALL BE FITTED WITH PR120D - M COMMUNICATION MODULE.		IN ADDITION TO THE ABOVE RELAY (R1) OR RELAY (R2) OR RELAY (R3) OR RELAY (R4) WILL OPEN BUS COUPLERS DURING ARCFLASH AS WELL
MCCB'S :	SHALL BE FITTED WITH FRONT LEVER MECHANISM (FLANGE).		RELAY (R5), RELAY (R6) AND RELAY (R6) SHALL BE WIRED TO PLC.
	SHALL BE FITTED WITH X3 AND X4 CONNECTORS.		
	VM210 SHALL BE ALLOWED FOR (ONE PER FIVE MCCB'S).		
	SHALL BE FITTED WITH AUX - E (AUXILIARIES)	LIGHT BARRIERS :	CONTRACTOR SHALL ALLOW FOR LIGHT BARRIERS IN BUSBAR CHAMBER
POWER SUPPLY :	24V DC POWER SUPPLY SUITABLE RATED FOR ACBS;		
	MCCB'S AND PLC SHALL BE ALLOWED FOR.		

PROPOSE TYPICAL SUBSTATION - J LOW VOLTAGE PANEL



NOTES :

1. THIS DRAWING FOR EL&P ONLY.
2. A CERTIFICATE OF COMPLIANCE TO BE COMPLETED BY A MASTER ELECTRICIAN ON COMPLETION OF WORK.
3. ALL EQUIPMENT TO BE CLEARLY LABELLED.

DRAWING NO.	REFERENCE
REFERENCE DRAWINGS	

[illegible]