

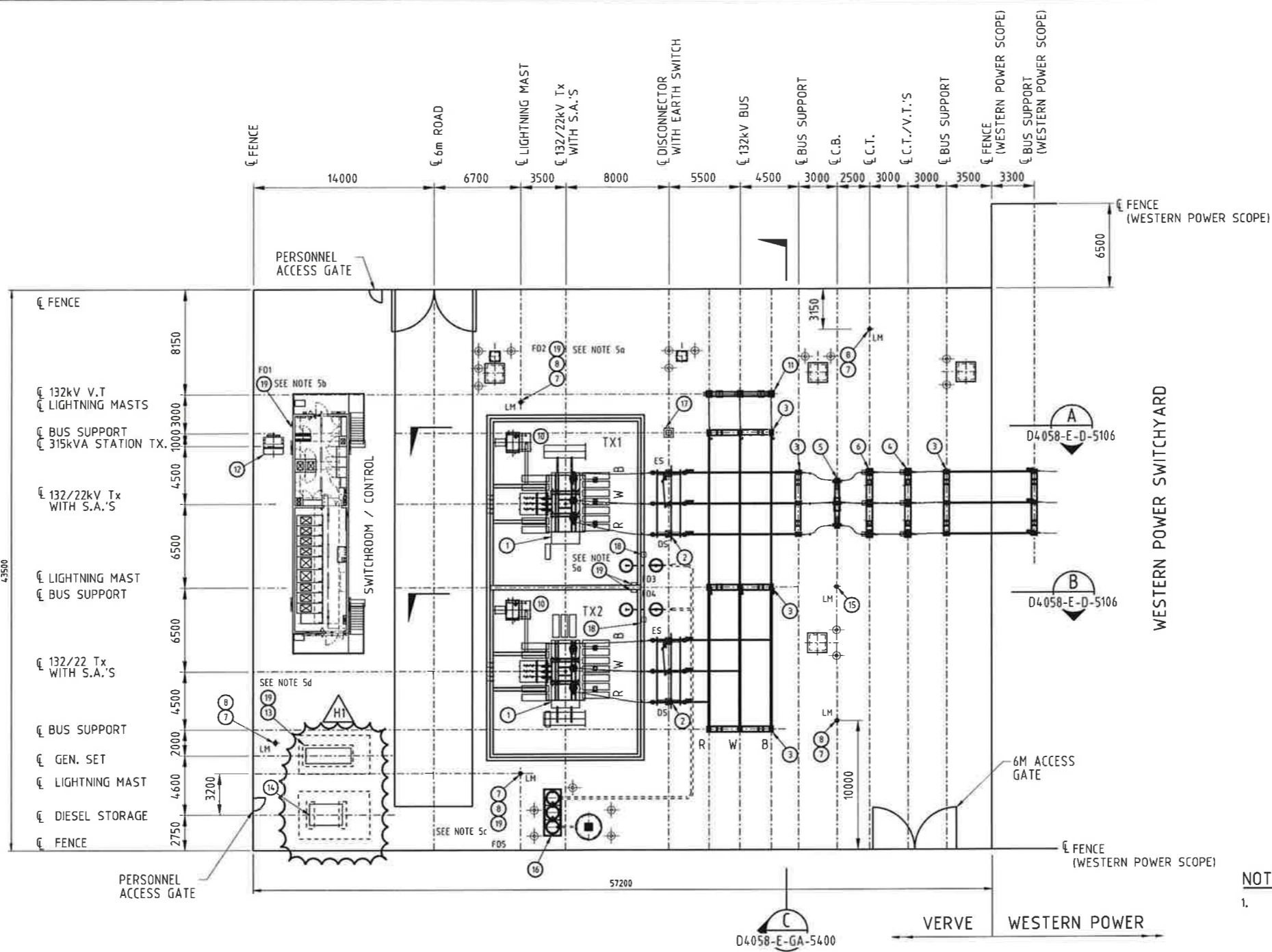


MAIN EQUIPMENT LEGEND			
ITEM	DESCRIPTION	ELECTRICAL ASSEMBLY DRG. No.	No. OFF
1	132/22kV POWER TRANSFORMER		2
2	132kV DISCONNECTOR / EARTH SW.	E-D-7206	2
3	132kV BUS SUPPORT	E-D-7211	5
4	132kV COMBINED CURRENT/VOLTAGE TRANSFORMER	E-D-5602	3
5	132kV CIRCUIT BREAKER	E-D-5923	1
6	132kV CURRENT TRANSFORMER	E-D-5612	3
7	15m LIGHTNING MAST SWING TYPE	E-D-7215	5
8	SWITCHYARD LIGHTS		6
9			
10	EARTHING COMPENSATOR		2
11	132kV VOLTAGE TRANSFORMER	E-D-5611	3
12	315kVA STATION TRANSFORMER	E-D-7212	1
13	GENERATOR SET		1
14	DIESEL STORAGE TANK		1
15	15m LIGHTNING MAST FIXED TYPE	E-D-7213	1
16	BUND OIL SEPERATOR AND SOAKWELL		1
17	4.15VAC 100A SWITCHPLUG	E-D-7216	1
18	BUND VALVE ISOL./TEST SWITCH		2
19	FLAME DETECTOR C/W MOUNTING BRACKET REFER NOTE 5 FOR LOCATION DETAILS		6

LEGEND

- ES EARTH SWITCH OPERATION HANDLE
- DS DISCONNECTOR OPERATION HANDLE
- LM LIGHTNING/LIGHTING MAST
- FD FLAME DETECTOR
- (X) ELECTRICAL ASSEMBLYS LISTED ON THIS DRAWING.
- [Symbol] CABLE PIT - REFER C-D-5909
- [Symbol] BOLLARD - REFER C-D-5904
- [Symbol] GENSSET AND STORAGE TANK ARRANGEMENT TO BE CONFIRMED

- NOTES:**
- THE FOLLOWING CONDUCTORS ARE USED IN THE LAYOUT:
-132kV RIGID ALUMINIUM TUBULAR (100mmOD x 6mmWT) BUSBARS
-132kV RIGID ALUMINIUM TUBULAR (80mmOD x 6mmWT) DROPPERS
-132kV PHASE CONDUCTORS AND FLEXIBLE CONNECTORS: -'TRITON' AAC 37/3.75.
 - FOR ALUMINIUM TO ALUMINIUM CONNECTIONS REFER DRG. D4058-MWFP-LCPL-E-D-7219.
 - FOR SUBSTATION SETOUT REFER LAYOUT DRG. D4058-MWFP-LCPL-C-D-5100.
 - PHASE SPACINGS BETWEEN 132kV CONDUCTORS TO BE 2400mm.
 - (a) LOCATE FLAME DETECTORS NOT LOWER THAN THE TRANSFORMER CONSERVATOR AND DIRECT TO THE CENTER OF THE TRANSFORMER BASE.
(b) LOCATE FLAME DETECTOR ON BUILDING WALL ABOVE STATION TRANSFORMER AND DIRECT TO THE CENTER OF THE TRANSFORMER BASE.
(c) LOCATE FLAME DETECTORS ON LIGHTING MAST CROSSARM AND DIRECT TO THE CENTER POINT OF THE TRANSFORMER BASE.
(d) LOCATE FLAME DETECTOR INSIDE GENERATOR ENCLOSURE - FUEL SHUTOFF INTERTRIP.



ELECTRICAL CLEARANCES (132kV)

SWITCHGEAR ARRANGEMENT IS DESIGNED FOR AN IMPULSE WITHSTAND VOLTAGE OF 650kV PEAK.

FLEXIBLE CONNECTIONS MUST BE ARRANGED SUCH THAT THE FOLLOWING MINIMUM CLEARANCES ARE SATISFIED ASSUMING MAXIMUM SWING OF CONDUCTORS.

- 1) PHASE TO EARTH - 1300mm
- 2) PHASE TO PHASE - 1495mm
- 3) BETWEEN CONDUCTORS OF THE SAME PHASE PHASE SEPARABLE ELECTRICALLY FROM EACH OTHER.
E.G. ACROSS ISOLATOR OR C.B. TERMINALS - 1495mm

THESE CLEARANCES MAY NOT BE SATISFIED BY THE CONNECTIONS TO C.B. OR TRANSFORMER TERMINALS. HOWEVER, THIS IS ACCEPTABLE PROVIDED A NORMAL METHOD OF CONNECTION IS USED AS SUCH EQUIPMENT HAS BEEN IMPULSE TESTED.

FURTHERMORE ALL PATHS THAT CAN BE ENERGISED AT FULL POTENTIAL MUST BE NOT LESS THAN SECTION SAFETY CLEARANCE ABOVE ANY STANDING POSITION.



SWITCHYARD PLAN

A1 SHEET SCALE 1:200										ENGINEERING AND PERMIT STAMPS (As Required)		CUSTOMER		
E-D-5914 RELAY & 22kV SWITCHBOARD BUILDING E-SL-7412 SINGLE LINE DIAGRAM E-GA-5401 SWITCHYARD ELECTRICAL ARRANGEMENT - EQUIPMENT SCHEDULE E-GA-5400 SWITCHYARD ELECTRICAL ARRANGEMENT - ELEVATIONS C E-D-5106 SWITCHYARD ELECTRICAL ARRANGEMENT - ELEVATIONS A & B										Copyright © WorleyParsons Services Pty Ltd		A GE AND LEIGHTON CONTRACTORS CONSORTIUM		
WORLEYPARSONS PROJECT No. 101012-00321										This drawing is prepared solely for the use of the contractual customer of WorleyParsons and WorleyParsons assumes no liability to any other party for any representations contained in this drawing.		DRG No D4058-MWFP-LCPL-E-D-2627		
REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE	SE-MUM-SS-BA-C/62 SH 001 132kV SUBSTATION GENERAL ARRANGEMENT LAYOUT REV 1			

LOCATION: Y:\101012-00321 - MUMBIDA WF\WPC\PRIMARY\3D\04058-MWFP-LCPL-E-D-2627.dgn
 USER NAME: paul.davie
 SAVE DATE & TIME: 26/03/2012 2:36:11 PM
 PLOT DATE & TIME: 26/03/2012 2:36:23 PM