

- NOTE 1:**
THIS IS A CONCEPTUAL DESIGN FOR GUIDANCE ONLY. ALL DIMENSIONS AND REFERENCES GIVEN ARE INDICATIVE ONLY. LAYOUT TO BE FURTHER OPTIMISED DURING DETAILED DESIGN PENDING SPECIFIC EQUIPMENT SUPPLIER AND SITE DETAILS.
- NOTE 2:**
RELOCATION OR ADDITIONAL POST INSULATORS MAY BE REQUIRED, SUBJECT TO DETAIL DESIGN. NOT SHOWN FOR CLARITY.
- NOTE 3:**
VEHICULAR ACCESS TO ALL HV PLANT SHALL BE PERMITTED WITHOUT THE NEED FOR UNNECESSARY PROXIMITY OUTAGES. CONSIDERATION OF LV CABLE TRENCH LAYOUTS AND TRAFFIC-BEARING TRENCH COVERS SHALL BE CONSIDERED DURING DETAILED DESIGN.
- NOTE 4:**
LIGHTNING MAST, LV TRENCH DUCT ROUTES, MARSHALLING/INTERFACE CABINETS AND LIGHTING FIXTURES SHALL BE CONSIDERED DURING DETAIL DESIGN.
- NOTE 5 (AS ILLUSTRATED ON DRAWING):**
TWO PHASES OF THE LOW LEVEL BAY CONDUCTORS ARE ARRANGED CLOSER TOGETHER TO AVOID UNNECESSARY PROXIMITY OUTAGES ON ADJACENT BAYS. TO BE REPEATED FOR ALL BAYS.
- NOTE 6 (AS ILLUSTRATED ON DRAWING):**
INDEPENDENT SUPPORTED SPAN ON LOW LEVEL BAY CONDUCTORS BETWEEN DA AND DB. CONNECTOR ON PI SHALL BE A "T" TYPE CONNECTOR RATHER THAN A PASS THROUGH CONNECTOR SUCH THAT IT SHALL BE CAPABLE OF CONNECTING TWO SECTIONS OF CONDUCTOR TOGETHER. PI AND SPAN TO BE INSTALLED ON ALL FUTURE BAYS IN THE C-TYPE (PHASE 1) STATION.
- NOTE 7 (AS ILLUSTRATED ON DRAWING):**
DISTANCE BETWEEN CT AND CB ON WING COUPLER TO BE A MINIMUM OF 6500mm FROM THE BUSBAR SIDE OF THE OPEN DISCONNECTOR. DISTANCE BETWEEN DISCONNECTOR AND ADJACENT LOW LEVEL BAY CONDUCTOR TO BE A MINIMUM OF 6500mm.
- NOTE 8 (AS ILLUSTRATED ON DRAWING):**
6500mm DISTANCE REQUIRED BETWEEN BUSBAR AND CB ON EACH BAY.
- NOTE 9:**
REFER TO THE AUXILIARY SUPPLY FUNCTIONAL SPECIFICATION XDS-GFS-008-001 FOR LV POWER SUPPLY REQUIREMENTS. THE SECONDARY MAINS LV SUPPLY IS TO BE PROVIDED FROM THE LOCAL MV DISTRIBUTION NETWORK. THIS CAN BE VIA A POLE MOUNTED TRANSFORMER LOCATED OUTSIDE THE PALISADE FENCE OR VIA A GROUND MOUNTED TRANSFORMER IN A KIOSK LOCATED INSIDE THE PALISADE FENCE. THE PRECISE LOCATION OF THE POLE MOUNTED TRANSFORMER AND THE GROUND MOUNTED TRANSFORMER, AS THE CASE MAY BE, ARE SITE SPECIFIC AND WILL BE BY AGREEMENT WITH EIRGRID.
- NOTE 10:**
THIS LAYOUT RELATES PRIMARILY TO NEW SUBSTATIONS AND SIGNIFICANT EXTENSIONS PROJECTS. OTHER DEVELOPMENT OF EXISTING SUBSTATIONS (BROWN-FIELD) SHALL MAKE ALL REASONABLE EFFORTS TO BRING THE ARRANGEMENT IN LINE WITH THIS STANDARD (INCREASED CLEARANCES, NEW WRAP-AROUND COUPLER, AND SECTIONALISER CONFIGURATION). THE DEVELOPMENT SHALL NOT WORSEN ANY EXISTING O&M CLEARANCES WHICH MAY NOT BE IN ACCORDANCE WITH THIS STANDARD LAYOUT.
- NOTE 11:**
REQUIREMENT & POSITION OF SA/CT/VT IN THE CUSTOMER COMPOUND IS TO BE DETERMINED BY THE CUSTOMER. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO ENSURE THAT THEIR TRANSFORMER IS SUITABLY PROTECTED FROM OVER VOLTAGES.
- NOTE 12:**
MINIMUM ELECTRICAL CLEARANCES SHALL COMPLY AS OUTLINED IN EIRGRID GENERAL REQUIREMENTS SPECIFICATION XDS-GFS-00-001.
- NOTE 13:**
PHASE ROTATION ON INCOMING CIRCUITS IS INDICATIVE AND SHALL BE VERIFIED BASED ON PARTICULAR PROJECT REQUIREMENTS.
- NOTE 14:**
A DETAILED ARRANGEMENT SHALL CONSIDER PROXIMITY OF THE PROPERTY BOUNDARY FENCE TO THE PALISADE FENCE, ENSURING THAT IT CANNOT BE USED AS A CLIMBING AID TO SCALE THE PALISADE FENCE. ARRANGEMENT SHALL BE SITE SPECIFIC AND SHALL BE AGREED WITH EIRGRID DURING THE DETAILED DESIGN PHASE.
- NOTE 15 (AS ILLUSTRATED ON DRAWING):**
INTERFACE KIOSK LOCATION IS INDICATIVE. FINAL POSITION TO BE AGREED.
- NOTE 16 (AS ILLUSTRATED ON DRAWING):**
FOR OHL BAYS WHERE A LINE TRAP IS NOT REQUIRED, THE SA SHOULD BE LOCATED UNDER THE OHL GANTRY.
- NOTE 17:**
THE CUSTOMER SHOULD ALLOW SPACE FOR A FUTURE TRANSFORMER CONNECTION IN THE AREA ADJACENT TO THE CUSTOMER COMPOUND AND TRANSMISSION STATION.

LEGEND	
SA	SURGE ARRESTER
VT	VOLTAGE TRANSFORMER
CT	CURRENT TRANSFORMER, SINGLE PHASE
PI	POST INSULATOR
LT	LINE TRAP (TYPICALLY R & T PHASES)
DL/DE	LINE/EARTH DISCONNECT
DT/DEM4	TRAFO/EARTH DISCONNECT
CB	CIRCUIT BREAKER
DA DB	BUSBAR DISCONNECT
SA1/SA2 SB1/SB2	SECTIONALISER DISCONNECT
CSE	CABLE SEALING END

KEY	
■	NEW C-TYPE STATION
■	FUTURE RING STATION (SPACE ONLY)

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PROJECT
**110kV STATION DESIGN STANDARD
AIS LOOP STATION**

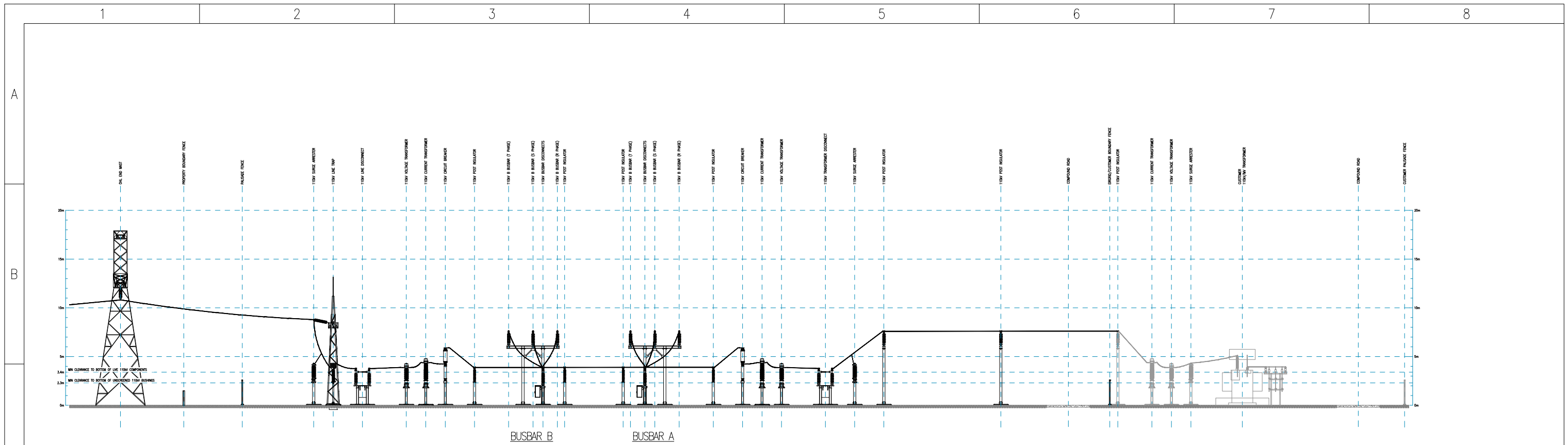
DRAWING TITLE
**INITIAL C-TYPE 110kV STATION
AND FUTURE ENHANCED RING STATION
PLAN VIEW**

No of Shts 2 SIZE A3 SCALE NTS

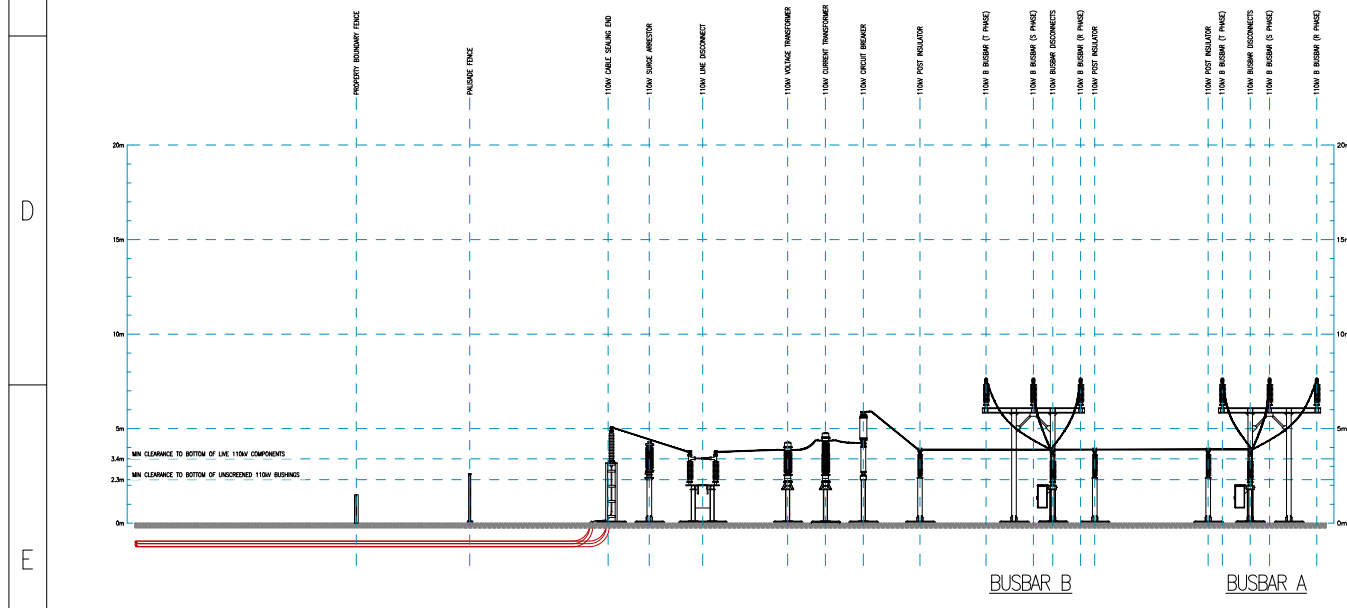
DRAWING NUMBER XDN-LAY-ELV-STND-H-001 SHEET 001 REV 08

08	CONTROL BUILDING RELOCATED CLOSE TO STATION ENTRANCE TO OPTIMISE SUB-STATION FOOTPRINT. WING COUPLER BAYS AMENDED TO INCLUDE SUPPLEMENTARY PIS NEXT TO THE CTs AND CBs. PIS ON FEEDER AND TRAFO BAYS REPOSITIONED CLOSER TO THE CB. SECTIONALISING BAY SA1 & SB1 NO LONGER REQUIRED IN PHASE 1 BUILD.	DA	AB	AG	04/02/2021
07	REQUIREMENT FOR INDEPENDENT SPAN (NOTE 6) UPDATED; INDICATIVE CABLE BAY ADDED; CUSTOMER BAY MODIFIED; ROAD ARRANGEMENT MODIFIED; BOUNDARY FENCE MODIFIED; CONTROL BUILDING UPDATED; SHEET 02 ADDED;	JD	KMcG	CF	22/08/2019
REV	DESC	DRAWN	CHECKED	APPROVED	DATE

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SECTION A



SECTION B

08	CONTROL BUILDING RELOCATED CLOSE TO STATION ENTRANCE TO OPTIMISE SUB-STATION FOOTPRINT. WING COUPLER BAYS AMENDED TO INCLUDE SUPPLEMENTARY PIS NEXT TO THE CTs AND CBs. PIS ON FEEDER AND TRAF0 BAYS REPOSITIONED CLOSER TO THE CB. SECTIONALISING BAY SA1 & SB1 NO LONGER REQUIRED IN PHASE 1 BUILD.	DA	AB	AG	04/02/2021
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REV	DESC	DRAWN	CHECKED	APPROVED	DATE

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	<p>DRAWING TITLE</p> <p>INITIAL C-TYPE 110kV STATION AND FUTURE ENHANCED RING STATION ELEVATION VIEW A</p>	
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<p>DRAWING NUMBER</p> <p>XDN-LAY-ELV-STND-H-001</p>		<p>SHEET 002</p> <p>REV 08</p>