

**Review of Environmental
Factors
Hunter-Central Coast REZ
Network Infrastructure**

Appendix D - Approvals

Wired for good.™





SUBSIDENCE ADVISORY NSW
DEVELOPMENT APPROVED
Paul Lambert

This plan is approved under section 22 of the Coal Mine Subsidence Compensation Act 2017, and is valid for five (5) years from today.

24-Mar-2025

This approval is subject to levels & heights shown on plan being accurate & footings designed to comply with AS2875 or relevant Australian Standards.

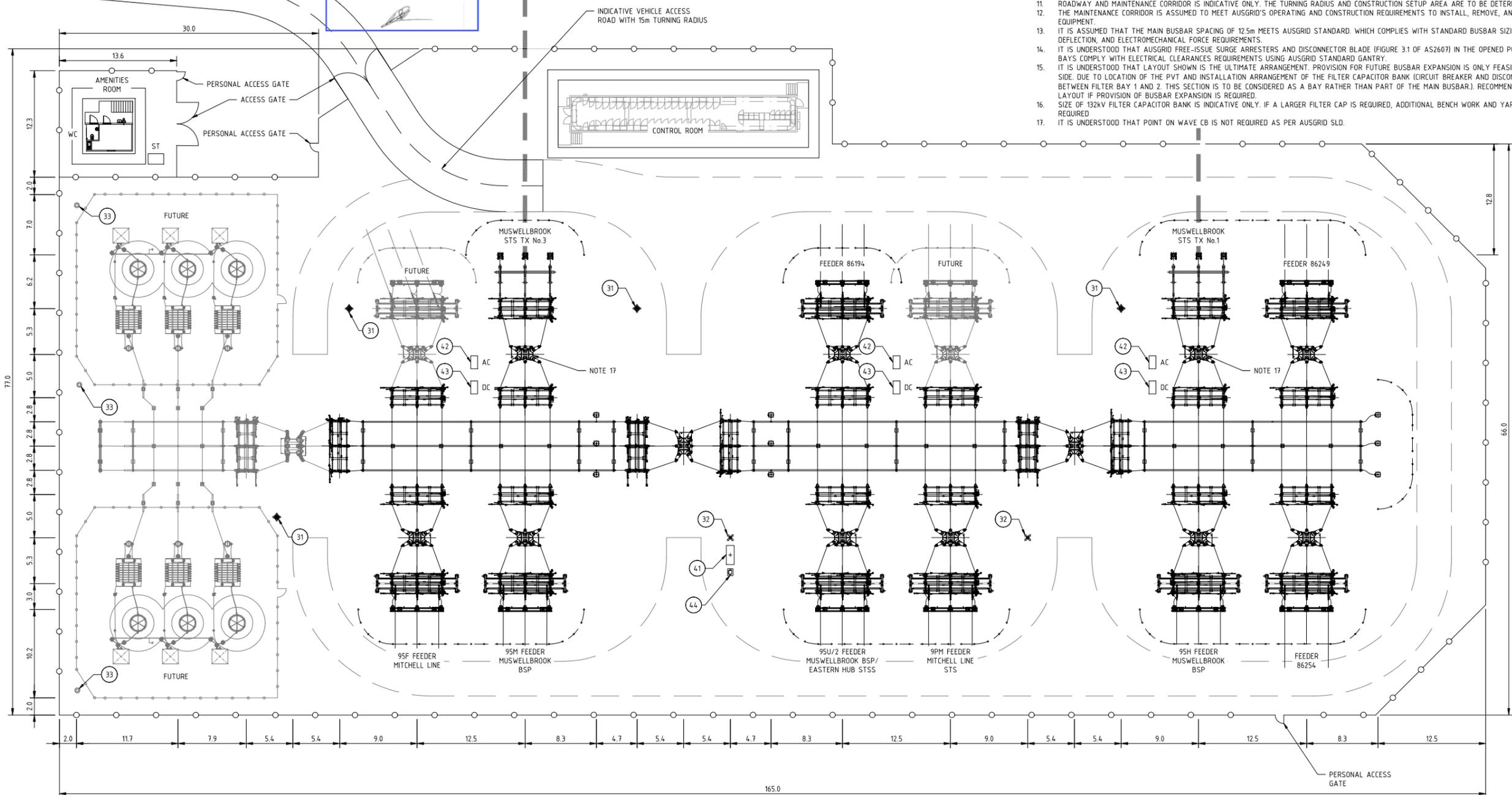
SUBSIDENCE ADVISORY NSW
DEVELOPMENT REVIEWED

LEGEND:

- PORTABLE EARTHING STORAGE KIOSK
- LIGHTNING SPIRE
- FLOODLIGHT POLE
- LIGHTNING SPIRE + FLOODLIGHT POLE
- 415V 3PH OUTLET
- REMOVABLE BOLLARD BARRIER
- HV CABLE ROUTE

GENERAL NOTES:

1. DRAWING WAS PRODUCED USING DRAWING 601100 AS THE BASE.
2. THREE BUS SECTION AND TWO TRANSFORMER BAY IS BASED ON SLD.
3. CABLE ROUTE SHOWN IS INDICATIVE ONLY.
4. ASSUMPTION FOR CONCEPT DESIGN IS THAT ONE CABLE/PHASE WILL BE SUFFICIENT TO MEET CURRENT RATING REQUIREMENTS. SIZE WILL NEED TO BE DETERMINED DURING DETAILED DESIGN.
5. SIZE AND NUMBER OF CONTROL BUILDING IS INDICATIVE ONLY.
6. LV SUPPLY IS BASED ON LV SUPPLY AVAILABLE FROM EXISTING ADJACENT MUSWELLBROOK STS AND CONNECTION TO BE DESIGN BY OTHERS.
7. LAYOUT OF DRAWING INCLUDES THE INTERNAL EQUIPMENT OF SUBSTATION ONLY. ALL OTHER CONSIDERATION SUCH AS TRANSMISSION LINE ARRANGEMENT, ENVIRONMENTAL, SITE SELECTION, CIVIL WORKS IS COVERED BY OTHERS.
8. GENERAL ARRANGEMENT IS DEVELOPED ACCORDING TO THE SLD AUSGRID PROVIDED. REFER TO DRAWING 259890.
9. DRAWING IS CONCEPT DESIGN LEVEL ONLY. FURTHER CHECKS OF CLEARANCES, SPACING AND OTHER SITE CONSTRAINTS TO BE CONFIRMED. CHANGES MAY OCCUR AT DETAILED DESIGN.
10. LOCATION AND QUANTITY OF LIGHTNING MASTS, CABLE PITS, LIGHTING/SECURITY POLES AND CABLE TRENCHING SHOWN INDICATIVELY AND TO BE CONFIRMED DURING DETAILED DESIGN.
11. ROADWAY AND MAINTENANCE CORRIDOR IS INDICATIVE ONLY. THE TURNING RADIUS AND CONSTRUCTION SETUP AREA ARE TO BE DETERMINED BY THE OTHERS.
12. THE MAINTENANCE CORRIDOR IS ASSUMED TO MEET AUSGRID'S OPERATING AND CONSTRUCTION REQUIREMENTS TO INSTALL, REMOVE, AND MAINTAIN EQUIPMENT.
13. IT IS ASSUMED THAT THE MAIN BUSBAR SPACING OF 12.5m MEETS AUSGRID STANDARD. WHICH COMPLIES WITH STANDARD BUSBAR SIZING, BUSBAR DEFLECTION, AND ELECTROMECHANICAL FORCE REQUIREMENTS.
14. IT IS UNDERSTOOD THAT AUSGRID FREE-ISSUE SURGE ARRESTERS AND DISCONNECTOR BLADE (FIGURE 31 OF AS2607) IN THE OPENED POSITION ON THE LINE BAYS COMPLY WITH ELECTRICAL CLEARANCES REQUIREMENTS USING AUSGRID STANDARD GANTRY.
15. IT IS UNDERSTOOD THAT LAYOUT SHOWN IS THE ULTIMATE ARRANGEMENT. PROVISION FOR FUTURE BUSBAR EXPANSION IS ONLY FEASIBLE TO THE EAST SIDE. DUE TO LOCATION OF THE PVT AND INSTALLATION ARRANGEMENT OF THE FILTER CAPACITOR BANK (CIRCUIT BREAKER AND DISCONNECTORS ARE SHARED BETWEEN FILTER BAY 1 AND 2. THIS SECTION IS TO BE CONSIDERED AS A BAY RATHER THAN PART OF THE MAIN BUSBAR). RECOMMENDATION TO REVISIT LAYOUT IF PROVISION OF BUSBAR EXPANSION IS REQUIRED.
16. SIZE OF 132kV FILTER CAPACITOR BANK IS INDICATIVE ONLY. IF A LARGER FILTER CAP IS REQUIRED, ADDITIONAL BENCH WORK AND YARD EXTENSION IS REQUIRED.
17. IT IS UNDERSTOOD THAT POINT ON WAVE CB IS NOT REQUIRED AS PER AUSGRID SLD.

**SWITCHYARD LAYOUT**

SCALE 1:250



<input type="checkbox"/> BACKDRAFTING REQUIRED	<input checked="" type="checkbox"/> CHECK PRINT
<input type="checkbox"/> READY FOR LEAD VERIFIER	INITIAL DATE
DRAFTER CHECK:	see Carvajal 19/01/24
DRAFTING CHECK:	
DESIGN ENGINEER CHECK:	
DESIGN REVIEWER CHECK:	
BACKDRAFTED/CORRECTED	

FOR TENDER ISSUE

AMENDMENTS						
AMD	DATE	DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
A	30.08.2023	FOR REVIEW	J.C	M.M	K.L	N.R
B	06.09.2023	REISSUED FOR REVIEW	L.D	M.M	K.L	N.R
C	08.09.2023	REISSUED FOR REVIEW	L.D	M.M	K.L	N.R
D	13.10.2023	FOR TENDER ISSUE	J.C	M.M	K.L	N.R
E	27.10.2023	REISSUED TENDER ISSUE	J.C	M.M	K.L	N.R
F	19.01.2024	REISSUED TENDER ISSUE - OPTION 2	J.C	M.M	K.L	N.R



CONSULTANT
AECOM Australia Pty Ltd
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MAIN CONNECTIONS SINGLE LINE DIAGRAMS	259890_01
CIVIL CABLE TRENCH AND SERVICE PLAN	265367
CONTROL BUILDING LAYOUT	265723_01
CONDUIT & TRENCH LAYOUT	265706_01
CONDUIT SCHEDULE	265707_01
EARTH GRID LAYOUT	265711_01
FOOTINGS LAYOUT	265477_01
ASSOCIATED DRAWINGS	



570 George Street
SYDNEY NSW 2000

ISSUED FOR
DRAFT

SCALE	1:250
DESIGNED	M.MENG
DRAWN	J.CARVAJALINO
CHECKED	K.LIANG
APPROVED	N.ROBINSON
DATE	19.01.2024
TRIM REF	-
PROJECT NUMBER	-

TW 422 MUSWELLBROOK 132kV SWITCHING STATION SWITCHYARD GENERAL ARRANGEMENT PRIMARY			
DRAWING No	265703	SHEET 01	AMD F
SIZE	A1		