UTILITIES NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT 'MUNICIPAL INFRASTRUCTURE TECHNICAL SPECIFICATIONS' (MITS)
2. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA. IT IS THE CONTRACTORS RESPONSIBILITY TO ESTABLISH THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCING WORK. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITIES.
3. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL CONFIRM THE POSITION AND LEVEL OF ALL EXISTING SERVICE CONNECTION POINTS AND NOTIFY THE PAP IMMEDIATELY IF A DISCREPANCY IS FOUND.
4. ALL SURVEY SET-OUT SHALL BE UNDERTAKEN BY A REGISTERED SURVEYOR
5. ALL EXISTING AND FINISHED SURFACE LEVELS ARE TO THE AUSTRALIAN HEIGHT DATUM (AHD).
6. WHERE NEW WORK ABUTS EXISTING WORK THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
7. WORKS CONDUCTED WITHIN THE TREE PROTECTION ZONE TO BE DONE UNDER THE SUPERVISION AND OBSERVATION OF A QUALIFIED ARBORIST. REFER TO LANDSCAPE MANAGEMENT AND PROTECTION PLANS.
8. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE. ALL LEVELS, CHAINAGES, STATIONS, GEOMETRY AND COORDINATES ARE EXPRESSED IN METRES.
9. OTHER PACKAGES PROPOSED DESIGNS ARE SHOWN INDICATIVELY FOR INFORMATION.
10. ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED. THE ENGINEER'S DRAWINGS SHALL NOT BE SCALED.
11. THE CO-ORDINATE SYSTEM USED IN ALL DRAWINGS IS THE CANBERRA MAP GRID (STROMLO).
12. EXISTING TELECOMMUNICATION ASSETS THAT ARE ABANDONED TO BE DEMOLISHED AND EXHUMED WITHIN 1.5m BELOW EXISTING LEVEL UNLESS OTHERWISE STATED.
13. CONTRACTOR TO REFER TO CIVIL AND LANDSCAPE DESIGN PACKAGE TO CONFIRM FINAL SURFACE LEVELS.
14. ALL WORKS ARE AT CONTRACTOR'S EXPENSE UNLESS NOTED OTHERWISE.

TELECOMMUNICATION GENERAL NOTES

1. ALL WORKS SHALL COMPLY WITH THE CURRENT EDITION OF RELEVANT AUSTRALIAN STANDARDS, COMMUNICATIONS ALLIANCE, AUSTRALIAN COMMUNICATIONS AND MEDIA AUTHORITY TECHNICAL STANDARDS, STANDARDS AUSTRALIA COMMUNICATIONS CABLING MANUAL, RELEVANT TELECOMMUNICATION AUTHORITIES GUIDELINES AND REQUIREMENTS, AND THE MANUFACTURER'S INSTALLATION REQUIREMENTS.
2. ALL EXISTING UNDERGROUND SERVICES WITHIN THE PROPOSED WORK ZONE SHALL BE IDENTIFIED VIA BEFORE YOU DIG AUSTRALIA (BYDA), TCCS STANDARD DRAWINGS, AND ALL OTHER RELEVANT PARTIES OR SERVICES.
3. ALL PITS AND CONDUITS MUST BE INSTALLED WITHIN THE DESIGNATED TELECOMMUNICATIONS ALIGNMENT ESTABLISHED BY STATE AND FEDERAL GOVERNMENTS, STREET OPENING CONFERENCES, LOCAL COUNCILS OR IN ANY SHARED TRENCH.
4. WHERE POSSIBLE, CONDUITS (INSTALLED IN TRENCHES) SHOULD BE INSTALLED IN A STRAIGHT LINE VERTICALLY AND HORIZONTALLY BETWEEN PITS AND AT A GRADE WHICH WILL ALLOW DRAINAGE TO AT LEAST ONE PIT OR HUMPED NEAR THE CENTRE OF THEIR LENGTH TO ALLOW DRAINAGE TO BOTH PITS. A GRADE IN EXCESS OF 1 IN 300 IS NORMALLY SUFFICIENT. REFER TO SUPPLIER'S SPECIFICATION AND DETAILS FOR DRAINAGE PROVISION WITHIN THE PITS
5. UNLESS OTHERWISE SPECIFIED, DO NOT EXCAVATE BY MACHINE WITHIN ONE METRE OF EXISTING SERVICES OR WITHIN THREE METRES OF EXISTING TREES MARKED TO REMAIN.
6. ALL PIPES AND FITTINGS SHALL BE SUPPORTED DURING TRANSPORTATION (INCLUDING UNLOADING, HANDLING AND INSTALLATION) IN A MANNER RECOMMENDED BY THE MANUFACTURER. THE PIPES AND FITTINGS SHOULD BE INSPECTED INTERNALLY AND EXTERNALLY UPON DELIVERY TO ENSURE NO DAMAGE HAS OCCURRED.
7. ALL CONDUITS SHALL BE MANDREL DRAWN AND INSTALLED WITH DRAW ROPES.
8. SPARE PIPES SHALL BE CLEARED, FITTED WITH A STAINLESS STEEL DRAW WIRE SUITABLY ANCHORED AT EACH END OF THE PIPE AND THEN SEALED WITH PROPRIETY END CAPS TO PREVENT INGRESS OF DIRT & VERMIN.
9. ALL DDTS PITS SHALL HAVE SECURITY CONSTRUCTION AND EQUIPMENT COMMITTEE (SCEC) ENDORSED LOCKING LIDS

CONCRETE WORKS

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600, THE STANDARDS ASSOCIATION AUSTRALIA, STANDARDS CITED IN AS3600, THE DRAWINGS AND THE SPECIFICATION
2. GRADE STRENGTH OF CONCRETE SHALL BE : 32 MPa UNLESS NOTED OTHERWISE
3. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
4. WELDING OR SPLICES IN REINFORCEMENT SHALL BE USED ONLY IN POSITIONS APPROVED BY THE ENGINEER.
5. CONCRETE CURING SHALL BE IN ACCORDANCE WITH AS3600. CURING SHALL BE COMMENCED WITHIN TWO DAYS OF FINISHING OPERATIONS AND SHALL BE CONTINUED FOR A MINIMUM OF SEVEN DAYS BY AN APPROVED PROPRIETARY COMPOUND OR BY KEEPING CONTINUOUSLY WET.
6. FORMWORK SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS3610. FORMWORK SHALL NOT BE STRIPPED NOR PROPS REMOVED WITHOUT APPROVAL.
7. FABRIC LAP DETAILS SHALL BE IN ACCORDANCE WITH FIG.13.2.4 OF AS3600.
8. HOOKS, LAPS AND BENDS SHALL BE IN ACCORDANCE WITH AS3600 UNO.
9. ALL CHEMICAL ANCHORS SHALL BE EITHER 'CHEMSET; BY "RAMSET" WITH THE GLASS CAPSULE SYSTEM INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS OR HILTI HVU ADHESIVE ANCHOR WITH FOIL CAPSULE SYSTEM INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTION.
10. ALL CHEMICAL ANCHORS SHALL BE HOT DIPPED GALVANIZED

TELSTRA NOTES

1. TRENCH WILL BE EXCAVATED TO DEPTH REQUIREMENTS OUTLINED BY TELSTRA GUIDELINES AND WILL BE IN ACCORDANCE WITH THE TYPE OF PAVEMENT AND TYPE OF AREA (URBAN OR RURAL).
2. BEDDING AND BACKFILL MATERIAL NOT TO CONTAIN ANY METAL OR ROCKS EXCEEDING 50mm IN CROSS-SECTION AND FREE OF TIMBER OR OTHER FIBROUS MATERIAL THAT MAY DECOMPOSE OR ATTRACT TERMITES.
3. TELSTRA WILL SUPPLY, INSTALL, AND CONNECT THE LEAD-IN CABLE. THE CUSTOMER'S CABLER MUST NOT DRAW THE TELSTRA LEAD-IN CABLE THROUGH THE CONDUIT OR CONNECT IT TO THE TELSTRA EQUIPMENT. TELSTRA WILL INSTALL CONDUITS AND PITS. TELSTRA TO INSTALL ALL TELSTRA ASSETS.
4. THE DEPTH OF COVER FOR CONDUITS MUST MEET THE REQUIREMENTS IN COMMUNICATIONS ALLIANCE EXTERNAL COMMUNICATION CABLE NETWORKS CODE. IT SHOULD TAKE INTO ACCOUNT STATE OR TERRITORY DOCUMENTS AND LOCAL GOVERNMENT DOCUMENTS.
5. THE CONTRACTOR SHALL LIAISE WITH TELSTRA TO UNDERSTAND SITE SUPERVISION, CONSTRUCTION & CABLING/CUT OVER REQUIREMENTS.
6. ALL PITS ARE TO BE COMPOSITE RESIN TYPE UNLESS SPECIFIED OTHERWISE.

ELECTRICAL NOTES

1. ALL WORKS SHALL BE IN ACCORDANCE WITH EVOENERGY GUIDELINES AND REQUIREMENTS
2. POWER CONDUITS FOR UNDERGROUND USE SHALL BE HEAVY DUTY ORANGE uPVC IN ACCORDANCE WITH EVO ENERGY CONDUIT TECHNICAL STANDARDS AND AS/NZS3000 AND AS2053 PART 2.
3. ALL WORKS FOR EVO ENERGY ASSETS INCLUDING CONDUITS, CABLING AND PILLARS SHALL BE PERFORMED BY EVO ENERGY APPROVED CONTRACTORS IN ACCORDANCE WITH EVO ENERGY REQUIREMENTS.
4. CONDUITS TO BE USED MUST BE IN ACCORDANCE WITH P007335 TECHNICAL SPECIFICATION - ELECTRICAL CONDUIT AND FITTINGS
5. CONDUITS TO BE INSTALLED (INCLUDING SAND COMPACTING AND BACKFILLING) MUST BE IN ACCORDANCE WITH P00793 CIVIL WORKS MANUAL VOLUME 2.
6. BEDDING OF SAND TO BE MINIMUM OF 75mm DEPTH FROM ALL SIDES AND MUST BE EVOENERGY APPROVED BEDDING SAND IN ACCORDANCE WITH P007330 TECHNICAL SPECIFICATION - QUARRY PRODUCT AND RAW MATERIALS.
7. POLYMERIC STRIP MUST OVERLAP CONDUITS BY AT LEAST 40mm AND MUST BE PLACED 100mm ABOVE THE CONDUIT.
8. ORANGE WARNING TAP MUST BE POSITIONED AT APPROXIMATELY 50% OF THE DEPTH OF COVER TO THE MECHANICAL PROTECTION AND MUST COVER THE WIDTH OF THE TRENCH.
9. CONDUIT SPACERS TO BE USED AT APPROXIMATE 4m INTERVALS (ONE SET PER CONDUIT LENGTH) FOR THE ENTIRE LENGTH OF THE TRENCH. SPACING BETWEEN CONDUITS TO BE MAINTAINED AS PER THE DISTANCES NOMINATED IN THE APPLICABLE TRENCH SECTIONS. EVOENERGY UTILISES 'THE SPACER COMPANY' CONDUIT SPACER SYSTEM: PART NUMBERS QB150-75, QB150-50S IN COMBINATION TO ACHIEVE APPLICABLE SPACING. EQUIVALENT SPACER SYSTEM MAY BE ADOPTED SUBJECT TO EVOENERGY APPROVAL.
10. NOMINAL DEPTH OF COVER IS 750MM. VARIATIONS TO THIS DEPTH MAY OCCUR WHERE CABLES ARE REQUIRED TO AVOID EXISTING/PROPOSED UNDERGROUND SERVICES. AN EVOENERGY REPRESENTATIVE IS TO BE NOTIFIED WHERE THE DEPTH OF COVER CHANGES OUTSIDE THE RANGE INDICATED ON THE TRENCH CROSS SECTIONS SHOWN ON THE IFC DRAWINGS.
11. ALL FORMED POWER AND AUXILIARY CONDUIT BENDS USED IN THE MAIN CONDUIT BANK SHALL HAVE A MINIMUM BENDING RADIUS OF 6.0M UNLESS SPECIFIED OTHERWISE.
12. BEFORE-YOU-DIG-AUSTRALIA INFORMATION MUST NOT BE OLDER THAN 20 BUSINESS DAYS AT THE TIME OF CONSTRUCTION. THE INFORMATION PROVIDED IN THIS DESIGN MUST BE CHECKED ONSITE AND THE MOST CURRENT INFORMATION ON THE CONFIGURATION OF ALL SERVICES, INCLUDING EVOENERGY NETWORK, MUST BE VERIFIED IMMEDIATELY BEFORE CONSTRUCTION COMMENCES BY CONTACTING BEFORE-YOU-DIG-AUSTRALIA.
13. CONDUIT MUST MAINTAIN MINIMUM SEPARATION FROM OTHER SERVICES AND UTILITIES AS PER EVOENERGY DRAWING 3832-018 OR THIS DRAWING, WHICHEVER IS GREATER.
14. CONDUITS MUST BE CAPPED WITH AN APPROVED CAP BEFORE THE COVERING OF BEDDING SAND IS APPLIED. THE APPROVED CAP MUST BE NON-PERISHABLE COVER TO PREVENT THE ENTRY OF FOREIGN MATERIAL AND TO BE FITTED SUCH THAT DISLODGMENT PRIOR TO CABLE INSTALLATION IS PREVENTED.
15. ALL CONDUITS MUST BE PROVIDED WITH A GENERAL-PURPOSE SYNTHETIC POLYPROPYLENE FILAMENT ROPE (DRAW WIRE) OF MINIMUM 6mm DIAMETER.
16. CLEAR VISIBLE PERMANENT SURFACE MARKERS AT 3m INTERVAL ALONG THE CABLE UNDER THE FOOT PATH ARE REQUIRED. THE MARKER SHOULD BE CENTRALLY AFFIXED ABOVE THE CONDUIT BY STAINLESS STEEL MUSHROOM HEAD STRIKE ANCHOR. SUITABLE MARKER CONSIST OF A MINIMUM 15mm X 65mm STAINLESS STEEL WARNING PLATE WITH THE WORDS "DANGER, ELECTRICAL CABLE".
17. A MINIMUM OF 48 HOURS (2 WORKING DAYS) NOTICE MUST BE PROVIDED TO EVOENERGY OFFICIALS TO ARRANGE THE CONDUIT INSPECTION PRIOR TO BACKFILLING TRENCH.
18. EVERY CONDUIT LINE INSTALLED MUST BE MANDRELLED IN ACCORDANCE WITH P00793 "CIVIL WORKS MANUAL VOL 2". THE CONTRACTOR SHALL NOTIFY THE RELEVANT EVOENERGY REPRESENTATIVE OF ALL PROPOSED MANDRELLING 48 HOURS (2 WORKING DAYS) IN ADVANCE.
19. 'WAE' DRAWINGS AND SURVEY PLANS ARE TO BE PROVIDED WITHIN 7 DAYS OF THE COMPLETION OF EACH MAJOR CONDUIT SECTION INSTALLATION AND PRIOR TO ANY CABLE BEING INSTALLED.
20. EVOENERGY AND CONTRACTOR SHALL VERIFY AND RECONCILE 'WAE' RECORDS ON COMPLETION OF EACH MAJOR STAGE OF WORK OR CONDUIT SECTION.
21. REFER TO P00677 "ELECTRICAL SAFETY RULES" FOR SAFER WORKING REQUIREMENTS AND MINIMUM STANDARDS FOR WORKING ON, NEAR OR IN THE VICINITY OF EVOENERGY'S TRANSMISSION AND DISTRIBUTION NETWORK FACILITIES WITH THE ACT AND SURROUNDING REGION INTO WHICH EVOENERGY'S ELECTRICITY NETWORK EXTENDS.
22. REFER TO P00718 "REQUIREMENTS FOR WORK AND OTHER ACTIVITIES WITHIN SUBTRANSMISSION RESERVATIONS" FOR EXCAVATIONS/CONDUITING/CROSSING NEAR 132kV UNDERGROUND AND OVERHEAD LINES.

150 mm ON ORIGINAL
A1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DRAWING FILE LOCATION / NAME: V:_Vault\Projects\3002750\CAD\DWG\09_UT_Utilities\3002750-UT-1601.dwg
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A	19.06.2020	PRELIMINARY SKETCH PLAN	0007	DK
B	08.10.2020	PRELIMINARY SKETCH PLAN	0014	DK
C	13.11.2020	PRELIMINARY SKETCH PLAN SUBMISSION	0015	DK
D	29.02.2024	DRAFT DOCUMENT READINESS (DR) SUBMISSION	0036	T.VN
E	24.05.2024	FINAL DOCUMENT READINESS (DR) SUBMISSION	0037	T.VN

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UTILITIES NOTES

SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS SHOWN	DETAIL DESIGN	3002750-UT-1601	E