

CREATOR	DRAWING	DWG No.	REV	DATE
van der Meer Consulting	17/07/2022	X-BASE.dwg	-	22/08/2022
van der Meer Consulting	CIVIL	X-BASE	-	31/01/2023
Robin Russell & Assoc	ELECTRICAL	D954 (S0107577)	-	8/02/2023

ATTN: CIVIL CONTRACTOR
THE CIVIL WORKS SHALL BE CONSTRUCTED TO CONFORM TO ENERGEX SPECIFICATIONS, AS FOLLOWS:

- MAXIMUM CROSS SLOPE OF UNDERGROUND CABLE ALIGNMENT IS 1:4 & IS TO EXTEND A MINIMUM OF 1.6M FROM THE BOUNDARY.
- MAXIMUM GRADE AT PILLAR LOCATIONS IS 1:4 & IS TO EXTEND A MINIMUM OF 1.6M FROM THE BOUNDARY.
- FINISHED LEVELS AT ALL STREET LIGHT LOCATIONS SHALL BE AT THE SAME GRADE AS THE KERB WITH CONCRETE REINFORCEMENT WITHIN THE SWALE DRAIN, AS PER THE 'TYPICAL LIGHT POLE PROTECTION DETAIL' SHOWN ON THE CIVIL DESIGN.
- ELECTRICITY PILLAR LOCATIONS SHALL BE SHAPED TO ACHIEVE A PAD 1.6m WIDE X 1.6m DEEP, AT A MAXIMUM GRADE OF 1:4 WITH CONCRETE REINFORCEMENT WITHIN THE SWALE DRAIN, AS PER THE 'TYPICAL ELECTRICAL PILLAR PROTECTION DETAIL' SHOWN ON THE CIVIL DESIGN.

THE ABOVE ITEMS HAVE ENERGEX APPROVAL & SHALL NOT BE ALTERED WITHOUT PRIOR ENERGEX APPROVAL.

PILLARS AT STNs 7, 12 AND 14 HAVE NO SERVICES AND ARE FOR MEN EARTHING ONLY

ROCK EXCAVATION BY ELECTRICAL CONTRACTOR
The electrical contractor shall:
• excavate electrically trenches to the depth required.
• excavate street light foundations to a depth of 1500mm.

GENERAL NOTES

IN THE EVENT OF CONFLICT BETWEEN THIS WORKS PLAN AND DRAWINGS AND SPECIFICATIONS OF THE RELEVANT FUTURE ASSET OWNER, I.E. ENERGEX, ERGON, LOCAL AUTHORITY, DEPARTMENT OF TRANSPORT & MAIN ROADS, NBN™, ETC., THE DRAWINGS AND SPECIFICATIONS OF THE FUTURE ASSET OWNER SHALL TAKE PRECEDENCE. EXCEPTIONS APPLY WHERE RRA DESIGN DOCUMENTATION SPECIFY CLEARANCES, DEPTHS & SEPARATIONS GREATER THAN THE MINIMUM REQUIRED BY THE AUTHORITIES.

THE CONTRACTOR SHALL NOT ACCEPT A VERBAL INSTRUCTION FROM ANY PERSON TO DEPART FROM THE REQUIREMENTS OF THIS WORKS PLAN OR RRA GENERAL SPECIFICATION. ANY DEPARTURE FROM THE WORKS PLAN OR SPECIFICATION MUST FIRST BE AUTHORISED IN WRITING BY THE CONTRACT SUPERINTENDENT.

ELECTRICAL CONTRACTOR

THE WORKS DETAILED ON THIS DRAWING SHALL BE CONSTRUCTED IN ACCORDANCE WITH ROBIN RUSSELL & ASSOCIATES' GENERAL SPECIFICATION FOR INSTALLATION OF ELECTRICITY RETICULATION AND STREET LIGHTING - ISSUE 'A'.

CIVIL CONTRACTOR

THE INSTALLATION OF ALL ELECTRICAL CONDUITS SHALL BE SUPERVISED BY THE HOLDER OF AN ELECTRICAL WORK LICENCE - ELECTRICAL SAFETY ACT 2002.

ENERGEX CONDUITS AND TRANSFORMER SITE RETAINING WALLS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH ENERGEX'S SPECIFICATIONS (SEE BELOW). THEY WILL BE INSPECTED FOR COMPLIANCE UPON COMPLETION.

WHERE ROAD-CROSSING CONDUITS ARE INSTALLED DEEPER THAN USUAL (UNDER CULVERTS OR PIPES) THEY MUST RISE TO A DEPTH OF NOT MORE THAN 1200mm AT EACH END. IF UNCERTAIN, SEEK ADVICE FROM RRA CONSTRUCTION COORDINATOR.

THE CIVIL CONTRACTOR SHALL INSTALL ENVELOPING CONDUITS UNDER RETAINING WALLS BEHIND PILLARS - TWO 100mm CONDUITS INTO EACH LOT (ONE FOR ELECTRICITY, ONE FOR COMMUNICATIONS), 500mm DEEP BEHIND THE PILLAR, NEAR GROUND LEVEL INSIDE THE LOT.

RELEVANT SPECIFICATIONS IN ENERGEX'S UNDERGROUND DISTRIBUTION CONSTRUCTION MANUAL ARE FOUND AT -

- SECTION C1: CONDUITS
- SECTION C2: EXCAVATION
- SECTION C3: TRANSFORMER SITES

THESE SECTIONS OF THE MANUAL CAN BE DOWNLOADED FROM THE FOLLOWING ENERGEX WEB SITE:
https://swp.energen.com.au/service_providers/technical_docs/asp/technical_documents.asp

CIVIL ENGINEERS WHO HAVE REGISTERED FOR ACCESS TO THE FOLLOWING RRA WEBSITE MAY DOWNLOAD EXTRACTS FROM ENERGEX'S MANUAL AT:
<http://www.robus.com.au>

THE CIVIL CONTRACTOR SHALL ENSURE THAT ALL CONDUITS HAVE BEEN INSTALLED BEFORE CONSTRUCTING RETAINING WALLS, PATHS, DRIVEWAYS & WATER SERVICES. THE CIVIL CONTRACTOR SHALL PLEASE INFORM THE ELECTRICAL CONTRACTOR OF ANY 'AS CONSTRUCTED' DEPARTURES FROM THE CIVIL DESIGN.

CARE: EXISTING STREET LIGHTS SHALL NOT BE RECOVERED UNLESS REPLACEMENT STREET LIGHTS WILL BE COMMISSIONED BEFORE NIGHTFALL. LIGHTING OF NEW OR ALTERED EXISTING ROADS MIGHT NOT COMPLY WITH SPECIFIED STANDARDS UNTIL NEW ROAD LIGHTING HAS BEEN COMMISSIONED. THE CIVIL CONTRACTOR SHALL APPLY APPROPRIATE RISK MANAGEMENT. E.G. WARNING SIGNS, SPEED RESTRICTIONS, TEMPORARY LIGHTING, ETC.

ON-SITE SERVICES CHECKS

ROBIN RUSSELL & ASSOCIATES GIVES NO WARRANTY REGARDING THE PRESENCE OR LOCATION OF BURIED SERVICES, INCLUDING NEWLY-INSTALLED SERVICES. 'AS CONSTRUCTED' LOCATIONS MAY DIFFER FROM WHAT IS DRAWN ON THIS WORKS PLAN. CONTRACTORS SHALL BE RESPONSIBLE TO IDENTIFY AND LOCATE ALL BURIED SERVICES. INITIAL IDENTIFICATION CAN BE OBTAINED FROM:

DIAL BEFORE YOU DIG SERVICE
TELEPHONE 1100
FAX 1300 652 077

ON-LINE ENQUIRIES CAN BE MADE AT: <http://www.1100.com.au>.

HAVING DETERMINED WHICH SERVICES MAY BE PRESENT, ON-SITE LOCATIONS SHOULD THEN BE ARRANGED WITH RELEVANT SERVICE AUTHORITIES.
SEWERAGE AND WATER PLANS FOR THE SUBDIVISION MAY BE OBTAINED ON REQUEST FROM THE SUPERINTENDENT.

INSTALLATION OF RRA DESIGNED TELECOMMUNICATIONS CONDUITS

TELECOMS CONDUITS AND PITS SHALL BE SUPPLIED AND INSTALLED BY THE CIVIL AND ELECTRICAL CONTRACTORS AS SPECIFIED ON THE ASSOCIATED RRA WORKS PLAN.

IN RESIDENTIAL SUBDIVISIONS, TELECOMMUNICATIONS CONDUITS SHALL BE INSTALLED GENERALLY IN SHARED TRENCHES, DIRECTLY ABOVE THE ELECTRICAL CONDUITS.

IN COMMERCIAL SUBDIVISIONS OR OTHER SITUATIONS WHERE THIS IS NOT POSSIBLE, TELECOMMUNICATIONS CONDUITS SHALL BE INSTALLED IN A SEPARATE TRENCH ON THE SPECIFIED COMMUNICATIONS ALIGNMENT.

TELECOMMUNICATIONS INFRASTRUCTURE

CONDUITS & PITS to be designed by: Robin Russell & Associates
to be installed by: civil & electrical contractors
to be owned by:
TELECOMMUNICATIONS INFRASTRUCTURE to be provided by: NBNSCo Limited

ROAD LIGHTING INFORMATION

Design documentation in accordance with the requirements of:
Lockyer Valley Regional Council specifications, Gattin Planning Scheme V2

ARRANGEMENT / GEOMETRY	Category	Road Name(s)		
FLAG	HOWELL CIRCUIT, NEWLAND PLACE			
Arrangement	Height (m)	Outreach (m)	Upland	Offset (m)
Varies	5.1	0.535	0°	Varies
LUMINAIRE / LAMP DETAILS				
Type / Wattage	Lumens	IP Rating	Origin of Data	
13.7W LED	1969	IP66	Sylvania Schreder	
Luminaire Type	Nostalgia L14 T 2 Black			
I Table No.	AVENUE II 4K 14W V2 210729PH.0ie			
TECHNICAL PARAMETERS				
FLAG LIGHTING TO GATTIN SHIRE COUNCIL PLANNING SCHEME V2, OUTCOME P40 STREET LIGHTING AND SIGNS, SOLUTION A40.1.				
LUMINAIRES HAVE BEEN STRATEGICALLY PLACED TO HIGHLIGHT ISOLATED CONFLICTS AT (&/OR) INTERSECTIONS, CUL-DE-SAC HEADS, BENDS AND PEDESTRIAN CROSSINGS.				

LEGEND: ELECTRICAL

- EXISTING UNDERGROUND CABLE / CONDUIT
- - - PROPOSED UNDERGROUND CABLE / CONDUIT
- - - FUTURE UNDERGROUND CABLE / CONDUIT
- END OF CONDUIT POINT / CONDUIT CAP
- BORED CONDUIT
- 12 STATION NUMBERS
- ⊙/⊙/⊙ PADMOUNT TRANSFORMER, EXISTING / PROPOSED / FUTURE
- ⊙/⊙/⊙ RING MAIN UNIT, EXISTING / PROPOSED / FUTURE
- ⊙/⊙/⊙ POLE TRANSFORMER, EXISTING / PROPOSED / FUTURE
- CABLE FAULT INDICATOR
- /■/■ SERVICE PILLAR, EXISTING / PROPOSED / FUTURE
- /■/■ LINK PILLAR, EXISTING / PROPOSED / FUTURE
- ⊥/⊥/⊥ LV LINKS (OPEN), EXISTING / PROPOSED / FUTURE
- ⊥/⊥/⊥ LV LINKS (CLOSED), EXISTING / PROPOSED / FUTURE
- EXISTING OVERHEAD ELECTRICITY MAINS
- PROPOSED OVERHEAD ELECTRICITY MAINS
- FUTURE OVERHEAD ELECTRICITY MAINS
- ⊙/⊙/⊙ HV POLE, EXISTING / PROPOSED / FUTURE
- ⊙/⊙/⊙ HV + LV POLE, EXISTING / PROPOSED / FUTURE
- /●/● LV POLE, EXISTING / PROPOSED / FUTURE
- ⊥/⊥/⊥ EARTH, EXISTING / PROPOSED / FUTURE
- ⊙/⊙/⊙ STREET LIGHT, EXISTING / PROPOSED / FUTURE
- EXISTING RATE 3 STREETLIGHT CABLE
- PROPOSED RATE 3 STREETLIGHT CABLE
- FUTURE RATE 3 STREETLIGHT CABLE
- ⊙/⊙/⊙ RATE 3 STREET LIGHT, EXISTING / PROPOSED / FUTURE
- /■/■ RATE 3 SWITCHBOARD, EXISTING / PROPOSED
- EXISTING CONSUMERS UNDERGROUND CABLE
- PROPOSED CONSUMERS UNDERGROUND CABLE TO BE RECOVERED
- /●/● CABLE, EXISTING / PROPOSED
- 32 - 50mm HD CONDUIT
- 80/100mm LD CONDUIT
- 100mm WHITE ENERGEX COMMS. CONDUIT
- ⊙ 125mm LD CONDUIT
- △ ELECTRIC CABLE MARKER PLATE

"AS CONSTRUCTED" DOCUMENTS

The electrical contractor shall email the "as constructed" drawing, test results & closure documents to:
• contestable@energyq.com.au
• asconstructed@robus.com.au

UNDERGROUND CABLE CERTIFICATION

All cables detailed on this drawing have been checked using the cable locator described below and are, according to measurements taken, on the correct alignment and at correct depths below the finished level, except as marked up. Alignments are subject to the accuracy of survey pegs present at the time of measurement.

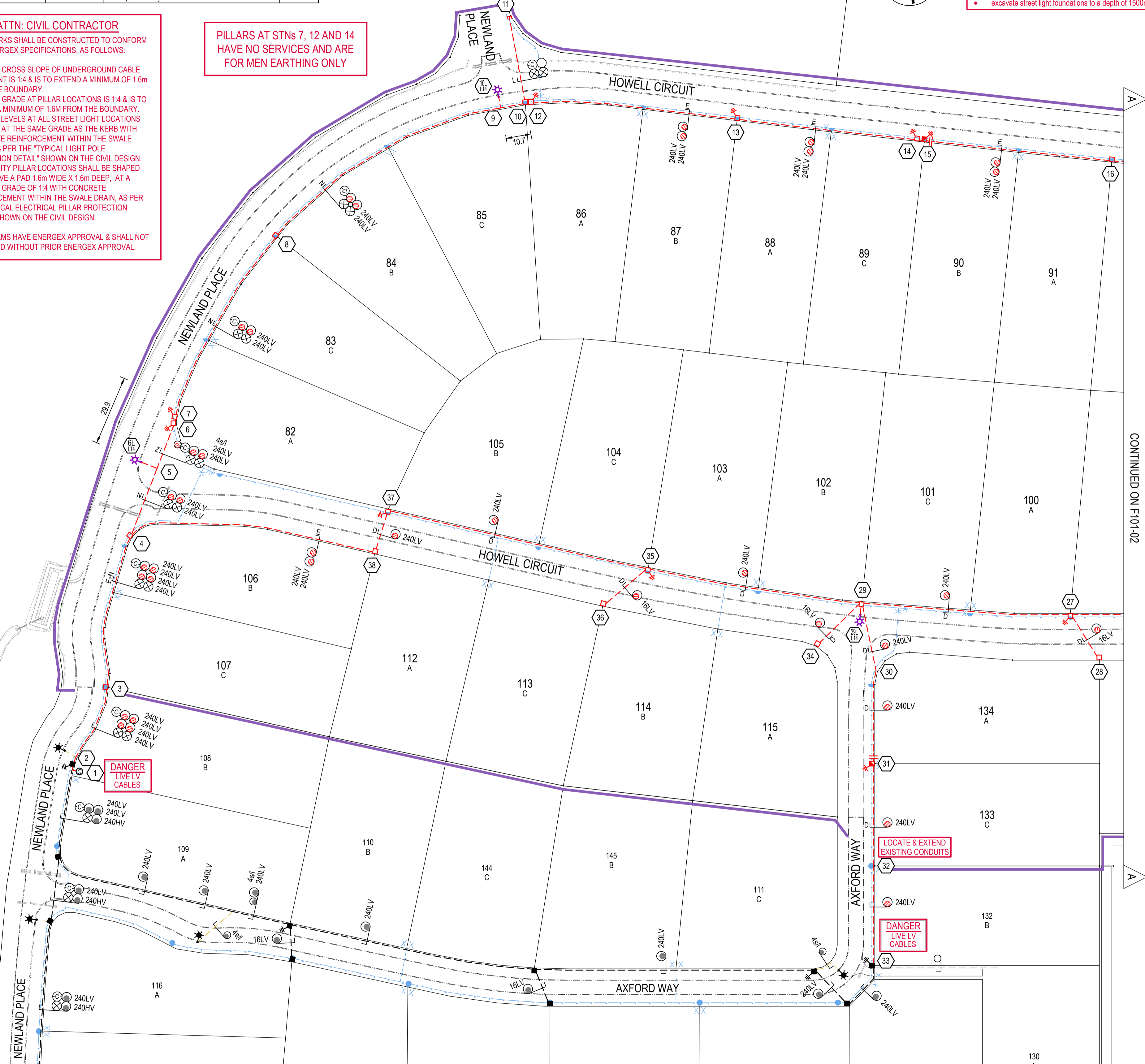
Make: _____ Model: _____
Serial No: _____ Date Cables Checked: ____/____/____
Name of Person Who Conducted Checks: _____
Certified (signature of checker): _____
Phone No. of checker: _____

CONSTRUCTION CONTACTS

ELECTRICAL ENGINEER
ROBIN RUSSELL & ASSOCIATES PTY LTD
DESIGNER
WILLIAM SCHARDT Ph: 0419 778 552
CONSTRUCTION COORDINATOR
SHANE HYDE Ph: 0419 021 772
CIVIL ENGINEER
van der Meer Consulting
CALVIN KIRK Ph: (07) 3021 6600
SURVEYOR
BPLANNED & SURVEYED
JIM GOODWIN Ph: (07) 3161 1501

SITE INFORMATION

TOTAL NUMBER OF LOTS
40
PROPERTY DESCRIPTION
PROPOSED LOTS 82 - 107, 112 - 115, 133 - 142
CANCELLING LOTS Lot 95 on CA311434 & Lot 96 on SP225226



PLAN VIEW
SCALE 1:1000
1 : 1000 (A1 - NOT REDUCED)

CONTINUED ON F101-02

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:
14/2/2023	A	PRELIMINARY ISSUE	RR					



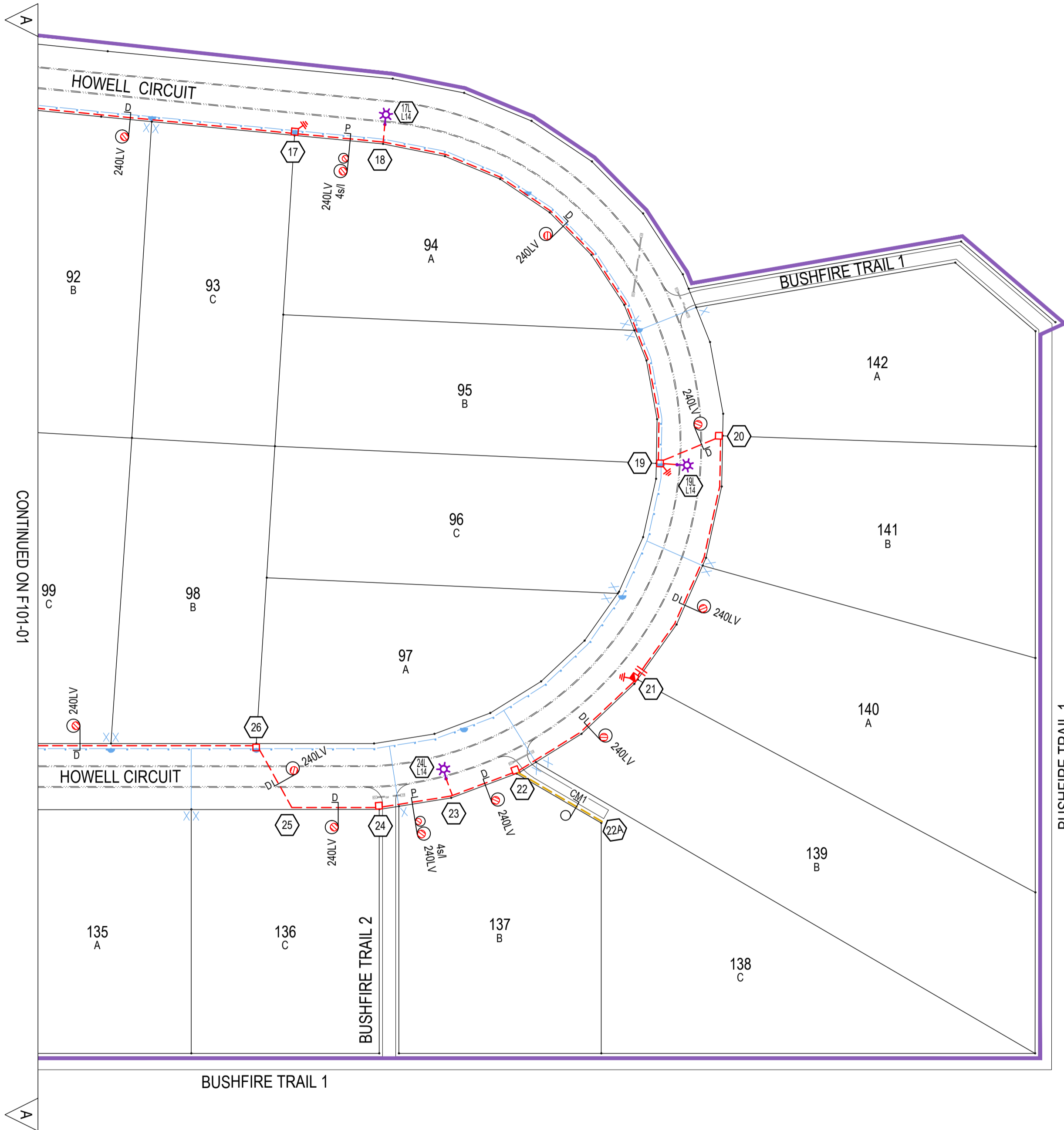
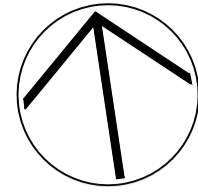
SUBDIVISION
ELECTRICAL SERVICES
2046 Sabana Street,
Stafford, QLD 4053
Tel: (07) 3872 5556
Fax: (07) 3872 5566
Email: rr@robus.com.au
www.robus.com.au
A.B.N. 78 010 589 661

COUNCIL	LOCKYER VALLEY	DWT REV.	V53-3 20210504
COUNCIL REF	DA4678		
DESIGNED	W.Schardt	DRAWN	B.Hyland
CHECKED	D.Lloyd RPEQ 5060	APPROVED	ROBIN RUSSELL RPEQ 1546
DATE	14/2/2023	SIGNED	<i>Robin Russell</i>

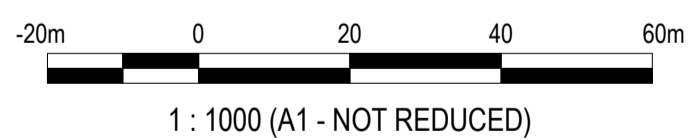
DESCRIPTION
ELECTRICITY RETICULATION - RESIDENTIAL
CLIENT
Parklands at Adare Pty Ltd

LOCATION
**PARK LAKE ADARE - STAGES 2 & 3
REDBANK CREEK ROAD
ADARE**
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DRAWING No. **F101-01** REVISION **A**
ENERGEX PROJECT No. **S0107741** SHEET No. **1 OF 4**
A1



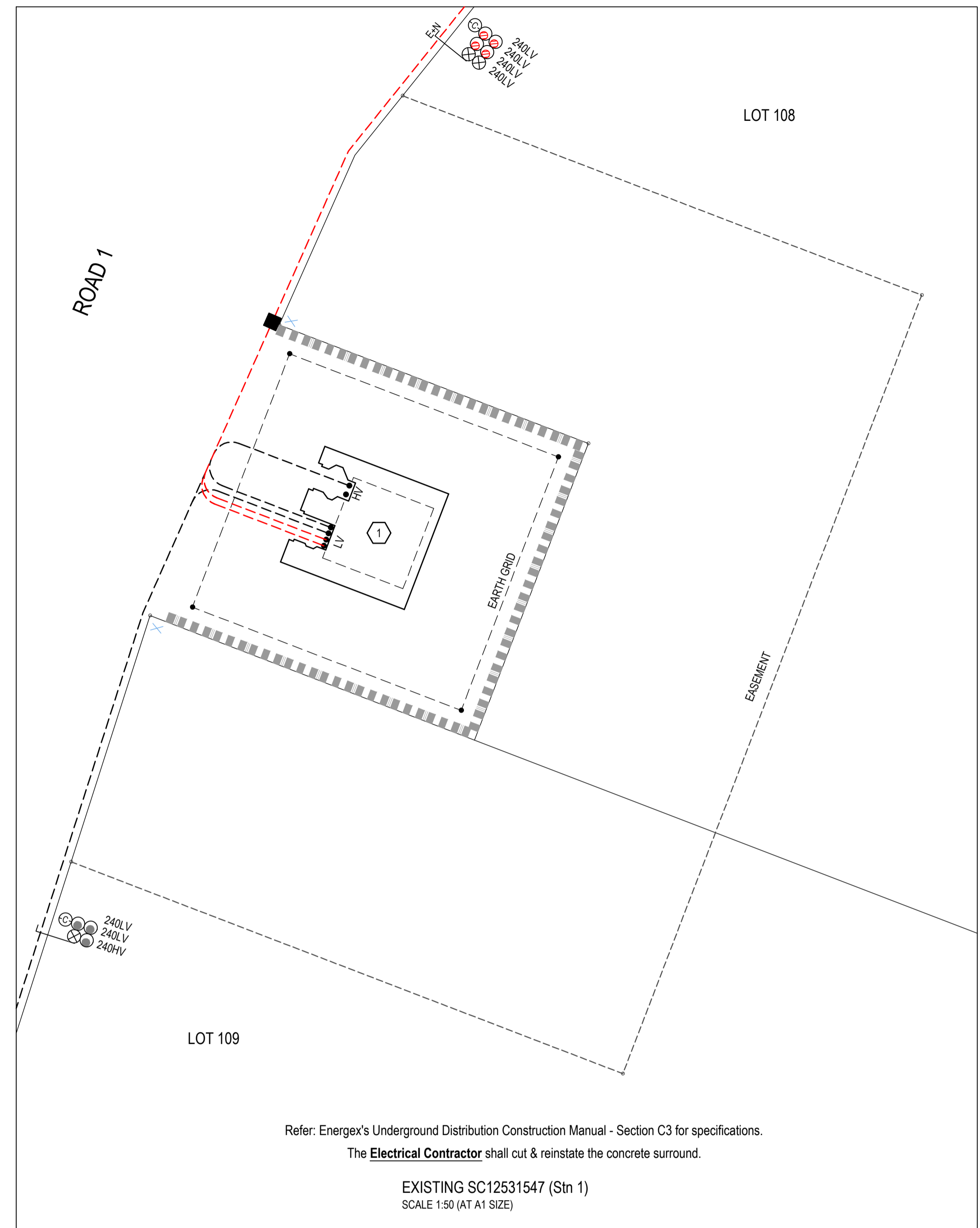
PLAN VIEW
SCALE 1:1000



MATERIALS SUMMARY - S0107741

UNDERGROUND			
MODEL No.	QTY	MODEL No.	QTY
ADE	13	LVSP2-6	1
DSLVF25	1	LVSP4-6	9
DSLVF31	1	LVSP4-6NF	3
LV4CMEN	10	LVSP4-6SL	5
LV4CMENLINK	3	LVSP9-6	2
LVPT4C240	2	LVSP9-6SL	1
LVSP12-6	3	LVSPC2W3	1
LVSP14-6	3	LVSP240	1
		SC0022544	1
TOTAL		SCS820364	3031
TRENCH LENGTH	1609	SCS820365	96

STREET LIGHTING			
MODEL No.	QTY	MODEL No.	QTY
SLEDSY01375	6	LVC24PVPV	167
SLNOS3CI	6		
SUGSLPIL	6		



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SUBDIVISION
ELECTRICAL SERVICES
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Email: m@robusrussell.com.au
www.robusrussell.com.au
A.B.N. 78 010 589 661

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CLIENT
Parklands at Adare Pty Ltd

LOCATION
PARK LAKE ADARE - STAGES 2 & 3 REDBANK CREEK ROAD ADARE

ENERGEX PROJECT No.
S0107741

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DRAWING No.	REVISION
F101-02	A
SHEET No.	
2	4

