



**Lockyer Valley Regional Council**  
26 Railway Street, PO Box 82, Gatton Qld 4343  
All official correspondence to be addressed to the CEO  
Telephone 1300 005 872 | Facsimile (07) 5462 3269  
Email mailbox@lvrc.qld.gov.au | www.lockyervalley.qld.gov.au

Application ID: OW2023/0006  
Enquiries: Tammy Thomas  
Your Reference: F101  
Contact: 5462 0687

27 April 2023

Robin Russell & Associates Pty Ltd  
204/6 Babarra Street  
STAFFORD QLD 4053

Attention: Tania Deller

Dear Tania

**Electricity Reticulation Design located at Redbank Creek Road and described as Lots 95 CA311434 and Lot 96 SP225226**

Thank you for your correspondence dated 22 February 2023 enclosing your proposed electrical reticulation design for the above development. The drawings submitted are detailed in Table 1 below.

Project Number	Drawing Number	Title	Electrical Consultant	Date
Energex Project No - S0107741	F101-01 to F101-04 Revision A	Electricity Reticulation - Residential	Robin Russell & Associates Pty Ltd	14/02/2023

**Table 1 – Plans Subject to this Notification**

Council acknowledges receipt of your drawing/s referenced in Table 1 and advises that there are no objections to the reticulation design. However, it is noted that the Operational Works for Civil Works is still under assessment which may cause changes to the electrical reticulation design. Should changes be required to the electrical reticulation design, amended drawings are to be provided to Council for review and endorsement.

This correspondence has been issued on the basis that the information on the drawings you supplied are compliant with the associated development approval. The Registered Professional Engineer Queensland (RPEQ) certifying the drawings must ensure that the Public Lighting is designed in accordance with the Australian Standard AS1158 *Lighting for roads and public spaces* series.

Please be aware that unless approved in writing, the Lockyer Valley Regional Council requires the electricity reticulation to be located in the electricity service corridor detailed on the Institute of Public Works Engineering Australasia standard drawing RS-100 *Public Utilities Typical Service Corridors and Alignments*.



It is the responsibility of design engineer for electrical reticulation design to check civil works design drawings to ensure that there are no conflicts with proposed works. Council will accept no responsibility for any errors or omissions made on your behalf.

Note that approval to undertake works within the road reserve is to be obtained from Council prior to works commencing, by lodging an [Application to Undertake Works on a Road](mailto:mailbox@lvrc.qld.gov.au) to [mailbox@lvrc.qld.gov.au](mailto:mailbox@lvrc.qld.gov.au).

Upon completion of the works, a copy of the Energex Certificate of Supply must be submitted to Council.

Should you require any additional information please contact Council's Technical Planning Officer, Tammy Thomas on 5462 0687.

Yours faithfully

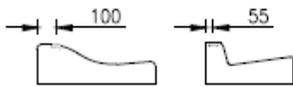
Tammee Van Bael

**ACTING COORDINATOR DEVELOPMENT ASSESSMENT**

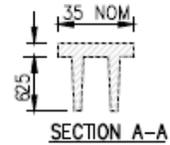
Encl      IPWEQ Standard Drawing for Electrical Reticulation  
              Electrical Reticulation – Residential (Sheets 1 to 4)

Service Corridors	
Location from R.P. Boundary	
Electricity, Gas & Telecommunications	0 - 900
Water/Sewerage	901 - 2100
Telecommunications	2101 - 3000
Location from back of kerb	
Lighting Columns/Trees Gds/SW Drainage	0 - 1000

Locate marker discs directly over service conduits



LOCATION OF MARKERS



SERVICE MARKERS

- W ... Water service
- WM ... Water main
- E ... Electrical service
- T ... Telecommunication service
- I ... Irrigation service
- G ... Gas
- S ... Sewerage main

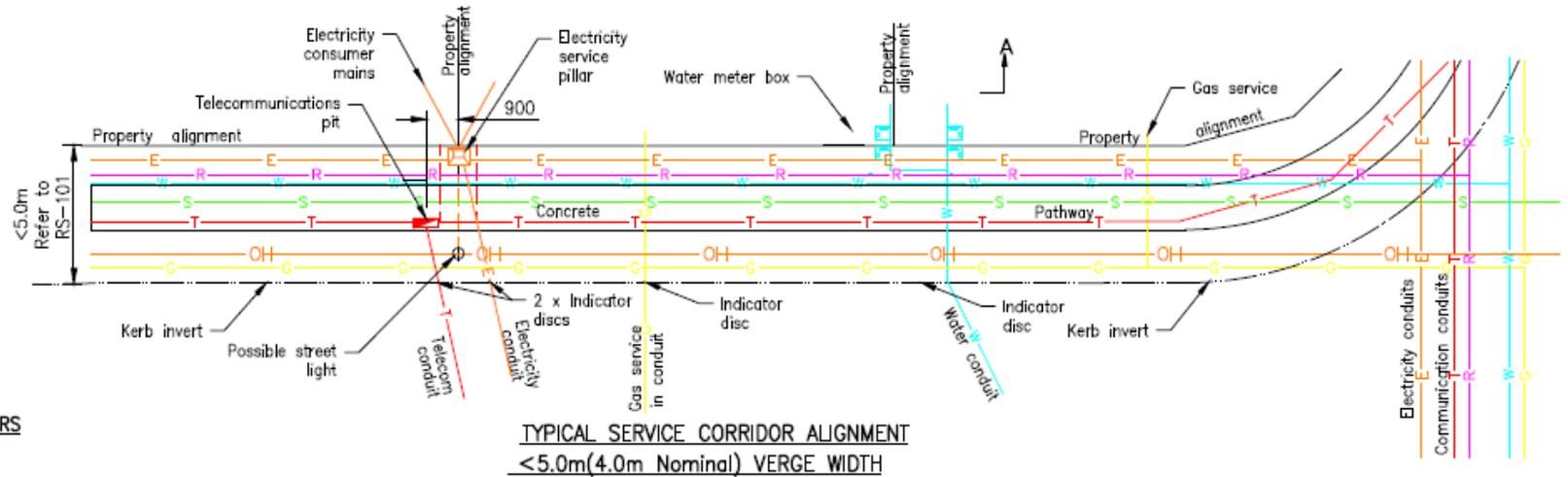
PLAN

TYPICAL BRASS SERVICE MARKER DISCS

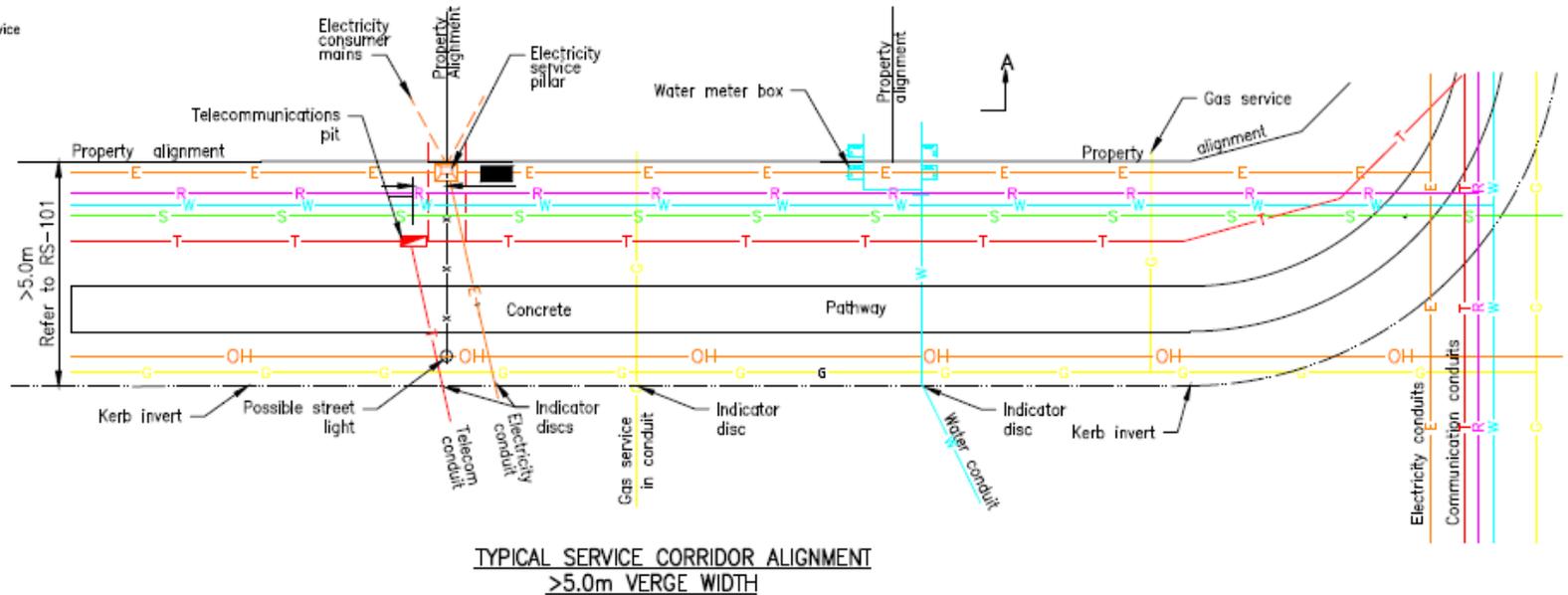
Service Corridors	
Location from R.P. Boundary	
Electricity, Gas & Telecommunications	0 - 1000
Water/Sewerage	1001 - 3000
Telecommunications	3001 - 4000
Trees Gas/SW Drainage	4001 - 5000

LEGEND

Road Crossing Conduits Shown by Dashed Lines	
Gas	G Yellow
Water	W Blue(light)
Recycled Water	R Lilac
Sewer	S Green
Telecommunications	T Red
Electricity	E Orange
Electricity Overhead	OH Orange



TYPICAL SERVICE CORRIDOR ALIGNMENT  
<math><5.0m</math> (4.0m Nominal) VERGE WIDTH



TYPICAL SERVICE CORRIDOR ALIGNMENT  
>math>>5.0m</math> VERGE WIDTH

These drawings have been developed in consultation between the participating Councils.  
BEFORE USE, the user shall confirm that the drawing has been adopted by the appropriate Council.

Rev	DATE	ORIGINAL ISSUE	REVISIONS
F	05/17	Review	
E	06/16	Review	
D	05/14	Review	
C	03/14	Amended Drawing Number	
B	06/09	Review	
A	03/08	ORIGINAL ISSUE	



INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA  
STANDARD DRAWINGS

PUBLIC UTILITIES  
TYPICAL SERVICE CORRIDORS AND ALIGNMENTS

RS-100

SOURCE DOCUMENTS				
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 electric 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.energex.com.au/service\\_providers/technical\\_docs/asp/technical\\_documents.asp](https://swp.energex.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: to be provided by:
TELECOMMUNICATIONS INFRASTRUCTURE	

ROAD LIGHTING INFORMATION				
Design documentation in accordance with the requirements of: Lockyer Valley Regional Council specifications, Gatton Planning Scheme V2				
ARRANGEMENT / GEOMETRY				
Category	Road Name(s)			
FLAG	HOWELL CIRCUIT, NEWLAND PLACE			
Arrangement	Height (m)	Outreach (m)	Upcast	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 GATTON 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@energex.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**  
 BLANNED & 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

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

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:

**Robin Russell & Associates Pty. Ltd.**  
 CONSULTING ENGINEERS - ELECTRICAL

204/6 Sabana Street, Stafford, QLD 4053  
 Tel: (07) 3872 5556  
 Fax: (07) 3872 5566  
 Email: [info@robus.com.au](mailto:info@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>

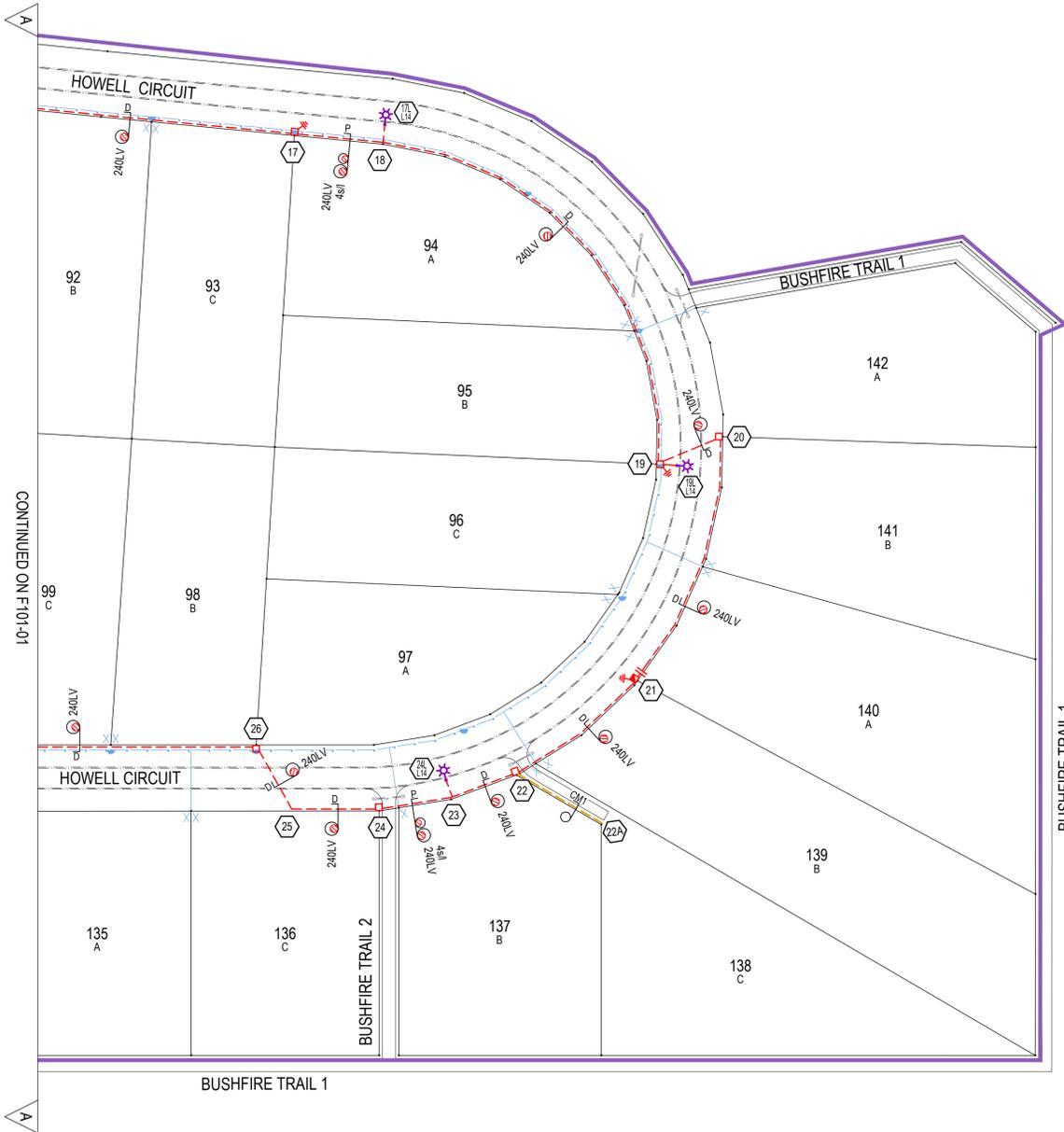
DESCRIPTION  
**ELECTRICITY RETICULATION - RESIDENTIAL**

CLIENT  
 Parklands at Adare Pty Ltd

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

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DRAWING No.	REVISION
<b>F101-01</b>	<b>A</b>
ENERGEX PROJECT No.	SHEET No.
<b>S0107741</b>	<b>1 OF 4</b>

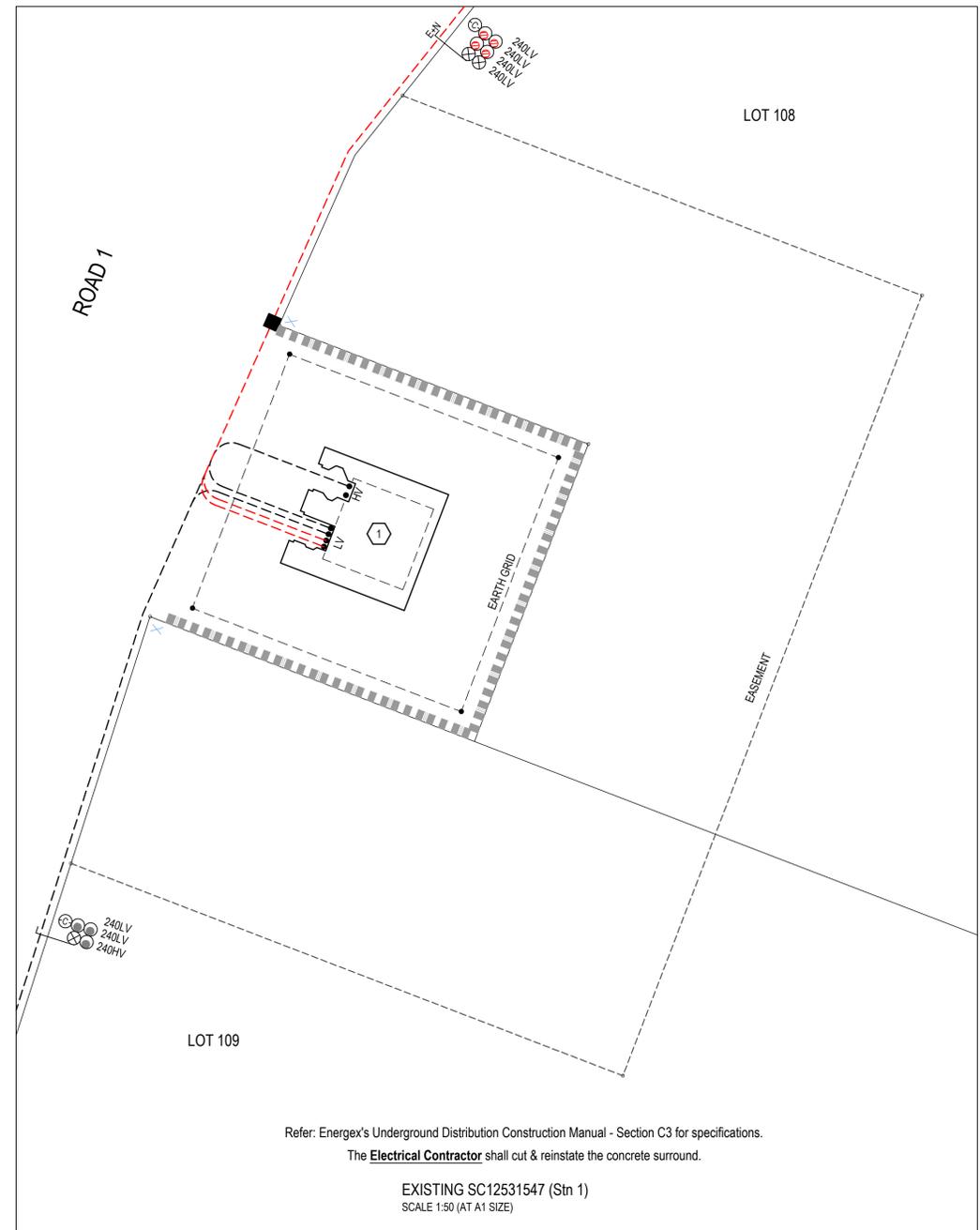


**MATERIALS SUMMARY - S0107741**

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	LVSP1240	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		



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

**Robin Russell**  
& ASSOCIATES PTY. LTD.  
CONSULTING ENGINEERS - ELECTRICAL

SUBDIVISION  
ELECTRICAL SERVICES  
2016 Sabana Street,  
Stafford, QLD 4053  
Tel: (07) 3872 5555  
Fax: (07) 3872 5566  
Email: m@robusr.com.au  
www.robusr.com.au  
A.B.N. 78 010 589 661

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

DESCRIPTION  
**ELECTRICITY RETICULATION - RESIDENTIAL**

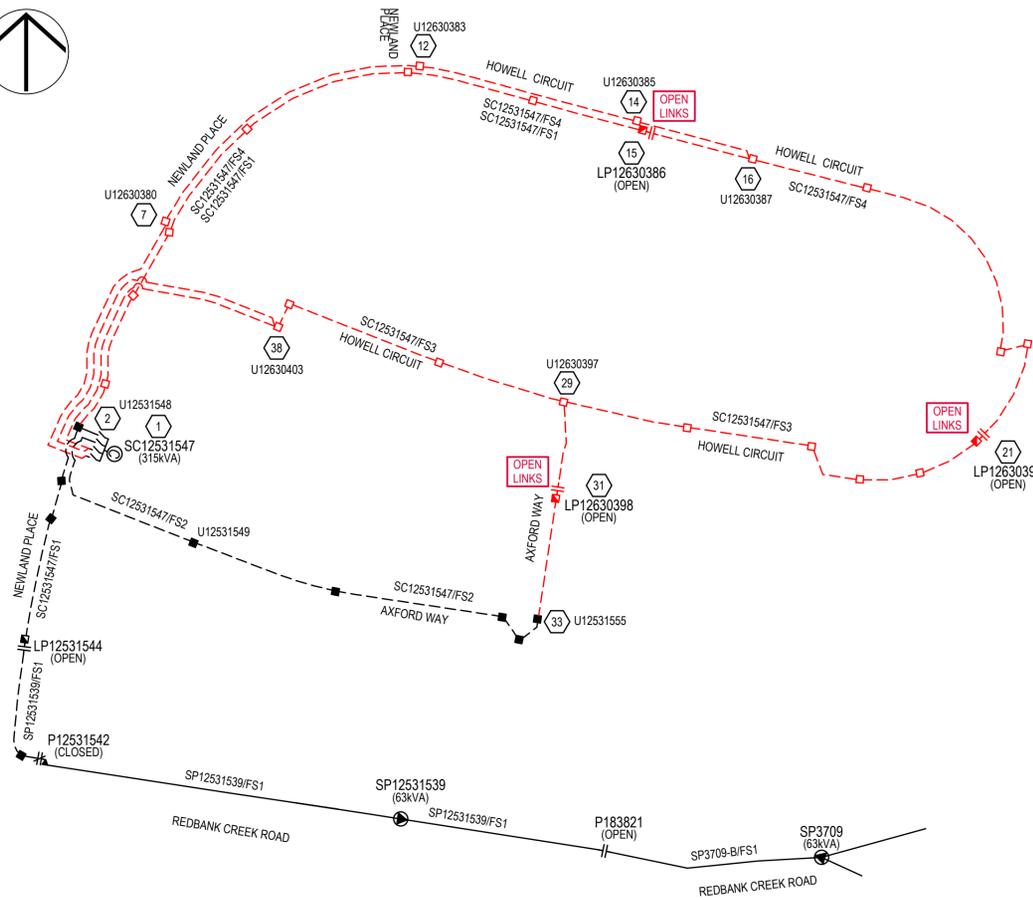
CLIENT  
Parklands at Adare Pty Ltd

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

ENERGEX PROJECT No.  
**S0107741**

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DRAWING No.	REVISION
<b>F101-02</b>	<b>A</b>
SHEET No.	
<b>2</b>	<b>4</b>



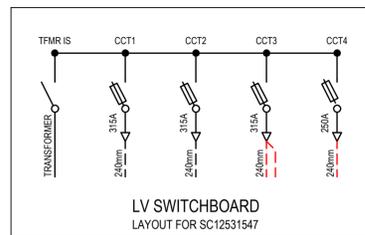
**EXISTING AND PROPOSED LV SCHEMATIC**

SCALE 1:2500  
ALL NEW LV CABLES TO BE 4c 240mm AI XLPE  
(UNLESS NOTED OTHERWISE)

**PHASING**

Transformer - FS#	A	B	C
SC12531547 - FS1	5	6	5
SC12531547 - FS2	4	4	5
SC12531547 - FS3	7	6	6
SC12531547 - FS4	3	3	2
SC12531547 (56)	19	19	18
SP12531539 - FS1	2	3	2
SP12531539 (7)	2	3	2

Calculation may include adjacent stages and may not equal final PMT Count.



**LABELS**

The contractor shall check label details against existing labels on site. Report any discrepancies immediately to the Contract Superintendent.

**EQUIPMENT SCHEDULE**

LOCATION	STN No.	SITE I.D.	EX	REC	IN	SIZE AND DESCRIPTION	COMP ID	CU CODE	QTY	REMARKS	
NEWLAND PLACE	1	SC12531547	*			EXISTING TRANSFORMER TO REMAIN * LV PARALLELLING KIT * 315A LV FUSE LINK FOR LV BOARD * 250A LV FUSE LINK FOR LV BOARD * LV TERMINATION * CONCRETE SURROUND		SC0022544 DSLVF31 DSLVF25 LVPT4C240	1 1 1 2 1	CONTRACTOR TO CUT, REMOVE AND REINSTATE CONVERT TO 3 WAY	
	2	U12531548	*			2 WAY PILLAR 2 WAY TO 3 WAY CONVERT		LVSPC2W3	1		
	3	U12630377		*		2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV	
	4	U12630378		*		1 WAY PILLAR	PI1	LVSP2-6	1	1x240LV	
	6	U12630379		*		2 WAY PILLAR + SL PILLAR MEN EARTHING	PI1	LVSP4-6SL LV4CMEN	1	2x240LV, 1x4SL	
	7	U12630380		*		2 WAY PILLAR - NO FUSES PILLAR MEN EARTHING	PI1	LVSP4-6NF LV4CMEN	1	2x240LV	
	8	U12630381		*		2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV	
	10	U12630382		*		2 WAY PILLAR + SL	PI1	LVSP4-6SL	1	2x240LV, 1x4SL	
	12	U12630383		*		2 WAY PILLAR - NO FUSES PILLAR MEN EARTHING	PI1	LVSP4-6NF LV4CMEN	1	2x240LV	
	13	U12630384		*		2 WAY PILLAR PILLAR MEN EARTHING	PI1	LVSP4-6 LV4CMEN	1	2x240LV	
	14	U12630385		*		2 WAY PILLAR - NO FUSES PILLAR MEN EARTHING	PI1	LVSP4-6NF LV4CMEN	1	2x240LV	
HOWELL CIRCUIT	15	LP12630386		*		2 WAY LINK PILLAR LINK PILLAR MEN EARTHING	PI3	LVSP14-6 LV4CMENLINK	1	2x240LV	
	16	U12630387		*		3 WAY PILLAR	PI1	LVSP9-6	1	3x240LV	
	17	U12630388		*		2 WAY PILLAR + SL PILLAR MEN EARTHING	PI1	LVSP4-6SL LV4CMEN	1	2x240LV, 1x4SL	
	19	U12630389		*		2 WAY PILLAR + SL PILLAR MEN EARTHING	PI1	LVSP4-6SL LV4CMEN	1	2x240LV, 1x4SL	
	20	U12630390		*		2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV	
	21	LP12630391		*		2 WAY LINK PILLAR LINK PILLAR MEN EARTHING	PI3	LVSP14-6 LV4CMENLINK	1	2x240LV	
	22	U12630392		*		2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV	
	24	U12630393		*		2 WAY PILLAR + SL	PI1	LVSP4-6SL	1	2x240LV, 1x4SL	
	26	U12630394		*		2 WAY PILLAR	PI1	LVSP4-6	1	2x240LV	
	27	U12630395		*		2 WAY PILLAR PILLAR MEN EARTHING	PI1	LVSP4-6 LV4CMEN	1	2x240LV, 1x16LV	
	28	U12630396		*		CROSS-ROAD PILLAR	PI1	LVSP12-6	1	1x16LV	
	29	U12630397		*		3 WAY PILLAR + SL	PI1	LVSP9-6SL	1	3x240LV, 1x16LV, 1x4SL	
	31	LP12630398		*		2 WAY LINK PILLAR LINK PILLAR MEN EARTHING	PI3	LVSP14-6 LV4CMENLINK	1	2x240LV	
	AXFORD WAY	33	U12531555	*			1 WAY PILLAR 240mm 4 CORE CABLE LV LUG SET		LVSP240	1	CONVERT TO 2 WAY 1x240LV
		34	U12630399		*		CROSS-ROAD PILLAR	PI1	LVSP12-6	1	1x16LV
	HOWELL CIRCUIT	35	U12630400		*		2 WAY PILLAR PILLAR MEN EARTHING	PI1	LVSP4-6 LV4CMEN	1	2x240LV, 1x16LV
		36	U12630401		*		CROSS-ROAD PILLAR	PI1	LVSP12-6	1	1x16LV
37		U12630402		*		2 WAY PILLAR PILLAR MEN EARTHING	PI1	LVSP4-6 LV4CMEN	1	2x240LV	
38		U12630403		*		3 WAY PILLAR	PI1	LVSP9-6	1	3x240LV	

CIRCUIT No.	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
TRANSF. ISOLATOR	80x35	WB	6	TRANSFORMER ISOLATOR
1	80x35	WB	5	TO NEWLAND PLACE LP12531544 / HOWELL CIRCUIT LP12630386 AND SERVICES
2	80x35	WB	5	TO AXFORD WAY LP12630398 AND SERVICES
3	80x35	WB	5	TO HOWELL CIRCUIT U12630403 DIRECT THEN AXFORD WAY LP12630398 / HOWELL CIRCUIT LP12630391 AND SERVICES
4	80x35	WB	5	TO NEWLAND PLACE U12630387 DIRECT VIA NEWLAND PLACE U12630380 / U12630383 / U12630385 THEN HOWELL CIRCUIT LP12630391 / HOWELL CIRCUIT LP12630386 AND SERVICES

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
LHS	150x50	WB	5	TO NEWLAND PLACE SC12531547 / HOWELL CIRCUIT LP12630386 AND SERVICES
RHS	150x50	WB	5	[EXIST]

LHS & RHS AS VIEWED FROM ROAD TO PILLAR

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION	LABEL LOCATION	LABEL DESCRIPTION
120x50	YELLOW BACKGROUND BLACK LETTERS	5	MEN EARTHING PILLAR NO LV FUSES	OUTSIDE OF PILLAR	LV EARTH

INSTALL LABEL EXTERNALLY ON PILLAR ABOVE THE SITE NUMBER.

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
LHS	150x50	WB	5	TO NEWLAND PLACE SC12531547 / HOWELL CIRCUIT LP12630391 AND SERVICES
RHS	150x50	WB	5	TO NEWLAND PLACE SC12531547 / NEWLAND PLACE LP12531544 AND SERVICES

LHS & RHS AS VIEWED FROM ROAD TO PILLAR

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
LHS	150x50	WB	5	TO NEWLAND PLACE SC12531547 / HOWELL CIRCUIT LP12630391 AND SERVICES
RHS	150x50	WB	5	TO NEWLAND PLACE SC12531547 AND SERVICES

LHS & RHS AS VIEWED FROM ROAD TO PILLAR

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION	LABEL LOCATION	LABEL DESCRIPTION
120x50	YELLOW BACKGROUND BLACK LETTERS	5	MEN EARTHING PILLAR NO LV FUSES	OUTSIDE OF PILLAR	LV EARTH

INSTALL LABEL EXTERNALLY ON PILLAR ABOVE THE SITE NUMBER.

CIRCUIT DIRECTION	LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION
LHS	150x50	WB	5	TO NEWLAND PLACE SC12531547 / HOWELL CIRCUIT LP12630386 AND SERVICES
RHS	150x50	WB	5	TO NEWLAND PLACE SC12531547 / AXFORD WAY LP12630398 AND SERVICES

LHS & RHS AS VIEWED FROM ROAD TO PILLAR

LABEL SIZE	LABEL COLOUR	LETTER SIZE	LABEL INFORMATION	LABEL LOCATION	LABEL DESCRIPTION
120x50	YELLOW BACKGROUND BLACK LETTERS	5	MEN EARTHING PILLAR NO LV FUSES	OUTSIDE OF PILLAR	LV EARTH

INSTALL LABEL EXTERNALLY ON PILLAR ABOVE THE SITE NUMBER.



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

CURRENT REVISION CHANGES:

**Robin Russell**  
& ASSOCIATES PTY. LTD.  
CONSULTING ENGINEERS - ELECTRICAL

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Fax: (07) 3872 5566  
Email: m@robruss.com.au  
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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**

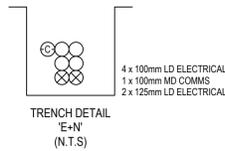
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DRAWING No.	REVISION
<b>F101-03</b>	<b>A</b>
ENERGEX PROJECT No.	SHEET No.
<b>S0107741</b>	<b>3 OF 4</b>

URD CONDUIT SCHEDULE - FOOTPATHS - BY ELECTRICAL CONTRACTOR

LOCATION	STATIONS FROM - TO	CONDUIT LENGTH (m)						X-SECTION (m)				DRAW WIRE	KERB MARKERS	REMARKS
		50mm HD	No.	100mm LD	No.	125mm LD	No.	EQL 100mm COMMS MD	PVC CABLE PROTECTION (m)	EXCAV /TAPE	TRENCH DETAIL			
NEWLAND PLACE	2 3													EXISTING CONDUITS
	3 4			67	4	67	2	67		67	E+N	483		
	4 38			108	2					108	E	220		
	5 6L	8	1							8	O	10		
	6 7			3	2	3	2	3		3	N	25		
	7 8			90	2	90	2	90		90	N	460		
	8 9			113	2	113	2	113		113	N	575		
	9 10	11	1	11	2	11	2	11		11	Z	78		
	9 10L	5	1							5	O	7		
	10 12			3	2					3	E	10		
HOWELL CIRCUIT	12 13			89	2					89	E	182		
	13 14			78	2					78	E	160		
	14 15			4	2					4	E	12		
	15 16			81	2					81	E	166		
	16 17			84	1					84	D	86		
	17 18	28	1	28	1					28	P	60		
	18 17L	6	1							6	O	8		
	18 19			143	1					143	D	145		
	19 19L	6	1							6	O	8		
	20 21			80	1					80	D	82		
	21 22			47	1					47	D	49		
	22 23			21	1					21	D	23		
	23 24	23	1	23	1					23	P	50		
	23 24L	6	1							6	O	8		
	24 25			27	1					27	D	29		
	26 27			90	1					90	D	92		
	27 29			90	1					90	D	92		
29 29L	7	1							7	O	9			
29 35			93	1					93	D	95			
AXFORD WAY	30 31			40	1				40	D	42			
	31 32			44	1				44	D	46			
32 33													EXISTING CONDUITS	
35 37			114	1					114	D	116			
TOTAL			100m		2352m		566m		284m		38m	1609m		3428m

- NOTES:  
 1. CONDUITS SHALL BE INSTALLED WITHIN A CORRIDOR 300-900mm FROM PROPERTY ALIGNMENT, IN ACCORDANCE WITH ENERGEX UNDERGROUND DISTRIBUTION CONSTRUCTION (UDC) MANUAL.  
 2. FOOTPATH CONDUITS SHALL HAVE MINIMUM 700mm COVER, REGARDLESS OF ENERGEX'S REQUIREMENTS.  
 3. CONNECT EXISTING CONDUITS, INCLUDING ROAD CROSSING CONDUITS, TO NEW FOOTPATH CONDUITS.  
 4. TELECOMMUNICATION CONDUITS SHALL BE INSTALLED ABOVE THE ENERGEX CONDUITS IN A JOINT USE TRENCH ARRANGEMENT.



PROJECT SPECIFIC NON-STANDARD ENERGEX TRENCH DETAILS

UNDERGROUND CABLE SCHEDULE

LOCATION	STATIONS FROM - TO	VOLTS	EX	REC	IN	CABLE SIZE/TYPE	CU CODE	CABLE LENGTH (m)		REMARKS	
								NEW	REC		
NEWLAND PLACE	1 7	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	173			
	1 38	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	229		PARALLEL DIRECT TO STN 38	
	1 38	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	229		PARALLEL DIRECT TO STN 38	
	2 3	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	41			
	3 4	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	77			
	4 6	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	61			
	6 6L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	37			
	6 8	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	103			
	7 12	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	233			
	8 10	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	136			
HOWELL CIRCUIT	10 10L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	24			
	10 13	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	102			
	12 14	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	181			
	13 15	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	91			
	14 16	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	94			
	15 16	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	91			
	16 17	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	94			
	17 17L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	42			
	17 19	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	185			
	17 19L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	14			
AXFORD WAY	19 20	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	27			
	20 21	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	90			
	21 22	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	56			
	22 24	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	52			
	24 24L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	37			
	24 26	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	57			
	26 27	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	101			
	27 28	LV			*	16mm² Cu 4C XLPE/PVC	SCS820365	29			
	27 29	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	101			
	29 29L	SL			*	4mm² Cu 2C PVC/PVC	LVC24PVPV	13			
HOWELL CIRCUIT	29 31	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	79			
	29 34	LV			*	16mm² Cu 4C XLPE/PVC	SCS820365	34			
	29 35	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	104			
	31 33	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	93			
	35 36	LV			*	16mm² Cu 4C XLPE/PVC	SCS820365	33			
	35 37	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	126			
	37 38	LV			*	240mm² Al 4C XLPE/PVC	SCS820364	25			
	TOTALS	(Variance 5%)					240mm² Al 4C XLPE/PVC	SCS820364	3031		
							16mm² Cu 4C XLPE/PVC	SCS820365	96		
							4mm² Cu 2C PVC/PVC	LVC24PVPV	167		

- NOTES:  
 1. THE CONTRACTOR SHALL MEASURE ACTUAL CABLE LENGTHS REQUIRED, AFTER INSTALLATION OF CONDUITS, THEN ORDER CABLE ACCORDINGLY.

URD CONDUIT SCHEDULE - ROADWAYS - BY CIVIL CONTRACTOR

LOCATION	STATIONS FROM - TO	CONDUIT LENGTH (m)						X-SECTION (m)				DRAW WIRE	KERB MARKERS	REMARKS	
		50mm HD	No.	100mm LD	No.	125mm LD	No.	EQL 100mm COMMS MD	PVC CABLE PROTECTION (m)	EXCAV /TAPE	TRENCH DETAIL				
NEWLAND PLACE	4 5			32	2	32	2	32		32	N	170	2		
	5 6	21	1	21	2	21	2	21		21	Z	138	2		
HOWELL CIRCUIT	10 11			38	1	38	2	38		38	L	160	2		
	19 20			20	1					20	D	22	2		
	25 26			22	1					22	D	24	2		
	27 28			22	1					22	D	24	2		
	29 30			30	1					30	D	32	2		
	29 34			26	1					26	D	28	2		
	35 36			25	1					25	D	27	2		
	37 38			18	1					18	D	20	2		
	TOTAL			21m		307m		182m		91m		254m	254m		645m

- NOTES:  
 1. ROAD CROSSING CONDUITS SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE ENERGEX UNDERGROUND DISTRIBUTION CONSTRUCTION (UDC) MANUAL.  
 2. ROAD CROSSING CONDUITS SHALL HAVE A MINIMUM COVER OF 800mm AT ALL PLACES UNDER THE ROAD, EXCEPT UNDER STATE-CONTROLLED "MAIN" ROADS, WHERE CONDUITS SHALL HAVE A MINIMUM COVER OF 1200mm.  
 3. CONDUITS SHALL EXTEND TO WITHIN 900mm OF PROPERTY ALIGNMENT; PVC PROTECTIVE COVER STRIPS SHALL BE LAID ABOVE ALL ROAD-CROSSING CONDUITS.  
 4. REFER ENERGEX UDC MANUAL SECT. C2 FOR CROSS-SECTION DETAILS.  
 5. BRASS "E" MARKERS SHALL BE INSTALLED IN KERBS DIRECTLY ABOVE ELECTRICITY CONDUITS.

CONDUIT BENDING RADIUS (mm)			
LOCATION	50mm Ø	100mm Ø	125mm Ø
HORIZONTAL BEND	600	1830	1830
PILLAR - MAIN CABLE	-	1200	-
PILLAR - X-ROAD CABLE	-	450	-
PILLAR - STREET LIGHT CABLE	600	-	-
STREET LIGHT	300	-	-
POLE TERMINATION	300	1200	1830
TRANSFORMER	no bends required		

CONSUMER CONDUIT SCHEDULE - BY CIVIL CONTRACTOR

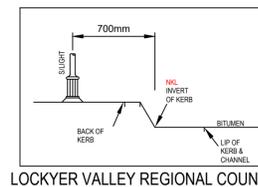
LOCATION	STATIONS FROM - TO	ELECTRICAL (m)					TRENCH DETAIL	REMARKS
		32HD	40HD	50HD	63HD	No.		
HOWELL CIRCUIT	22 22A			34		1	CM1	
TOTAL				34m				

- NOTES:  
 1. CONSUMER'S CONDUITS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF DRIVEWAYS TO REAR LOTS.  
 2. ELECTRICAL CONDUIT SHALL BE ORANGE, HEAVY DUTY TO AS/NZS 2053:2001, AT MINIMUM DEPTH OF 500mm.  
 3. COMMUNICATIONS CONDUIT SHALL BE WHITE, MEDIUM DUTY TO AS/NZS 1477:2017, LABELLED: "COMMUNICATIONS", MINIMUM BEND RADIUS 300mm, AT MINIMUM DEPTH OF 300mm.  
 4. MINIMUM CLEARANCE OF 100MM SHALL BE MAINTAINED BETWEEN ALL SERVICES.  
 5. MARK THE END OF ALL CONSUMER'S CONDUITS, BY EXTENDING THE WARNING TAPE UP TO GROUND LEVEL.  
 6. ALL CONDUITS TO BE MANDREL-TESTED, SEALED, AND HAVE DRAW ROPES INSTALLED.  
 7. CONDUITS TO EXTEND TO FRONT PROPERTY ALIGNMENT.  
 8. ELECTRICAL CONTRACTOR SHALL EXTEND CONDUITS THROUGH FROM BOUNDARY TO PILLAR  
 9. REFER TO TELECOMMUNICATIONS CONDUIT PLAN FOR DETAILS OF TELECOMMUNICATIONS CONDUIT TO BE INSTALLED.

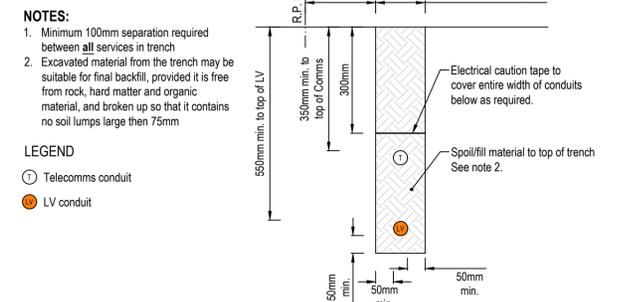
RATE 2 - STREETLIGHT SCHEDULE

LOCATION	STN No.	SITE ID (POLE No.)	COMP ID	POLE OR COMPONENTS				LANTERN						OUTREACH BRACKET						REMARKS
				EX (m)	REC (m)	ER (m)	POLE CODE	ALIGN (mm)	COMP ID	EX	RECOVER LUMIN	ERECT CUST	DATE ENERG	LUMINAIRE CODE	EX (m)	REC (m)	ER (m)	CU ID	UPCAST ANGLE	
NEWLAND PLACE	6L	P12630404	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1									0°	5.1	BLACK AVENUE
	10L	P12630405	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1									0°	5.1	BLACK AVENUE
HOWELL CIRCUIT	17L	P12630406	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1									0°	5.1	BLACK AVENUE
	19L	P12630407	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1									0°	5.1	BLACK AVENUE
	24L	P12630408	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1									0°	5.1	BLACK AVENUE
	29L	P12630409	P01			4.5m BPM	SLNOS3CI	700 NKL	SL1									0°	5.1	BLACK AVENUE

- NOTES:  
 1. ALL LIGHTS TO BE CONNECTED ON EQL RATE 2.  
 2. CHECK CLEAR OF ALL SERVICES BEFORE EXCAVATING.  
 3. "NKL" ALIGNMENT MEASURED FROM NOMINAL KERB LINE TO CENTRE OF POLE.



LOCKYER VALLEY REGIONAL COUNCIL STREETLIGHT ALIGNMENT DETAIL NTS



- NOTES:  
 1. Minimum 100mm separation required between all services in trench  
 2. Excavated material from the trench may be suitable for final backfill, provided it is free from rock, hard matter and organic material, and broken up so that it contains no soil lumps larger than 75mm

- LEGEND  
 ① Telecomms conduit  
 ● LV conduit

JOINT USE CONSUMERS TRENCH - CM1 NOT TO SCALE

DATE	REV	REVISION	APP.	DATE	REV	REVISION	APP.	CURRENT REVISION CHANGES:	SUBDIVISION ELECTRICAL SERVICES	COUNCIL	LOCKYER VALLEY	DWT REV.	V53-3 20210504	DESCRIPTION	LOCATION	DRAWING No.	REVISION
14/2/2023	A	PRELIMINARY ISSUE	RR														