APPENDIX 6. SERVICES AND INFRASTRUCTURE INVESTIGATIONS

This investigation report can be viewed as a separate document on the Have Your Say Page of the SA Planning Portal at www.plan.sa.gov.au/codeamendments

Herriot consulting
civil & structural engineers

Engineering Infrastructure Assessment

Spencer Highway, WALLAROO

Proposed Commercial and Residential Precinct

Rezoning Code Amendment

Prepared for

SILVERGATE (SA) Pty Ltd

April 2024

Revision	Date	Issue	Author	Reviewed
A	22 March 2024	DRAFT – For information & comment	CB / BM	BM / SK
B	25 March 2024	DRAFT – For information & comment	CB / BM	BM / SK
C	16 April 2024	DRAFT – document amended	CB / BM	BM / SK

Disclaimer

This report has been prepared in accordance with the best available information at the time. Every effort has been made to describe the background associated with this particular site and any infrastructure conclusions and preliminary recommendations stated in this report apply strictly to this site only.

The extent and serviceability of the existing physical infrastructure will be subject to further detailed investigations by Herriot Consulting if State and Local Government approve the Code Amendment and a formal Planning Application is activated.

Registered Office I Business Address
1/ 154 Fullarton Road, Rose Park SA 5067
Telephone (08) 8431 4555

Cover Page Illustration

The image is acquired from https://www.youtube.com/watch?v=OPYB_aMxnvw).

CONTENTS

Glossary of Terms

Abbreviation	Explanation
BYDA	Before You Dig Australia
NBN CO	National Broadband Network
SAPN	South Australia Power Networks
TELSTRA	Telstra Corporation Limited
SA Water	SA Water Corporation

1 BACKGROUND

Herriot Consulting has been engaged by SILVERGATE (SA) PTY LTD ('the Designated Entity') to provide preliminary technical advice to the Wallaroo Code Amendment ('Code Amendment').

This document will assess the suitability of existing and proposed physical infrastructure to service approximately 107 hectares of land. The subject of the Code Amendment (referred to as the 'affected area'). The Designated Entity has requested the subject 'Rural Land' to be rezoned under current planning policy to Employment Zone (Commercial) and Neighbourhood Zone (Residential) use.

For the purpose of this report preliminary infrastructure advice will be identified for the following planning policy areas:

- **Neighbourhood Zone** (residential) of approximately 30ha in size with an estimated yield of up to 450 residential allotments.
- **Employment Zone** (bulky goods/warehouse) of approximately 70ha in size with an estimated leasable floor area of between 225,000 – 250,000 square metres.

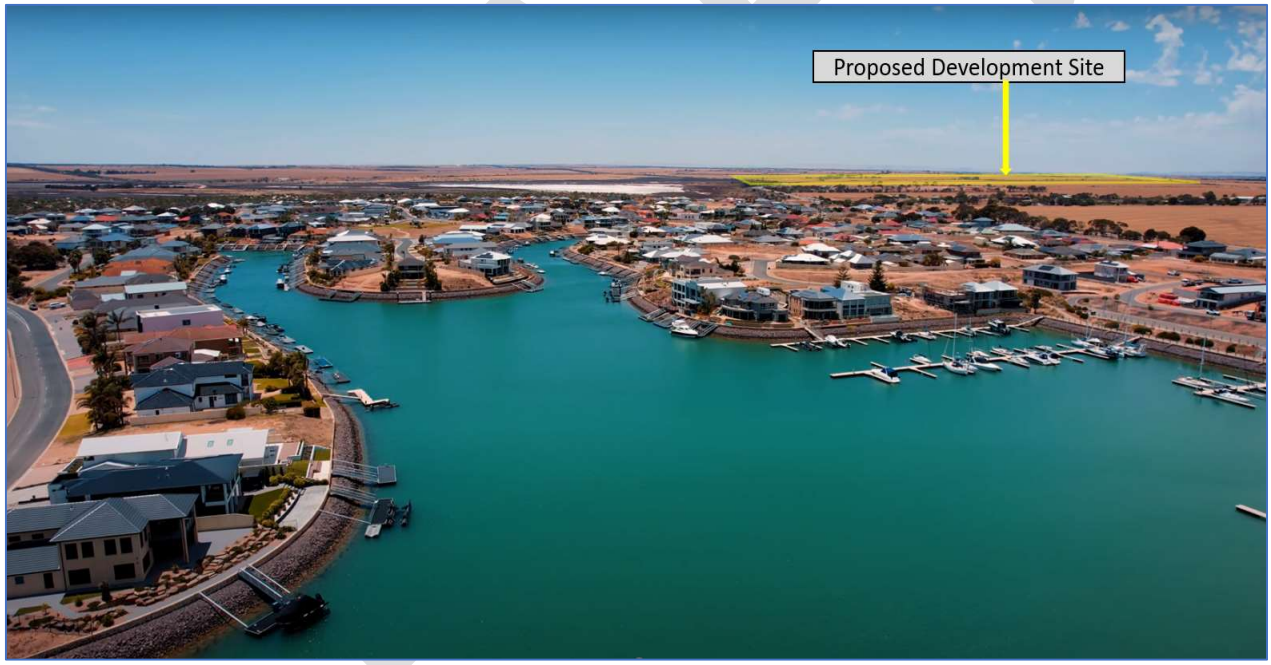


Figure 1: Wallaroo Marina Drone View from Official Website: https://www.youtube.com/watch?v=OPYB_aMxnvw). Refer Appendix A *- Overall Site Plan for further location detail*

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

1.1 SITE DESCRIPTION

The affected area of approximately 107 hectares is located in the Rural Zone and generally bounded by Spencer Highway to the north, Rural Living Zone to the South, Rural Zone to the East and Neighbourhood Zone to the west towards the existing township of Wallaroo. The surrounding area in vicinity of the affected area is occupied by open farming / agricultural lands, and existing rural residential dwellings.

The affected area is bounded by Department of Infrastructure and Transport (DIT) sealed Spencer Highway, Council owned unsealed Heath Road, Rosslyn Road, Ellis Road and sealed Bowman Road. Rucioch Road is an unmade road reserve which runs east to west on the boundary between the proposed Employment and Neighbourhood zones.

The affected area falls into two topographical catchments with localised high point ridges and generally grades to natural low points in each of the proposed Neighbourhood and Employment Zones. The development site has significant, but even, gradient which allows for smooth transitions between different elevations. Based on the topographic survey, the natural ground elevations within the Employment Zone may vary between 10m and 35m, exhibiting an average slope of 2.5% (1 in 40) falling generally towards the north. In contrast, the Neighbourhood Zone displays ground elevations ranging from 26m to 32m, with a milder average slope of 1% (1 in 100) falling in a westerly direction towards the site boundary abutting.

1.2 GEOLOGY AND SOIL

The general soil description for the affected area consists mainly of a “Shallow Calcareous loam on Calcrete” as shown in Figure 2. The typical characteristic features of this soil are known as:

- Mixture of sand, silt and clay particles.
- High concentration of calcium carbonate (higher pH level), this may result in alkaline soil which can affect nutrient availability and plant growth.
- The soil profile is typically shallow due to the presence of calcrete.
- Some calcareous soils may exhibit expansion and shrinkage behaviours due to changes in moisture content, which can affect the integrity of construction projects.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

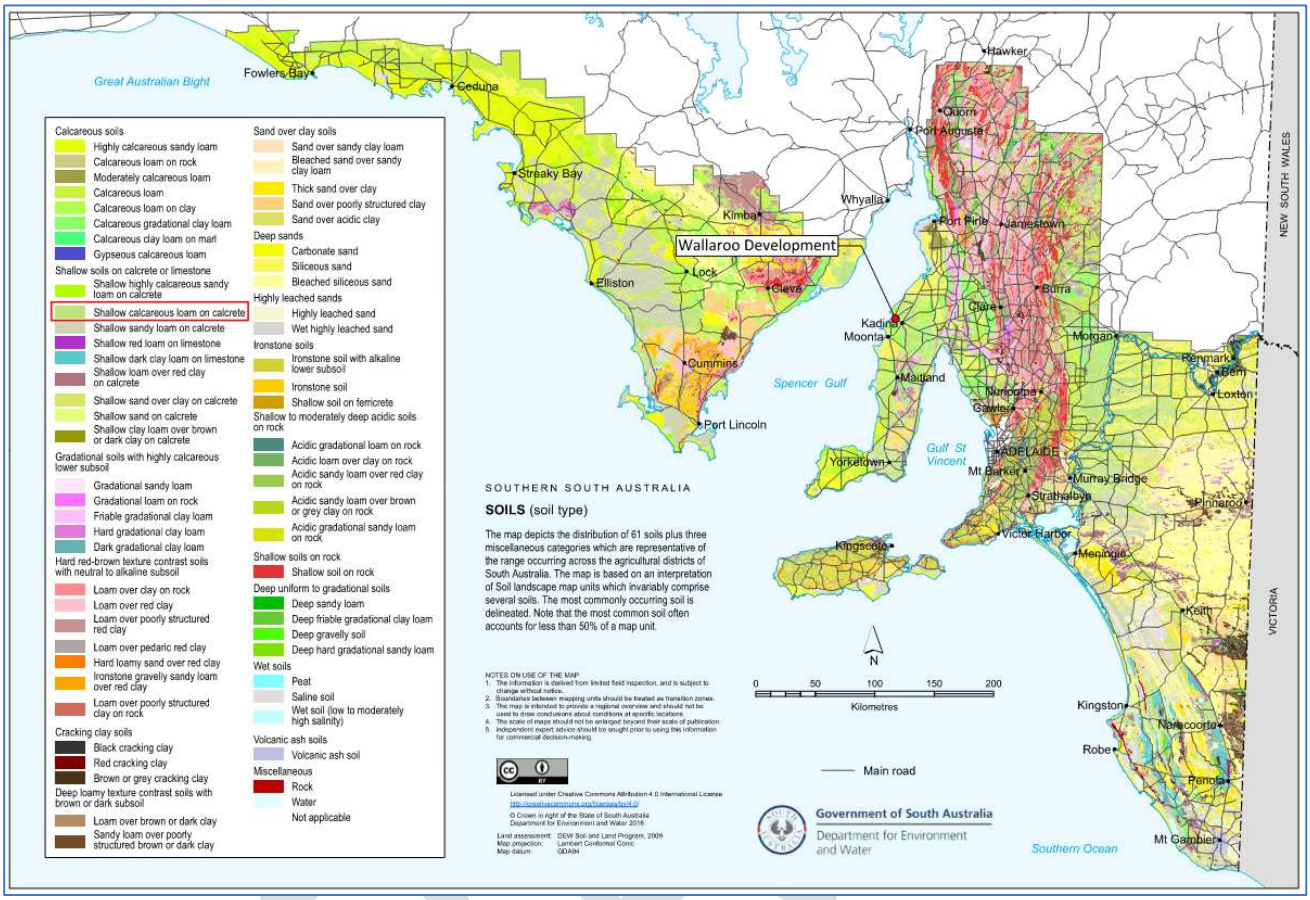


Figure 2: Wallaroo Typical Soil Type

2 INFRASTRUCTURE AUTHORITIES

The following key Local Government and Service Agencies have been consulted to acquire the BYDA background information associated with the Code Amendment. The information provided by the various Authorities is of a preliminary nature.

Refer **Appendix - C** for BYDA responses from the following authorities.

i. Copper Coast Council Infrastructure - Sewer (CWMS) and Stormwater Infrastructure
ii. Potable Water - SA Water Corporation
iii. Gas Infrastructure – APA Group
iv. Electrical - SA Power Networks (SAPN)
v. Communication – NBN and Telstra

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

3 STORMWATER MANAGEMENT

The future stormwater management for the affected area will involve the strategic positioning of stormwater detention basins and wetlands. The investigation has identified two natural low points, one at the northern boundary and one at the south-western boundary, on the affected area that would be suitable for location of future detention basins as depicted in Figure 3. The future stormwater strategy would maximize sustainability and also effectively addresses the functional requirements of future development. Preliminary assessment of cost-effective stormwater harvesting, water quality, and compliance with council stormwater criteria will be considered further during the Planning Application phase. Collaboration with the Copper Coast Council is essential to address regulatory requirements to ensuring effective stormwater Water Sensitive Urban Design (WSUD) including:

- Management of stormwater quality and quantity associated with the catchment. Each of the topographical catchments will incorporate its own detention basin and swales to meet design requirements for future development.
- Assessment of the existing Council stormwater pipe assets (Refer to **Figure 2**) and swales to determine their capacity to effectively accommodate the discharge of stormwater for future development during minor and major stormwater events.
- Future development should not pose any detrimental effect to Council's downstream infrastructure and shall meet Council's water quality and quantity guidelines.

3.1 EXTERNAL CATCHMENT, PRE AND POST DEVELOPMENT DISCHARGE

Two external catchments feed into the ridge of the affected area, as illustrated in **Appendix B**. Stormwater from the external upstream catchments would be captured and managed (routed) through or adjacent the subject land. Refer to **Appendix B** for external catchment plan.

Further assessment of the regional flood data and associated information will be undertaken as part of the Planning Application phase to ascertain the extent of regional flood flow occurring across the site. Preparation of a Stormwater Management Plan (SMP) will provide a comprehensive understanding of potential flood risks and inform appropriate mitigation measures for future development.

The SMP will demonstrate how Council's requirement that peak post-development flows discharging from the affected area will not exceed the pre-development flows up to and including the critical 1% AEP (Annual Exceedance Probability) event.

A preliminary assessment indicates that during the critical 1% AEP event, an area of approximately 2.10 hectares will be necessary for the on-site detention basin to manage stormwater runoff from the Employment Zone and that a basin of approximately 1.00 hectare will be necessary to service the Neighbourhood Zone. Refer to Figure 3 for more details.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

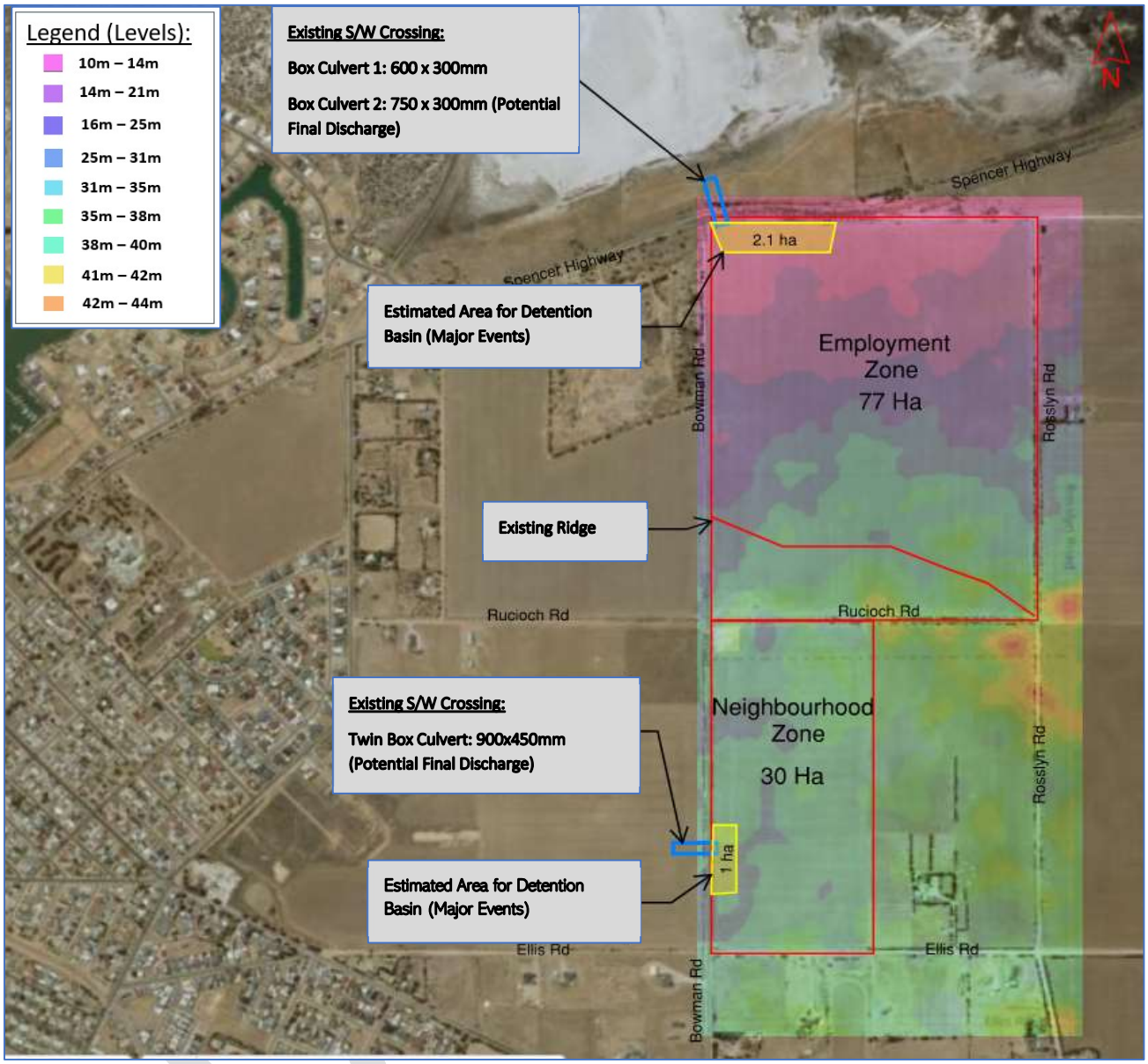


Figure 3: Elevation Map at Development Site (acquired from Official Website: http://spatialwebapps.environment.sa.gov.au/naturemaps/?locale=en-us&viewer=naturemaps)

3.2 STORMWATER DRAINAGE

The drainage system for future development shall be designed in accordance with the requirements of the following current edition publications:

- Australian Rainfall and Runoff
- National Plumbing & Drainage Code - AS3500
- Copper Coast Council Design Guidelines

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

3.3 STORMWATER DESIGN CRITERIA

The stormwater drainage design should cater for:

- 10% AEP (Annual Exceedance Probability) critical duration storm to be contained within the minor underground drainage network for residential areas.
- 1% AEP critical duration storm is to be conveyed via overland flow paths within designated drainage reserves or road reserves.

The 'DRAINS' modelling platform will provide analysis for the site internal drainage network in accordance with key assumptions and Council's stormwater design guidelines to provide suitable stormwater management outcomes.

3.4 STORMWATER QUALITY ASSESMENT

Council's Stormwater Management Design Guideline has advised that Council would seek to follow the WSUD principles including pollution reduction objectives. Stormwater quality treatment measures are to be integrated with the proposed drainage systems. As follows:

- In-line stormwater pipe system Gross Pollutant Traps (GPT)
- Rainwater tanks for each residential dwelling plumbed for water reuse (toilet flushing/ laundry).

The pollutant reduction objectives of the WSUD Principles are to achieve the following minimum reductions in total pollutant load, in comparison to untreated stormwater runoff:

- Total suspended solids : 80% reduction
- Total phosphorus : 60% reduction
- Total nitrogen : 45% reduction
- Litter/ gross pollutants : 90% reduction

The above pollutant reduction objectives will be adopted for future development as per the Council's stormwater design guidelines.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

4 POTABLE WATER

4.1 EXISTING POTABLE WATER

The following information on the existing potable water infrastructure was sourced from Before You Dig Australia (BYDA) and correspondence with SA Water. A single 100mm diameter cast iron cement lined (CICL) potable water main is located on the northern side of the affected area in Spencer Highway. This is the only potable water service located within close proximity to the development. This water main is considered significantly undersized for future development anticipated by the Code Amendment.

4.2 SA WATER PLANNING

SA Water System Planning will need to undertake preliminary investigations to confirm the potable water peak demand for future development. This planning phase for future development will seek to develop a framework that ensures resources and the water infrastructure installed is managed efficiently and that the Authority will work closely with the Project Developer to future proof development with appropriately sized mains water infrastructure.

4.3 PROVISION OF FUTURE INFRASTRUCTURE

Future commercial and residential development will need closer assessment of the infrastructure requirements during the Planning and Detailed Design phases by SA Water and Herriot Consulting. Future development will require a significant extension of the existing SA Water system network including potable water mains for drinking and firefighting purposes. All water infrastructure will be designed to the requirements of SA Water Corporation and the relevant Australian Standards.

The following is a general expectation of potable water main upgrades for the development:

COMMERCIAL PRECINCT

- Install approximately 1,700m of 250-300mm PVC approach water mains. (Refer to **Figure 6)**
- Installation of 200mm and 150mm internal potable water mains to service the site will be subject to the demands of the commercial and light industrial business needs.

RESIDENTIAL PRECINCT

- Install approximately 500m of 250-300mm PVC approach water mains. (Refer to **Figure 6**)
- Residential allotments will require 200mm, 150mm and 100mm PVC internal potable water mains to cater for household use and firefighting requirements.

4.4 WATER INFRASTRUCTURE AUGMENTATION

Augmentation requirements would be expected to be incremental based on rate of development and informed by SA Water.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

5 WASTEWATER INFRASTRUCTURE

5.1 EXISTING WASTEWATER INFRASTRUCTURE

The existing township of Wallaroo is currently serviced by a Community Wastewater Management System (CWMS), inclusive of wastewater collection, treatment and disposal reuse. The CWMS is owned and operated by Copper Cost Council. The majority of the wastewater generated by the township gravitates to a system of pump stations and eventually discharges into Council's wastewater treatment plant (WWTP).

5.2 WASTEWATER MASTER PLANNING

Investigation and detailed planning of wastewater disposal loadings will form part of the development planning and detailed design for future development. These investigations will discuss in detail the existing Council's wastewater system and current load demands together with future estimated wastewater loads anticipated by future development envisaged by the Code Amendment.

Wastewater management and master planning needs to consider several factors including but not limited to:

- General review of the township current wastewater loads prepared by Council's Wastewater Engineering Consultant to get an understanding of the existing system.
- Inspect the existing Council Wastewater Management System (CWMS) for suitable connection point.
- Provide detailed expected daily wastewater loading of development for input into the Council system modelling by the Council's Wastewater Engineering Consultant.
- Provide Council with detailed information relating to new development gravity wastewater system and any potential new pump station facilities, existing pump station upgrades in consultation the Council's Wastewater Engineering Consultant and potential rising main outfall to the Council wastewater system.

5.3 NEW WASTEWATER INFRASTRUCTURE

Along with the township expansion of the new Commercial and Residential precincts will come requirements to extend the existing wastewater network to development whether by gravity system or pumping mains. A new wastewater network would be designed in accordance with current editions of Australian Standards

The following is a general expectation of wastewater main upgrades for future development:

COMMERCIAL PRECINCT

- Install approximately 1,000m of 150mm PVC approach wastewater pumping main (Refer to **Figure 6**)
- Installation of 225mm and 150mm PVC internal wastewater mains to service the ultimate development, subject to the demands of the commercial and light industrial businesses.

RESIDENTIAL PRECINCT

- Install approximately 1000m of 150mm PVC approach wastewater pumping main (Refer to **Figure 6**)
- Residential allotments will require 150mm and 100mm PVC internal mains to service the ultimate allotment yield.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

6 GAS RETICULATION

6.1 EXISTING GAS INFRASTRUCTURE

BYDA correspondence from APA GROUP service Authority has confirmed no formal reticulated gas infrastructure is located within the Wallaroo township or the vicinity of the affected area.

6.2 TOWNSHIP BOTTLE GAS

The existing Wallaroo township currently has contractors who accommodate supply and delivery of Liquid Petroleum Gas (LPG) bottles to existing homeowners. This could be utilised for future development.

6.3 FUTURE GAS SUPPLY

It is proposed that the affected area would continue to be serviced by bottled gas on an as needs basis in accordance with business and residential needs.

Refer to Appendix F for further information.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

7 ELECTRICAL INFRASTRUCTURE

7.1 EXISTING ELECTRICAL INFRASTRUCTURE

For the purposes of this investigation, information of the existing electrical infrastructure network was sourced from BYDA and correspondence with SAPN. Generally, suitable electrical services are located within or in the close proximity to the affected area.

SAPN has advised the most likely connection point for future development would be the existing 11,000volt overhead power line located on the corner of Bowman Road and Ellis Road.

Refer to **Appendix G** for further BYDA - Electrical Infrastructure and refer Figure 4 **below** for SAPN preferred electrical connection location.

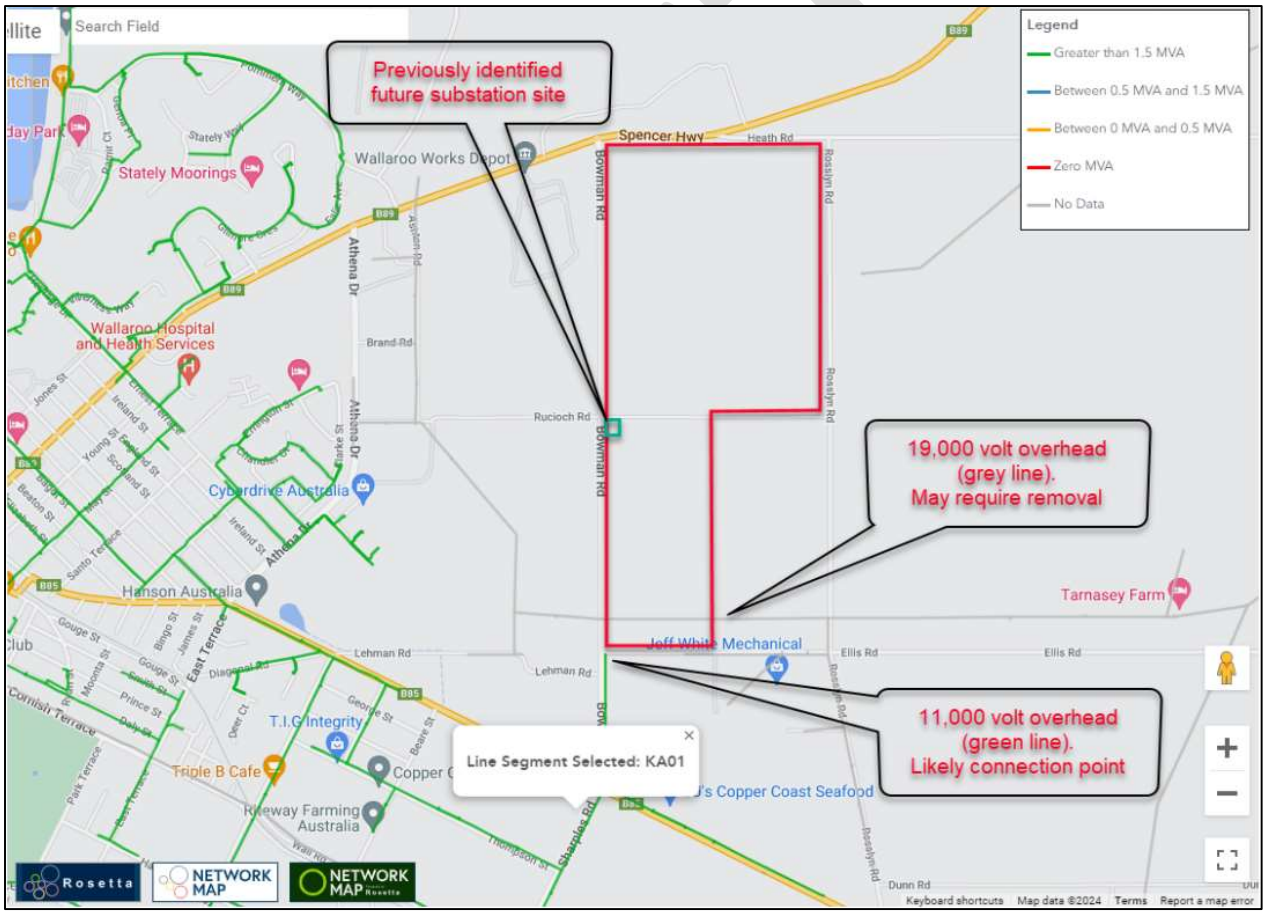


Figure 4: SAPN preferred electrical connection location.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

7.2 SAPN ELECTRICAL PLANNING

Based on SAPN's published feeder capacity information, the feeder line asset has approximately 1.8MVA of spare capacity. The value specified must be treated as a guide only and may change. This is subject to a detailed formal assessment process by SAPN of the electrical asset in consideration of proposed development including any infrastructure upgrades that maybe triggered.

Any necessary upgrade of the existing 11,000volt distribution network for residential type projects will normally be completed at SAPN expense when necessary (funded in part by the augmentation charges noted below)..

The corner of Rucioch Road and Bowman Road on Lot 626, has been previously identified as a potential future substation site. This was arranged as part of a previous development and efforts were made to secure SA Power Networks ownership of the site, however this did not eventuate. It is likely that SA Power Networks would request the provision of this site, or similar, as part of a future Development.

It is unlikely that the substation would be constructed immediately but would occur as the new development progresses. Further discussion with SAPN to occur to negotiate an acceptable outcome for stakeholders.

7.3 FUTURE ELECTRICAL INFRASTRUCTURE

The following is a general expectation of electrical infrastructure upgrades for future development:

COMMERCIAL PRECINCT

- Installation of 11,000volt connection from existing SAPN asset and extend to the Commercial site.
- Installation of High voltage (HV) and Low voltage electrical underground mains in common service trench to service the affected area will be subject to the demands of commercial land uses.
- Installation of appropriate new public lighting asset to suit future development.

RESIDENTIAL PRECINCT

- Installation of 11,000volt connection from existing SAPN asset and extend to the residential zoned land.
- Future residential development will be designed and constructed in accordance with the relevant Australian Standard AS1158 lighting code and SAPN standard specifications. Provision will be made for underground electrical infrastructure to all new allotments including common trench arrangement, HV and LV cables, service pillars for each allotment and appropriate public lighting located within the designated Council public road reserves.

The Project Electrical Designer will liaise and coordinate with SAPN all non-contestable asset upgrades and delivery of all electrical master planning / design aspects associated with the contestable electrical asset for future development.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

7.4 STAGED ELECTRICAL AUGMENTATION – Commercial and Residential

The anticipated future Commercial and Residential development of this type is likely to proceed in a staged sequence and will be subject to SAPN individual stage assessments for determination of standard augmentation charges or loads on the existing electrical asset greater then would be expected.

For the affected area and based on expected load:

- The standard augmentation charge for up to 1,250kVA is $281/kVA.
- Loads above 1,250kVA and below 1,370kVA will attract an additional zone substation charge of $439/kVA for the total load. So, $720/kVA for the whole load.
- Loads above 1,350kVA will attract a further additional Sub-transmission line charge of $686/kVA.

So, $ 1,406/kVA for the whole load above the standard augmentation charge.

All SAPN recommended charges are excluding GST and will increase with CPI.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

8 TELECOMMUNICATIONS INFRASTRUCTURE

BYDA records indicate multiple communications infrastructure assets are located in close proximity to the affected area. This includes various existing pit & pipe communications.:

- TELSTRA cables extending along the northern side of SPENCER HIGHWAY
- TELSTRA cables along northern side of HEATH ROAD
- TELSTRA have the existing underground cables along eastern side of subject land. Western side of ROSSLYN ROAD closest side to the affected area.
- The nearest NBN communication asset is located at corner of COPPER COAST HWY and BOWMAN ROAD shown in red in the below figure.

Refer to Appendix H for BYDA Communication reference.

8.1 NBN CO FOOTPRINT

High level discussions have been held with telecommunications provider NBN Co who have confirmed the affected area is within the existing NBN fixed line network footprint.

NBN has advised that there would be no expected backhaul charges to service the affected area with Fibre to the Premises (FttP). This would exclude any relocation of services to service the affected area or relocate any existing communication assets within the affected area as part of the future development construction works.

The Project Developer would enter into a Communications Master Developer Agreement if NBN Co is chosen to design and construct the pit and pipe asset. NBN Co would assess any communication asset relocations during the Council Planning Application and detailed pit and pipe design phase.

Refer **Figure 5** for NBN CO possible communications backhaul (shown in **blue**).

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

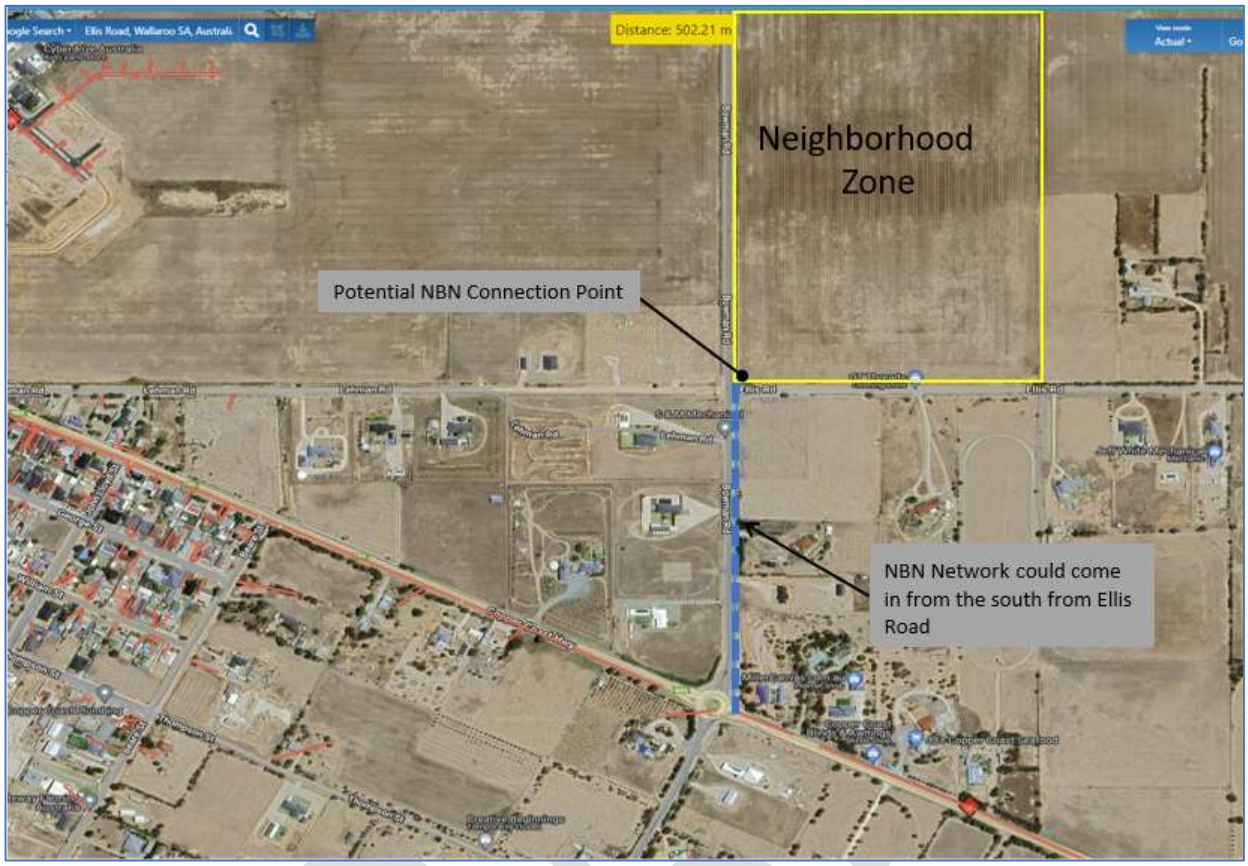


Figure 5: NBN CO possible communications backhaul route

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

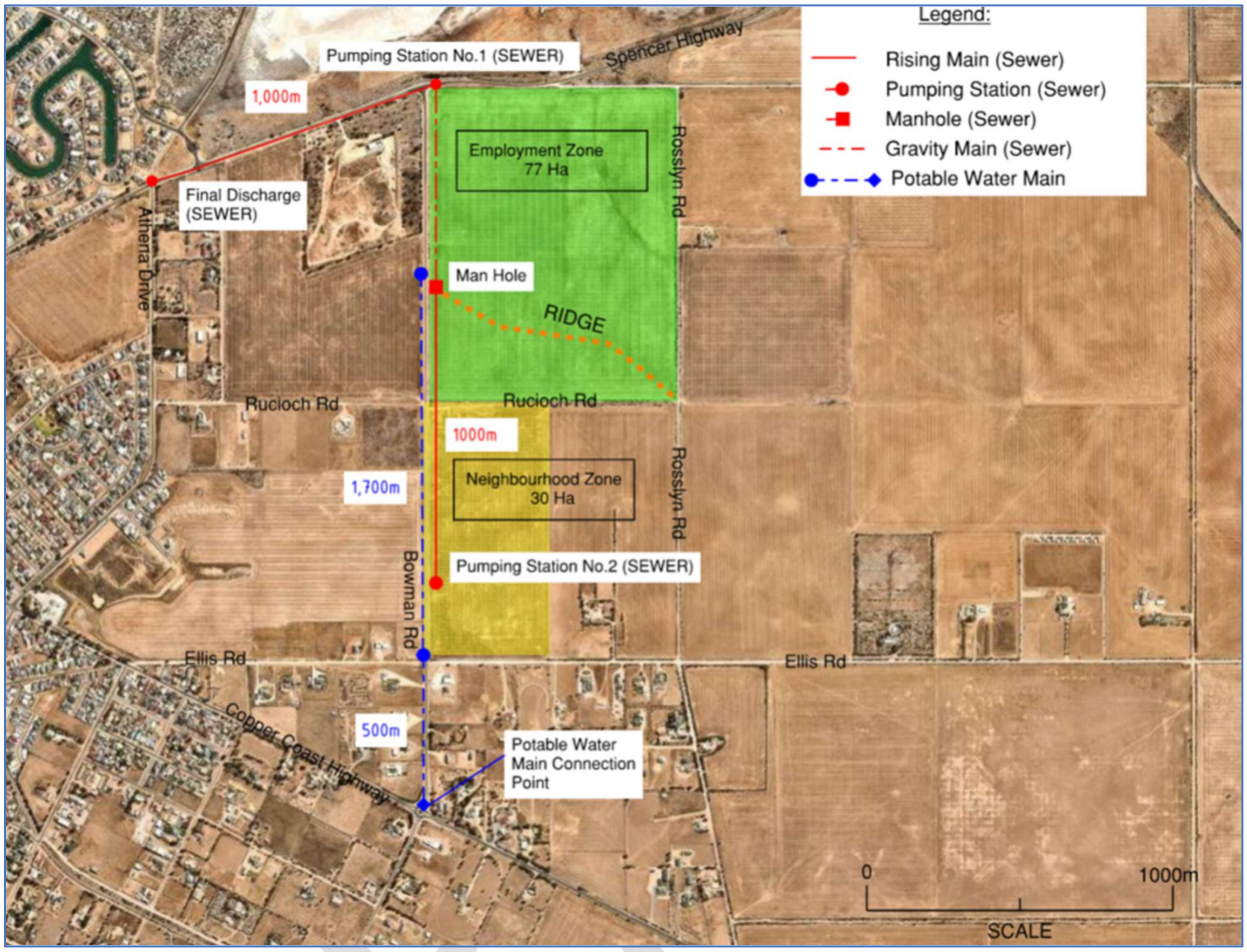


Figure 6: Possible Wastewater & Potable Water Infrastructure

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

9 CONCLUSIONS

The affected area of approximately 107 hectares is within the Rural Zone. The Code Amendment seeks to change the planning policy to Employment Zone and Neighbourhood Zone. Future development will be master planned with anticipated staged rollout of physical infrastructure.

Future development is expected to be delivered within 5-7 years for the Neighbourhood Zoned land and 10-20 years for the Employment Zoned land.

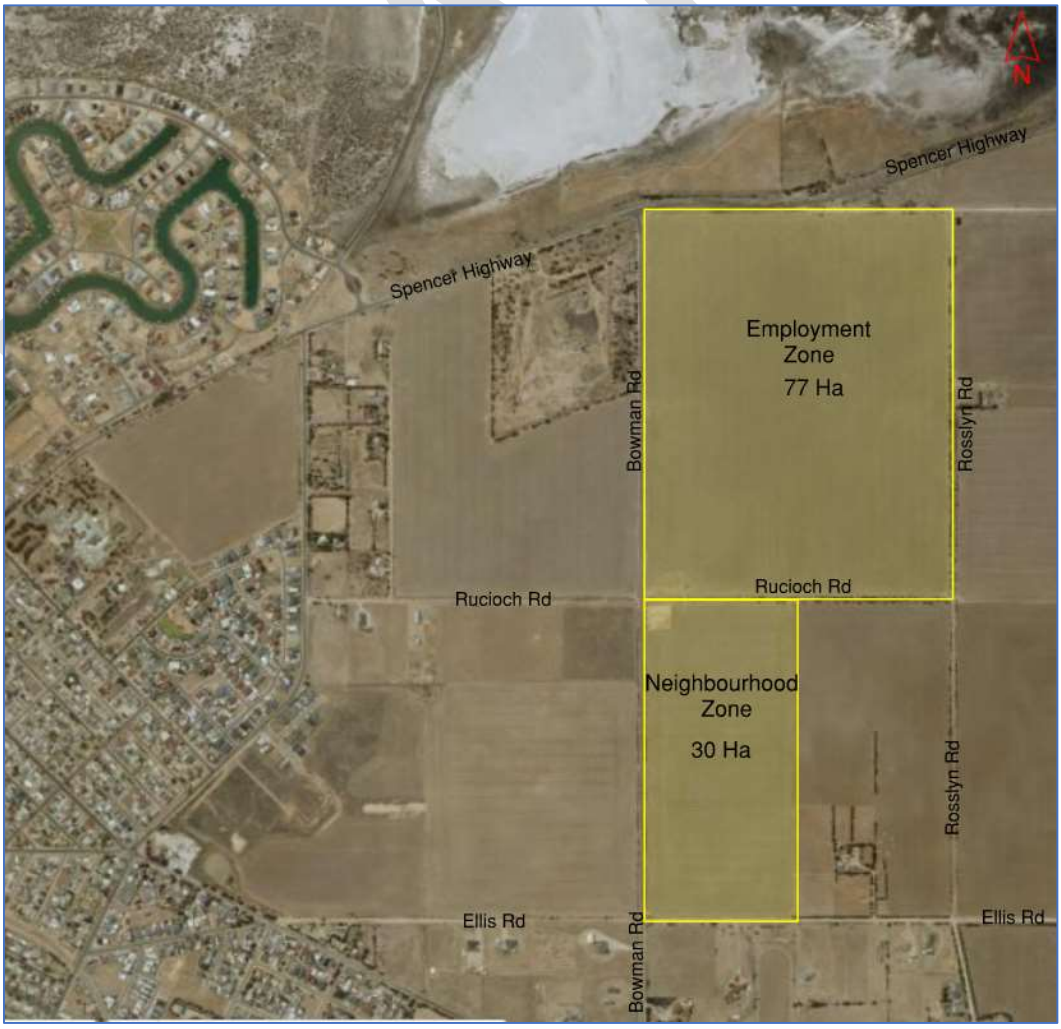
Detailed Planning and Design engineering consultancy will be undertaken in collaboration with the Copper Coast Council, the relevant service agencies & project consultants to ensure best quality engineering outcomes and solutions are achieved for future development.

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

APPENDICIES

1/154 Fullarton Road Rose Park SA 5067 **P:** 08 8431 4555 **E:** admin@herriot.com.au **W:** herriot.com.au

Appendix - A. Overall Site Plan



Appendix - B. External Catchment Plan

Appendix - C. BYDA Information

Job No 36262754

BEFORE YOU DIG www.byda.com.au

byda.com.au

Contact Details

Contact	Contact number	Company	Enquirer ID
charlie bong	0468 461 788	-	3500924

Email
charliebong@herriot.com.au

Address
154 Fullarton Road
Rose Park SA 5067

Job Site and Enquiry Details

WARNING: The map below only displays the location of the proposed job site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

Enquiry date	Start date	End date	On behalf of	Job purpose	Locations	Onsite activities
15/03/2024	15/03/2024	07/04/2024	Utility Copper Coast Council	Design	Both Road, Nature Strip, Footpath	Planning & Design, Subdivision

Check that the location of the job site is correct. If not, you must submit a new enquiry.

If the scope of works change or plan validity dates expire, you must submit a new enquiry.

Do NOT dig without plans. Safe excavation is your responsibility. If you don't understand the plans or how to proceed safely, please contact the relevant asset owners.

User Reference
WALLAROO DEVELOPMENT

Address
Lot 400 Lehman Road
Wallaroo SA 5556

Notes/description
-

Your Responsibility and Duty of Care

- **Lodging an enquiry does not authorise project commencement.** Before starting work, you must obtain all necessary information from all affected asset owners.
- If you don't receive plans within 2 business days, contact the asset owner & quote their sequence number.
- Always follow the 5Ps of Safe Excavation (page 2), and locate assets before commencing work.
- Ensure you comply with State legislative requirements for Duty of Care and safe digging.
- If you damage an underground asset, you MUST advise the asset owner immediately.
- By using the BYDA service, you agree to the Privacy Policy and Term of Use.
- For more information on safe digging practices, visit www.byda.com.au

Asset Owner Details

Below is a list of asset owners with underground infrastructure in and around your job site. It is your responsibility to identify the presence of these assets. Plans issued by Members are indicative only unless specified otherwise. Note: not all asset owners are registered with BYDA. You must contact asset owners not listed here directly.

Referral ID (Seq. no)	Authority Name	Phone	Status
236743658	APA Group Gas Networks (70801)	1800 085 628	NOTIFIED
236743661	Copper Coast Council	(08) 8828 1200	NOTIFIED
236743659	SA Power Networks	(08) 8292 0218	NOTIFIED
236743660	SA Water	(08) 7424 1117	NOTIFIED
236743662	Telstra SANT	1800 653 935	NOTIFIED

END OF UTILITIES LIST

Appendix - D. Council Infrastructure

COPPER COAST COUNCIL

Job # 36262754
Seq # 236743661
Provided by Copper Coast Council

BEFORE YOU DIG www.byda.com.au

Legend
BYDA Enquiry

Esri Community Maps Contributors, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

Disclaimer: The Plan is provided in response to a Before You Dig request. While all reasonable care has been taken to ensure the accuracy of the information on this plan, its purpose is to provide a general indication of the location of Copper Coast Council infrastructure. The information provided may contain errors or omissions and the accuracy may not suit all users. A site inspection and investigation is recommended before commencement of any project based on this data.

In an emergency contact Copper Coast Council on 08 8828 1200

Index Sheet

Plans generated by SmarterWX™ Automate

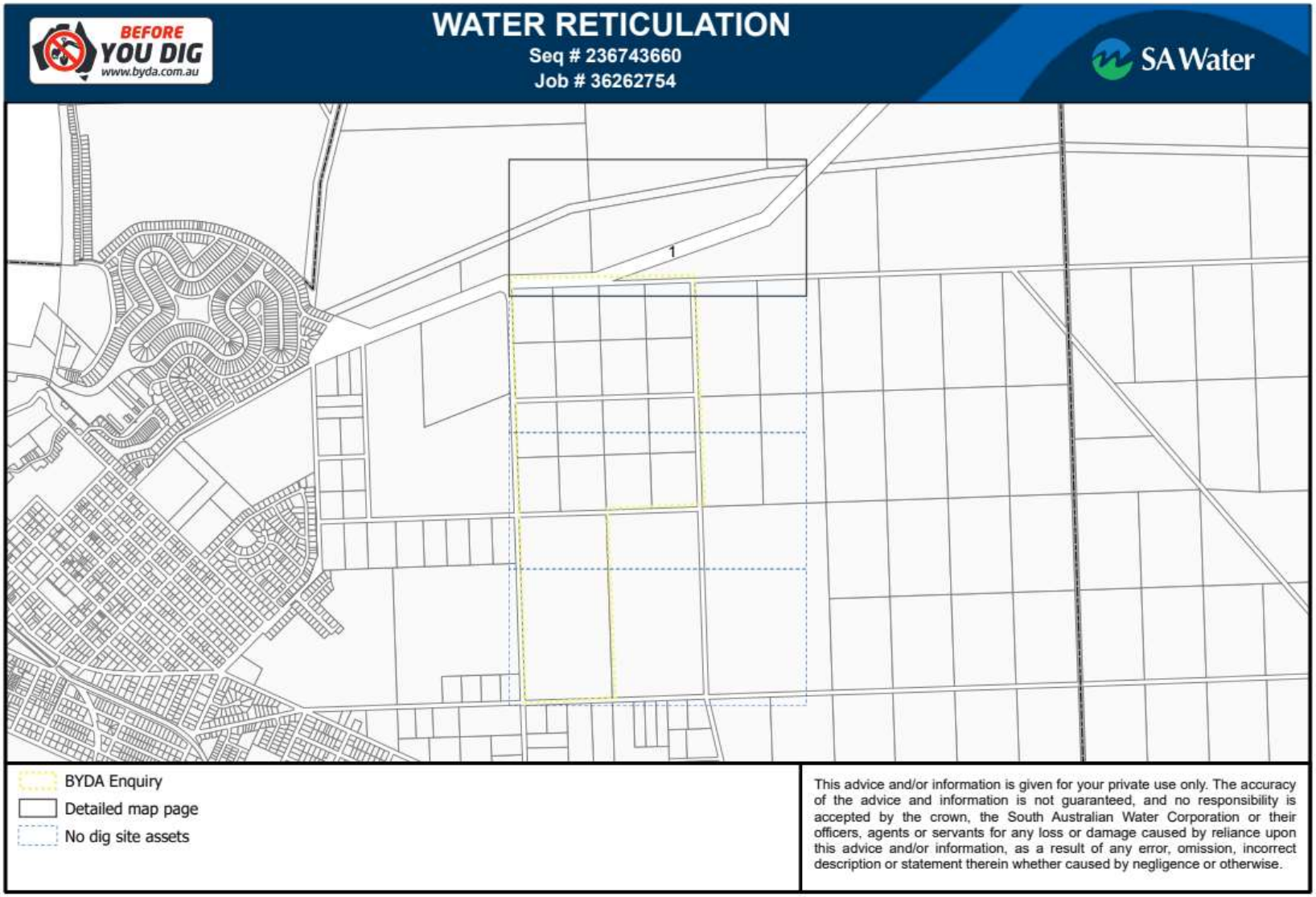
0 170 340 680 m

N

Scale 1:15,000

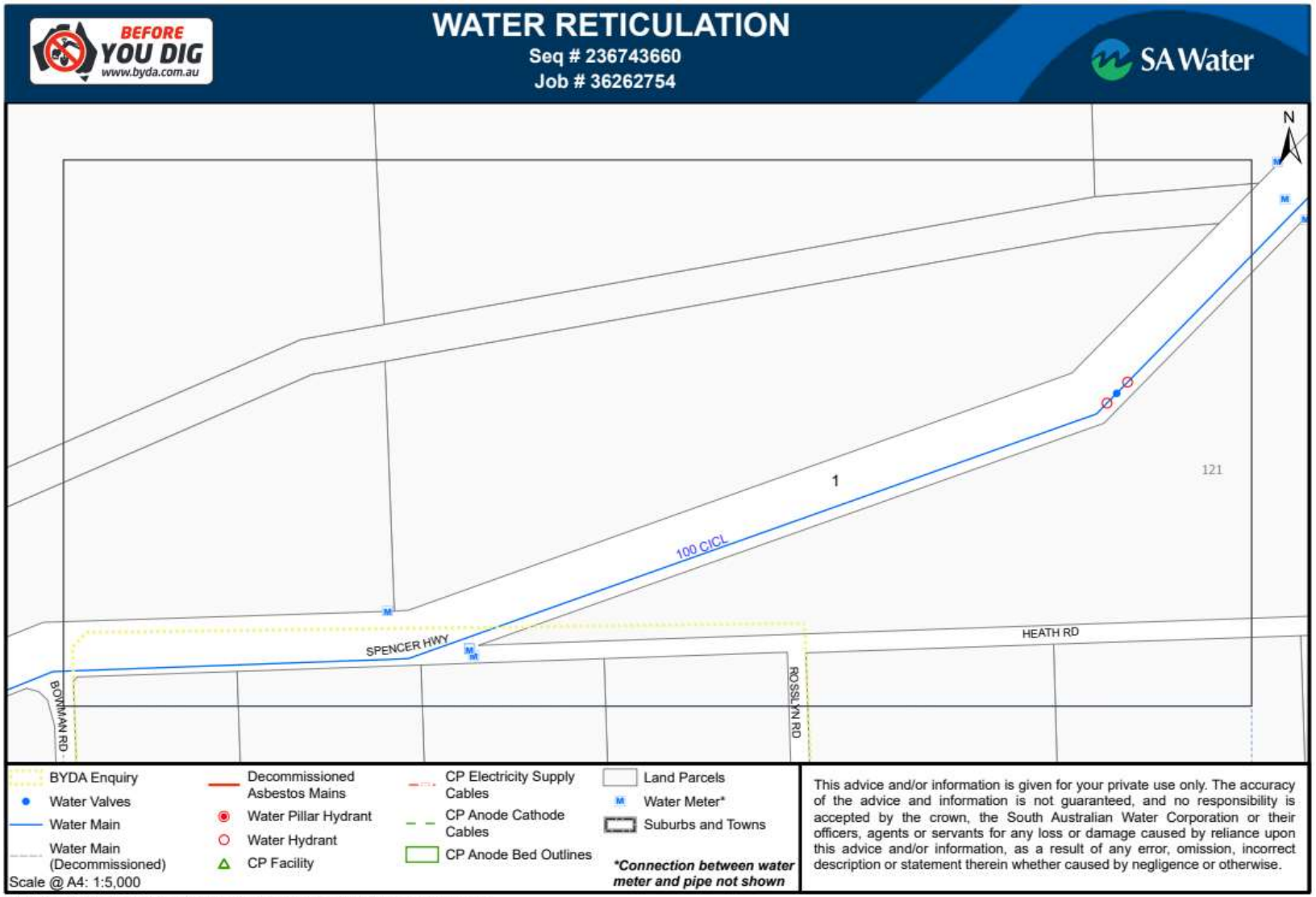
Appendix - E. Potable Water Reticulation

E.1 Potable Water Reticulation Overview



Plans Generated [3/15/2024 12:04 PM] by SmarterWX™ Automate (valid for 30 days)

E.2 Potable Water Reticulation Northbound



Plans Generated [3/15/2024 12:04 PM] by SmarterWX™ Automate (valid for 30 days)

Appendix - F. Gas Assets

F.1 DBYD – Gas Asset Request

APA Group
PO Box 6014 Halifax Street,
South Australia 5000

15/03/2024

Company:
charlie bong
154 Fullarton Road
Rose Park
SA 5067

charliebong@herriot.com.au

Dear charlie bong

Sequence Number: 236743658
Worksite Address: Lot 400 Lehman Road
Wallaroo
SA 5556

Thank you for your Before You Dig enquiry regarding the location of APA Group (APA) operated Gas Assets.

We confirm there are **NO** Gas Assets in the vicinity of the above location.

Caution - Damage to gas assets may result in explosion, fire and personal injury.

You are hereby notified the Duty of Care requirements described below apply to any activity in the vicinity of APA operated Gas Assets. Please ensure you read and comply with all the relevant requirements where applicable.

Contacts – APA Group	
Enquiry Type	**Contact Numbers**
General enquiries or feedback regarding this information or gas assets.	**APA - Before You Dig Officer**
QLD Only	Phone: 1800 085 628 Email: PermitsQld@apa.com.au
All other States	Phone: 1800 085 628 Email: DBYDNetworksAPA@apa.com.au
Gas Emergencies	Phone: 1800 GAS LEAK (1800 427 532)

Please find below the following information:

1. **Duty of Care** - If you are unclear of your obligations under these requirements please contact the Before You Dig officer for clarification.
2. **An overview map** highlighting the area of your intended works.
3. **Map(s) showing APA operated Gas Assets** within the area of your intended works.

F.2 DBYD – Gas Asset Enquiry Area

Site Address	Lot 400 Lehman Road Wallaroo 5556	**Sequence No**	236743658
Name	charlie bong		
Email	charliebong@herriot.com.au		

Scale 1: 9000	N	Enquiry Area / Map Key Area

Appendix - G. Electrical Infrastructure

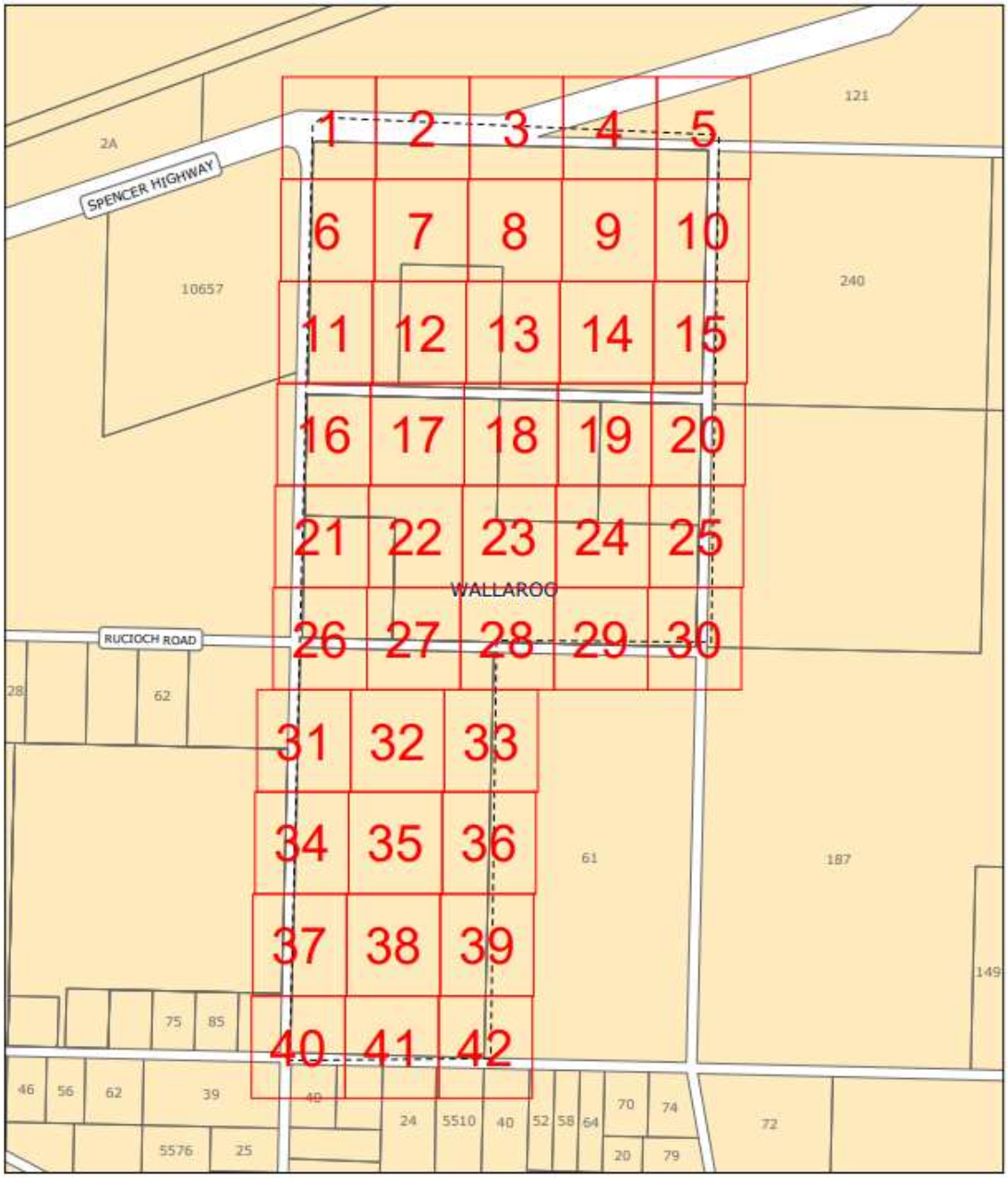
G.1 Overview Map

SA Power Networks

Overview Map

Sequence No: 236743659

Lot 400 Lehman Road Wallaroo



Disclaimer: The Plan/Sketch is supplied at your request and is subject to your agreement that SA Power Networks shall not be liable or responsible for the correctness or otherwise of any such information supplied pursuant to this request. Upon acceptance of this condition SA Power Networks grants you permission to use the Plan/Sketch as a guide to the location of SA Power Networks assets. The Plan/Sketch must be returned to SA Power Networks if you fail to accept the conditions of use.

N

0 0.1km

LEGEND:

1 Detail Map

BYD Requested Area

G2. Map 40 – South Boundary

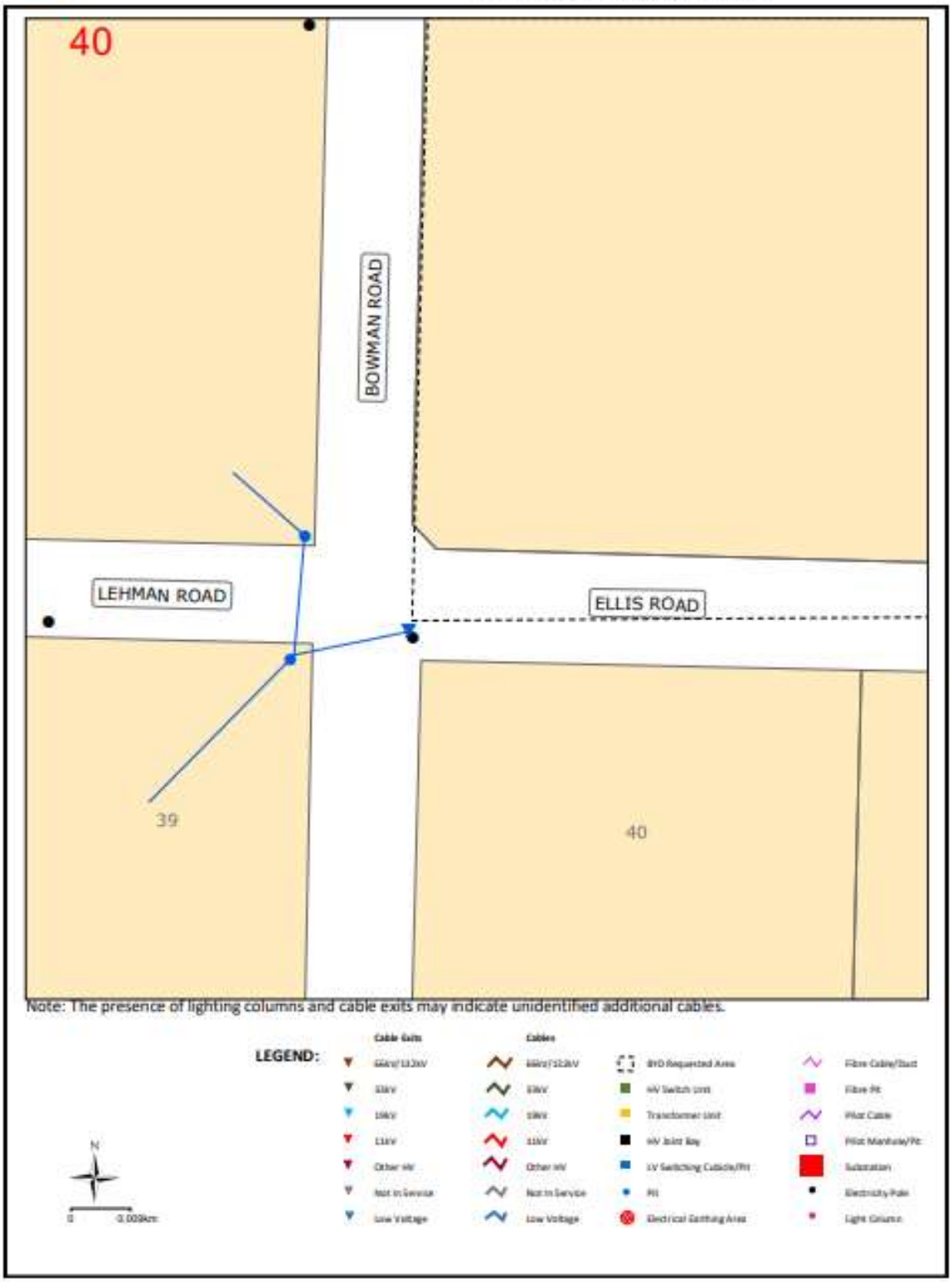
Date: 15/03/2024

SA Power Networks

Map 40

Sequence No: 236743659

Lot 400 Lehman Road Wallaroo



Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

G3. Map 41- South Boundary

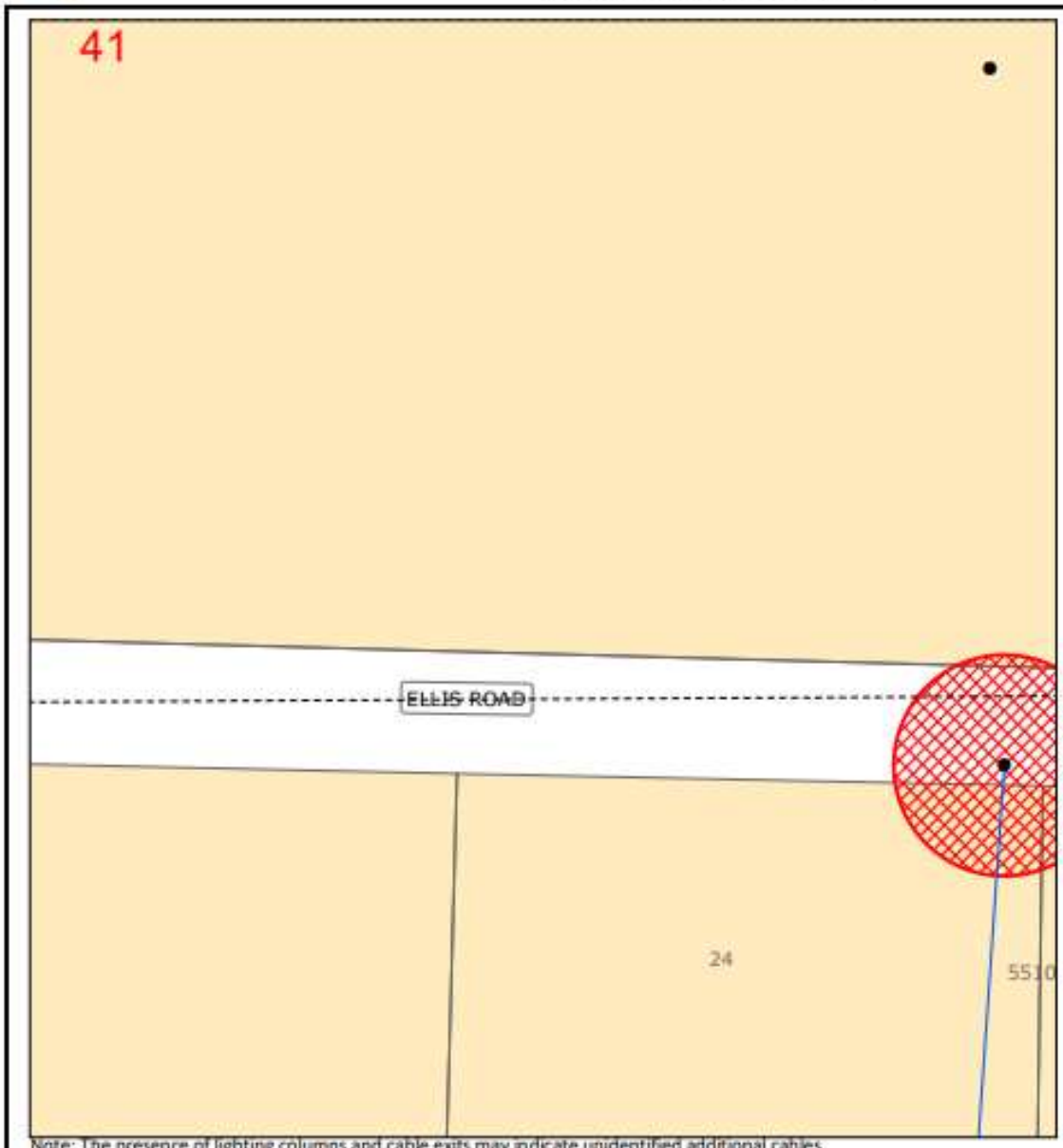
Date: 15/03/2024

SA Power Networks

Map 41

Sequence No: 236743659

Lot 400 Lehman Road Wallaroo



Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

LEGEND:

Cable Exits

- 66kV/11kV
- 33kV
- 19kV
- 11kV
- Other HV
- Not in Service
- Low Voltage

Cables

- 66kV/11kV
- 33kV
- 19kV
- 11kV
- Other HV
- Not in Service
- Low Voltage

- BYD Requested Area
- HV Switch Unit
- Transformer Unit
- HV Joint Bay
- LV Switching Cubicle/Pit
- Pit
- Electrical Earthing Area

- Fibre Cable/Duct
- Fibre Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

N

0 0.009km

G4. Map 42- South Boundary

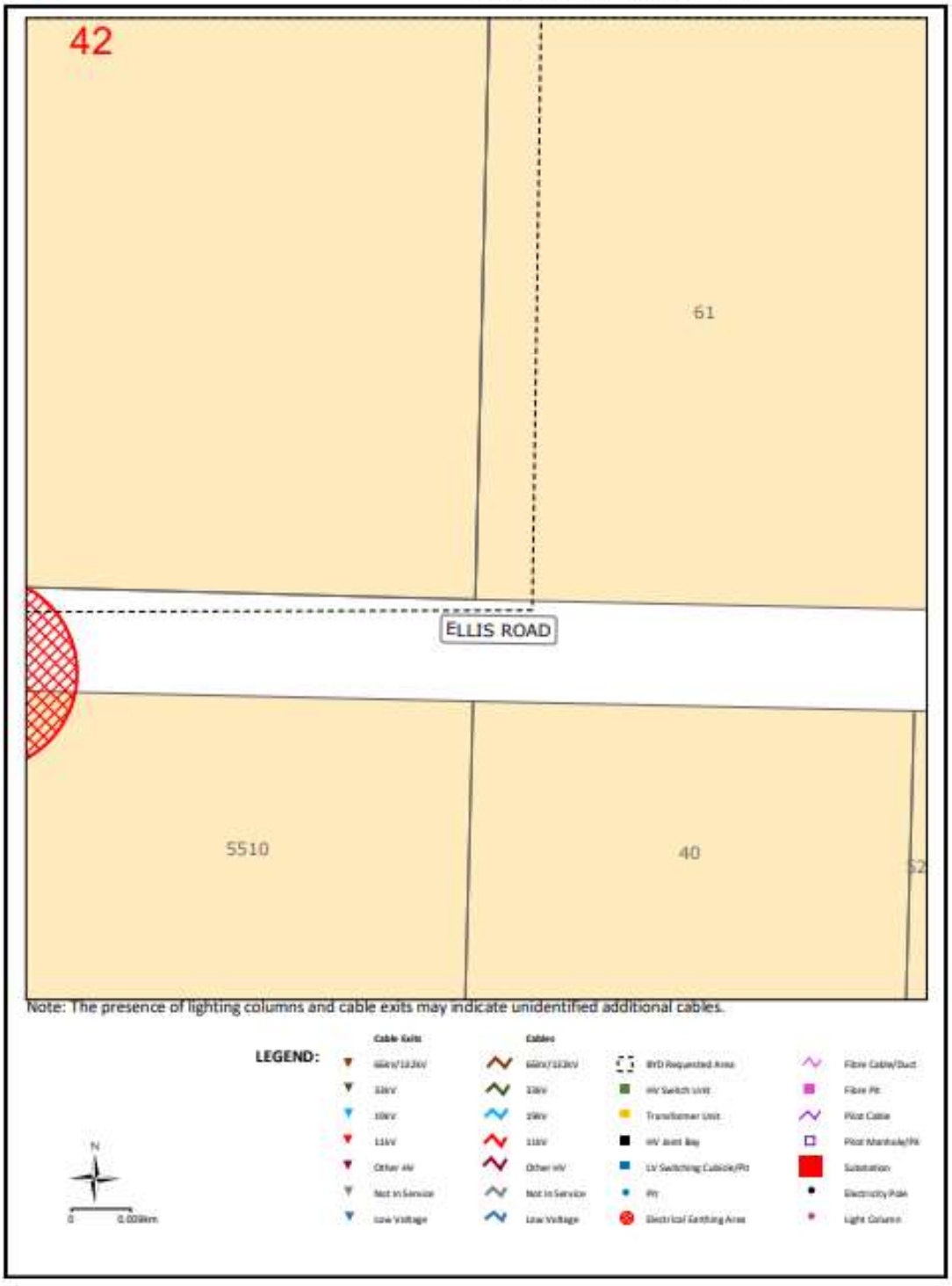
Date: 15/03/2024

SA Power Networks

Map 42

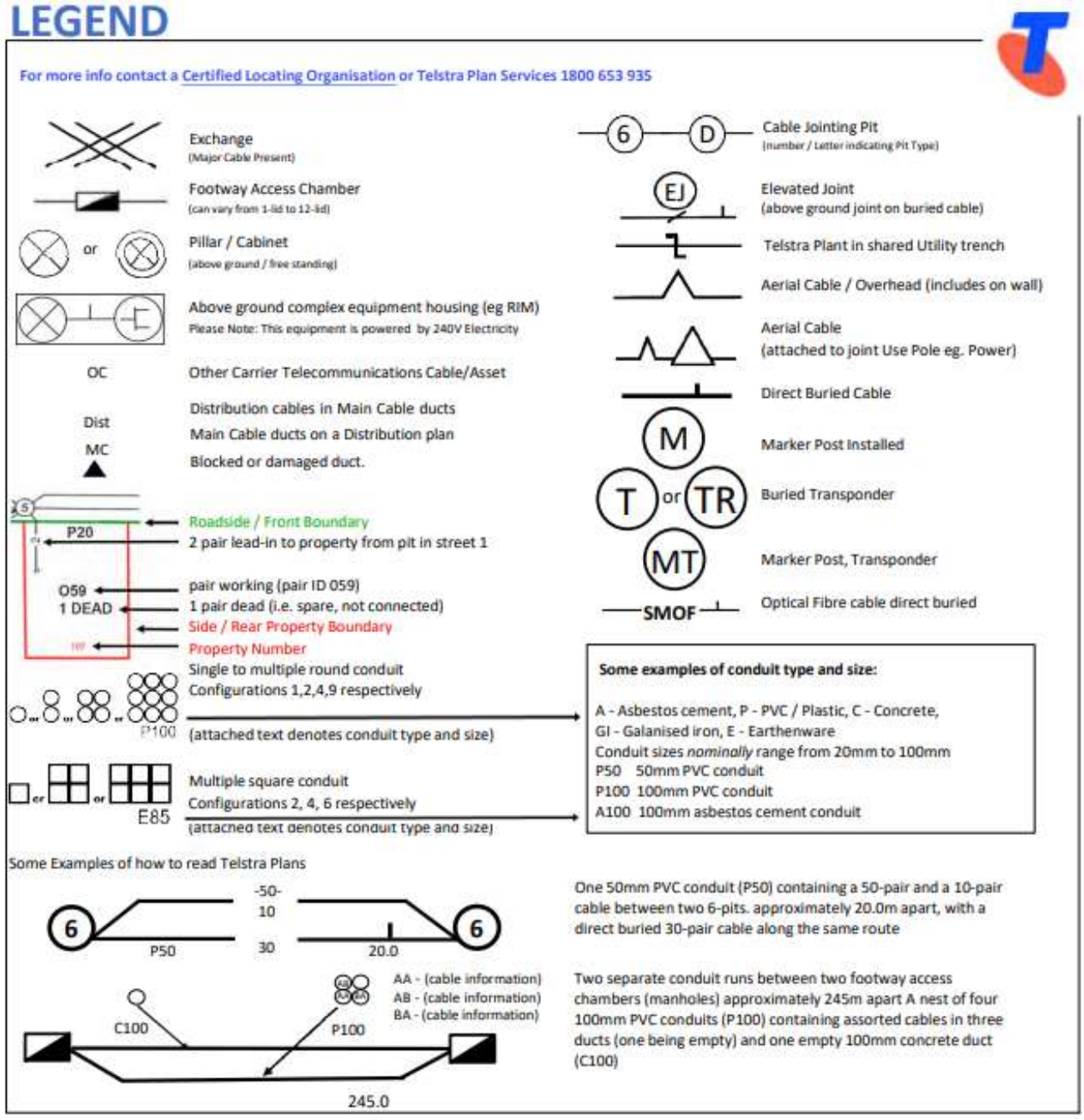
Sequence No: 236743659

Lot 400 Lehman Road Wallaroo

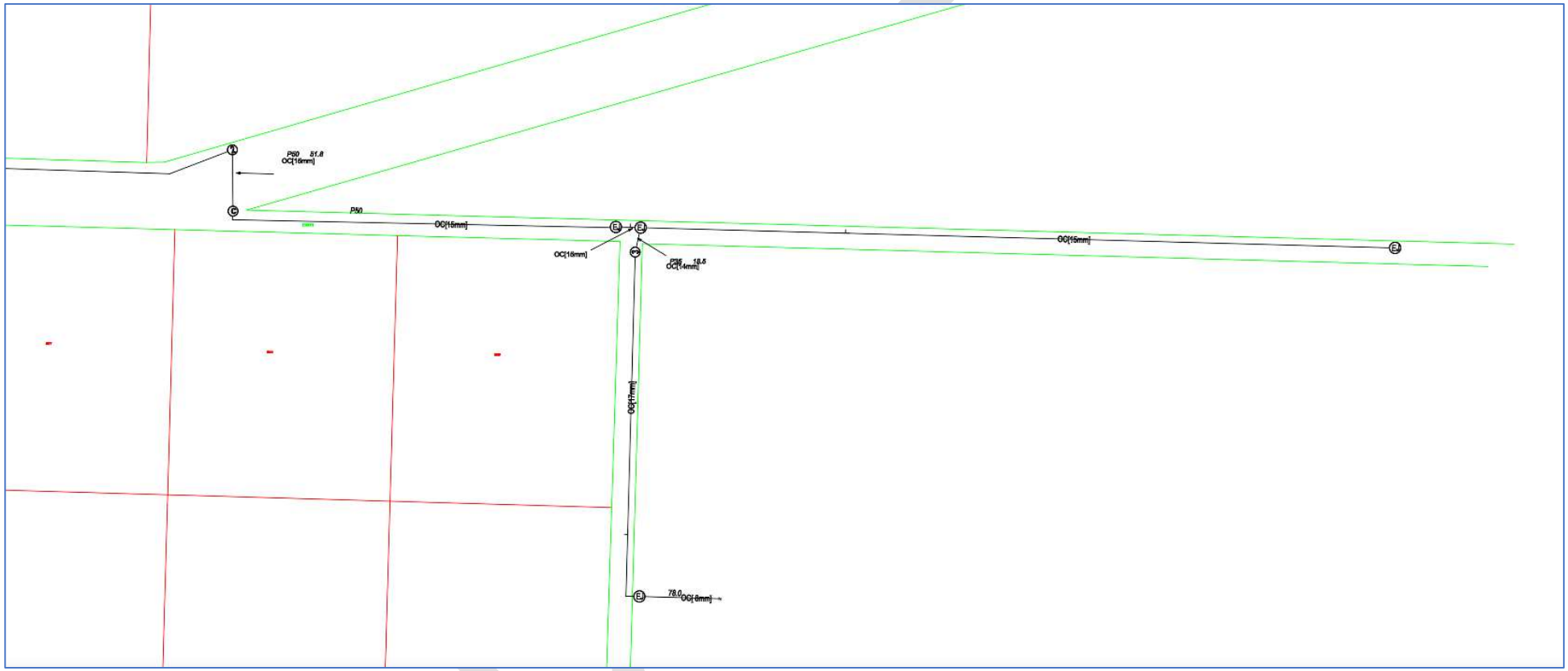


Appendix - H. Communications (Telstra)

H.1 Telstra Legend



H.2 Telstra (Northern Boundary) Map 1



H.3 Telstra (Northern Boundary) Map 2

H.4 Telstra (Eastern Boundary) Map 3