CITY OF TEA TREE GULLY
Naturally Better

REPORT FOR	**COUNCIL MEETING**
MEETING DATE	**12 OCTOBER 2021**

Item 13.1

RECORD NO:	**D21/72169**
REPORT OF:	**OFFICE OF THE CHIEF EXECUTIVE OFFICER**
TITLE:	**PROPOSAL TO INITIATE A CODE AMENDMENT TO REZONE THE RURAL LIVING ZONE AT GOLDEN GROVE TO A NEIGHBOURHOOD-TYPE ZONE**

PURPOSE

For Council to consider a draft Proposal to formally commence a Code Amendment that proposes to rezone the Rural Living Zone at Golden Grove to a Neighbourhood-type Zone to allow low density residential development. The Code Amendment would be led by the Council and co-funded by the developer, YAS Property & Development (YAS P&D), on behalf of YAS and Villawood Properties who have an interest in properties located in the Affected Area.

RECOMMENDATION

1. **That Council resolves to proceed with a Code Amendment to investigate the rezoning of the Rural Living Zone at Golden Grove to a Neighbourhood-type Zone as detailed in the report titled "Proposal to Initiate a Code Amendment to rezone the Rural Living Zone at Golden Grove to a Neighbourhood-type Zone" and dated 12 October 2021 and that the Proposal to Initiate as set out in in Attachment 2 and the preliminary reports set out in Attachments 3-10 be forwarded to the Minister for Planning seeking her agreement as required by the *Planning, Development and Infrastructure Act, 2016.***

2. **That staff commence investigations in relation to the Code Amendment on the understanding that it will not proceed to community engagement if the Proposal to Initiate is not agreed to by the Minister for Planning, and that staff inform Council when a response is received from the Minister.**

3. **That, prior to commencing community engagement, a future report be presented to Council which will include:**
   - **a draft Code Amendment,**
   - **supporting documentation regarding infrastructure requirements,**
   - **an Engagement Plan and**
   - **any other relevant information for consideration by Council.**

1. BACKGROUND

1.1 Previous Council decisions

In July 2021 Council received an unsolicited request from YAS P&D in collaboration with Villawood Properties asking Council to initiate and lead a Code Amendment proposing to rezone the Rural Living Zone at Golden Grove comprising 110 ha (excluding 53 and 99 Crouch Road) to a Master Planned Neighbourhood Zone to enable the construction of approximately 1,500 new homes and approximately 3,900 residents over 10-15 years.

Council considered this request on 27 July 2021 in a report titled "Proposed rezoning of Golden Grove Rural Living Zone for residential use" and made the following decision:

"1. That Council supports in principle the proposal to commence investigations to re-zone the Rural Living Zone at Golden Grove to enable construction of approximately 1,500 new homes.

2. That a Proposal to Initiate a Residential Code Amendment affecting the Rural Living Zone at Golden Grove be prepared and presented to Council for consideration and that Council be provided with copies of relevant investigations reports to assist with the preparation of the Proposal to Initiate a Code Amendment.

3. That a Funding Agreement that supports a privately funded Code Amendment be prepared by Council's lawyers in consultation with YAS P&D and Villawood Properties (the proponents) and that the proponents agree to reimburse the Council for the legal costs associated with preparing the funding agreement.

4. That Council's Chief Executive Officer be authorised to sign the Funding Agreement referred to in point 3 of this resolution noting it will be prepared by Council's lawyers and protecting Council's interests.

5. That a Proposal to Initiate a Code Amendment be presented to Council for consideration once the Funding Agreement has been signed by all parties and received by the Council.

6. That Council supports in principle, the proposal by YAS P&D to investigate a potential rezoning of 53 and 99 Crouch Road, Golden Grove for commercial /retail uses and requests that Council be consulted early in the preparation of the Code Amendment."

Since then the following has occurred:

1. A funding agreement has been prepared by Council's lawyers to the satisfaction of the CEO and private funder, at the private funder's expense. This is discussed in section 3 of this report – Finance.

2. A draft Proposal to Initiate a Code Amendment affecting the Rural Living Zone at Golden Grove has been prepared for Council's consideration and is the subject of this report.

3. Council has received formal correspondence from URPS on behalf of YAS P&D regarding the progress of the Proposal to Initiate a Commercial/Retail Code Amendment affecting 53 and 99 Crouch Road. See Attachment 1.

1.2 Scope of this Council report

The Council report considered on 27 July 2021 addressed issues that provide important background information and context to this report. This report provides further details about the proposal, specifically in relation to the draft "Proposal to Initiate a Code Amendment" document. It also assesses the proposal against the principles in Council's *Third Party and Privately Funded Code Amendment Policy* and provides further information to assist Council in reaching a decision on whether to formally proceed with the proposed Code Amendment.

2. DISCUSSION

2.1 Third Party and Privately Funded Code Amendment Policy provisions

Council's *Third Party and Privately Funded Code Amendment Policy* provides guidance in relation to:

a) The principles for Council to consider when determining whether to conduct a privately funded Code Amendment (discussed below)
b) Council's requirements and processes (discussed in earlier Council report dated 27 July 2021, section 2.5 of agenda Item 13.2)
c) Recovery of costs noting that the policy requires that the code amendment must be resourced appropriately (discussed in section 3 - Finance)

2.2 Assessment against the Principles in the Policy

Council's *Third Party and Privately Funded Code Amendment Policy* contains Principles for Council to consider when determining whether it wishes to undertake a privately funded Code Amendment. Each of these principles are discussed in the following pages:

Principle 1: Whether the intent of the Code Amendment aligns with the relevant State Planning Policies, relevant Regional Plans and the current 30 year Plan for Greater Adelaide (in the absence of any Regional Plans).

This land represents one of the last remaining areas within the City of Tea Tree Gully capable of supporting population growth within the boundary of the Planned Urban Lands of Greater Adelaide, with the majority of other consolidation throughout the City comprising small-scale urban infill.

Given the proximity of the affected area to the built-up area, the locality is well serviced by established essential infrastructure and the Code Amendment would result in the consolidation of the built-up area of Golden Grove and deliver the orderly expansion of metropolitan Adelaide.

In summary the Code Amendment:

a) Leverages a new, previously unidentified opportunity to deliver urban consolidation in the north-east of Adelaide. The intended outcomes of this Code Amendment will prioritise additional infill development within the existing Planned Urban Lands and attract new residents to the City.

b) Contributes to the consolidation of the urban footprint of Adelaide in a manner that does not compromise strategic primary production areas or areas of strong visual or environmental significance.

c) Recognises the importance of protecting neighbouring land uses, namely extractive industries, from unreasonable intrusion and takes a pro-active approach to early and ongoing engagement.

See also section 3.1 in the Proposal to Initiate a Code Amendment in Attachment 2.

Principle 2: Whether the intent of the Code Amendment aligns with Council's strategic objectives and any other relevant Council strategies, plans and policies.

Strategic Plan 2025 – The Code Amendment provides an opportunity to start addressing the challenges and opportunities identified in Council's Strategic Plan 2025. In particular, through the consolidated and staged development of the area, namely, the provision of new, mixed housing stock designed in a manner that addresses future needs and contributes to increased population density and diversity.

Key objectives in Council's Strategic Plan that are relevant to this Code Amendment are:

a) Community Wellbeing – creating a sense of belonging, inclusion and connection with places, spaces and the community

b) Environment – creating environmentally valuable places and sites that are flourishing and well cared for and reducing the carbon footprint

c) Economy – support the efficient use of land for valuable mineral extraction and energy resources

d) Places – well designed housing, sustainable practices, neighbourhoods are easy to move around, and are safe

e) Leadership – focused on the longer term interests of the community, planning considers current and future needs.

The Code Amendment investigations will seek to ensure that the land is suitable for residential purposes, with the resulting zone to be selected which supports an urban form and density consistent with the Council policies.

Land Division Infrastructure and Open Space Management Policy - This policy guides decision making around public open space, roads and associated infrastructure proposed to be vested in Council as part of a land division. The policy seeks to ensure that sufficient areas of open space are provided for residents of new housing estates, and provides the standard of open space, road and infrastructure that Council will accept. A master planned estate in the area proposed to be rezoned would involve these considerations.

*Open Space Policy – T*his policy describes the principles and framework that guides the provision, development and management of open spaces. The Policy seeks to provide inclusive and diverse open spaces that are distributed equitably across the City that enhances the City's character, provide opportunities for active and passive recreation, social interaction and community engagement, and protect and enhance the natural environment and biodiversity. A master planned estate provides the opportunity to consider a range of open space categories that offer both social and environmental benefit.

Public Lighting Policy – This policy aims to establish the principles for the provision of public lighting, provide guidance on the standard of lighting and establish service levels for lighting assets. Appropriate lighting that meets the requirements of SA Power Networks will need to be provided as part of the proposed development for the safe movement of vehicles and pedestrians.

Recycled Water Policy - Through this policy, Council promotes and supports the safe and responsible use of recycled water to reduce the pressures on limited drinking water resources for the purpose of maintaining public amenity and making the City a vibrant and liveable place for its community. Opportunities to connect to Council's recycled water supply can be explored if the rezoning occurs, particularly if there are more areas of open space to be irrigated.

Tree Management Policy - The objective of this policy is to maintain the tree and shrub vegetation under Council's care and control, in a manner that enhances the amenity and environmental benefits of the vegetation throughout the City while at the same

time considering the public safety and development interests of the community and the current and future impacts on people and communities. This means that trees on Council roads and reserves in the affected area will need to be considered under this policy if affected by a future land division.

Waste Management Policy - This policy assists in the provision of an environmentally and financially sustainable and efficient kerbside waste and recycling collection service for the community which assists with the minimisation of waste material from the City of Tea Tree Gully. Consideration will need to be given to the increase in household waste to be collected by Council's existing service providers.

Assets Management Plans – These Plans include detailed information about each of Council's assets, and define which services will be provided, how they will be provided and what funding is required to cost-effectively deliver them over a 10-year period. The three most relevant plans are: Stormwater, Open Space and Transport. The new housing development will result in an increase in these assets that will need to be factored into the long term planning, along with all assets across the City.

No doubt a development of this scale is likely to have an impact on existing Council assets and this needs to be identified and quantified followed by an agreement being reached with the developers on the funding of any asset upgrade.

See also sections 3.1, 3.2 and 3.3 in the Proposal to Initiate a Code Amendment in Attachment 2.

Principle 3: Whether the current policies in the Code unnecessarily restrict appropriate development on the site

Rural Living Zone policies envisage the zone as *"A spacious and secluded lifestyle within semi-rural or semi-natural environments, providing opportunities for a range of low-intensity rural activities and home-based business activities that complement that lifestyle choice."*

Allotments in the zone at Golden Grove are currently a minimum of 4 ha and activities include a mix of detached dwellings, horse stabling, grazing, horticulture, small-scale primary production and animal keeping.

Development is therefore restricted to allotments of 4ha or more and to activities that are semi-rural/natural in character.

The Rural Living Zone at Golden Grove presents a number of circumstances that warrant its investigation for new housing such as:

a) Being located within the Urban Growth Area of Adelaide (i.e. outside the Hills Face Zone)
b) Being located adjacent to established residential areas and infrastructure networks

c) The nature of existing land uses
d) Not being restricted by the Environment Food Production Area

Principle 4: Whether the Code Amendment affects a broad or limited cross section of the community

The Code Amendment will affect existing residents and business operators in nearby neighbourhoods in The Settlement and The Stables Shopping Centre as well as the economy generally. As the population will increase over 10-15 years, the impact on the local community will also be gradual.

Property owners in the affected area will be directly impacted. It should be noted that while most of these have contractual arrangements with the developers relating to the Code Amendment, there are others that do not.

Harpers Field which contains two full size ovals used for football and cricket is located outside the affected area but the primary public access point to the site is off One Tree Hill Road. Increased traffic volumes along One Tree Hill Road will impact on egress to/from Harpers Field and the use of One Tree Hill Road for overflow parking at peak use times. Preliminary investigations have already identified that this portion of One Tree Hill Road will need to be upgraded.

Council is currently separately developing a master plan for a new community facility at Harpers Field and access for commercial deliveries and car parking within the site are all considerations for the plan.

Principle 5: Whether the proposed policy change has considerable social, economic and /or environmental impact /merit

Preliminary studies have been undertaken to understand the potential impact of the Code Amendment on the following:

a) Traffic
b) Utility services
c) Stormwater
d) Aboriginal and historical heritage
e) Ecology
f) Flora and fauna
g) Noise
h) Air Quality
i) Environmental due diligence

It should be noted that some of these studies only considered that portion of the Rural Living Zone to the north of One Tree Hill Road and more detailed investigations will include the entire area affected. A summary of findings is provided in sections 4.1 and 4.3 of the Proposal to Initiate a Code Amendment in Attachment 2. These preliminary reports have been provided for information in Attachments 3 -10

Detailed investigations on the above matters will be undertaken as part of the Code Amendment, in addition to the following:

a) Social infrastructure
b) Tree assessment
c) Bushfire requirements
d) Transport
e) Rural living land demand
f) Infrastructure schemes
g) Residential land supply and demand
h) Environmental Food Production Area

A summary of proposed investigations is provided in section 4.2 of the Proposal to Initiate a Code Amendment in Attachment 2.

Economic stimulus resulting from an increase in population, will have an ongoing benefit for local retail, commercial, education and medical providers. Increased population of this area will make commercial ventures more viable and have a flow on effect of improving services for the existing and new residents.

Construction of houses and physical infrastructure will stimulate creation of jobs in the residential and infrastructure construction sectors and in supporting industries such as garden and landscape supplies, home decorating and furniture.

Principle 6: Whether the Code Amendment can be appropriately project managed by Council staff, taking into consideration the timing of other priorities and projects and the resources available

This project is not envisaged in Council's current budget or within staff work plans. A project of this scale and complexity will draw significantly on staff resources, particularly for staff in the City Strategy and Civil Assets Departments. Work plans will need to be adjusted and some work that is not time-critical may need to be deferred or resourced differently. Importantly, Council's current priority is to deliver its substantial capital works program.

A funding agreement has been prepared that is acceptable to both the CEO and the Private Funder (YAS P&D) as required by the Council's resolution on 27 July 2021. It sets out the:

a) Intention of the proposed amendment
b) Private Funder's obligations
c) Council's obligations
d) Various acknowledgements and undertakings
e) Responsibility for the various stages including preparation of the Amendment, preparation of the Engagement Plan, undertaking engagement, responding to submissions and finalising the Code Amendment
f) Who will cover the cost of the various stages and components of the process.

The developer's consultants will undertake the investigations, engagement with key stakeholders, prepare the draft Code Amendment and determine the infrastructure requirements to develop in the new zone. Council staff will be consulted throughout these stages and will be responsible for all other stages, including community engagement.

The funding agreement sets out a method of cost recovery that will assist with the recovery of Council's costs. This is discussed in more detail in section 3 - Finance.

Council staff will use these funds to assist with resourcing the Code Amendment including the engagement of consultants as required.

The Council may choose to appoint an accredited professional with prescribed qualifications in accordance with the *Planning, Development and Infrastructure (Accredited Professionals) Regulations 2019* to undertake peer reviews of the work undertaken by the Private Funder to provide recommendations to Council including proposed amendments to the draft Code Amendment.

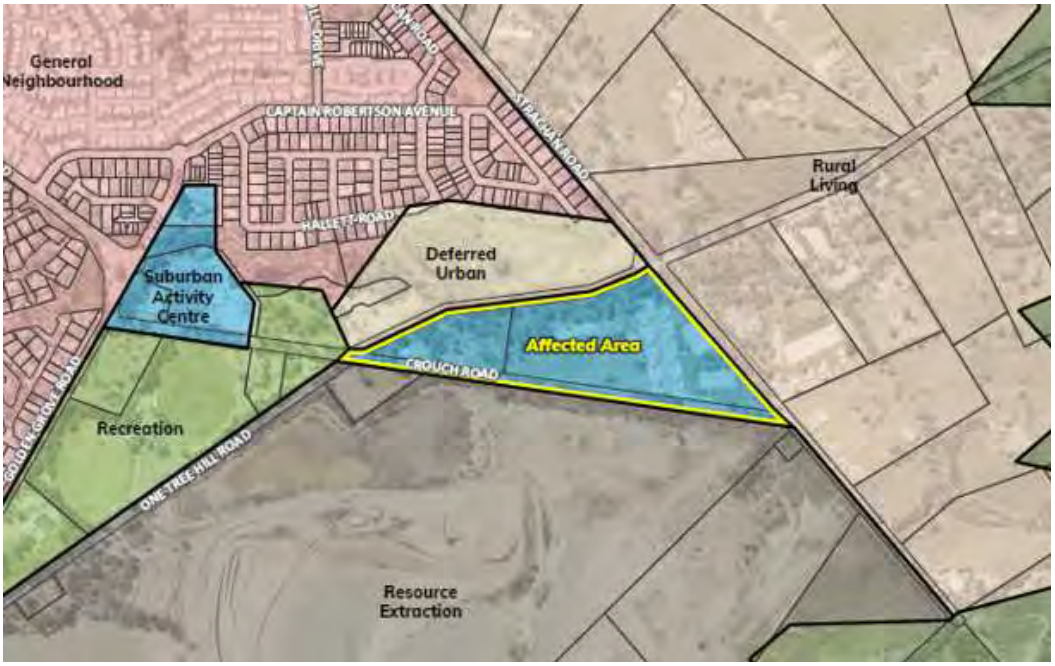
2.3 Process and timeline

The process for undertaking a Code Amendment is set out in the *Planning, Development and Infrastructure Act, 2016* (PDI Act). An indicative timeline is set out in Appendix B of the Proposal to Initiate a Code Amendment in Attachment 2. While approximate target dates have been set these may be subject to change.

Indicative Milestone	*Step*
November 2021	Minister approves the Proposal to Initiate a Code Amendment
January 2022	Council considers draft Code Amendment, infrastructure requirements and Engagement Plan
March-April 2022	Community engaged on the draft Code Amendment
June 2022	Council considers Engagement Report and final draft Code Amendment
August 2022	SA Planning Commission considers the final Code Amendment
September 2022	New zoning officially activated

2.4 Golden Grove Commercial/Retail Code Amendment

YAS P&D are separately proposing to rezone land at 53 and 99 Crouch Road from Rural Living Zone to a commercial/retail type zone in support of the existing and proposed future population. See the blue shaded area and labelled "Affected Area" in yellow font in the location plan below and.



This rezoning proposal does not fall within the scope of the Code Amendment proposal currently before the Council, however, there is a degree of connection between the two given they affect the same zone and will serve a similar community. YAS P&D has indicated it is committed to working closely with Council as it progresses the Commercial/Retail Code Amendment with the Attorney General's Department (AGD).

The Proposal to Initiate a Golden Grove Commercial /Retail Code Amendment is provided in Attachment 11. Notwithstanding that this has already been lodged with the AGD in August 2021, Council staff have been advised that both Proposals to Initiate a Code Amendment will be considered by the AGD at the same time.

3. FINANCIAL

3.1 Funding agreement

A high level estimate of costs that will be incurred by Council to lead the Code Amendment process is in the order of $90,000. This includes:

a) Staff time and project management including recovery of On-costs for staff time.

b) Technical consultants
c) Legal costs (excluding preparation of funding agreement)
d) Materials and advertising for community engagement
e) Contingency on total costs

The funding agreement sets out the rights, responsibilities and obligations of both parties and the amount the Private funder has agreed to pay to the Council (Agreed Sum plus any unanticipated costs) to lead the Code Amendment, acknowledging that the Agreed Sum represents a reasonable estimation of the Council's known administrative costs.

Cost recovery	**Amount**
Agreed Sum	$90,000
Peer Reviews	Subject to a request for quote and agreement from the private funder
Unanticipated costs (if any)	Subject to agreement from the private funder prior to these costs being incurred

3.2 Future infrastructure

Further discussions will be required to understand who will fund any upgrades to infrastructure outside the affected area that will be necessary to enable development of the affected area. Council's Long Term Financial Plan does not anticipate this development or these costs. Council's Asset Management Plans will also need to include the additional assets that will be transferred to Council's care including roads, kerbing and water tables, parks, playgrounds, paths, stormwater, street lighting, street trees, public toilets, carparking etc.

This will have an ongoing implication for maintenance and future renewal but will be offset through the increase in rate revenue generated from the creation of new residential properties and the adjoining new commercial properties.

4. STRATEGIC OBJECTIVES

4.1 Strategic Plan

The following strategic objectives in Council's Strategic Plan 2025 are the most relevant to this project. They have also been discussed in section 2.1 - Discussion and are addressed in the Proposal to Initiate a Code Amendment in Attachment 2.

Objective	**Comments**
Community	
People can have a say in decisions that affect them and the key decisions of the Council	The Code Amendment process includes engagement with the community.

Environment	
Environmentally valuable places and sites that are flourishing and well cared for	Investigations will identify environmentally sensitive locations potentially affected by the proposed Code Amendment.
A community that is protected from public and environmental health risks	Impact and limitations from proximity of the mining operations adjacent the Affected Area will be considered as part of the Investigations stage.
The carbon footprint of our city is reduced through the collective efforts of community and Council, including businesses	The proposed rezoning will increase our carbon footprint through construction and development of a large area. We should be striving to minimise urban sprawl, and compact urban development at the urban fringe in suitable locations is one way to achieve this.
We are resilient to climate change and equipped to manage the impact of extreme weather events	The design of new housing areas needs to incorporate the best strategies to address climate change.
Our tree canopy is increasing	New subdivisions include planting of trees in streets, private properties and public open spaces
Economy	
Modbury Precinct is revitalised as the city's key activity centre	Investigations will need to look at what kind of impact building 1,500 new homes at Golden Grove will have on the housing market in Modbury Precinct.
A local economy that is resilient and thrives, where businesses are supported to grow and prosper, provide local jobs and sustain our community and visitors and utilize technology to improve the livability of our city	Construction of new housing will generate jobs in the construction and housing sectors. An additional 3,900 residents will increase demand for local goods and services.
Support the efficient use of land for valuable mineral extraction and energy resources	Impact and limitations from proximity of the mining operations adjacent the Affected Area will be considered as part of the Investigations stage.
Places	
Housing is well designed and affordable and responds to the changing needs of existing and future residents	Investigations will need to consider the housing needs of existing and future residents and this will influence the zoning of the Affected Area.
Infrastructure and community facilities are fit for purpose, constructed using	Infrastructure requirements will be considered as part of Investigations.

sustainable practices and well maintained	
Leadership	
Leadership and advocacy is focused on the long term interests of the community	Council has a role in leading and advocating for the current and future community, this includes considering how proposals such as large scale housing developments align with the Council's long term strategic objectives.
Planning considers current and future community needs	As above.
Decision making is informed, based on evidence and is consistent	Any Investigations will need to be thorough, rigorous and communicated to the Council to assist with decision-making.
Major strategic decisions are made after considering the views of the community	The Code Amendment process includes engagement with the community.

5. LEGAL

5.1 Planning, Development and Infrastructure Act

The process for amending the Planning and Design Code is prescribed in the *Planning, Development and Infrastructure Act, 2016* and Council is responsible for ensuring its process for amending the Code meets the requirements of the Act.

5.2 Funding agreement

Council's lawyer Norman Waterhouse has assisted with the preparation of a voluntary funding agreement between the Council and the Private Funder, YAS Property & Development Pty Ltd. The substance of the agreement has been discussed in Section 2.1 of this report as it relates to Principle 6 of Council's policy for privately funded Code Amendments.

Where there is a need for infrastructure augmentation external to the affected area, an Infrastructure Agreement between the Council and the proponent will be prepared. Council staff will be supported by Norman Waterhouse in preparing these agreements and Council will be advised of the nature of such agreements. Council may at that time either choose to delegate to the CEO the power to enter into such agreements or it may prefer for the agreements to be endorsed by the Council.

6. RISK – IDENTIFICATION AND MITIGATION

Council is not obligated or legally required to initiate a Code Amendment proposed by a third party.

If Council resolves to not initiate a Code Amendment the process stops. In doing so, Council should note that if the developers secure an interest in all properties in the Affected Area, they can request the Minister for Planning (Attorney General) to initiate a Code Amendment on their behalf as provided by the PDI Act. In this situation, Council would be consulted as a stakeholder in a developer-led Code Amendment and Council's ability to influence outcomes would be significantly less than in the case of a Council-led Code Amendment. Furthermore community engagement would be undertaken and managed by the proponent and Council would have a limited role in the development of the final Code Amendment presented to the Minister for approval.

If Council resolves to lead the Code Amendment it would have a greater say in establishing the desired outcomes, staff would be more involved in the investigations and Council would lead the community engagement process. Council would also be responsible for approving the final Code Amendment to be presented to the Minister. The developer has also committed to pay to the Council $90,000 plus the cost of peer reviews to offset the costs of undertaking a Code Amendment.

Council may determine at any stage of the process to not proceed further due to feedback received from stakeholders or other reasons considered to be reasonable in the opinion of the Council. The proponents are aware of this clause in Council's *Third Party and Privately Funded Code Amendment Policy* and the funding agreement clarifies this position.

A risk assessment has been undertaken on the process and the key risks have been identified as follows:

a) There are mixed messages in the community about the Code Amendment and the process that potentially cause confusion, undermine trust and limit access to factual information
b) Upcoming State Government and Local Government elections in 2022
c) Delays in achieving milestones due to unforeseen issues arising
d) Peer reviews require significant re-work resulting in delays

A risk management plan will be managed by the CEO and staff responsible for managing the Code Amendment and reviewed on a regular basis.

7. ACCESS AND INCLUSION

Refer to Council report dated 27 July 2021 titled "Proposed Rezoning of Golden Grove Rural Living Zone for Residential Use"

8. SOCIAL AND COMMUNITY IMPACT

Refer to Council report dated 27 July 2021 titled "Proposed Rezoning of Golden Grove Rural Living Zone for Residential Use"

9. ENVIRONMENTAL

Refer to the Proposal to Initiate a Code Amendment in Attachment 2.

10. ASSETS

The Code Amendment will focus on establishing the future zoning aspirations and land uses that can establish in the affected area, and proposes policies and planning rules that will be considered during the assessment of development applications including applications for land division.

Investigations will identify infrastructure requirements for the affected area as well as any augmentation required for existing services and infrastructure outside the affected area that will be required as a result of the rezoning.

Following the rezoning, it will be the developer's responsibility to provide the new infrastructure within the affected area as part of the land division process including roads, parks, playgrounds, footpaths, shared use paths, stormwater, street lighting, street trees, sewer, water, gas, telecommunication services, electricity, etc.

Council and utility providers will be responsible for the ongoing maintenance of these new assets.

11. PEOPLE AND WORK PLANS

Refer to section 2.1 – Discussion.

12. COMMUNITY AND STAKEHOLDER ENGAGEMENT

No consultation has occurred at this stage with the community in relation to this matter. Council has however provided information on its website about the process via a Latest News article and sent letters to owners of properties located in the Affected Area providing similar information as provided in the Latest News article. See letter in Attachment 12.

The engagement for all Code Amendments must be undertaken in accordance with the Community Engagement Charter (developed under the PDI Act) which establishes an outcome-based, measurable approach for engaging communities. One of the requirements of the Charter is an Engagement Plan that sets out how engagement will meet the Charter's principles, the extent of engagement proposed, key messages and the tools to be used. The Engagement Plan will be prepared by Council staff and presented to Council for consideration with the draft Code Amendment prior to community engagement.

Council's Community Engagement Public Consultation Policy does not apply to public consultation requirements under the PDI Act 2016, however, the policy will provide guidance in preparing the Engagement Plan when determining suitable tools and engagement approaches that the Tea Tree Gully community has come to expect with engagement from council.

Following engagement, an Engagement Report containing the outcomes of engagement is presented to Council along with any proposed amendments to the Code Amendment. The Engagement Plan and Report will be provided to the Minister together with the Code Amendment for approval.

13. COMMUNICATIONS OF COUNCIL DECISION

A letter will be sent to the owners of properties located in the affected area and a Latest News article will be posted to the Council website advising of Council's decision. If Council resolves to proceed with the investigations for the Code Amendment, a webpage will be created specifically for this project for all interested parties to reference throughout the process.

14. INTERNAL REPORT CONSULTATION

The following staff have been included in the consultation process in the preparation of this Report.

Name	Position	Consulted about
Deana Taglierini	Governance Advisor	Report recommendation
Cherie Gill	Senior Strategy Planner	Policies, Design Code and Planning
Gabby D'Aloia	Manager Civil Assets	Civil works and infrastructure requirements
Wahid Yousafzai	Team Leader Civil Assets	Civil works and infrastructure requirements
Elissa Graves	Manager Customer and Communications	Communications
Sarah McDougall	Community Engagement Officer	Community engagement

Attachments

1. Correspondence to CEO from URPS regarding Proposal to Initiate Code Amendment for Golden Grove Commercial/Retail Zone 19
2. Proposal to Initiate Amendment - Rural Living Zone to Neighbourhood-type Zone (Golden Grove) 22
3. Draft preliminary report - Air Quality Study 67
4. Draft preliminary report - Aboriginal and Historical Heritage 97
5. Draft preliminary report - Flora and Fauna Due Diligence 135
6. Draft preliminary report - Environmental Due Diligence 217
7. Draft preliminary report - Environmental Noise Assessment 732
8. Draft preliminary report - Infrastructure 746
9. Draft preliminary report - Stormwater Management Strategy 829
10. Draft preliminary report - Traffic Due Diligence 857
11. Proposal to Initiate Amendment - Commercial/Retail Code Amendment (Golden Grove) 886
12. Letter to property owners in the affected area 906

Report Authorisers

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Ref: 20ADL-0927

30 September 2021

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John Moyle
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Dear John

Golden Grove Commercial/Retail Code Amendment

URPS acts for YAS Property & Development (YAS P&D) who has an interest in land located at Golden Grove. As discussed with Council previously, YAS P&D is actively progressing a proponent initiate Code Amendment to rezone two parcels from Rural Living to a retail/commercial type zone.

The Proposal to Initiate was lodged with the Attorney General's Department on 10 August 2021. This followed receival of Council's in-principle at the July 2021 meeting (Item 21.1).

Affected Area

The land proposed to be rezoned is described 53 & 99 Crouch Road, Golden Grove. This land is currently zoned Rural Living and the rezoning of this land is being advanced separately from the balance of land in the Rural Living Zone which is subject to the Golden Grove (Rural Living to Neighbourhood-Type Zone) Code Amendment.

Figure 1 below identifies the Affected Area.

Figure 1: Affected Area



Why Rezone and Outcome Sought by Code Amendment

Preliminary analysis of consumer demand in the locality confirms that there remains opportunity for additional retail/commercial type uses. This is independent of the demand which will be generated by the growth resulting from the Golden Grove (Rural Living to Neighbourhood-Type Zone) Code Amendment.

The land subject to this request is located to the north-eastern fringe of Greater Adelaide and currently utilised for rural living purposes. The land in question is currently used for low-density residential and animal keeping pursuits, including stabling of horses and grazing. It is identified that 53 Crouch Road, Golden Grove comprises a Local Heritage Place.

The **proposal seeks to rezone the land to facilitate Retail/Commercial type activities** to address identified and anticipated future retail/commercial demand.

Working with Council

It is recognised that there are synergies between the investigations being undertaken for the proposed Golden Grove (Rural Living to Neighbourhood-Type Zone) Code Amendment and this amendment. YAS P&D is committed to working closely with Council as it progresses this Code Amendment.

We look forward to continuing our relationship with Council as we progress this Code Amendment. Should you have any questions or require clarity on any of the above

SHAPING GREAT COMMUNITIES

please don't hesitate to contact me on 0408 239 745 or email at achown@urps.com.au.

Yours sincerely



Andrew Chown
Principal Consultant

SHAPING GREAT COMMUNITIES

PROPOSAL TO INITIATE AN AMENDMENT TO THE PLANNING & DESIGN CODE

Golden Grove (Rural Living Zone to Neighbourhood-type Zone) Code Amendment

By the City of Tea Tree Gully *(the Proponent)*

_____ **(Signature Required)**

City of Tea Tree Gully (the Proponent)

Date: 12 October 2021

This Proposal to Initiate document together with conditions specified by the Minister forms the basis for the preparation of a proposed amendment to the Planning and Design Code for the purpose of section 73(2)(b) of the *Planning, Development and Infrastructure Act 2016.*

MINISTER FOR PLANNING AND LOCAL GOVERNMENT

Date:

1. INTRODUCTION 3
1.1. Designated Entity for Undertaking the Code Amendment 3
1.2. Rationale for the Code Amendment 4
2. SCOPE OF THE CODE AMENDMENT 5
2.1. Affected Area 5
2.2. Scope of Proposed Code Amendment 6
3. STRATEGIC PLANNING OUTCOMES 7
3.1. Alignment with State Planning Policies 7
3.2. Alignment with Regional Plans 17
3.3. Alignment with Other Relevant Documents 22
4. INVESTIGATIONS AND ENGAGEMENT 25
4.1. Investigations Already Undertaken 25
4.2. Further Investigations Proposed 36
4.3. Engagement Already Undertaken 39
4.4. Further Engagement Proposed 40
5. CODE AMENDMENT PROCESS 41
5.1. Engagement Plan 41
5.2. Engagement Report 42
5.3. Code Amendment Timetable 42

1. INTRODUCTION

The City of Tea Tree Gully (the Proponent) is proposing to initiate an amendment to the Planning and Design Code (the Code Amendment) as it relates to land within the Rural Living Zone at Golden Grove (the Affected Area).

The purpose of this Proposal to Initiate is to seek approval of the Minister for Planning and Local Government (the Minister) to initiate the Code Amendment under section 73(2)(b) of the *Planning, Development and Infrastructure Act 2016* (the Act).

While the Proponent seeks to initiate the Code Amendment, the process will be funded by private entities with an interest in the majority of landholdings in the Affected Area (YAS P&D – private funder) in accordance with a funding agreement with Council. Council will however, as the Proponent, maintain full control over the Code Amendment process and decision making responsibilities in accordance with the Act.

This Proposal to Initiate details the scope, relevant strategic and policy considerations, nature of investigations to be carried out and information to be collected for the Code Amendment. It also details the timeframes to be followed in undertaking the Code Amendment, should this Proposal to Initiate be approved by the Minister.

The Proponent acknowledges that the Minister may specify conditions on approving this Proposal to Initiate, under section 73(5) of the Act. In the event of inconsistency between this Proposal to Initiate and any conditions specified by the Minister, the conditions will apply.

1.1. Designated Entity for Undertaking the Code Amendment

In accordance with section 73(4)(a) of the Act, the Proponent will be the Designated Entity responsible for undertaking the Code Amendment process. As a result:

1.1.1 The Proponent acknowledges that it will be responsible for undertaking the Code Amendment in accordance with the requirements of the Act.

1.1.2 The Proponent declares that it has or intends to enter into an agreement with a third party (private funder) to assist with the investigations and for the recovery of costs incurred in relation to the Code Amendment under section 73(9) of the Act.

1.1.3 The Proponent's contact people responsible for managing the Code Amendment and receiving all official documents relating to this Code Amendment are:

Ingrid Wilkshire Manager City Strategy City of Tea Tree Gully ingrid.wilkshire@cttg.sa.gov.au 8397 7292	Cherie Gill Senior Strategy Planner City of Tea Tree Gully cherie.gill@cttg.sa.gov.au 8397 7352

The Proponent intends to undertake the Code Amendment by:

a) Working collaboratively with consultants engaged by the private funder to undertake the investigations required for the Code Amendment; AND
b) Utilising professional expertise of employees of the Proponent and private funder's consultants including:

- Ingrid Wilkshire, City of Tea Tree Gully, Bachelor of Arts (Planning) (PIA Registered Planner)
- Cherie Gill, City of Tea Tree Gully, Master of Urban and Regional Planning (PIA Registered Planner)
- Grazio Maiorano, URPS, Bachelor of Arts (Planning) & Grad D Urban and Regional Planning (PIA Registered Planner - Fellow)
- Michael Osborn, Future Urban, Grad D Urban and Regional Planning (PIA Registered Planner)

1.2. Rationale for the Code Amendment

The Code Amendment seeks to rezone land to the eastern fringe of Greater Adelaide to support a conventional residential outcome. The land is currently zoned Rural Living and located immediately adjacent the built-up area of Golden Grove. This land represents one of the last remaining areas within the City of Tea Tree Gully capable of supporting population growth, with the majority of other consolidation opportunities throughout the City comprising small-scale urban infill.

The land is situated in close proximity to the existing built-up area, and the locality is well serviced by established essential infrastructure. The Code Amendment would result in the consolidation of the built-up area of Golden Grove and assist in the delivery of an orderly expansion of metropolitan Adelaide.

Land within the Rural Living Zone is currently used for low density residential purposes with a small number of allotments used for ancillary primary production or animal keeping activities.

The advancement of a Code Amendment that allows low density residential activity will:

- Provide an opportunity to start addressing the challenges and opportunities identified in Council's Strategic Plan 2025 through the consolidated and staged development of the area, namely, the provision of new, mixed housing stock designed in a manner that addresses future needs and contributes to increased population density and diversity.
- Leverage a new, previously unidentified opportunity to deliver urban consolidation in the north-east of Adelaide. The intended outcomes of this Code Amendment will achieve targeted infill development within the existing Planned Urban Lands and attract new residents to the City.
- Contribute to the consolidation of the urban footprint of metropolitan Adelaide in a manner that does not compromise strategic primary production areas or areas of strong visual or environmental significance.
- Recognise the importance of protecting neighbouring land uses, namely extractive industries, from unreasonable intrusion and take a pro-active approach to early and ongoing engagement.

The proposal will primary affect the existing Rural Living Zone, however, consideration will be given to investigating the merits of adjusting the zone boundary between the Affected Area and the Hills Face Zone to correct minor zone anomalies.

The Minister for Planning is currently reviewing the boundary of the EFPA and if the EFPA boundaries are modified in this locality it is proposed that the scope of this Code Amendment include investigations to consider whether minor Hills Face Zone boundary anomalies resulting from the EFPA Review can be rectified as part of this Code Amendment. The progression of these minor amendments will be dependent on the outcomes of the EFPA Review.

The Code Amendment will complete investigations and consultations to facilitate the rezoning of land currently zoned Rural Living to a suitable neighbourhood-type zone, or a combination of a neighbourhood-type Zone and Deferred Urban, depending on the outcomes of investigations relating to the quarry interface.

It is anticipated that the Code Amendment will deliver some 1,500 residential allotments and is proposed to be progressed in step with a separate Commercial/Retail Code Amendment affecting to support the growth in retail and commercial demand from the additional adjacent properties at 53 and 99 Crouch Road Golden Grove. It is understood that the Proposal to Initiate the Commercial/Retail Code Amendment has been submitted to the Minister by a private proponent, who is also the private funder of this Code Amendment.

2. SCOPE OF THE CODE AMENDMENT

2.1. Affected Area

The proposal seeks to amend the Code for the Affected Area, being the land located within the Rural Living Zone at Golden Grove. This is described as that land bounded by the Hills Face Zone to the north and east, Strachan Road, Crouch Road and One Tree Hill Road to the west, and the Hills Face and Resource Extraction Zones to the south. Excluded from the Affected Area are the properties at 53 and 99 Crouch Road, Golden Grove, which are subject to a separate Commercial/Retail Code Amendment.

It is noted that several allotments in the Affected Area are dissected by the boundary between the Rural Living and Hills Face zones, and separately the Environment and Food Production Area Overlay. This Code Amendment is primarily focused on the areas located within the Rural Living Zone.

Notwithstanding, it is noted that the State Planning Commission is currently reviewing the EFPA boundaries. The EFPA was introduced via the Act to:

- Protect our valuable food producing and rural areas as well as conserving our prized natural landscapes, and tourism and environmental resources
- Support our sustainable growth and encourage the building of new homes in our existing urban footprint where supporting infrastructure already exists
- Provide more certainty to food and wine producers as well as developers on the direction of future development in metropolitan Adelaide.

If the EFPA boundaries are modified in this locality it is proposed that the scope of this Code Amendment include investigations to consider whether minor Hills Face Zone boundary anomalies resulting from the EFPA Review can be rectified as part of this Code Amendment.

A map showing the Affected Area is included as Attachment A.

2.2. Scope of Proposed Code Amendment

Current Policy	Zone: · Rural Living (Primary) · Hills Face Zone (Secondary consideration – limited to minor zone boundary anomalies) Overlays · Hazards (Bushfire – Medium Risk) · Hazards (Flooding) · Hazards (Flooding – Evidence Required) · Defence Aviation Area · Regulated and Significant Tree · Prescribed Water Resources Area · Prescribed Wells Area · Water Resources Technical and Numeric Variations · Minimum site area – 4ha
Amendment Outline	The amendment seeks to rezone the Rural Living Zone at Golden Grove to facilitate development of a neighbourhood (residential) type outcome (excluding properties at 53 and 99 Crouch Road, Golden Grove)
Intended Policy	· The developer has indicated a preference for the area to be rezoned to Master Planned Neighbourhood Zone or a combination of Master Planned Neighbourhood Zone (north of One Tree Hill Road) and Deferred Urban (south of One Tree Hill Road). Council has proposed that as part of the investigations, the whole suite of new Neighbourhood-type zone modules in the Planning and Design Code be considered in determining the most suitable new zone/s. The developer concurs with this approach. · Consider the applicability of the current Overlays and whether any additional Overlays are required.

3. STRATEGIC PLANNING OUTCOMES

Proposed Code Amendments occur within a state, regional and local strategic setting, which includes:

- State Planning Policies (SPPs)
- Regional Plans
- Other relevant strategic documents.

3.1. Alignment with State Planning Policies

The State Planning Policies (SPPs) set out the State's overarching goals and requirements for the planning system. Under section 66(3)(f) of the Act, the Code must comply with any principle prescribed by a SPP.

The Code Amendment should be initiated because the strategic planning outcomes sought to be achieved through the Code Amendment align with or seeks to implement the following SPPs:

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
SPP 1 Integrated Planning: To apply the principles of integrated planning to shape cities and regions in a way that enhances our liveability, economic prosperity and sustainable future.	
1.1 An adequate supply of land (well serviced by infrastructure) is available that can accommodate housing and employment growth over the relevant forecast period.	The proposed Code Amendment seeks to deliver a further opportunity for the rationalisation of the residential growth within Greater Adelaide. The land is located within the Inner North region as identified in the Commission's *Land Supply Report for Greater Adelaide* (Report). This Report provides an overview of the projected future population and associated demand for residential growth. Based on the modelled high scenario, the Inner North is expected to require some 14,000 new dwellings between 2020 and 2030. The Code Amendment provides an opportunity to address this demand. This is supported by data made available by Remplan which identifies the continued growth in the number of persons calling the City of Tea Tree Gully home over the period 2011 – 2016 by 2,238 persons[1]. While it is recognised that this is a reasonably slow growth rate, it is important

[1] Remplan, 2021, *City of Tea Tree Gully – Population Summary.*

	to note the characteristics of the city. The Rural Living zoned land in Tea Tree Gully is one of the last remaining opportunities in the City for large scale urban consolidation to support population growth. The balance of opportunities are confined largely to infill development in existing neighbourhood-type zones that are already developed for housing and are generally typified by small scale land division. The proposal has the potential to yield some 1500 allotments to accommodate future residential land uses for approximately 3,900 residents and will deliver a unique offering in the eastern foothills of metropolitan Adelaide. Notwithstanding the current zoning of the land, the Affected Area is situated adjacent an established urban residential area that is well serviced by existing essential infrastructure. It is noted that a separate retail/commercial type Code Amendment is proposed. This Code Amendment seeks to rezone land to support service offerings in close proximity of the Affected Area.
1.2 Provide an orderly sequence of land development that enables the cost-effective and timely delivery of infrastructure investment commensurate with the rate of future population growth. **1.3** Plan growth in areas of the state that is connected to and integrated with, existing and proposed public transport routes, infrastructure, services and employment lands. **1.4** Protect areas of rural, landscape character, environmental importance,	The proposed Code Amendment proposes the logical and orderly delivery of residential growth within the metropolitan Adelaide region over a period of 10-15 years, providing for the consolidation of built form. The land is located on the fringe of the established urban area and is well connected to existing infrastructure such as major collector roads or is capable of being connected to infrastructure via extension. The Affected Area is located in proximity of identified Adelaide Metro public transport routes on Golden Grove Road. Investigations undertaken to inform this Code Amendment will include both consideration of future public transport needs and engagement with the

mining or food production significance from the expansion of urban areas, towns and settlements. **1.6** Plan for strategic infrastructure that helps to shape the pattern of settlement in a way that enhances quality of life and supports long-term sustainability.	Department of Infrastructure and Transport (DIT) and Adelaide Metro. The Code Amendment proposes to rezone land in proximity of the declared Golden Grove Extractive Industries Zone (GGEIZ). The GGEIZ is identified by the Department of Energy and Mining (DEM) as a Strategic Mineral Resource Area and as such requires protection. Preliminary engagement has been undertaken with DEM to understand the long-term needs of extractive industry operators. The Code Amendment and policy response will be acutely aware of the need to protect this resource and not impede upon the continued operation of extractive industries. Separately, the Code Amendment proposes to make provision for the consideration of minor Hills Face Zone boundary anomalies. This would only occur if the separate EFPA boundary review being undertaken by the Commission identifies amendments to the corresponding General Registry Office (GRO) Plan in this locality. The amendments that would take place are minor in nature and would rectify long-standing anomalies. The proposed Code Amendment includes detailed infrastructure investigations which will identify the infrastructure required to support the long-term development of the Affected Area. The delivery of infrastructure will be supported by appropriate infrastructure provision mechanisms (e.g. infrastructure agreements).
1.7 Regenerate neighbourhoods to improve the quality and diversity of housing in appropriate locations supported by infrastructure, services and facilities.	The Affected Area consists of large rural living allotments. The Code Amendment proposes to deliver a range of new low-density residential outcomes on the fringe of the existing built-up urban area. The current zoning does not support the redevelopment of the area in this manner.

SPP 2 Design Quality: To elevate the design quality of South Australia's built environment and public realm.	
2.10 Facilitate development that positively contributes to the public realm by providing active interfaces with street and public open spaces.	The Code Amendment seeks to provide a zoning environment that will ensure a cohesive public realm is achieved utilising best practice public realm principles.
2.14 Provide public open space that accommodates a range of passive, active and formal sporting opportunities at the state, regional and/or local level	The future development of the Affected Area will deliver public open space in a manner that provides both local amenity and a stormwater management function.
SPP 4 Biodiversity: To maintain and improve our state's biodiversity and its life supporting functions.	
4.1 Minimise impacts of development on areas with recognised natural character and values, such as native vegetation and critical habitat so that critical life-supporting functions to our state can be maintained.	The Affected Area includes large rural living allotments that have been disturbed or altered with little remnant native vegetation remaining. A preliminary analysis of vegetation and habitat has been undertaken which confirms that the overwhelming majority of land is exotic vegetation with only small pockets of high habitat value. The Code Amendment will take account of the characteristics of the Affected Area and the recommendations contained in the Flora and Fauna Due Diligence Report prepared by EBS Ecology.
SPP 5 Climate Change: Provide for development that is climate ready so that our economy, communities and environment will be resilient to climate change impacts.	
5.2 The good design of public places to increase climate change resilience and future liveability.	The Code Amendment proposes to deliver a zoning environment which supports the development of a higher density residential outcome. The design of future public places such as parks and open spaces will take into account the characteristics of the locality and will seek to enhance liveability and deliver a resilient urban form.

5.5 Avoid development in hazard-prone areas or, where unavoidable, ensure risks to people and property are mitigated to an acceptable or tolerable level through cost-effective measures.	The Affected Area is located within the: · Hazards (Bushfire – Medium Risk) Overlay · Hazards (Flooding) Overlay · Hazards (Flooding – Evidence Required) Overlay. These Overlays provide clear guidance on matters related to natural hazards. Detailed investigations will be undertaken to understand the likely impact of these Overlays and ensure appropriate measures are taken to mitigate against risk. Notwithstanding, initial engagement has been undertaken with the Country Fire Service (CFS) to understand potential impacts and to gather input to the investigations required to support the Code Amendment. Preliminary comments from the CFS are as follows: · Bushfire mapping and policy is currently under review as part of the Statewide Bushfire Hazards Overlay Code Amendment. · Consideration needs to be given to Australian Standard AS3959. · Future development of the land needs to make provision for multiple access points to the road network. · Consideration needs to be given to vegetation management techniques along One Tree Hill Road to ensure that access and egress from the development area is not compromised in the event of a bushfire event. · Liaison with SA Water should be undertaken to ensure that adequate pressure/reticulation can be provided to the area to allow connection to the SA Water network. Mapping of native vegetation areas should be undertaken to assist the CFS to

	establish the residual bushfire risk post rezoning and development.
5.7 Protect and enhance areas that provide biodiversity and ecological services and maximise opportunities for carbon storage.	The Affected Area can be described as an altered landscape. Investigations will be undertaken by EBS Ecology as part of the Code Amendment to understand the ecological significance of the area.
SPP 6 Housing Supply and Diversity: To promote the development of well-serviced and sustainable housing and land choices where and when required.	
6.1 A well-designed, diverse and affordable housing supply that responds to population growth and projections and the evolving demographic, social, cultural and lifestyle needs of our current and future communities.	The Code Amendment proposes to deliver a zoning environment which supports residential growth in the northern part of the City of Tea Tree Gully which otherwise, has little to no residential growth potential on greenfield sites. Development outcomes sought will be well-designed and take into account the characteristics of the Affected Area, including topography and natural features.
6.2 The timely supply of land for housing that is integrated with, and connected to, the range of services, facilities, public transport and infrastructure needed to support liveable and walkable neighbourhoods.	The Code Amendment will deliver the rezoning of approximately 109ha of land to support residential growth over 10-15 years. The Affected Area is located on the urban fringe and has the potential to connect to nearby existing infrastructure and services.
6.3 Develop healthy neighbourhoods that include diverse housing options; enable access to local shops, community facilities and infrastructure; promote active travel and public transport use; and provide quality open space, recreation and sporting facilities.	The proximity of the Affected Area to metropolitan Adelaide and existing services offers a unique opportunity to provide a diverse range of housing which is not readily found in other locations in the northern residential market. Given the topography and environmental characteristics of the Affected Area, there is opportunity to integrate natural features into the future design.
SPP 7 Cultural Heritage: To protect and conserve heritage places and areas for the benefit of our present and future generations.	

7.1 Recognise and protect Indigenous cultural heritage sites and areas of significance.	The Code Amendment is not anticipated to impact on areas of Indigenous cultural heritage significance. Notwithstanding this, the Kaurna Yerta Aboriginal Corporation Registered Native Title Body Corporate will be consulted as part of the investigations along with a review of information available from the Department of Premier and Cabinet – Aboriginal Affairs and Reconciliation.
SPP 10 Mineral and Energy Resources: To protect key resources that contribute to our state's economy and provide valued employment opportunities.	
10.1 Define and protect mineral resources operations, associated infrastructure and undeveloped mineral resources from encroachment by incompatible land uses.	It is acknowledged that the land is located in proximity of the Resource Extraction Zone and that future use of the Affected Area must not compromise the future mining operations. Engagement has already commenced with the Department of Energy and Mining (DEM) and the Environment Protection Authority (EPA) and will continue to occur throughout the Code Amendment process. Direct consultation will also be undertaken with the private mine operators. Separately, detailed consideration of the potential impacts that may arise from the interface shared between the existing Resource Extraction Zone and Affected Area will form an integral part of the investigations.
SPP 11 Strategic Transport Infrastructure: To integrate land use policies with existing and future transport infrastructure, services and functions to preserve and enhance safe, efficient and reliable connectivity for people and business.	
11.1 Facilitate an efficient, reliable and safe transport network that connects business to markets and people to places (i.e. where	The proposed Code Amendment will result in a new local road network which connects to the wider network in a safe and convenient manner. The Affected Area is located adjacent the established residential suburb of Golden

they live, work, visit and recreate).	Grove and in close proximity to retail shops on Golden Grove Road as well as open space in Golden Grove and will ensure that convenient and safe access is retained to these areas.
11.2 Development that maximises the use of current and planned investment in transport infrastructure, corridors, nodes and services.	The locality is serviced by the existing Adelaide Metro bus network. There may be opportunity to expand this network to service the Affected Area. Adelaide Metro will be consulted as part of the Code Amendment.
11.3 Equitable contributions towards the funding and provision of transport infrastructure and services to support land and property development.	The Code Amendment includes a range of infrastructure investigations. It is anticipated that there may be a need to upgrade infrastructure outside the Affected Area to achieve the development outcomes. The equitable funding of any infrastructure outside the Affected Area is critical and will be considered throughout the rezoning process.
11.4 Minimise negative transport-related impacts on communities and the environment.	The Affected Area is well serviced by One Tree Hill Road Preliminary investigations considered the impact of noise from traffic utilising One Tree Hill Road on the northern portion of the affected area and no issues were noted. A traffic and transport report will be prepared to understand the likely traffic/transport implications of the proposal.
SPP 12 Energy: To support the ongoing provision of sustainable, reliable and affordable energy options that meet the needs of the community, business and industry.	
12.4 Development in the vicinity of major energy infrastructure locations and corridors (including easements) is planned and implemented to maintain the safe and efficient delivery and function of the infrastructure.	The Affected Area is subject to a 50m wide easement for the transmission of major 275KV overhead power lines. The Code Amendment will not impact upon this infrastructure and appropriate provision will be made within future development design. Notwithstanding, the proponents will work with ElectraNet and SAPN to

	determine the most appropriate solution for this infrastructure.
SPP 14 Water Security and Quality: To ensure South Australia's water supply is able to support the needs of current and future generations.	
14.5 Development should incorporate water sensitive urban design principles that contribute to the management of risks to water quality and other risks (including flooding) to help protect people, property and the environment and enhance urban amenity and liveability.	The future development of the Affected Area will take into account the characteristics of the land and ensure that water sensitive urban design principles are incorporated into designs.
14.6 Support development that does not adversely impact on water quality.	The Affected Area is subject to the Prescribed Water Resources Area Overlay and Prescribed Wells Area Overlay and Water Resources Overlay in the Planning and Design Code. The Code provides appropriate controls to ensure that the future development of the land protects water quality.
SPP 15 Natural Hazards: To build the resilience of communities, development and infrastructure from the adverse impacts of natural hazards.	
15.1 Identify and minimise the risk to people, property and the environment from exposure to natural hazards including extreme heat events; bushfire; terrestrial and coastal flooding; soil erosion; drought; dune drift; acid sulfate soils; including taking into account the impacts of climate change.	The Affected Area is located within the: · Hazards (Bushfire – Medium Risk) Overlay · Hazards (Flooding) Overlay · Hazards (Flooding – Evidence Required) Overlay. These Overlays provide clear guidance on matters related to natural hazards. Notwithstanding, detailed investigations will be undertaken to understand the likely impact of these Overlays and ensure appropriate measures are taken to mitigate against risk. Initial engagement has been undertaken in line with advice from the CFS. Preliminary comments from the CFS are as follows:

	· Bushfire mapping and policy is currently under review as part of the Statewide Bushfire Hazards Overlay Code Amendment. · Consideration needs to be given to Australian Standard AS3959. · Future development of the land needs to make provision for multiple access points to the road network. · Consideration needs to be given to vegetation management techniques along One Tree Hill road to ensure that access and egress from the development area is not compromised in the event of a bushfire event. · Liaison with SA Water should be undertaken to ensure that adequate pressure/reticulation can be provided to the area to allow connection to the SA Water network. · Mapping of native vegetation areas should be undertaken to assist the CFS to establish the residual bushfire risk post rezoning and development.
SPP 16 Emissions and Hazardous Activities: To protect communities and the environment from risks associated with emissions, hazardous activities and site contamination, whilst industrial development remains viable.	
16.1 Protect communities and the environment from risks associated with industrial emissions and hazards (including radiation) while ensuring that industrial and infrastructure development remains strong through: a) supporting a compatible land use mix through appropriate zoning controls b) appropriate separation distances between industrial	It is acknowledged that the Affected Area is located adjacent to and in proximity of the Golden Grove Resource Extraction Zone. The activities occurring on these sites are of significance to the State. It is understood that activities occurring at the interface are focused on extractive industries, with processing activities occurring quite some distance from the shared boundary. Nonetheless, preliminary investigations of environmental noise and air quality have been undertaken to understand the impact

sites that are incompatible with sensitive land uses c) controlling or minimising emissions at the source, or where emissions or impacts are unavoidable, at the receiver.	of the extraction and processing activities on the Affected Area north of One Tree Hill Road. These include: · Preliminary Environmental Noise Assessment · Preliminary Air Quality Study The investigations undertaken to date have not identified significant conflict, however investigations will be expanded to consider the impact on land south of One Tree Hill Road in the Affected Area i.e. land adjacent the Resource Extraction Zone. Appropriate measures would be incorporated into the Code Amendment and future development of the land to take into account any required separation distances to both provide certainty of operation to resource extraction activities and protection to future residents.
16.2 Assess and manage risks posed by known or potential site contamination to enable the safe development and use of land.	Site contamination is not anticipated to be an impediment to the future development of the land as indicated by preliminary research. A preliminary site investigation has been undertaken on land to the north of One Tree Hill Road. Further investigations will include the remaining land in the Affected Area. Site contamination is not anticipated to be an impediment to the future development of the land.

3.2. Alignment with Regional Plans

As with the State Planning Policies, the directions set out in Regional Plans provide the long-term vision as well as setting the spatial patterns for future development in a region. This includes consideration of land use integration, transport infrastructure and the public realm.

The 30-Year Plan for Greater Adelaide – 2017 Update volume of the Planning Strategy is relevant for this Code Amendment.

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan

Transit corridors, growth areas and activity centres	
P1 Deliver a more compact urban form by locating the majority of Greater Adelaide's urban growth within existing built-up areas by increasing density at strategic locations close to public transport.	The Affected Area is located within the Planned Urban Lands to 2045 as contained in the 30-Year Plan.
P4 Ensure that the bulk of new residential development in Greater Adelaide is low to medium rise with high rise limited to the CBD, parts of the Park Lands frame, significant urban boulevards, and other strategic locations where the interface with lower rise areas can be managed. **P11** Ensure new urban fringe growth occurs only within designated urban areas and township boundaries and outside the Environment and Food Production Areas, as shown on Map 3. **P12** Ensure, where possible, that new growth areas on the metropolitan Adelaide fringe and in townships are connected to, and make efficient use of, existing infrastructure, thereby discouraging "leapfrog" urban development.	The Code Amendment seeks to provide an area for low-medium density residential development which can be connected/ accessible to adjacent existing infrastructure. The Affected Area is contiguous with the existing built-up area and represents a logical expansion of the urban area and associated infrastructure. The Environmental Food Production Area has an interface with allotments which are located in the Affected Area. Investigations will need to be undertaken to consider this interface to ensure the orderly development of the proposed residential development area.
Design Quality	
P26 Develop and promote a distinctive and innovative range of building typologies for residential housing which responds to metropolitan Adelaide's changing housing needs, reflects its character and climate, and provides a diversity of price points. **P29** Encourage development that positively contributes to the public realm by ensuring compatibility with its surrounding context and provides active	The proposed Code Amendment is expected to introduce an appropriate zone which will facilitate low-density residential development. The General Development Policies contained in the Code, including those under the heading *Design in Urban Areas,* provide sufficient guidance to ensure design quality is achieved.

interfaces with streets and public open spaces.	
Housing Mix, affordability and competitiveness	
P36 Increase housing supply near jobs, services and public transport to improve affordability and provide opportunities for people to reduce their transport costs. **P42** Provide for the integration of affordable housing with other housing to help build social capital.	The developers have indicated that they are seeking to rezone the Affected Area to Master Planned Neighbourhood Zone. They consider this zone to be sufficiently flexible to enable them to deliver allotments which respond to market preference and choice in this location. The full suite of Neighbourhood-type zones will be considered in consultation with the Attorney General's Department (ie. Planning and Land Use Services team) as part of investigations to identify the most appropriate zone. An increase in the supply of residential zoned land is likely to increase competition in the northern/eastern residential land markets and therefore assist in controlling pricing pressures. Affordable housing outcomes are therefore more likely to be attainable across the City.
Health, Wellbeing and Inclusion	
P47 Plan future suburbs and regenerate and renew existing ones to be healthy neighbourhoods that include: · diverse housing options that support affordability · access to local shops, community services and facilities · access to fresh food and a range of food services · safe cycling and pedestrian-friendly streets that are tree-lined for comfort and amenity · diverse areas of quality public open space (including local parks, community gardens and playgrounds) · sporting and recreation facilities	A master planned, staged development outcome is proposed for this location. This will assist in the creation of a healthy neighbourhood though the establishment of greenways, open space, walking and cycling linkages, water sensitive urban landscaping and tree planting within the public realm.

· walkable connections to public transport and community infrastructure. **P49** Encourage more trees (including productive trees) and water sensitive urban landscaping in the private and public realm, reinforcing neighbourhood character and creating cooler, shady and walkable neighbourhoods and access to nature.	
Infrastructure	
P86 Ensure that new urban infill and fringe and township development are aligned with the provision of appropriate community and green infrastructure, including: · walking and cycling paths and facilities · local stormwater and flood management including water sensitive urban design · public open space · sports facilities · street trees · community facilities, such as childcare centres, schools, community hubs and libraries **P86** Design and locate community infrastructure to ensure safe, inclusive and convenient access for communities and individuals of all demographic groups and levels of ability.	The Code Amendment will include a review of both service and social infrastructure provision in order to identify existing capacity and the potential need to augment services. Relevant infrastructure agreements (as required) can be entered into should the need for augmentation be identified.
Biodiversity	
P93 Ensure that greenways are landscaped with local indigenous species where possible to contribute to urban biodiversity outcomes.	Ecological and engineering investigations will inform potential development opportunities and constraints. Disturbance of areas with potential biodiversity value will be minimised and these areas will be integrated into open space. Furthermore the Code already includes policies which encourage

	appropriate outcomes in respect to any land identified to be of biodiversity value.
P99 Ensure quality open space is within walking distance of all neighbourhoods to: · link, integrate and protect biodiversity assets and natural habitats · provide linkages to encourage walking and cycling to local activities · incorporate the principles of Crime Prevention Through Environmental Design for safety and amenity	The Code Amendment investigations will include a review of social infrastructure demands (including open space, education, and recreation). It is intended that these investigations will identify any needs required to support the projected population and inform the ultimate development outcome. The Code already includes policies which provide guidance in respect to the provision of open space at the subsequent development application stage.
Climate Change	
P105 Deliver a more compact urban form to: protect valuable primary production land · reinforce the Hills Face Zone, character preservation districts and Environment and Food Production Areas · conserve areas of nature protection areas · safeguard the Mount Lofty Ranges Watershed · reduce vehicle travel and associated greenhouse gas emissions.	The Code Amendment seeks to achieve a compact urban form with the Affected Area being located within the boundary of a designated urban area.
Water	
P115 Incorporate water-sensitive urban design in new developments to manage water quality, water quantity and water use efficiency and to support public stormwater systems.	The Code already includes policies which are instructive in respect to water quality, use and management. Engineering investigations will ensure that the proposed urban development will not be contrary to the relevant water policies.

Emergency Management and Hazard Avoidance	
P118 Minimise risk to people, property and the environment from exposure to hazards (including bushfire, terrestrial and coastal flooding, erosion, dune drift and acid sulphate soils) by designating and planning for development in accordance with a risk hierarchy of: · avoidance · adaptation · protection	It is acknowledged that the Affected Area is subject to the following Overlays in the Planning and Design Code: · Hazards (Bushfire – Medium Risk) Overlay · Hazards (Flooding) Overlay · Hazards (Flooding – Evidence Required) Overlay. These Overlays provide clear guidance on matters related to natural hazards. Notwithstanding this, detailed investigations will be undertaken to understand the likely impact of these Overlays and ensure appropriate measures are taken to mitigate against risk. Preliminary engagement has taken place with the CFS. It is noted that bushfire mapping and policy is currently under review as part of the Statewide Bushfire Hazards Overlay Code Amendment. It is intended that as investigations progress additional engagement will occur with the CFS to ensure that hazard matters are adequately addressed.

3.3. Alignment with Other Relevant Documents

Additional documents may relate to the broader land use intent within the scope of this proposed Code Amendment (or directly to the Affected Area) and therefore are identified for consideration in the preparation of the Code Amendment.

The following table identifies other documents relevant to the proposed Code Amendment:

Other Relevant Documents	Code Amendment Alignment with Other Relevant Documents
Strategic Plan 2025 Objectives (City of Tea Tree Gully)	

Environmentally valuable places and sites that are flourishing and well cared for	Investigations will identify environmentally sensitive locations potentially affected by the proposed Code Amendment.
A community that is protected from public and environmental health risks	Impact and limitations from proximity of the mining operations adjacent the Affected Area will be considered as part of the Investigations stage.
The carbon footprint of our city is reduced through the collective efforts of community and Council, including businesses	The proposed rezoning will increase our carbon footprint through construction and development of a large area. We should be striving to minimise urban sprawl, and compact urban development at the urban fringe in suitable locations is one way to achieve this.
We are resilient to climate change and equipped to manage the impact of extreme weather events	The design of new housing areas needs to incorporate the best strategies to address climate change.
Our tree canopy is increasing	New subdivisions will include planting of trees in streets, private properties and public open spaces
Modbury Precinct is revitalised as the city's key activity centre	Investigations will consider the impact of building 1,500 new homes at Golden Grove on the housing market in Modbury Precinct.
A local economy that is resilient and thrives, where businesses are supported to grow and prosper, provide local jobs and sustain our community and visitors and utilize technology to improve the livability of our city	Construction of new housing will generate jobs in the construction and housing sectors. An additional 3,900 residents will increase demand for local goods and services.
Support the efficient use of land for valuable mineral extraction and energy resources	Impact and limitations from proximity of the mining operations adjacent the Affected Area will be considered as part of the Investigations stage.
Housing is well designed and affordable and responds to the changing needs of existing and future residents	Investigations will need to consider the housing needs of existing and future residents and this will influence the zoning of the Affected Area.
Infrastructure and community facilities are fit for purpose, constructed using sustainable practices and well maintained	Infrastructure requirements will be considered as part of Investigations.

Leadership and advocacy is focused on the long term interests of the community	Council has a role in leading and advocating for the current and future community, this includes considering how proposals such as large scale housing developments align with the Council's long term strategic objectives.
Planning considers current and future community needs	As above.
Decision making is informed, based on evidence and is consistent	Any Investigations will need to be thorough, rigorous and communicated to the Council to assist with decision-making.
Major strategic decisions are made after considering the views of the community	The Code Amendment process includes engagement with the community.
Policies and Plans (City of Tea Tree Gully)	
Land Division Infrastructure and Open Space Management Policy	This policy guides decision making around public open space, roads and associated infrastructure proposed to be vested in Council as part of a land division. The policy seeks to ensure that sufficient areas of open space are provided for residents of new housing estates, and provides the standard of open space, road and infrastructure that Council will accept. A master planned estate in the area proposed to be rezoned would involve these considerations.
Open Space Policy	– *T*his policy describes the principles and framework that guides the provision, development and management of open spaces. The Policy seeks to provide inclusive and diverse open spaces that are distributed equitably across the City that enhances the city's character, provide opportunities for active and passive recreation, social interaction and community engagement, and protect and enhance the natural environment and biodiversity. A master planned estate provides the opportunity to consider a range of open space categories that offer both social and environmental benefit.
Public Lighting Policy	This policy aims to establish the principles for the provision of public lighting, provide guidance on the standard of lighting and establish service levels for lighting assets. Appropriate lighting that meets the requirements of SA Power Networks will need to be provided as part of the proposed development for the safe movement of vehicles and pedestrians.

Recycled Water Policy	Through this policy, Council promotes and supports the safe and responsible use of recycled water to reduce the pressures on limited drinking water resources for the purpose of maintaining public amenity and making the City a vibrant and liveable place for its community. Opportunities to connect to Council's recycled water supply can be explored if the rezoning occurs and there are more areas of open space to be irrigated.
Tree Management Policy	The objective of this policy is to maintain the tree and shrub vegetation under Council's care and control, in a manner that enhances the amenity and environmental benefits of the vegetation throughout the City while at the same time considering the public safety and development interests of the community and the current and future impacts on people and communities. This means that trees on Council roads and reserves in the affected area will need to be considered under this policy if affected by a future land division.
Waste Management Policy	This policy assists in the provision of an environmentally and financially sustainable and efficient kerbside waste and recycling collection service for the community and assist with the minimisation of waste material from the City of Tea Tree Gully. Consideration will need to be given to the increase in household waste to be collected by Council's service.
Assets Management Plans	These Plans include detailed information about each of Council's assets, and define which services will be provided, how they will be provided and what funding is required to cost-effectively deliver them over a 10-year period. The three most relevant plans are: Stormwater, Open Space and Transport. The new housing development will result in an increase in these assets that will need to be factored into the long term planning, along with all assets across the City.

4. INVESTIGATIONS AND ENGAGEMENT

4.1. Investigations Already Undertaken

A series of preliminary, high-level investigations were undertaken by private proponents prior to approaching Council to initiate a Code Amendment. These reports were focused on specific development areas and assisted proponents to inform internal decision-making processes to confirm that the Affected Area has the

potential to be developed for the intended purpose. These reports are provided as supporting information to this Proposal to Initiate document.

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
Preliminary Traffic Report (part Affected Area i.e. north of One Tree Hill Rd only) March 2020	WGA was engaged to prepare a preliminary traffic report for land located in the Rural Living Zone north of One Tree Hill Road. The purpose of the report was to: · Provide analysis of the existing and proposed future traffic impacts arising from the future development of the land for residential purposes. · Determine the traffic generation volumes and potential impacts. · Provide initial advice on the possible road upgrades required external to the Affected Area as a result of the future development.	· One Tree Hill Road is in a poor condition with the following concerns: o Lack of sealed shoulders o stormwater erosion on shoulders and swales o poor alignment and sight lines at Crouch Rd intersection o high level of roadside hazards and minimal safety barriers o on-street parking close to travel lanes at Harpers Field · The existing roundabout at Golden Grove Road/ One Tree Hill Road is not anticipated to cater for the additional traffic generated by development of the land and additional approach lanes are recommended · Existing major roads (e.g. Golden Grove Road are capable of accommodating additional traffic

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
		generated without upgrade · No additional upgrade works are required at the Golden Grove Road/ The Grove Way/ Yatala Vale Road intersection. · Council and DPTI raised issues for consideration: · Transfer ownership of Strachan Road to development · Importance of pedestrian/cycle links · Second access to road network is necessary It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.
Preliminary Infrastructure Services Report (part Affected Area i.e. north of One Tree Hill Rd only) March 2020	WGA was engaged to prepare a preliminary infrastructure services report which considered the viability of the future development of land located in the Rural Living Zone north of One Tree Hill Road. The purpose of the report was to:	· There are a range of utility services within the immediate locality which are capable of extension and augmentation to service future development. It is recognised that the scope of these investigations focused on land north of One

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
	· Investigate and determine the availability of current infrastructure servicing the Affected Area and its capacity. Infrastructure included; wastewater, potable water, communications, gas and electrical · Determine the anticipated requirements for infrastructure augmentation or upgrade works that may be required to bring land to market.	Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment. Accordingly, preliminary layout plans relating to sewer, potable water, roads and earthworks are no longer relevant and have been omitted from the report.
Stormwater Management Strategy (part Affected Area i.e. north of One Tree Hill Rd only) March 2020	WGA was engaged to prepare a stormwater management strategy for land located in the Rural Living Zone north of One Tree Hill Road. The purpose of the report was to: · To develop a strategy for the management of stormwater in a manner that meets the requirements of the City of Tea Tree Gully and the EPA as they relate to runoff volume and flow management, stormwater quality techniques to manage environmental aspects of receiving environments. · The strategy was based on:	· Stormwater is capable of being managed in a manner that achieves the requirements of Council and the EPA utilising techniques such as; flow restrictions, detention basins and wetland ponds · The site comprises steep slopes and as such measures need to be taken to ensure that erosion and post development water velocities are managed. It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
	· Flow management from the 1% AEP post development and restricting this to pre-development rates for the 20% AEP. · An overview of the internal stormwater drainage design · A general overview of the WSUD opportunities within the development area · Stormwater management techniques required to meet performance objectives.	required to consider the wider impacts of the proposed Code Amendment. Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.
Flora and Fauna Due Diligence Report March 2020	EBS Ecology was engaged to prepare a high-level Flora and Fauna Due Diligence Report. This report: · Summarised the applicable legislative requirements. · Provides a desktop review of the ecological databases to assess the potential risk of project works on ecological matters. · Provides a preliminary bushfire risk assessment.	· The desktop review identified 14 species of flora with a State conservation rating and 13 species of nationally rated flora in the study area. Notwithstanding, the project area is highly disturbed with little remnant native vegetation, with 6 threatened flora species deemed possible to occur within the project area. · Of the 27 species of threatened fauna with a State and National rating as possibly occurring within 5km of the project area, 8

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
		were deemed possible to occur. · Only 2 species of migratory birds have been identified as possibly occurring within the project area. · Whilst one Threatened Ecological Community was identified as possible, field work confirmed that this community does not occur in the project area. · The dominant vegetation species occurring is exotic vegetation. · Bushfire fuel loads are generally low-moderate in areas used for grazing and horticulture. Higher fuel loads exist elsewhere. It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.
Preliminary Environmental	Sonus was engaged to undertake a preliminary environmental noise	· The proposed future division of the subject land will not constrain the operation of the

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
Noise Assessment (part Affected Area i.e. north of One Tree Hill Rd only) March 2020	assessment. The purpose of this report was to: · Consider the impact of the sand mine and One Tree Hill Road as a potential noise sources on future residential activities. · Investigate the potential for future residential development to constrain the operation of the sand mine as well as acoustic amenity on the land.	sand mine more than the constraints posed by existing dwellings in closer proximity. · The operation of mobile plant at the surface in proximity of dwellings has the potential to create noise. This would be temporary; however allowance should be made for acoustic façade treatments on future dwellings in particular locations. · One Tree Hill Road's current and anticipated future category does not result in a need to undertake a dedicated noise assessment. · There are a number of guidelines to manage noise including the Planning and Design Code, *Environmental Protection (Noise) Policy 2007* and *Minister's Specification SA78B.* It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
		proposed Code Amendment. Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.
Preliminary Air Quality Study (part Affected Area i.e. north of One Tree Hill Rd only) May 2020	Arup was engaged to undertake a due diligence air quality study. The purpose of this report was to: · Analyse local meteorological conditions and air quality results from EPA installed temporary air quality monitoring stations to understand the likelihood of air emission impact. · Understand the potential for the nearby extractive industries to generate air quality (e.g. dust) and odour emissions that may impact on the subject area.	· Based on the SA EPA air quality monitoring data, air quality standards are currently being met and are expected to continue be met at the project site. Based on the prevailing wind direction, dust impact from the quarry is not expected to be significant. · The proposed development site lies outside of the SA EPA evaluation distances for the ceramic works and crushing, grinding and milling works occurring at the quarry sites. Therefore, the risk of air quality and odour impacts from these processing facilities is low. · Local air quality is unlikely to be significantly impacted by emissions from road vehicles.

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
		It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment. Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.
Preliminary Site Investigation - Environmental Due Diligence (part Affected Area i.e. north of One Tree Hill Rd only) February 2020	JBS&G was engaged to undertake preliminary site investigations to determine the potential for the affected area to be contaminated. The purpose of this work was to: · Undertake a field study to inspect the subject land to determine the current land uses and assess the likelihood of contaminating activities occurring. · Review historical aerial photography to understand previous use of land in the affected area and understand whether previous uses may have constituted contaminating activities.	· The likelihood of the existence of significant site contamination is low. · Notwithstanding, there are a range of activities occurring which are identified as part of the field investigations. These include: o Agricultural land uses (potential use of herbicides and pesticides) o Importation of fill materials o Automotive wrecking activities o Minor mechanical repair work o Onsite above ground storage tanks (diesel) and potential storage

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
		of bulk unknown chemical. · JBS&C have recommended the following: o Broad scale soil assessment targeting known Potentially Contaminating Activities o Decommissioning of on-site groundwater wells o Soil assessment to assist with waste classification of soil material to be disposed off-site o A site contamination audit may be required for development approval. It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.
Aboriginal and Historical Heritage Report	EBS Heritage was engaged to undertake a desktop Aboriginal and historical	· Investigations confirm that there are no Commonwealth heritage places in the Affected Area.

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
(part Affected Area i.e. north of One Tree Hill Rd only) February 2020	cultural heritage assessment. This report: · Summarised the applicable legislative requirements. · Reviews the results of the Register of Aboriginal Sites and Objects and other registers. · Investigates past occupation and land use. · Identifies any know heritage sites or potential for unknown heritage and makes an assessment of the potential for works to impact upon any heritage.	· Recognition that the Affected Area is within the Kaurna Peoples Native Title determination and therefore the principal legislation applicable is the *Aboriginal Heritage Act 1988*. The likelihood of the works posing a risk to unidentified sites and objects is low. · Recommends communications with Kaurna Yerta Aboriginal Corporation Registered Native Title Body Corporate · Appropriate measures should be implemented as part of future development of the land to ensure the procedures are in place to manage the potential discovery of sites/items during works. It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

4.2. Further Investigations Proposed

In addition to the investigations already undertaken and identified above, the table below outlines the additional investigations that will be undertaken to support the Code Amendment.

Further Investigations Proposed	Explanation of how the further investigations propose to address an identified issue or question
Social Infrastructure	A desktop review of the community services and facilities within proximity of the Affected Area will be undertaken. The purpose of this review is to identify any significant shortfalls in the provision of these services which will be exacerbated by this Code Amendment and whether augmentation may be required. The Code Amendment investigations will include a review of social infrastructure demands (including open space, education, and recreation). It is intended that these investigations will identify any needs required to support the projected population and inform the ultimate development outcome. Local schools will be consulted to understand their capacity to absorb the projected increase in population.
Cultural Heritage	Identify all State Heritage Areas, State Heritage Places, Local heritage places and Representative Items affected by the proposed Code Amendment. Undertake a review of available information (e.g. Aboriginal Affairs and Reconciliation Division) to determine whether any registered sites exist in the Affected Area. In any event, ongoing development of land will need to meet the requirements of the Aboriginal Act 1998 (including non-registered sites/objects that may discovered). Engagement with Kaurna Yerta Aboriginal Corporation Registered Native Title Body Corporate to understand their interest.
Noise Assessment	Investigate the potential impacts of environmental noise on the Affected Area arising from its presence in proximity of the sand quarry. Investigations will consider: · The impact of the sand mine and road networks as a potential noise source on future residential activities.

	· The potential for future residential development to constrain the operation of the sand mine as well as acoustic amenity on the land.
Site Contamination Assessment	Undertake site contamination investigations, prepared by an environmental consultant (with experience in site contamination) in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999, and determine whether the land proposed for rezoning is contaminated and suitable for the intended use.
Tree Assessment	Undertake a Significant Tree/Regulated Tree survey and investigate and identify options for retaining the maximum number of Significant/Regulated trees, for example, allocating them in reserves including road reserves.
Flora and Fauna Assessment	Undertake a flora and fauna assessment of the Affected Area to: · Assess the coverage of remnant vegetation and biodiversity; and · Identify any national and state listed flora and fauna species; as well as other flora and fauna species of conservation value.
Bushfire Assessment	Review the existing and proposed bushfire risk classification for the affected area having regard to topography, vegetation cover, nature of the proposed use and its developed state. Where necessary develop an appropriate policy framework to support the reclassification. This assessment will be guided by both preliminary and ongoing engagement with the CFS.
Air Quality Assessment	An air quality assessment will be undertaken to consider the potential impact of activities from nearby resource extraction operations to generate air quality impacts (e.g. dust) and odour emissions on the Affected Area and treatment measures that may be required.
Traffic and Transport Investigations	A traffic and transport investigations report will be prepared to understand the likely traffic/transport implications of the proposal. At a high-level, information considered will include: · Providing an analysis of the existing and proposed future traffic impacts arising from the future

	development of the land for residential purposes including impact on access and parking for Harpers Field. · Determine the anticipated changes to traffic generation volumes and potential impacts. · Provide initial advice on the possible road upgrades required external to the Affected Area as a result of the future development including One Tree Hill Road, Golden Grove Road and Hancock Road/Golden Grove Road roundabout Consideration of new footpath and bike path/lane networks and connectivity to the existing network · Street light upgrades · Integration of the Public Transport network · Consider provision of secondary road access to the Affected Area for emergency situations
Infrastructure services Investigations	Existing utility infrastructure will be reviewed to: · Investigate and determine the availability of current infrastructure servicing the Affected Area and its capacity. · Determine the anticipated requirements for infrastructure augmentation or upgrade works that may be required to bring land to market. · Consider option to underground overhead transmission lines running through the Affected Area and along One Tree Hill Road to Golden Grove Road.
Stormwater Investigations	A stormwater investigations report will be undertaken to: · Investigate the capacity and/or upgrades that may be required to existing stormwater infrastructure to accommodate the development of the land. · Identify strategies and techniques to be employed in the future development of the land to meet the stormwater requirements of Council and the EPA.
Future Rural Living Land Demand	A high-level analysis will be undertaken to explore whether there remains demand for land to support rural living type activities into the future.
Infrastructure Schemes	Prior to the release of the Code Amendment for public consultation, in collaboration with Council and service providers, developers will identify what infrastructure upgrades will be required outside the Affected Area (e.g. road upgrades).

	Prior to the final authorisation of the Code Amendment, parties will identify the costs of external infrastructure upgrades (if they are required), and determine how they should be staged and funded. Council and developers anticipate that parties will adopt the conventional approach of direct negotiations with Council and infrastructure providers that results in legal infrastructure provision and funding deeds. Notwithstanding, in determining the most appropriate pathway for infrastructure provision, consideration will be given to the Basic Infrastructure Scheme as defined by section 162 and 163 of the Act as an alternate.
Residential land supply and demand	Undertake a detailed analysis of residential land supply and demand, including demands and trends concerning land and housing products and understand the impact the rezoning will potentially have on the achievement of housing diversity in the rest of the City of Tea Tree Gully, and in particular the revitalisation of the Modbury Precinct Investigate the potential to provide for 15% of affordable housing – e.g. application of the Affordable Housing Overlay.
Environmental Food Production Area	Pending the outcomes of the Minister's Review of the EFPA boundary investigations will need to be undertaken to consider the interface between the Affected Area and the EFPA to ensure the orderly development of the proposed residential development area.

4.3. Engagement Already Undertaken

The developers have commenced engagement with the following stakeholders:

- Department of Energy and Mining (DEM)
- Country Fire Service (CFS)
- Planning and Land Use Services (PLUS), Attorney General's Department

A summary of outcomes or matters raised through engagement already undertaken is a follows:

- Careful consideration needs to be given to the interface between the Affected Area and the Resource Extraction Zone, a zone which is of strategic importance to the State.
- Bushfire hazard mapping and policy is subject to a Statewide Bushfire Hazards Overlay Code Amendment. This Code Amendment will aim to incorporate updates to the Hazards Overlay.

- The potential impact of natural hazards, namely bushfire needs to be considered. Master planning activities should consider how to manage the interface between dwellings and vegetation to ensure adequate buffers are provided.
- The relationship between the *Rural Living to Neighbourhood-type Zone Code Amendment* and the separate *Commercial/Retail Code Amendment*.

4.4. Further Engagement Proposed

In addition to the engagement already undertaken and identified above, the table below outlines what additional engagement will be undertaken to support the Code Amendment.

Further Engagement Proposed	Explanation of how the further engagement propose to address an identified issue or question
Local Community	*See Engagement Plan (to be developed prior to community engagement)*
Engage with Kaurna Yerta Aboriginal Corporation Registered Native Title Body Corporate	*Engage during Investigations to understand their level of interest*
Local schools	*Understand capacity of schools to accommodate additional student numbers*
The Stables Shopping Centre	*Understand impact of additional traffic on the shopping centre*
Environment Protection Authority	*Identify the potential impact of resource extraction in proximity of residential land uses.*
Department of Energy and Mining	*Understand and adequately address the long-term need to protect strategic mineral resources.*
Mining Operators	*To understand the future intentions of mining operators to inform appropriate policy and future design responses and protect ongoing operation of extractive industries.*

Infrastructure service providers i.e. Telstra, SAPN, SA Water, ElectraNet, APA Group	*Investigate capacity of the existing infrastructure networks and identify any augmentation or upgrades required.*
Land SA	*Consider potential future use of the deferred urban site and Identify traffic impact on One Tree Hill Road*
PLUS (Attorney General's Department)	*Understand how the proposed rezoning will address/ impact supply and demand for housing in north east metropolitan Adelaide*
SA Fire and Emergency Commission & CFS	*Bushfire zones being amended. Identify special needs regarding access and road network design*
Department for Environment and Water (DEW) & Department of Primary Industries and Regions (PIRSA)	*WSUD and green infrastructure to mitigate extreme heat events and conserve water* *Biodiversity impact, options to retain significant and regulated trees* *Design to minimise disturbance and modification of the natural landform*
Adelaide Metro	*Options for expansion of public transport network*

5. CODE AMENDMENT PROCESS

5.1. Engagement Plan

The Code Amendment process will occur in accordance with the Community Engagement Charter and Practice Direction 2 – Consultation on the Preparation or Amendment of a Designated Instrument.

The Council will prepare an Engagement Plan prior to the commencement of engagement on the proposed Code Amendment. The Engagement Plan will include the following mandatory consultation requirements (which may be in addition to the engagement outlined in this Proposal to Initiate):

- The Local Government Association must be notified in writing of the proposed Code Amendment;
- If the Code Amendment has a specific impact on 1 or more particular pieces of land in a particular zone on subzone (rather than more generally), the

Designated Entity must take reasonable steps to give a notice in accordance with Regulation 20 of the *Planning, Development and Infrastructure (General) Regulations 2017*, to:

- the owners or occupiers of the land; and
- owners or occupiers of each piece of adjacent land;

- Consultation must also occur with any person or body specified by the State Planning Commission under section 73(6)(e) of the Act.

5.2. Engagement Report

Once engagement on the Code Amendment is complete, the Council will prepare an Engagement Report under section 73(7) of the Act.

The Council must ensure that a copy of the Engagement Report is furnished on the Minister and also published on the SA Planning Portal. This will occur in accordance with Practice Direction 2.

The Engagement Plan and the Engagement Report will also be considered by the State Planning Commission during the final stages of the Code Amendment process. The Commission will provide a report to the Environment, Resources and Development Committee of Parliament under section 74(3) of the Act. The Commission's report will provide information about the reason for the Code Amendment, the consultation undertaken on the Code Amendment and any other information considered relevant by the Commission.

5.3. Code Amendment Timetable

The Council commits to undertaking the Code Amendment in line with the timeframe outlined Attachment B. If a timeframe is exceeded (or expected to be exceeded) the Council agrees to provide an amended timetable to the Department with an explanation of the delay, for approval by the Minister of an extension of time for the Code Amendment.

ATTACHMENT A

Map of Affected Area



ATTACHMENT B

Timetable for Code Amendment by Proponent

Step	Responsibility	Timeframe
Approval of the Proposal to Initiate		
Review of Proposal to Initiate to confirm all mandatory requirements are met (timeframe will be put on hold if further information is required). Referral to the Minister to request advice from the Commission	Attorney-General's Department (AGD)	2 weeks *(includes lodgement and allocation + referral to Government Agencies within the first week)*
Minister requests advice from the Commission.	Minister	2 weeks
Referral to Government Agencies for comment (where necessary)	AGD, Relevant Government Agencies	+ 2 weeks
Consideration of Proposal to Initiate and advice to the Minister	Commission (Delegate)	3 weeks
	Commission	+ 3 weeks
Proposal to Initiate agreed to by the Minister	Minister	2 weeks
Preparation of the Code Amendment		
Engagement Plan Prepared. Investigations conducted; Code Amendment Report prepared The Drafting instructions and draft mapping provided to AGD	Council	15 weeks
AGD prepares Amendment Instructions and Mapping and provides to Council for consultation purposes	AGD	1 week
Preparation of Materials for Consultation	Council	Per Engagement Plan
Engagement on the Code Amendment		
Code Amendment Report released for public consultation in accordance with the Community Engagement Charter and the prepared Community Engagement Plan	Council	Per Engagement Plan
Consideration of Engagement and Finalisation of Amendments		
Submissions summarised; Amended drafting instructions provided, Engagement Report prepared and lodged with AGD	Council	4 Weeks
Assess the amendment and engagement. Prepare report to the Commission or delegate *Timeframe will be put on hold if further information is required, or if there are unresolved issues*	AGD	4 weeks
Consideration of Advice	Commission (Delegate)	2 weeks *(includes 1 week to process through Minister's office)*
	Commission	+ 3 weeks

Step	Responsibility	Timeframe
Decision Process		
Minister considers the Code Amendment Report and the Engagement Report and makes decision	Minister	3 weeks
Implementing the Amendment (operation of the Code Amendment)		
Go- Live- Publish on the PlanSA Portal	AGD	2-4 weeks
Parliamentary Scrutiny		
Referral of approved Code Amendment to Environment Resource and Development Committee (ERDC)	AGD	8 weeks

Designated Entity -

Indicative milestones *	Key steps
November 2021	Minister approves the Proposal to Initiate
January 2022	Council considers draft Code Amendment, infrastructure requirements and Engagement Plan
March-April 2022	Community engaged on the draft Code Amendment
June 2022	Council considers Engagement Report and final draft Code Amendment
August 2022	SA Planning Commission considers the final Code Amendment
September 2022	New zone officially published on the PlanSA Portal

*Milestones may be subject to change

Yas Property & Development

PSP North of One Tree Hill Rd, Golden Grove

Preliminary Air Quality Study

Issue 2 | 20 May 2020

Preliminary Draft for Northern side of OTH Road only

Report and scope being updated to inform Code Amendment

DRAFT

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number

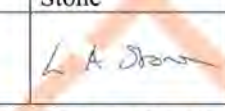
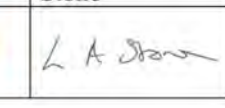
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Document verification

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Job title		PSP North of One Tree Hill Rd, Golden Grove			**Job number**
Document title		Preliminary Air Quality Study			**File reference**
Document ref					
Revision	**Date**	**Filename**	AQ01 - Golden Grove PSP Air Quality Report.docx		
Issue 1	18 May 2020	**Description**	Issue		
			Prepared by	Checked by	Approved by
		Name	Stanley Gunawan	Lesley-Anne Stone	Daniel Osborne
		Signature			
Issue 2	20 May 2020	**Filename**	AQ02 - Golden Grove PSP Air Quality Report.docx		
		Description	Issue		
			Prepared by	Checked by	Approved by
		Name	Stanley Gunawan	Lesley-Anne Stone	Daniel Osborne
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
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		Name			
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Contents

			Page
Executive Summary			**1**
1	**Introduction**		**3**
2	**Legislation, Policy and Guidelines**		**5**
	2.1	Air Quality Legislation	5
	2.2	State Policy and Framework	7
	2.3	Local Planning Provisions	10
3	**Existing Environment**		**12**
	3.1	Identification of Relevant Commercials/ Industries	12
	3.2	Transport Related Sources	15
	3.3	Site Representative Meteorology	16
	3.4	Existing Local Air Quality	16
4	**Transportation Noise and Air Emissions Overlay**		**20**
5	**Evaluation Distances for Existing Industrial Sources**		**21**
6	**Discussion of the Suitability of the Proposed Project site**		**24**
	6.1	Background Air Quality	24
	6.2	Emissions from nearby Quarries	24
	6.3	Emissions from Transportation	24
	6.4	General Mitigation Strategies	25
7	**Recommended Next Steps**		**27**

Tables

Table 1 – NEPM AAQ ground concentration levels standards and goals
Table 2 – Air Quality EPP odour levels
Table 3 – GGMEZ private mines authorised activities under licence conditions
Table 4 – Nearby Quarries SA EPA Licence Conditions – Dust and Odour Conditions
Table 5 – Identified transportation air emission sources
Table 6 – Monitoring results for Golden Grove, Northern Adelaide and North Eastern Adelaide
Table 7 – SA EPA Evaluation distances for activities surrounding the project site

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Figures

Figure 1 – Preliminary concept plan of the proposed project site
Figure 2 – Type A, B or R roads classifications in the Greater Adelaide
Figure 3 – Location of Golden Grove Mineral Extraction Zone
Figure 4 – Location of nearby transportation air emission sources
Figure 5 – Wind Rose for Parafield Airport
Figure 6 – Estimated SA EPA evaluation distances applicable for the identified GGMEZ facilities
Figure 7 – Outdoor spaces located away from noise and emissions (Source: NSW Department of Planning 2008)
Figure 8 – Variation in building facades increases the dispersion of air pollutants and reduces the effects of canyoning (Source: NSW Department of Planning 2008)
Figure 9 – Locate air intakes away from the source of polluted air (Source: DPTI 2012)

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Executive Summary

Arup Australia Pty Ltd (Arup) has been engaged by Holmes Dyer Pty Ltd (Holmes Dyer), on behalf of YAS Property & Development, to undertake a due diligence air quality study for the proposed residential development of land at Golden Grove (the "project site").

The project site is located in the proximity of a mixture of residential and rural area, with nearby quarries to the south in which have the potential to generate air quality (such as dust) and odour emissions that may potentially impact the project site.

Local Meteorology

Local meteorology conditions for the previous five years (December 2014 to December 2019) was reviewed from the Bureau of Meteorology (BoM) monitoring station at Parafield Airport, located approximately 10 km west of Golden Grove. The prevailing wind direction in the area is northerly, which potential pollutants from nearby sources would be predominantly dispersed to the south and hence away from the proposed project site.

Existing Air Quality Conditions

SA EPA had previously established a temporary air quality monitoring station within the Golden Grove area, as part of a short-term project to evaluate local air quality between October 2014 and May 2015. The station reported monitored dust concentrations within the daily mean PM_{10} and $PM_{2.5}$ standards under normal conditions. Exceedances were recorded in January 2015 due to a nearby bushfire.

Following completion of this short-term monitoring campaign, a review was undertaken for the nearest representative air quality monitoring station is Northern Adelaide – Elizabeth Downs, approximately 8 km north of the site. Based on the reviewed SA EPA air quality monitoring data, air quality standards are expected to be met at the proposed project site. Exceptions may occur as shown in the recent data for the daily mean PM_{10} and $PM_{2.5}$ standard in 2015, 2016 and 2018. These exceedances have been attributed by SA EPA to smoke from local bushfires and local dust storms.

Emissions from surrounding Industries

The proposed project site is located immediately north of Golden Grove Mineral Extraction Zone (GGMEZ) The three main mining materials extracted from GGMEZ are sand, shale and clay, which form the key material for the manufacture of clay bricks and pavers (including kiln processing), as well as concrete sand. The two major clay manufacturing companies using the clay deposits within the GGMEZ to manufacture clay bricks and pavers are PGH Bricks and Austral Bricks. Each company has a licence to operate issued the SA EPA. The throughput of these quarries is unknown at this stage and no consultation with the quarry proponents have been made. However, the quarry's

licence conditions require dust and odour to be controlled to prevent emissions from leaving the premises, including control measures to the brick kiln gas emissions as part of the licence conditions. Moreover, the project site lies outside of the adopted SA EPA evaluation distances potentially applicable to the various quarries activities. On this basis, it is assumed that the quarry proponents have been providing dust and odour emission control to the satisfaction of all relevant standards, policy and regulation, and therefore the risk of air quality and odour impacts from the GGMEZ quarries is low.

Emissions from Transportation

The project site is to be located about 630 m away from the nearest arterial road (Golden Grove Road). The air quality monitoring station at Northfield, 12.5km south-west of the project site, is close to an arterial road (Hampstead Road) with significantly higher vehicle usage than Golden Grove Road. Monitored data shows that local air quality in that area is not significantly impacted by emissions from road vehicles. Therefore, local air quality at the proposed project site is unlikely to be significantly impacted by emissions from road vehicles on surrounding roads.

In-Principle Mitigation Strategies

Notwithstanding the above findings, in-principle air quality mitigation strategies are provided in Section 6.4 of this report for consideration as required by the *Noise and Air Emissions Overlay*, to minimise air quality impact and optimise amenity as much as practicable at the project site.

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1 Introduction

Arup Australia Pty Ltd (Arup) has been engaged by Holmes Dyer Pty Ltd (Holmes Dyer), on behalf of YAS Property & Development, to undertake a due diligence air quality study for the proposed residential development of land at Golden Grove (the "project site").

This report reviews existing air quality conditions in the area including nearby sources of emissions to air (including dust). The report also outlines any potential planning constraints in relation to air quality for the proposed residential development.

The area for the proposed project site is shown in Figure 1.

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

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2 Legislation, Policy and Guidelines

2.1 Air Quality Legislation

2.1.1 National Legislation

The National Environment Protection Council (Ambient Air Quality) Measure (NEPM AAQ) is the overarching Federal legislation that sets out the national environment protection standards and goals in relation to ambient air quality.

The NEPM AAQ standards apply to air quality experienced by the general population within a region, and not to air quality in areas within the region affected by localised air emissions, such as heavily trafficked streets. The goal of the NEPM AAQ was to achieve the standards with the allowable exceedances, to minimise the adverse effects of emissions to air, as assessed in accordance with the associated monitoring protocol. The standards were set at a level intended to adequately protect human health and well-being. Standards, goals, monitoring and reporting protocols are stated for six common pollutants, namely:

- Carbon Monoxide (CO);
- Nitrogen Dioxide (NO_2);
- Photochemical Oxidants (as ozone);
- Sulfur Dioxide (SO_2);
- Lead; and,
- Particles as PM_{10} and $PM_{2.5}$.

Note that PM_{10} and $PM_{2.5}$ include dust.

In addition to the NEPM AAQ, the National Environment Protection (Air Toxics) Measure (Air Toxics NEPM) provides a framework for monitoring, assessing and reporting on ambient levels of air toxics, such as volatile organic compounds (VOCs) (including hydrocarbons). The purpose of this NEPM is to collect information to facilitate the development of standards for ambient air toxics.

The air quality criteria and monitoring investigation levels for the pollutants of relevance in this assessment are detailed in Table 1.

Table 1 – NEPM AAQ ground concentration levels standards and goals

Pollutant	Averaging Period	Maximum Concentration Standard	Maximum Allowable Exceedances
Carbon monoxide	8 hours	9.0 ppm	1 day a year
Nitrogen dioxide	1 hour	0.12 ppm	1 day a year
	1 year	0.03 ppm	None
	1 hour	0.10 ppm	1 day a year

Pollutant	Averaging Period	Maximum Concentration Standard	Maximum Allowable Exceedances
Photochemical oxidants (ozone)	4 hours	0.08 ppm	1 day a year
Sulphur dioxide	1 hour	0.20 ppm	1 day a year
	1 day	0.08 ppm	1 day a year
	1 year	0.02 ppm	None
Lead	1 year	0.50 µg/m^3	None
PM_{10}	1 day	50 µg/m^3	None
	1 Year	25 µg/m^3	None
$PM_{2.5}$	1 day	25 µg/m^3	None
	1 Year	8 µg/m^3	None

2.1.2 State Legislation

Air Quality in South Australia is managed under the *Environment Protection Act 1993*. The relevant state environment protection policy made under Section 28 of the Act is:

- South Australia – *Environment Protection (Air Quality) Policy 2016*

The *Environment Protection (Air Quality) Policy 2016* (Air Quality EPP) provides the legislative basis for air quality regulation and management in the state, including criteria for developing effective conditions to assist commercial premises and industries to improve their performance in minimising risk of air emissions through a system of licensing.

Air Quality EPP adopts the state-wide air quality requirements of the *National Environment Protection (Ambient Air Quality) Measures 2016* (AAQ NEPM). AAQ NEPM is the statutory instrument which outlines agreed national objectives for protecting or managing certain aspects of the environment, as described in Section 2.1.1. The South Australian Government has monitoring and reporting responsibilities under the AAQ NEPM on seven common air pollutants – carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulphur dioxide (SO_2), lead (Pb) and particulate matter or dust (PM_{10} and $PM_{2.5}$). The air quality standards which apply at the project site are shown in Table 1.

The Air Quality EPP also provides odour level criteria for locations close to odorous processes, these vary based on population level. These are shown in Table 2. These levels would need to be met to ensure amenity is protected.

Table 2 – Air Quality EPP odour levels

Number of People	Odour Units (3 minutes average, 99.9% of time)
2000 or more	2

Number of People	Odour Units (3 minutes average, 99.9% of time)
350 – 1999 (inclusive)	4
60 – 349 (inclusive)	6
12 – 59 (inclusive)	9
Single residence (fewer than 12)	10

2.2 State Policy and Framework

The *State Planning Policies for South Australia* (31 January 2019) outline strategies focusing on the separation of industrial and sensitive land uses, to preserve communities and the environment from exposure to industrial emissions and hazards, altogether creating healthy cities and regions. State Planning Policy 11: Strategic Transport Infrastructure and State Planning Policy 16: Emissions and Hazardous Activities include measures to manage emissions to ambient air. The following clauses are relevant:

- ***Clause 11.4**: Minimise negative transport-related impacts on communities and the environment.*
- ***Clause 16.1**: Protect communities and the environment from risks associated with industrial emissions and hazards (including radiation) while ensuring that industrial and infrastructure development remains strong through:*
  - *(a) Supporting a compatible land use mix through appropriate zoning controls*
  - *(b) Appropriate separation distances between industrial sites that are incompatible with sensitive land uses.*
  - *(c) Controlling or minimising emissions at the source, or where emissions or impacts are unavoidable, at the receiver.*

While the project site would not include any processes which generate industrial emissions, there is the potential for users of the project site to be exposed to ambient air quality which is impacted by industrial processes and major transport networks nearby. Relevant policy and guideline are discussed in the sections below.

This is the over-arching policy statement that applies state-wide when establishing new infrastructure and assessing development applications.

2.2.1 Noise and Air Emissions Overlay

The South Australian planning policy – *Noise and Air Emissions Overlay* (NAEO)[1] contains planning policies to protect new noise and air quality sensitive development from noise and air emissions generated from major transport corridors (road and rail) and mixed land use. Noise and air quality sensitive development includes residential dwellings, nursing homes, educational

[1] *Noise and Air Emissions Overlay* (https://www.sa.gov.au/__data/assets/pdf_file/0009/18846/Tech_info_sheet_8.pdf)

institutions, hospitals, places of worship and caravan parks that accommodate existing long-term residential use.

When rezoned, the project site is intended to have a primarily residential zone, located about 630 m from Golden Grove Road, being an arterial road classified as "Type B" road (refer to Figure 2) in which a maximum distance specified in table 2 of the South Australian Planning Policy: *Technical Information Sheet 8 – Noise and Air Emissions – Overlay 3* (April 2013) applies. This will be discussed further in Section 4.

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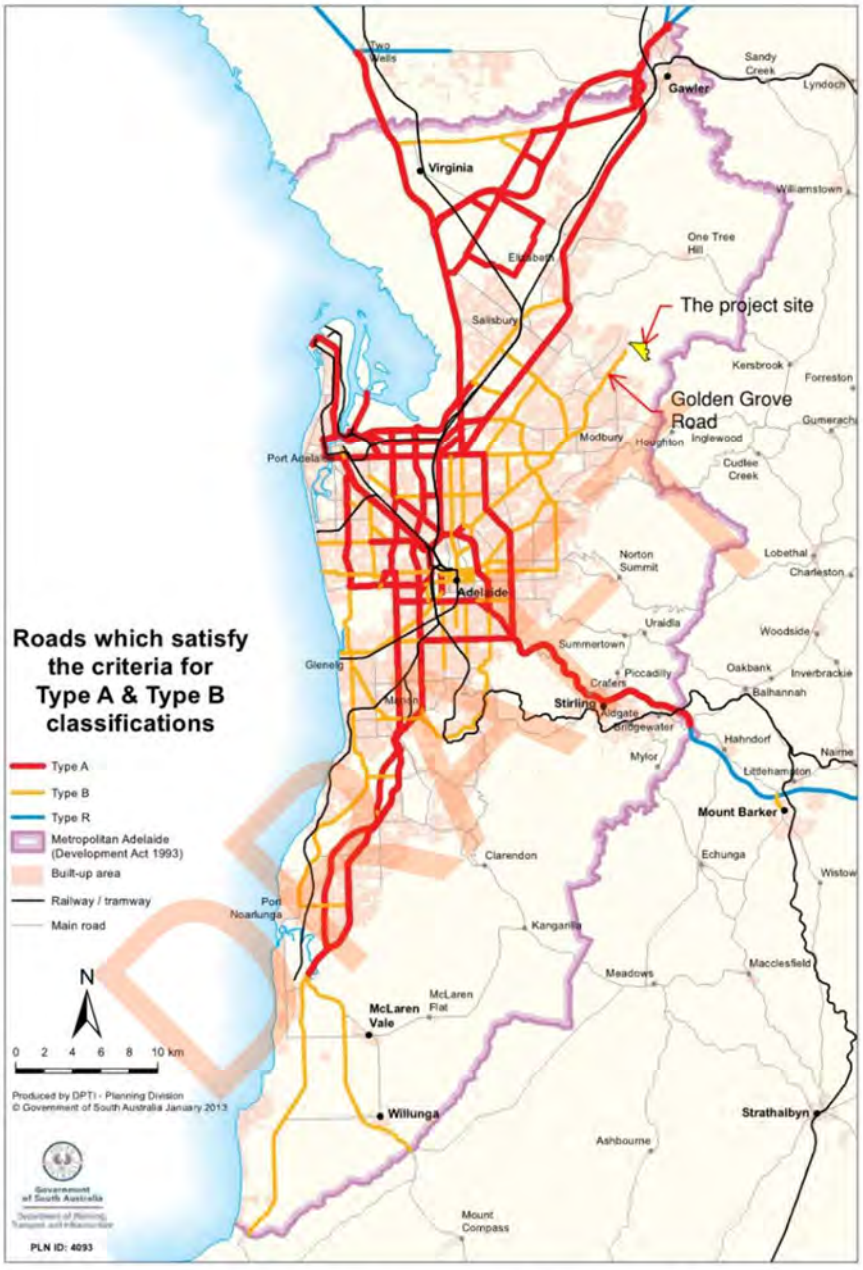


Figure 2 – Type A, B or R roads classifications in the Greater Adelaide

2.2.2 Relevant Evaluation Distance Guidelines

The South Australia EPA (SA EPA) has issued *Evaluation distances for effective air quality and noise management* (August 2016) to provide separation of sensitive land uses from industrial or commercial premises with the potential for off-site emissions such as noise or air pollutants.

The SA EPA evaluation distances guidelines provide the recommended minimum separation distances between industrial/commercial land uses and sensitive land uses. This is a form of evaluation distance which will apply to those activities where without some minimum separation, the SA EPA's experience indicates that the residual environmental risk remains unacceptable, even with the best management processes and technologies in place. Among other concerns, this recognises that despite implementation of best practice, plant and equipment can fail at times (upset or malfunction conditions) and atypical emissions may occur which impinge on neighbouring communities. Relevant emissions of consideration for this study are:

- Odour.
- Fugitive dust sources.

The inclusion of a minimum distance does not imply SA EPA's (or relevant planning authority) approval, in the absence of appropriate justification. Proponents will still be required to demonstrate in any development application that potential adverse environmental impacts have been adequately addressed.

Commercial/industrial premises that are identified as requiring separation from sensitive land uses by this guidance have been reviewed in the vicinity of the proposed project site. Compliance with SA EPA evaluation distance guideline is addressed in Section 4.

2.3 Local Planning Provisions

The local planning provisions of the project site are currently governed under the *Tree Tea Gully Council Development Plan* (27 December 2018). A review of the relevant provisions from the Development Plan is summarised in several sections below.

2.3.1 Interface between Land Uses

The objective of this provision is to protect community health and amenity, to minimise conflict between land uses and ensure that incompatible development is not pursued. The following principles would apply to the proposed development for air quality.

Principles of Development Control

1. Development should not detrimentally affect the amenity of the locality or cause unreasonable interface through any of the following:

(a) The emission of effluent, odour, smoke, fumes, dust or other airborne pollutants

2. Development should be sited and designated to minimise negative impacts on existing and potential future land uses desired in the locality.

4. Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.

5. Sensitive uses likely to conflict with the continuation of lawfully existing developments and land uses desired for the zone should be designed to minimise negative impacts.

Air quality

11. Development with the potential to emit harmful or nuisance-generating air pollution should incorporate air pollution control measures to prevent harm to human health or unreasonable interference with the amenity of sensitive uses within the locality.

12. Chimneys or exhaust flues associated with commercial development (including cafes, restaurants and fast food outlets) should be designed to ensure they do not cause a nuisance or health concerns to nearby sensitive receivers by:

(a) Incorporating appropriate treatment technology before exhaust emissions are released to the atmosphere.

(b) Ensuring that the location and design of chimneys or exhaust flues maximises dispersion and takes into account the location of nearby sensitive uses.

2.3.2 Residential Development

Objectives

1. Safe, convenient, pleasant and healthy-living environments that meet the full range of needs and preferences of the community.

This objective is deemed applicable to the project site, being a residential development project. Hence, the above-mentioned policies are to be considered in project site selection as discussed in this report.

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3 Existing Environment

3.1 Identification of Relevant Commercials/ Industries

Identification of nearby relevant commercial/industries have been identified based on a desk-top review of Google Map© and Google Street View© aerial photography and the Australian Government Department of *the Environment and Energy – National Pollutant Inventory* (NPI)[2].

The proposed project site is located immediately north of Golden Grove Mineral Extraction Zone (GGMEZ) – Figure 3. The GGMEZ is located approximately 18 km north east of Adelaide. The first mining activity within Golden Grove was sand mining, which commenced in 1947. Following this, GGMEZ was then formally established in the 1970s. The three main mining materials extracted from GGMEZ are sand, shale and clay, which form the key material for the manufacture of clay bricks and pavers, as well as concrete sand. The two major clay manufacturing companies using the clay deposits within the GGMEZ to manufacture clay bricks and pavers are PGH Bricks and Austral Bricks.

The current private mines and leases within the GGMEZ are held by the following companies:

- PGH Bricks & Pavers Pty Ltd (Licence[3] 48083)
- Hanson Construction Materials Pty Ltd (Licence[2] 50096 and 14086)
- Hallett (Austral) Brick Pty Ltd (Licence[2] 1174)

Each company has a licence to operate issued the SA EPA. Under the licence conditions, the above facilities are authorised to perform the following activities (Table 3).

Table 3 – GGMEZ private mines authorised activities under licence conditions

Mine and Lease Companies	Authorised Activities
PGH Bricks & Pavers Pty Ltd	• Ceramic works • Activity producing listed waste • Crushing, grinding or rock milling works (rock, ores or minerals) • Extractive industries • Fuel burning not coal or wood
Hanson Construction Materials Pty Ltd	• Extractive industries

[2] Australian Government: Department of the Environment and Energy – National Pollutant Inventory (NPI) (http://www.npi.gov.au/npidata/action/load/map-search)

[3] https://www.epa.sa.gov.au/data_and_publications/environmental_authorisations_licences/search-authorisations#/search?location=area&type=A&showCurrentActivities&searchCurrent&page=1&suburb=GOLDEN%20GROVE&sort=dateImported:desc

Mine and Lease Companies	Authorised Activities
Hallett Brick Pty Ltd	• Ceramic works • Activity producing listed waste • Crushing, grinding or rock milling works (rock, ores or minerals) • Fuel burning not coal or wood

The above listed activities would typically have the potential to create dust and odour which could impact the nearby environment if no appropriate controls are in place.

In addition, the facility such as the PGH Bricks & Pavers includes brick kiln in which the associated emissions (gaseous pollutants) may potentially impact the air quality of the surrounding environment.

Review of the above-mentioned three SA EPA Licences, the following dust and odour related conditions were observed (Table 4). Based on these conditions, it is assumed that the quarry proponents have been providing gas, dust and odour emissions control within their industrial premises.

Table 4 – Nearby Quarries SA EPA Licence Conditions – Dust and Odour Conditions

Mine and Lease Companies	Licence Number	Dust or Odour Related Conditions
PGH Bricks & Pavers Pty Ltd	48083	Section 1 (1.1) Brick Kiln Gas Emissions (U-97) – The licensee must ensure that emissions of fluorine, and its compounds (as HF equivalent) from the brick kiln scrubber gas stack do not exceed 35 milligrams per cubic metre at STP, dry basis. Section 1 (1.2) Dust Prevention (S-7) – The Licensee must take all reasonable and practicable measures to prevent dust from leaving the Premises. Section 1 (1.4) Odour Prevention (S-10) – The Licensee must take all reasonable and practicable measures to prevent odour from leaving the Premises.
Hanson Construction Materials Pty Ltd	50096 14086	Section 1 (1.1) Dust Prevention (S-7) – The Licensee must take all reasonable and practicable measures to prevent dust from leaving the Premises.
Hallett Brick Pty Ltd	1174	Section 1 (1.1) Dust Prevention (S-7) – The Licensee must take all reasonable and practicable measures to prevent dust from leaving the Premises.

Note that the location of quarry activities shown in Figure 3 are approximation only, in the absence of detailed information.

The qualitative impact of this on the proposed project site is discussed in Section 6.

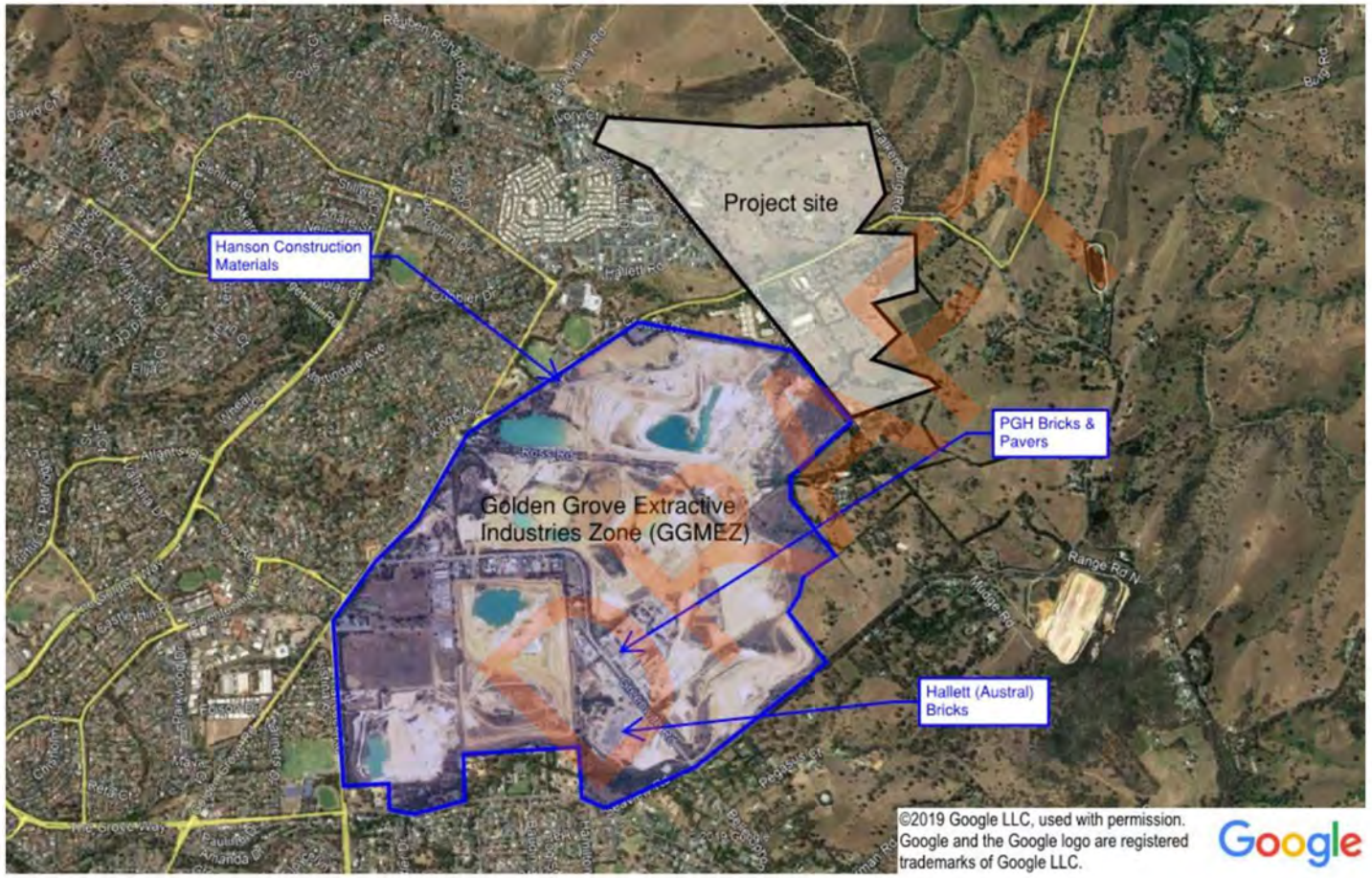


Figure 3 – Location of Golden Grove Mineral Extraction Zone

3.2 Transport Related Sources

Road traffic is also a major source of air pollutant emissions that has the potential to impact ambient air quality at the proposed project site. The major roads with associated vehicle numbers are presented in Table 5.

Refer to Figure 4 for the locations of the arterial roads mentioned in Table 5.

Note that One Tree Hill Road connecting to the project site is not considered as an arterial road.

Table 5 – Identified transportation air emission sources

Source	Vehicle usage	Traffic volumes[4]	Distance from Project Site Boundary
The Golden Way Road	Cars and occasional heavy vehicles	5,900 AADT (2016 base year)	960 m
Golden Grove Road, connecting to One Tree Hill Road	Cars and occasional heavy vehicles	10,800 AADT (2017 base year)	630 m



Figure 4 – Location of nearby transportation air emission sources

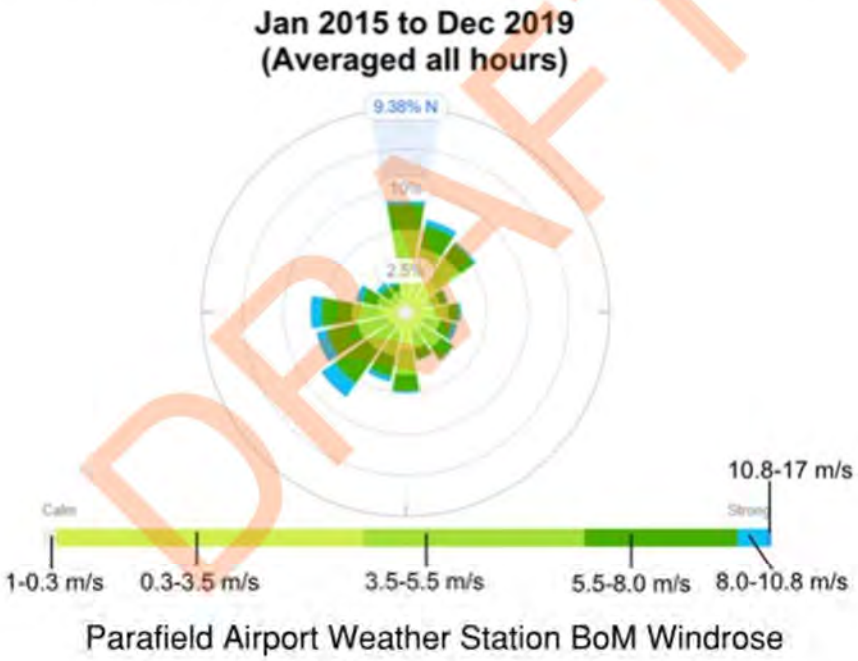
[4] http://location.sa.gov.au/viewer/?map=hybrid&uids=138

3.3 Site Representative Meteorology

Local meteorology conditions, including wind direction and speed, affect the dispersal of pollutants in the local area.

Meteorological data for the previous five years (January 2015 to December 2019) was reviewed from the Bureau of Meteorology (BoM) monitoring station at Parafield Airport (-34.80°, 138.63°, Station ID 023013). This station is located approximately 10 km west of Golden Grove, and meteorological data from this station are expected to be representative of site conditions due to relatively flat topography.

The annual wind rose in Figure 5 shows that the prevailing wind direction in the area is northerly. Therefore, potential pollutants from nearby sources would be predominantly dispersed to the south and hence away from the proposed project site. The land-use to the north of the proposed project site is currently rural.



Source: Willy Weather (using data available from the Bureau of Meteorology)

Figure 5 – Wind Rose for Parafield Airport

3.4 Existing Local Air Quality

The current locality of the site is relatively suburban with predominantly residential and community areas. The main contributors to local air pollution in the area are nearby quarries and local traffic particularly associated with One Tree Hill Road, which is the main road located through the proposed project site.

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SA EPA had previously established a temporary air quality monitoring station within the Golden Grove area, as part of a short-term project to evaluate local air quality. The monitoring station was located immediately to the west of the existing PGH quarry (-34.77736°, 138.72535°), and was active between October 2014 and May 2015 – during the quarry operation. The station recorded particulate matter (PM_{10} and $PM_{2.5}$), which are the main dust pollutants of concern generated by quarries. The air quality monitoring results were sourced from the SA EPA website for Air Quality Monitoring Reports and Summaries[5]. The station reported monitored concentrations within the daily mean PM_{10} and $PM_{2.5}$ standards under normal conditions (refer to Table 6). Exceedances were recorded in January 2015 due to a nearby bushfire (potentially from Sampson Flat bushfire located approximately 5 km to the north-east-east).

Following completion of this short-term monitoring campaign, the nearest air quality monitoring station is Northern Adelaide – Elizabeth Downs (-34.698671°, 138.695408°), approximately 8 km north of the site. More recent data is available from this site. This location is deemed representative of the proposed project site due to the proximity of a rural area with greenfield as well as a mixture of residential suburban premises. It is noted that this station monitors PM_{10} & $PM_{2.5}$, nitrogen dioxide (NO_2), carbon monoxide (CO) and ozone (O_3), and the associated concentration levels for the previous five years (January 2014 to December 2018[6]) are summarised in Table 6. It is noted that CO has been consistently low and well below the criterion in general, and therefore has been excluded from Table 6.

Data for sulphur dioxide (SO_2) were sourced from North Eastern Adelaide – Northfield SA EPA Station (-34.86198°, 138.62289°), approximately 12.5km south west of the proposed project site. However, EPA report also noted that SO_2 has been consistently low and well below the criterion in general. Hence, SO_2 data has not been included in Table 6.

Based on the SA EPA air quality monitoring data shown in Table 6, air quality standards are expected to be met at the proposed project site. Exceptions may occur as shown in the recent data for the daily mean PM_{10} and $PM_{2.5}$ standard in 2015, 2016 and 2018. These exceedances have been attributed by SA EPA to smoke from local bushfires and local dust storms.

[5] https://www.epa.sa.gov.au/data_and_publications/air_quality_monitoring/reports_and_summaries

[6] SA EPA air quality data for 2019 year are not available publicly at the time of this report.

Table 6 – Monitoring results for Golden Grove, Northern Adelaide and North Eastern Adelaide

Pollutant	Standard	Golden Grove (1km from site)		Northern Adelaide – Elizabeth Downs (8km from site)			North Eastern Adelaide – Northfield (12.5km from site)		
		Oct – Dec 2014	Jan – May 2015	2016	2017	2018	2016	2017	2018
NO_2									
Maximum hourly mean	0.12 ppm	--	--	0.025 ppm	0.035 ppm	0.038 ppm	0.04 ppm	0.038 ppm	0.032 ppm
O_3									
Maximum hourly mean	0.10 ppm	--	--	0.063 ppm	0.065 ppm	0.07 ppm	0.07 ppm	0.065 ppm	0.07 ppm
Four-hourly mean	0.08 ppm	--	--	0.058 ppm	0.055 ppm	0.045 ppm	0.065 ppm	0.065 ppm	0.06 ppm
PM_{10}									
Maximum daily mean	50 µg/m³	34	40 µg/m³ (highest level below standard criteria) There was one exceedance this year: • From 2 to 9 January, due to Sampson Flat bushfire with highest level at 51 µg/m³	35 µg/m³ (highest level below standard criteria) There was one exceedance this year: • Due to regional dust storm with highest level at 140 µg/m³	31 µg/m³	40 µg/m³ (highest level below standard criteria) There was one exceedance this year: • On 12 April due to due to fires and dust storm with highest level at 105 µg/m³	--	--	--
$PM_{2.5}$									

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Council Meeting - 12 October 2021

Page 87

Draft preliminary report - Air Quality Study

Attachment 3

Attachment 3

Item 13.1

Pollutant	Standard	Golden Grove (1km from site)		Northern Adelaide – Elizabeth Downs (8km from site)			North Eastern Adelaide – Northfield (12.5km from site)		
		Oct – Dec 2014	Jan – May 2015	2016	2017	2018	2016	2017	2018
Maximum daily mean	25 µg/m³	7	12 µg/m³ (highest level below standard criteria) There was one exceedance this year: • From 2 to 9 January, due to Sampson Flat bush fire with highest level at 33 µg/m³	14 µg/m³	16 µg/m³	16 µg/m³	--	--	--

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4 Transportation Noise and Air Emissions Overlay

The project site is currently located within proximity of a "Type B" classified road (Golden Grove Road), under the NAEO – refer to Section 2.2.1. Table 2 of the South Australian Planning Policy: *Technical Information Sheet 8 – Noise and Air Emissions – Overlay 3* (April 2013) provide the maximum applicable distance for "Type B" road classification, with different speed categories. Golden Grove Road has 60 km/h sign posted speed limit, which implies to a 60 m maximum overlay distance from the road carriageway boundary (refer to 2.2.1).

Since the project site is located at a distance of 630 m (much greater than 60 m maximum distance), therefore the project site is outside of the Noise and Air Emissions Overlay.

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5 Evaluation Distances for Existing Industrial Sources

The SA EPA has published a guideline which provides recommended evaluation distance to assist where proposed project site is planned in the vicinity of existing facilities that may generate significant emissions to air.

Private mines and leases are present in the vicinity of the proposed project site. This facility contains activities that would be subject to the SA EPA evaluation distances for potential air and/or odour emissions.

The relevant nearby activities are identified to be:

- PGH Bricks and Pavers Pty Ltd, including activities such as kiln ceramics and crushing works, triggering 750 m and 500 m evaluation distances respectively.
- Hallett Brick Pty Ltd, including activities such as kiln ceramics and crushing works, triggering 750 m and 500 m evaluation distances respectively.
- PGH Bricks and Pavers, and Hallett Brick both have fuel burning activities, which are subject to individual assessment evaluation distances.
- PGH Bricks and Pavers Pty Ltd and Hanson Construction Materials Pty Ltd have extractive industries related activities, which are subject to individual assessment evaluation distances.
- Main South Road being a National Association of Australian State Road Authorities (NAASRA)[7] Class 2 arterial road, triggering 100 m evaluation distance.

The Major Roads evaluation distances are not applicable to the project site, as the project site boundary is located greater than 100 m from any nearby arteria roads. The air emissions impact associated with the nearby transport corridors have been addressed in Section 6.

The evaluation distances of the above-mentioned activities are summarised in Table 7, and shown in a map in Figure 6.

Note that these evaluation distances and the extent of the source footprint are preliminary in nature, based on approximation only via a review of aerial imagery.

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[7] https://icsm.gov.au/sites/default/files/Assessing_Feasibility_National_Road_Classification.pdf

Table 7 – SA EPA Evaluation distances for activities surrounding the project site

Activity type	Additional activity notes	Evaluation distance (metres)	Description of typical activities and potential air or noise impacts	Potentially Applicable nearby Industries
Ceramic works	--	750	Fluoride emissions from ceramic works may pose a risk of damage to vegetation and animal health at levels lower than those required to impact on human health. Due to high temperatures used, odour can also be a potential concern. Fugitive dust may result from material handling operations.	PGH Bricks & Pavers Pty Ltd Hallett Brick Pty Ltd
Crushing, grinding or milling	Rock, ores or minerals	500	Potential sources of dust generation include the delivery of bulk material to the property, the movement of material, crushing of material, and transfer to and from trucks. Potential adverse climatic conditions could also generate off-site dust impacts.	PGH Bricks & Pavers Pty Ltd Hallett Brick Pty Ltd
Extractive industries	--	Individual assessment	The main concerns are noise and dust, which are generated at sites from excavation areas, haul roads, raw feed and product stockpiles, processing and screening plants, blasting, rock crushers, mobile screening plants, crushing, grinding and milling.	PGH Bricks & Pavers Pty Ltd Hanson Construction Materials Pty Ltd
Fuel burning	--	Individual assessment	The main concern for fuel burning is the potential impact to air quality, mainly from oxides of nitrogen (NO_x) and particulate matter. This potential impact depends on emission controls and the type of fuel used. In the case of power generators, it also depends on whether the station is 'base load' or 'peaking', and the generation capacity. The use of fuel burning equipment to cure, bake or dry materials can result in emissions to air which are in addition to those resulting from the burning of fuel, and are dependent on the material being heated.	PGH Bricks & Pavers Pty Ltd Hallett brick Pty Ltd

Council Meeting - 12 October 2021

Page 91

Draft preliminary report - Air Quality Study

Attachment 3

Attachment 3

Item 13.1

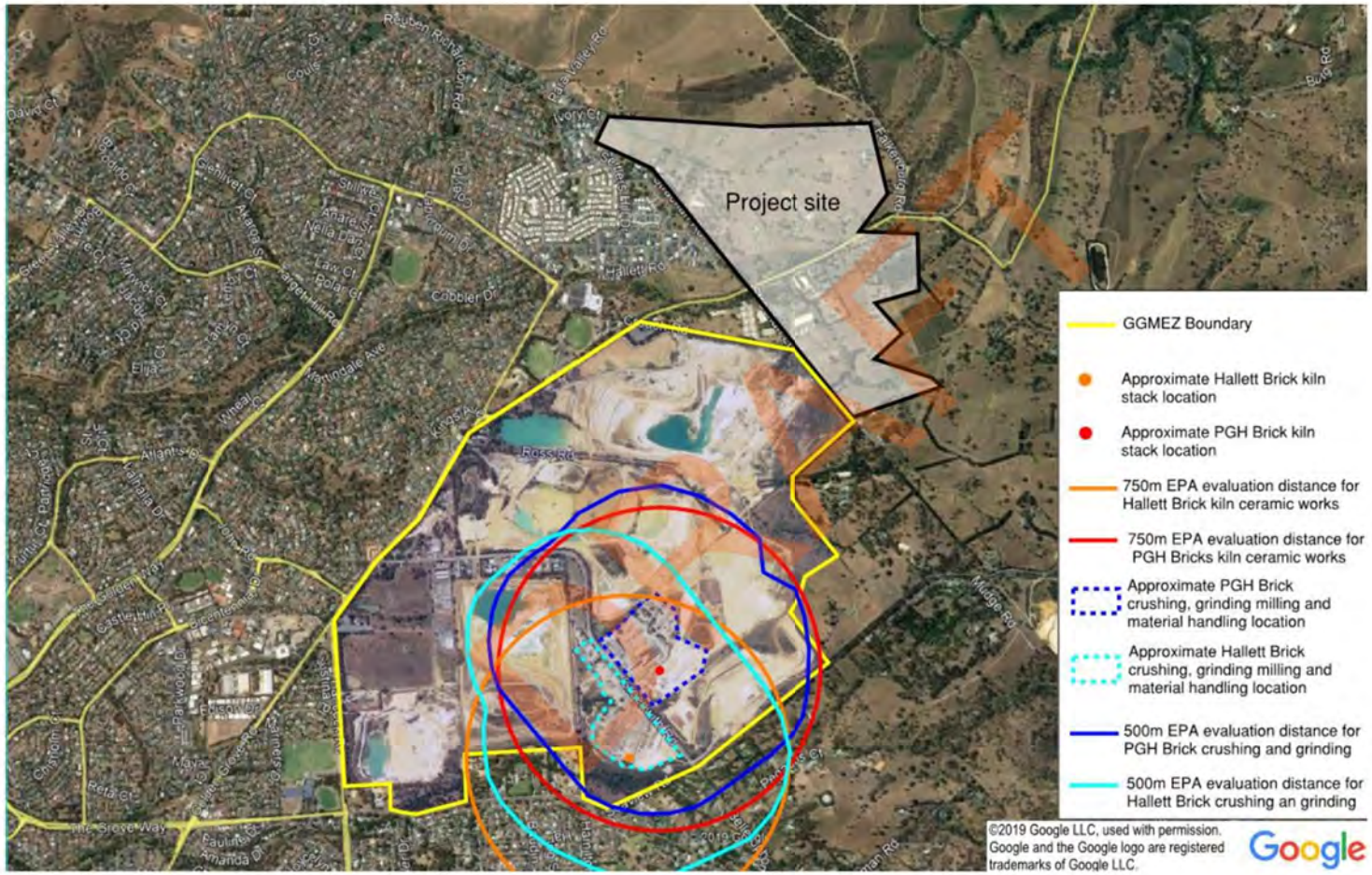


Figure 6 – Estimated SA EPA evaluation distances applicable for the identified GGMEZ facilities

6 Discussion of the Suitability of the Proposed Project site

6.1 Background Air Quality

A review of the existing air quality conditions in the vicinity of the proposed project site show that air quality standards are met in spite of the presence of adjacent quarries with the exception of occasional exceedances of the daily PM_{10} and $PM_{2.5}$ standard which previously have been associated with sources such as bushfires or dust storms. Hence, based on this information, as well as the favourable prevailing wind direction, dust impact from the adjacent quarry is not expected to be significant at the proposed project site.

6.2 Emissions from nearby Quarries

The throughput of the adjacent quarry facility is unknown at this stage. Arup have not been able to consult with the quarry proponents and air quality impact assessment reports associated are not readily available at the time of this report, to fully understand the extent of the operations.

SA EPA evaluation distances for Ceramic Works and Crushing, Grinding and Milling Works which are potentially applicable for these facilities have been determined in Figure 6. Noting that these evaluation distances and the extent of the source footprint is based on approximation only via a review of aerial imagery. Based on Figure 6, the proposed project site lies outside of adopted SA EPA evaluation distances, and therefore the risk of air quality and odour impacts from these processing facilities is low.

Extractive Industries and Fuel Burning evaluation distances have not been included in Figure 6, as this is reliant on detailed air quality assessment information carried out by the processing facilities which is not available at this time.

The quarries licence conditions require dust and odour to be controlled such that to prevent dust and odour from leaving the premises. Control measures to the brick kiln gas emissions are also required as part of the licence conditions. Therefore, in the absence of detailed information, it is assumed that the quarry proponents have been providing gas, dust and odour emissions control to the satisfaction of all relevant standards, policy and regulation.

6.3 Emissions from Transportation

The air quality monitoring station at Northfield, 12.5km south-west of the project site, is close to an arterial road (Hampstead Road) with significantly higher vehicle usage than Golden Grove Road. Monitored data shows that local air quality in that area is not significantly impacted by emissions from road vehicles.

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Therefore, local air quality at the proposed project site is unlikely to be significantly impacted by emissions from road vehicles on surrounding roads.

Notwithstanding the above, in-principle air quality mitigation strategies are provided in Section 6.4, recommended to minimise air quality impact and optimise amenity as much as practicable at the proposed project site.

6.4 General Mitigation Strategies

The in-principle air quality mitigation strategies below were sourced from the South Australian Government – Department of Planning, Transport and Infrastructure (DPTI) guideline titled; *Reducing noise and air impacts from road, rail and mixed land use – A guide for builders, designers and the community* (2012), as recommended in the SA EPA evaluation distance guideline (Section 4).

Whilst it is not anticipated that the surrounding activities would have a significant impact on local air quality at the proposed project site, locations next to quarries or busy roads may experience elevated pollutant concentrations under certain conditions, which could impact the amenity of users.

Moreover, development of the project site for residential and commercial purposes has the potential to generate dust during the construction phase and increase vehicle emissions in the area during the operational phase due to residential traffic travelling to and from the project site. The proposed project site would contain a main route through the site and would likely result in an increase in local traffic overall. Although it is unlikely that this would significantly impact local air quality in the surrounding area, nevertheless, the following strategies have been provided in-principle for consideration to minimise air quality impacts and optimise amenity as far as practicable.

- Locate ground level private and communal open space away from the emission source (Figure 7), introduce a buffer between residential development and busy roads or other sources.
- Consideration should be given to locating air intakes away from busy roads or other sources.
- Avoid the use of confined outdoor spaces oriented towards busy roads or other sources that could trap polluted air and restrict air circulation.
- Encourage air dispersal by:
  - Having fewer confined areas to enable winds and breezes to disperse and carry away air pollutants (i.e. carefully consider the orientation and continuity of open spaces, their dimension and shape, topography and the layout of buildings surrounding the area).
  - Stepping back the upper storeys of roadside buildings to increase dispersion of air pollutants.
  - Providing a variety in frontages such as setting upper floors back from the street frontage helps disperse air and noise (Figure 8).
  - Using two-sided balconies to allow optimise cross breezes (Figure 9).

In addition, it is recommended that further information be sought for potential air quality impact assessment report associated with the adjacent quarries, to determine the applicable and relevant evaluation distance footprints as well as any control measures implemented.

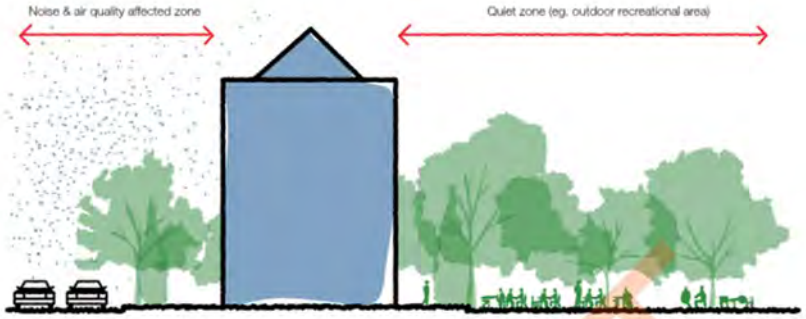


Figure 7 – Outdoor spaces located away from noise and emissions (Source: NSW Department of Planning 2008)

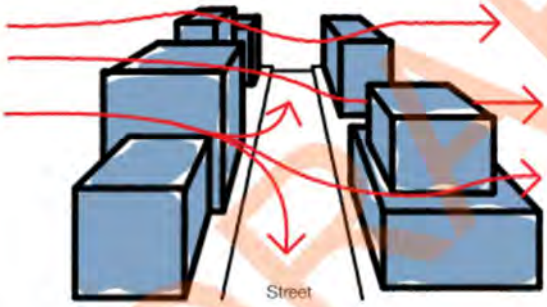


Figure 8 – Variation in building facades increases the dispersion of air pollutants and reduces the effects of canyoning (Source: NSW Department of Planning 2008)

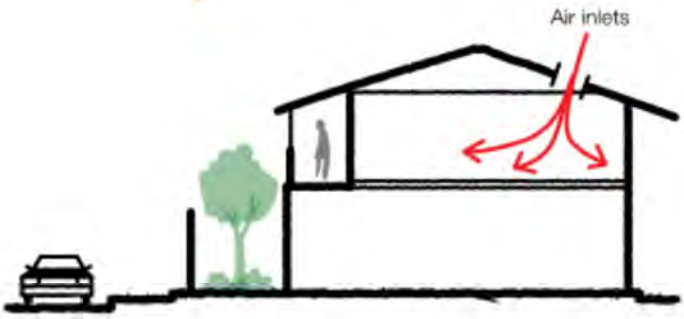


Figure 9 – Locate air intakes away from the source of polluted air (Source: DPTI 2012)

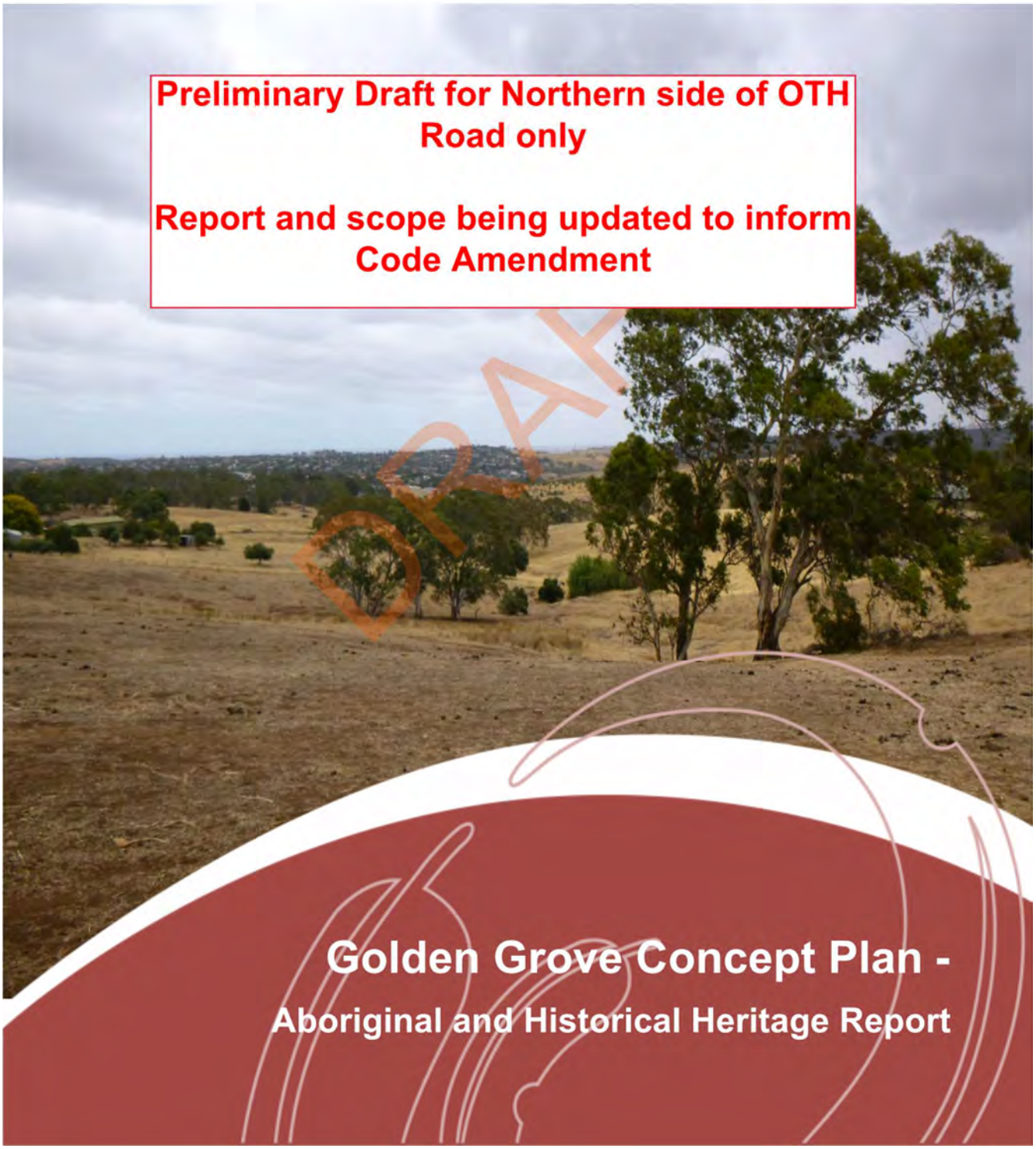
7 Recommended Next Steps

Based on the outcomes of this report, it is unlikely that local air quality at the proposed project site would be significant impacted by surrounding sources.

Should further detailed investigations be sought, this could involve consultation with the quarry owners, SA EPA, Council or stakeholders to seek further information and understand any air quality complaints lodged for the area that may have been a result of the quarry operations. This would also allow the air quality control measures implemented at the quarries to be understood to determine if these are suitable to minimise impacts at the proposed project site. It would also provide the opportunity to develop more effective and efficient mitigation strategies to protect amenity at the proposed project site if required.

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ebs heritage



Golden Grove Concept Plan - Aboriginal and Historical Heritage Report

25 February 2020

Version 1.0

Prepared by EBS Heritage for Holmes Dyer Pty Ltd

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GLOSSARY AND ABBREVIATION OF TERMS

AH Act	*Aboriginal Heritage Act 1988*
CHMP	Cultural Heritage Management Plan
CT	Certificate of Title
DEW	Department for Environment and Water
DPC-AAR	Department of the Premier and Cabinet – Aboriginal Affairs and Reconciliation
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ha	hectare(s)
Holmes Dyer	Holmes Dyer Pty Ltd
HP Act	*Heritage Places Act 1993*
ILUA	Indigenous Land Use Agreement
km	kilometre(s)
m	metre(s)
mm	millimetre(s)
n.d.	no date
PAD	Potential Archaeological Deposit
pers. comm.	personal communication
PoW	program of works
RNTBC	Registered Native Title Body Corporate
SA	South Australia(n)
SAM	South Australian Museum
the Council	South Australian Heritage Council
the Register	DPC-AAR Register

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EXECUTIVE SUMMARY

EBS Heritage were engaged by Holmes Dyer Pty Ltd (Holmes Dyer) to undertake due diligence for the potential development of land in the outer metropolitan area of Golden Grove, South Australia (SA). A preliminary high level analysis of the development viability for this site was undertaken by Holmes Dyer in September 2019. Based on the results of the high level analysis, the developers, YAS Property and Development, have decided to proceed with a more detailed concept plan which requires an Aboriginal and historical cultural heritage assessment be undertaken.

This cultural heritage desktop report summarises the relevant heritage protection legislation, the search results of the Register of Aboriginal Sites and Objects and other registers, research relating to past occupation and land use, the identification of any known heritage sites or potential for unknown heritage, the assessment of the risk of project works harming any heritage, and heritage management recommendations determined from the desktop analysis and risk assessment. The report has been prepared with the aim of managing cultural heritage for the life of the project.

Desktop results

No Commonwealth heritage places protected by the *Environment Protection and Biodiversity Conservation Act* (EPBC Act) were identified in the database search of the project area. No State or local heritage places were identified in the database search, consequently the *Heritage Places Act 1993* (HP Act), the *Development Act 1993* and the Tea Tree Gully Council Development Plan (2018) are not applicable to the project. Collectively the absence of any known historical heritage places, the land historically being used for agriculture and minimal sub-surface disturbances anticipated during the program of works, suggest that the proposed works pose a **low** risk of encountering any historical heritage surface or sub-surface sites or objects of significance.

Golden Grove is within the Kaurna Peoples native title determination therefore the main applicable heritage legislation is the *Aboriginal Heritage Act 1988* (AH Act). Based on historical anecdotal evidence, Golden Grove and the surrounding area has a long history of Aboriginal land use. Within the project area itself though there are no recorded Aboriginal sites, objects, cultural and/or spiritual histories. The lack of recorded sites and the absence of high risk landforms within the project area, suggest that the proposed works pose a **low** risk of encountering either surface or sub-surface Aboriginal sites, objects or remains. Ground works nevertheless should proceed with caution.

As there are no known cultural heritage sites within the project area, and a low risk of encountering any, there is no legal obligation to consult with the native title holders or undertake a cultural heritage survey prior to construction works commencing. This does not preclude YAS Property and Development, and its partners or contractors from ensuring that any works do not disturb unidentified and unrecorded sites as legally required by the AH and HP Acts.

Accordingly, EBS Heritage advise YAS Property and Development and its partners and contractors to consider the following recommendations:

Recommendation 1: Implement a Stop Work/Site Discovery procedure

Although the possibility of encountering or disturbing surface Aboriginal and/or historical cultural heritage is low, it is recommended that all staff and contractors are provided with a Stop Work/Site Discovery procedure in the event of an unexpected find. For convenience a site discovery procedure has been included in the appendix of this report (Appendix 1).

Recommendation 2: Use risk management controls for ground disturbance works

During sub-surface disturbances YAS Property and Development, and its partners and contractors should exercise caution at all times and ensure that the Stop Work/Site Discovery procedure is prominently displayed in the site office and that it is always adhered to.

Recommendation 3: Consult with the Registered Native Title Body Corporate

As a curtesy, inform the Kaurna Yerta Aboriginal Corporation Registered Native Title Body Corporate (RNTBC) of the proposed works and notify them that a cultural heritage due diligence report has been undertaken which determined that there is a low risk of disturbance to unknown Aboriginal sites or objects.

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Table of Contents

1 INTRODUCTION 1

1.1 Scope of engagement 1
1.2 Project area 1
1.2.1 Location 1
1.2.2 Geology and topography 2
1.2.3 Hydrology 4
1.3 Proposed project works 6
1.4 Limitation of the report 6

2 COMPLIANCE AND LEGISLATIVE SUMMARY 7

2.1 Commonwealth legislation 7
2.1.1 Environment Protection and Biodiversity Conservation Act 1999 7
2.1.2 Aboriginal and Torres Strait Islander Act 2005 7
2.1.3 Native Title Act 1993 7
2.2 SA State legislation – Aboriginal heritage 8
2.2.1 Native Title Act 1994 8
2.2.2 Aboriginal Heritage Act 1988 8
2.3 SA State legislation – historical heritage 8
2.3.1 Heritage Places Act 1993 8
2.3.2 Development Act 1993/Planning, Development and Infrastructure Act 2016 9
2.3.3 Tea Tree Gully Council Development Plan 2018 9

3 METHODOLOGY 10

3.1 Desktop assessment 10
3.1.1 DPC-AAR Register search 10
3.1.2 Archival research 10
3.1.3 Previous work/consultancy reports 10
3.2 Cultural heritage risk assessment 10
3.2.1 Site predictive statements 10
3.2.2 Construction risk assessment 11

4 HERITAGE REGISTER SEARCHES 13

4.1 Native Title Register 13
4.2 DPC-AAR Register 13
4.3 SA Museum database 14
4.4 Australian Heritage Database 16
4.5 SA Heritage Register 16

5 HISTORICAL LAND USE RESULTS 17

5.1 Aboriginal heritage 17

DRAFT

5.2 European heritage 19

6 RISK ASSESSMENT 21

6.1 Site predictive statements 21

6.2 Disturbance to sites during construction phase 23

7 SUPPLIMENTRY HERITAGE REQUIREMENTS 24

7.1 Section 23 application Aboriginal Heritage Act 1988 24

7.2 Section 27 permit *Heritage Places Act 1993* (SA) 24

7.3 Cultural heritage survey 24

7.4 Cultural heritage management plan 24

8 CONCLUSIONS AND RECOMMENDATIONS 25

9 REFERENCES 26

10 APPENDICES 28

Appendix 1 – Stop Work/Site Discovery Procedure 28

Appendix 2 – Native Title Determination Map 29

Appendix 3 – DPC-AAR Register Search 30

List of Tables

Table 1. Land parcels within the proposed development. 2

Table 2. Native title land types. 7

Table 3. Risk assessment matrix. 12

Table 4. Risk classification probability score. 12

Table 5. Native title determination area. 13

Table 6. Registered ILUA. 13

Table 7. Aboriginal groups with interest in the project area. 13

Table 8. Items recorded in vicinity of the project area. 14

Table 9. Predictive Risk Assessment for Aboriginal sites/objects. 21

Table 10. Construction risk matrix. 23

List of Figures

Figure 1. Location of project area. 3

Figure 2. Little Para circa 1936 (State Library of South Australia – B 33360). 4

Figure 3. Hydrology of the project area. 5

Figure 4. Location of known artefacts and sites in relation to the project area. 15

Figure 5. Clan areas identified by Tindale (1940). 17

Figure 6. Prints of the *kuri* or *Kure* dance (Angus 1846-47 Part3, Plate XV). 18

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1 INTRODUCTION

YAS Property and Development is proposing to develop land at Golden Grove in SA to potentially provide the outer north-eastern suburbs with 36 hectares (ha) of new residential land and 11.5 ha of open recreational space. A high level analysis of the viability of the site for development was completed by Holmes Dyer in September 2019 (B. Cunningham, Senior Consultant with Holmes Dyer, pers. comm., 6 September 2019). Based on the results of the high level analysis YAS Property and Development are progressing to due diligence which will afford a level of confidence to proceed with exercising their options over the land.

Holmes Dyer will be undertaking the Planning and Design Phase for the development, and have contracted EBS Heritage to undertake an Aboriginal and historical desktop assessment for the proposed program of works (PoW).

1.1 Scope of engagement

EBS Heritage were engaged to determine whether there are any key heritage risks associated with the proposed development and to provide detail on the requirements to protect and avoid damage, disturbance and/or interference to Aboriginal or historical archaeological/anthropological sites, objects or remains. The scope of the desktop works entailed:

- Identify relevant local, State and Commonwealth legislative requirements;
- Search the Department of the Premier and Cabinet – Aboriginal Affairs and Reconciliation (DPC- AAR) Register for any Aboriginal sites/objects within the greater area;
- Search the Commonwealth and State heritage register for any Commonwealth, State or local heritage places within the greater area;
- Native Title Register search;
- Identify and review primary and secondary information sources and previous heritage reports to aid in understanding the history, past use, and development of the surrounding land;
- Undertake a cultural heritage risk assessment to determine the likelihood of unrecorded cultural heritage sites still being present and determine the potential impacts;
- Prepare recommendations to manage the risk of any potential impacts the proposed activities could have on places of heritage significance during future works; and
- Provide recommendations to assist in planning for heritage clearances and approvals.

1.2 Project area

1.2.1 Location

The proposed residential development is located 21 kilometres (km) north of Adelaide and 8.5 km south of Elizabeth in the City of Tea Tree Gully within the Adelaide and Mount Lofty Ranges Natural Resources Management Region (Figure 1). The development will encompass approximately 65 ha of private land and road reserve currently divided into 13 parcels and used for a range of purposes (Table 1).

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Table 1. Land parcels within the proposed development.

Plan Parcel	Title	Land Use	Plan Parcel	Title	Land Use
D17477 A1	CT5774/558	Rural Residential House (House Without Primary Production)	D17477 A8	CT5257/297	Rural Residential House (House Without Primary Production)
D17477 A2	CT5093/561	House And Horticulture	D17477 A9	CT5159/888	Rural Residential House (House Without Primary Production)
D17477 A3	CT5291/680	Rural Residential House (House Without Primary Production)	D17477 A10 (part)	CT5442/886	Rural Residential House (House Without Primary Production)
D17477 A4	CT5596/686	Rural Residential House (House Without Primary Production)	D17477 A11 (part)	CT5776/344	Rural Residential House (House Without Primary Production)
D17477 A5	CT5774/559	Rural Residential House (House Without Primary Production)	D67885 A20 (part)	CT5998/401	Rural Residential House (House Without Primary Production)
D17477 A6	CT5158/162	Rural Residential House (House Without Primary Production)	F100647 A3	CT5171/541	House And Livestock (Non-Viable)
D17477 A7	CT5408/742	Rural Residential House (House Without Primary Production)			

1.2.2 Geology and topography

The Little Para Land System relates to the hills and rises around the Little Para Reservoir. The land is formed on siltstones, slates and fine sandstones, with minor quartzites and dolomites of the Saddleworth (siltstone with variable carbonate content and thin sandy interbeds) and Stonyfell Quartzite (dark pyritic shales, quartzite and sandy at base) Formations (Geoscience Australia n.d.). These rocks are generally layered by fine carbonates which have blown on to the land surface and leached into the soil and in places the carbonates have hardened to calcrete. There are minor remnants of Tertiary age sediments (rocks containing fossils) in the Golden Grove area. These are clayey sands to sandy clays, often hardened to weak sandstones.

The Little Para Land System is characterized by moderate to steep slopes created by the river as it cut through the frontal slopes of the western Mount Lofty Ranges. It is dominated by moderately to strongly dissected slopes adjacent to the last five km of the Little Para River before it emerges on to the Adelaide Plains. There are limited areas of undulating to gently rolling slopes near Golden Grove (Department of Environment, Water and Natural Resources n.d., p.1).

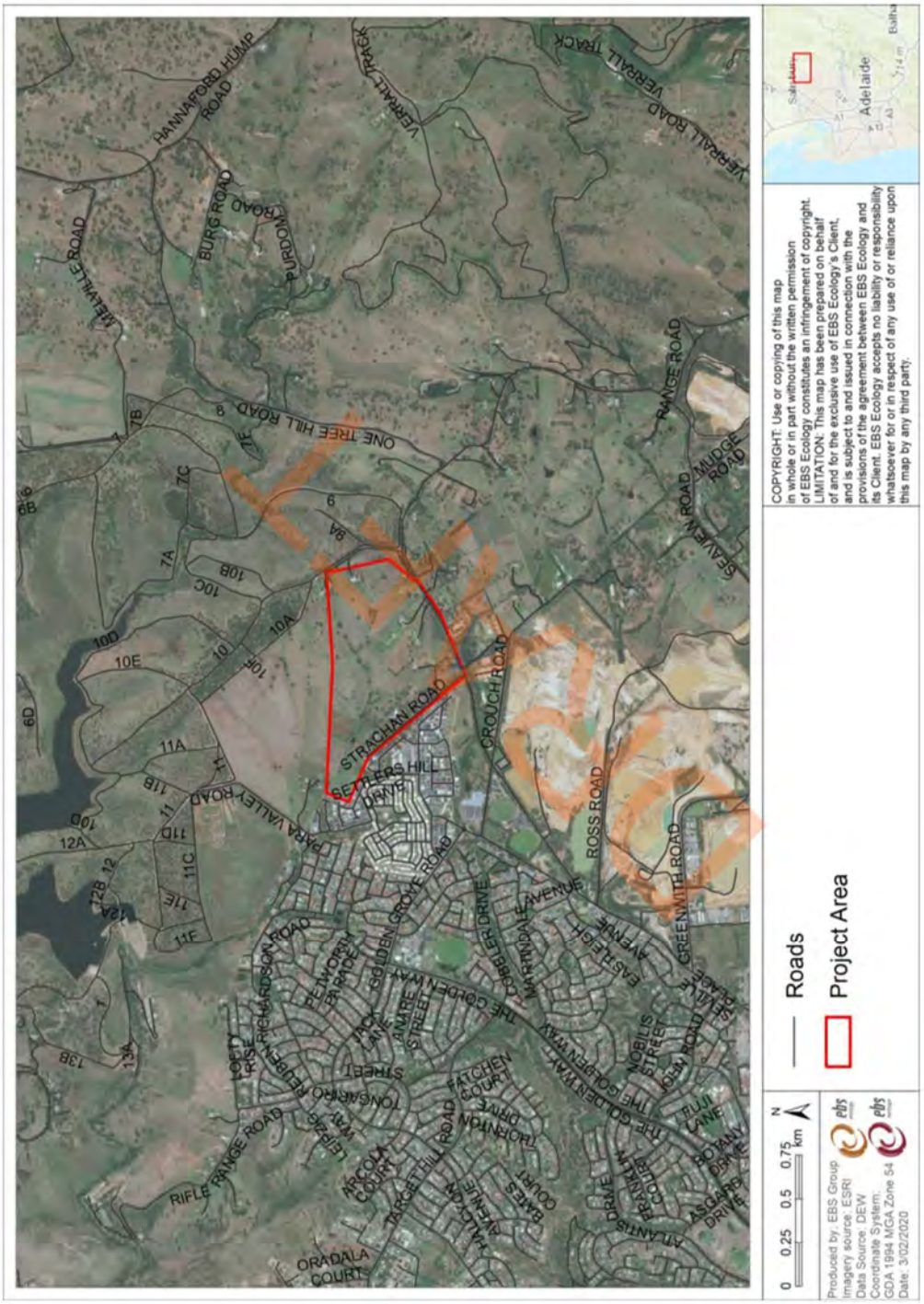


Figure 1. Location of project area.

1.2.3 Hydrology

It is important to take into consideration the natural water sources in the region and how these would have affected the occupation of the area by past peoples. The project area is approximately 1 to 1.5 km from the Little Para River; a seasonal freshwater stream formed by a large network of streams that flow west from the Mount Lofty Ranges near Upper Hermitage into the Barker Inlet. Along with the River Torrens, the Little Para forms part of the Torrens Basin. The Little Para River is an intermittent or ephemeral water source and originally it would have been a series of water filled depressions that were only linked during flood events (Bourman, Harvey and Bryars 2010, p.69). A reservoir was built in the path of the river in 1974 to provide water storage and flood mitigation. Figure 2 taken in 1936 shows an orchard on the Little Para River that would later be submerged by the creation of the Little Para Reservoir (State Library of SA, B 33360). Noted in the photograph summary is that the tree on the right hand side of the shed has large hollows at the base and is an Aboriginal shelter tree.

In 1909 the Little Para was described as a:

> '*…stream which, emerging from the hills, meanders through the plain, its course being visible afar off by the gum trees that are rooted in its bed, and along the bed of which majestic native gums have spread their branches'* (in Kraehenbuel 1996).

Following European settlement, with the associated grazing and trampling of the river banks by stock, agriculture activities and the undertaking of flood mitigation works, there was erosion of the continuous channels and disruption to the flow of the ponds which had a major impact on the river's hydrology (Bourman et al. 2010, p.69).



B 33360

Figure 2. Little Para circa 1936 (State Library of South Australia – B 33360).

The hydrology of the greater area, with its dense network of ephemeral water sources, can be seen in Figure 3. As most of the water sources are naturally occurring drainage systems they are unlikely to have changed considerably since European settlement. The frequency and rate of flows would have been the most affected part of the system.

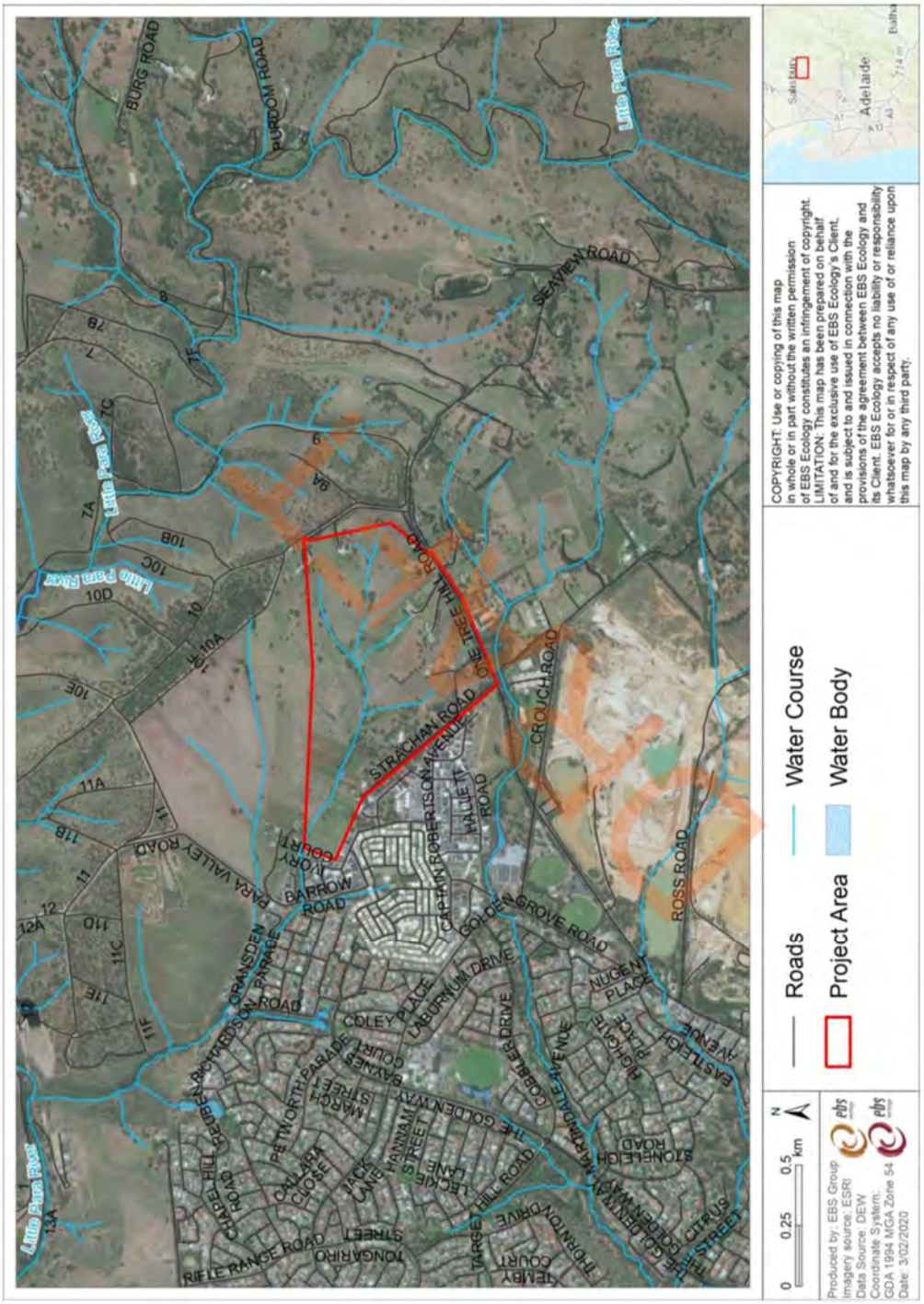


Figure 3. Hydrology of the project area.

1.3 Proposed project works

The proposed work will include:

- Road construction - the road construction involves excavating to a depth of approximately 300 to 400 millimetres although some areas will require building up rather than removing soil;
- Pavement construction – minimal impact;
- Lighting installation – anticipated to be to a depth of 2 metres (m);
- Signage installation;
- Storm water and other services pipe laying; and
- Telecommunications infrastructure.

1.4 Limitation of the report

This report was undertaken to the best archaeological practice and its conclusions are based on professional opinion, however limitations in historical documentation and archaeological methods make it difficult to accurately predict sub-surface deposits. It is possible that another professional may interpret the facts and physical evidence in a different way. It is also possible that future research, or new sources, may support different interpretations of the evidence. It does not therefore warrant that there is no possibility that archaeological material will be located on site.

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2 COMPLIANCE AND LEGISLATIVE SUMMARY

2.1 Commonwealth legislation

2.1.1 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Environment Protection and Biodiversity Conservation Regulations 2000* provide a national scheme of environment and heritage protection and biodiversity conservation. Under the Act a National Heritage List (for places outside of Commonwealth land) and a Commonwealth Heritage List (for places within Commonwealth land) have been established. The EPBC Act stipulates that any action that has, will have, or is likely to have a significant impact on a place of national culture and/or environmental significance must be referred to the Australian Government Minister for the Environment for approval.

No sites of national heritage significance were identified within the project area.

2.1.2 Aboriginal and Torres Strait Islander Act 2005

The *Aboriginal and Torres Strait Islander Act 2005* is a mechanism to ensure maximum participation of Aboriginal persons and Torres Strait Islanders in the formulation and implementation of government policies that affect them. The aim is:

- to promote the development of self-management and self-sufficiency among Aboriginal persons and Torres Strait Islanders;
- to further the economic, social and cultural development of Aboriginal persons and Torres Strait Islanders; and
- to ensure coordination in the formulation and implementation of policies affecting Aboriginal persons and Torres Strait Islanders by the Commonwealth, State, Territory and local governments, without detracting from the responsibilities of State, Territory and local governments to provide services to their Aboriginal and Torres Strait Islander residents.

2.1.3 Native Title Act 1993

The Commonwealth *Native Title Act 1993* provides a national system for the recognition and protection of native title. The Act recognises the existence of Indigenous land ownership tradition where connections to country have been maintained and where acts of government have not extinguished this connection (Table 2).

Table 2. Native title land types.

Indicative land types which may be subject to native title:	
Vacant Crown land	Beaches and foreshores
State forests and national parks	Land held by the government agencies
Some pastoral leases	Land held in trust for Aboriginal communities
Unalienated Crown land public reserves	Seas, reefs, rivers and other waters that are not privately owned
Native title may be extinguished by:	
Privately owned freehold land including family homes and freehold farms	Valid grants of private freehold land or water
Residential or commercial leases	Exclusive possession of leases
Public works built before 23 December 1996	Mining dissection lease
Community purpose leases	Pastoral or agricultural leases that grant exclusive possession

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2.2 SA State legislation – Aboriginal heritage

2.2.1 Native Title Act 1994

The *Native Title Act 1994* establishes a legal framework to manage and resolve the diversity in the rights and interests in lands and waters within South Australia and requires that a register be kept of records of native title and claims to native title on land in the State. When certain activities or development is undertaken in areas where native title exists or may exist, the developer will need to consider the possible impacts of their actions on native title rights and interests.

2.2.2 Aboriginal Heritage Act 1988

The South Australian *Aboriginal Heritage Act 1988* (AH Act) is administered by the SA Department of Premier and Cabinet, Aboriginal Affairs and Reconciliation. The legislation ensures that any Aboriginal site, object of significance, or remains are protected, whether previously recorded or not. The AH Act is the most relevant piece of legislation for this project and the most applicable sections are detailed below:

Section 20 - An owner or occupier of private land, or an employee or agent of such an owner or occupier, who discovers on the land an Aboriginal site or Aboriginal object must as soon as practicable report the discovery to the Premier;

Section 23 - It is an offence to 'damage, disturb or interfere' with an Aboriginal site, object or remains unless written authorisation is obtained from the Premier;

Section 35 - Except as authorised or required by the Act, a person must not divulge information relating to an Aboriginal site, object, remains or Aboriginal tradition.

2.3 SA State legislation – historical heritage

2.3.1 Heritage Places Act 1993

The *Heritage Places Act 1993* (HP Act) makes provision for the identification, recording and conservation of places and objects of historical heritage significance in SA and the SA Heritage Register documents places that are protected. The HP Act is governed by the Department for Environment and Water (DEW) and the South Australian Heritage Council (the Council).

It is an offence to carry out the following without a permit from the Council:

Section 26 - Excavate or disturb a State Heritage Place designated as a place of archaeological significance; or remove archaeological artefacts from such a place;

Section 27 - Excavate or disturb any land (not designated as a place of archaeological significance) for the purpose of searching for or recovering archaeological artefacts of heritage significance; or excavate or disturb any land (not designated as a place of archaeological significance) knowing or having reasonable cause to suspect that the excavation or disturbance will or is likely to result in an archaeological artefact of heritage significance being discovered, exposed, moved, damaged or destroyed; and/or

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Section 28 - Damage, destroy or dispose of an archaeological artefact removed from a State Heritage Place designated as a place of archaeological significance (whether removed before or after the entry of that place in the Register) and to damage, destroy or dispose of an object entered in the Register (either as a provisional or confirmed entry).

The Act further stipulates that:

Section 36 - A person who intentionally or recklessly damages a heritage place or engages in conduct knowing that it will or might destroy or reduce the significance to a State Heritage Place can be fined. There is no penalty if damage results from an action authorised by an approval or authorisation under the *Development Act 1993*.

Places of **local** heritage value are listed in an inventory attached to the State Heritage Register. The Tea Tree Gully Council Development Plan 2018 (DPTI 2018) should be referred to for guidance around development controls for local heritage places.

There are no State or local heritage places or areas recorded within the project area.

2.3.2 Development Act 1993/Planning, Development and Infrastructure Act 2016

The South Australian *Planning, Development and Infrastructure Act 2016*, often used in conjunction with the *Planning, Development and Infrastructure (General) Regulations 2017*, provides for matters that are relevant to the use, development and management of land and buildings, including by providing a planning system to regulate development within the State. The Act provides rules with respect to the design, construction and use of buildings, and other initiatives to facilitate the development of infrastructure, facilities and environments that will benefit the community.

The Act requires a planning authority to refer a development application affecting a State Heritage Place or State Heritage Area to the Minister responsible for the HP Act. This can include applications relating to non-listed properties in the vicinity of a State Heritage Place where the work is considered to 'materially affect the context within which the State Heritage Place is situated'.

2.3.3 Tea Tree Gully Council Development Plan 2018

The Tea Tree Gully Council Development Plan 2018 (DPTI 2018) contains a schedule of heritage items and conservation areas that are managed by the council. In addition, the plan contains details of the principles of development control to be following when undertaking work on, or in the vicinity of, a Heritage Place. The objectives for heritage conservation in the Tea Tree Gully Council area are:

1. The conservation of State and local heritage places.
2. The continued use, or adaptive re-use of State and local heritage places that supports the conservation of their cultural significance.
3. Conservation of the setting of State and local heritage places.

As the proposed works will not impact any local heritage places, the heritage objectives and principles of development control outlined in this development plan will not apply to this project.

3 METHODOLOGY

3.1 Desktop assessment

3.1.1 DPC-AAR Register search

A search of the Register of Aboriginal Sites and Objects, maintained by DPC-AAR, was undertaken for a 1 km radius of the project area. The search identified reported or recorded sites, as defined under Part 1, Section 3 of the AH Act; **Aboriginal object** means an object—

(a) of significance according to Aboriginal tradition; or

(b) of significance to Aboriginal archaeology, anthropology or history, and includes an object or an object of a class declared by regulation to be an Aboriginal object but does not include an object or an object of a class excluded by regulation from the ambit of this definition.

3.1.2 Archival research

Searches were conducted of the Australian Heritage Photographic Library, the Australian Heritage Database, the South Australian Heritage Places Inventory, Australian Museum Anthropologic database, South Australian Museum database, Local Council development plans, and archives for images, newspaper clippings, journal entries and other primary sources that may contain information about the early uses of the area and early interactions between Aboriginal people and others.

3.1.3 Previous work/consultancy reports

A review of available heritage reports for the general region was undertaken where applicable. These studies can provide a broad background of the region and provide information on the types and location of sites previously identified near the project area.

Some reports remain restricted through confidentiality agreements so are unable to be accessed.

3.2 Cultural heritage risk assessment

3.2.1 Site predictive statements

A risk assessment was undertaken to determine the likelihood of the project impacting unknown Aboriginal sites/objects in environmental landforms commonly associated with cultural heritage sites and therefore of high archaeological potential and of cultural significance to Aboriginal people. The locations and type of Aboriginal sites that have been recorded within the regional area and information about previous archaeological work are used to inform the predictive statements. There are three levels of risk assigned:

High risk: A 'high' risk area contains undisturbed landforms where traditionally cultural heritage sites have been found. Landforms considered to be of 'high' risk include; rock outcrops, caves, dunes, sand hills, natural wetlands, permanent and semi-permanent waterholes and natural springs, some hill and mound formations and some types of remnant native vegetation. Known Aboriginal activity/sites within the area reinforces the risk level.

Medium risk: A 'medium' risk area contains landforms that traditionally would have been classified as 'high' risk but have been disturbed by surface activities and/or geotechnical data has indicated that the disturbance has not significantly impacted sub-surface soils.

Cultivation, cattle grazing, and construction of roads, tracks, powerlines and other infrastructure do not tend to create substantive sub-surface disturbances; therefore the proposed works may encounter unidentified sub-surface sites or objects. Known Aboriginal activity/sites within the area reinforces the risk level.

Low risk: A 'low' risk area contains landforms that have been extensively impacted/modified on both the surface and sub-surface levels thereby increasing the probability that cultural heritage sites have already been disturbed or destroyed. High density urban developments, realignment/modification of waterways, utility installations, extraction or removal of sand, quarrying, dredging, land clearance, major contour landscaping, and tunnelling result in significant ground disturbances. No and/or little Aboriginal activity or sites reported or recorded within the area conversely lessens the risk level.

3.2.2 Construction risk assessment

A construction risk assessment was undertaken using the risk assessment matrix (Table 3) to classify the potential risk (Table 4) to cultural heritage during construction works. There are three levels of risk associated with the disturbance of cultural heritage sites, places and objects during construction:

High risk: Manageable risk and work activity may proceed. A cultural heritage survey is recommended prior to ground works commencing and heritage monitoring is recommended during ground works. All site personnel and contractors to receive a cultural heritage induction. A site discovery and stop work procedure should be implemented for the duration of the works. The services of an on-call archaeologist may be engaged to assist with the identification of unexpected finds. Risk management controls are in place.

Medium risk: Acceptable risk and work activity may proceed. A site discovery and stop work procedure should be implemented for the duration of the works. The services of an on-call archaeologist may be engaged to assist with the identification of unexpected finds. Risk management controls are in place.

Low risk: Acceptable risk and work activity may proceed. Risk management controls are in place.

The overall risk during construction is calculated by averaging the probability scores for each of the construction activities.

Table 3. Risk assessment matrix.

Potential Consequences		Probability				
Risk Class Score	Requirements	E Rare	D Unlikely	C Possible	B Likely to happen	A Almost certain to happen
1 – Negligible	Requiring no control measures.	1	2	4	7	11
2 - Minor	Control measures.	3	5	8	12	16
3 - Moderate	Site avoidance, requiring control measures, heritage induction.	6	9	13	17	20
4 - Major	Heritage induction, Stop Work/Site discovery, Section 23/27 Permit, CHMP, engage archaeologist.	10	14	18	21	23
5 - Catastrophic	Heritage induction, Stop Work/Site discovery, cultural heritage survey, CHMP, engage archaeologist, monitoring during ground works.	15	19	22	24	25

Table 4. Risk classification probability score.

High risk	20 – 25 (red)
Medium risk	11 – 19 (yellow)
Low risk	1 – 10 (green)

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4 HERITAGE REGISTER SEARCHES

4.1 Native Title Register

The search of the Native Title Register identified the Kaurna Peoples as native title holders for the lands within and surrounding Golden Grove as detailed in the native title determination of 21 March 2018 (Table 5). Native title rights exist for 17 parcels of land in the determination; none of these parcels are within the project area though. The extent of land covered by the determination is provided in Appendix 2.

Table 5. Native title determination area.

Name	Tribunal File No.	Status	Determination Outcome	Registered Native Title Body Corporate
Kaurna Peoples Native Title Claim	SCD2018/001	Registered	Native title exists in parts of the determination area	Kaurna Yerta Aboriginal Corporation RNTBC

The Kaurna Peoples have an Indigenous Land Use Agreement (ILUA) which is a voluntary agreement between the native title group and The Attorney-General for the State of South Australia regarding the use of the determination land and waters (Table 6). The Kaurna ILUA area is all of the land and waters the subject of the determination and covers about 3,470 square km in the vicinity of Adelaide, extending easterly from Gulf St Vincent to the foothills of the Mount Lofty Ranges. When registered, ILUAs bind all parties and all native title holders to the terms of the agreement.

Table 6. Registered ILUA.

Name	Tribunal file no	Status
Kaurna People Native Title Settlement ILUA	SI2018/004	ILUA registered 19 November 2018

4.2 DPC-AAR Register

EBS Heritage requested a search of the DPC-AAR Register on the 17 December 2019. The search request was for 13 parcels of land that comprise the project area. A search radius from the external edge of the land parcels of 1 km was requested as the project is close to the Little Para River which is classified as a high risk landform so the likelihood of sites being recorded in the vicinity is higher. EBS Heritage was advised that the central archive has no entries recorded for the requested search area.

The register results are provided as a guide only and are not an extensive list of all heritage items within an area. The DPC-AAR therefore advises that sites or objects may exist even though the register doesn't identify them.

The DPC-AAR additionally provided the details of Aboriginal groups with an interest in the area (Table 7). Refer to Appendix 3 for the full letter.

Table 7. Aboriginal groups with interest in the project area.

Name	Chairperson:	Phone	Contact
The Kaurna People	Jeffrey Newchurch	0458 973 692	jeffreynewchurch@hotmail.com

4.3 SA Museum database

The South Australian Museum (SAM) database details Aboriginal cultural material held by the SAM. The database is a valuable tool used to identify cultural activity and assists with determining probability for the potential for sub-surface cultural material to be unearthed in undisturbed soil profiles during works and helps to determine the types and numbers of materials found previously in the region.

Most of the collection represents cultural material that was donated to, or purchased/collected by the museum. Where available, the database contains information on how the item(s) came into the collection, the location in which it was found and the date it was acquired. Many of the records are without archaeological context and are often incomplete so the database is used for indicative purposes only.

One item for Golden Grove was listed in the SAM database; a calotte found lying on the ground at the corner of Bicentennial Drive and Botany Drive in 1997. As the roads are a modern construct, it is more likely that the bone was dropped by an animal rather than being in situ. Sixteen additional items were recorded in the surrounding suburbs with the closest being at Salisbury Park approximately 5 km away (Table 8). The artefacts were predominately skeletal remains (n = 12) collected from along rivers and creeks and near the Barker Inlet, which prior to urbanisation was covered by shallow tidal samphire flats (NRM Education n.d. p.2). The other items where tools (n = 2), weapons (n = 1) and unspecified (n = 2).

A map showing the approximate locations of all known objects and sites within the surrounding area, as recorded by the SAM, DPC-AAR and previous heritage reports, is provided in Figure 4.

Table 8. Items recorded in vicinity of the project area.

Location	Number of items	Items Listed
Golden Grove, cnr Bicentennial Drive and Botany Drive	1	calotte (skullcap, or bones of the skull)
Para Hills	1	club, slate
Parafield, ½ mile southwest of aerodrome	1	hammerstone
Parafield Gardens, cnr Ryan's Rd. & Salisbury Hwy	3	skeletal remains
Salisbury	1	skeletal remains
Salisbury, near, Hd. Munno Para, S	1	hammerstone, quartzite
Salisbury Park	1	skeletal remains
Ardornish, near Modbury	1	skeletal remains
Modbury	3	skeletal remains
Modbury, North East Road	1	skeletal remains
Valley View Secondary School	1	skeletal remains
Pooraka	2	unspecified
Total	**17**	

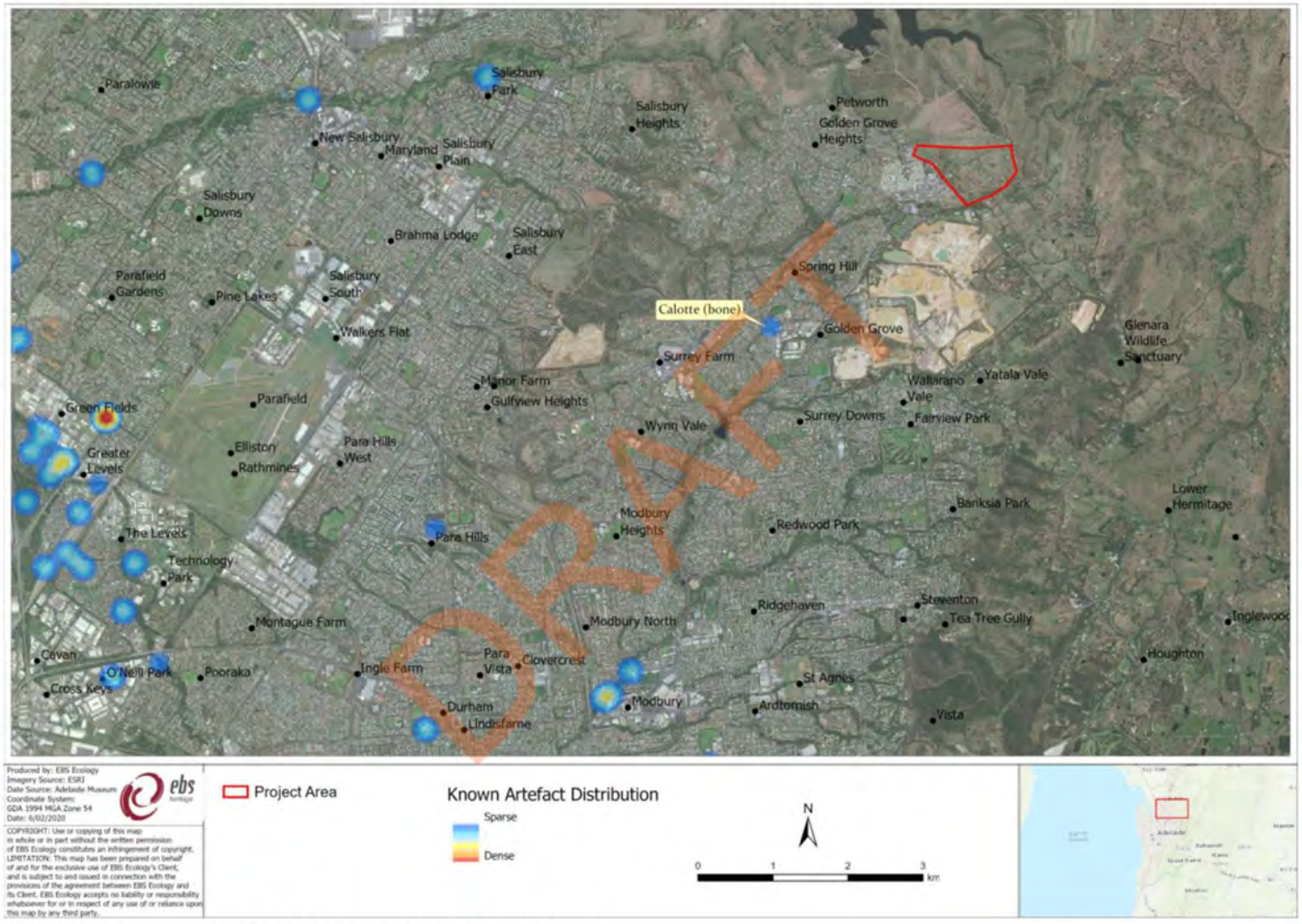


Figure 4. Location of known artefacts and sites in relation to the project area.

4.4 Australian Heritage Database

The Australian Heritage Database details information about World Heritage places, National Heritage places, Commonwealth heritage places and overseas places of historic significance to Australia, as well as places under consideration. The database is maintained by the Australian Government Department of the Environment and Energy.

There are no places listed in the Australian Heritage Database within the proposed project area.

4.5 SA Heritage Register

The SA Heritage Register details information about South Australia's local and State heritage places, objects and areas. The Register is maintained by the SA Government Department for Environment and Water. The Register holds information relating to places on the SA Heritage Register, local heritage places from SA Development Plans and contributory items from SA Development Plans.

There are no places listed in the SA Heritage Register within the proposed project area.

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5 HISTORICAL LAND USE RESULTS

Research into the patterns of Aboriginal and non-Aboriginal land use assists in identifying the risk of disturbing known and unknown cultural sites.

5.1 Aboriginal heritage

There is a long and wide spread association of Aboriginal people with the Adelaide Plains; the traditional lands of the Kaurna (Adelaide Tribe) peoples. In 1940 Norman Tindale, anthropologist, archaeologist, entomologist and ethnologist with the SAM, drew a map showing the Kaurna boundaries and those of their neighbours which he determined from undertaking numerous interviews with Aboriginal people (Figure 5). In his *Aboriginal Tribes of Australia* he described the Kaurna territory as stretching from Cape Jervis to Port Wakefield along the eastern shore of Gulf St Vincent, inland to near Crystal Brook, Snowtown, Blyth, Hoyleton, Hamley Bridge, Clarendon, Gawler and Myponga; from the east side of the Hummock Range to Red Hill and inland to the stringy bark forests of the Mount Lofty Ranges (Tindale 1974:213).

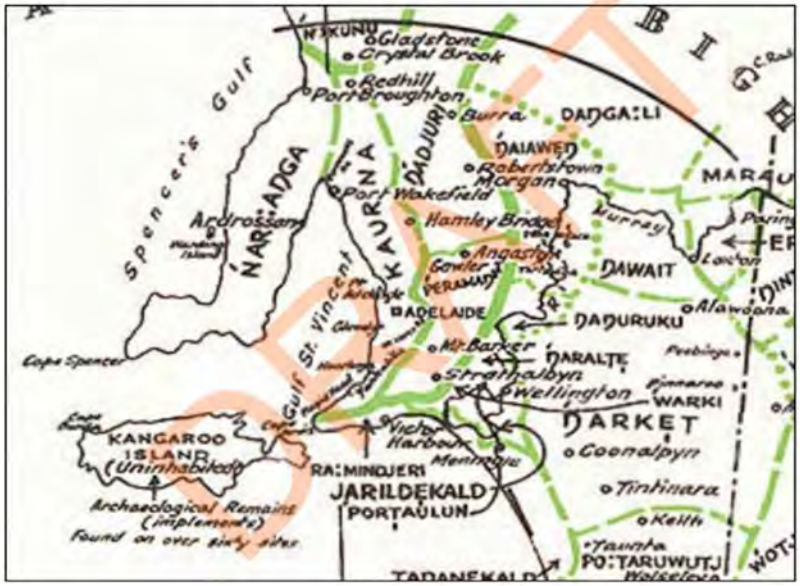


Figure 5. Clan areas identified by Tindale (1940).

The Kaurna people moved seasonally from the Adelaide coastline in the summer, to the foothills of Mount Lofty Ranges and inland river systems, including the Gawler system, to shelter in the winter (Tindale 1974). An early account from northern Adelaide describes how groups of Kaurna people would move up and down the waterways, camping at one place for a week and working in exchange for food (Whitelock 1989). The Kaurna constructed various types of shelter, dependent on seasonal needs and they sometimes included substantial structures that were erected during autumn and winter and made from the frame of branches covered with bark, grass, seaweed and earth (Ellis 1976; Ross 1984). An account from William Anderson Cawthorne, a sketcher and watercolourist known for his writings and artworks focusing on colonial life, provides insight into Aboriginal dwellings:

"Dwellings are the most simple habitations perhaps known … only a few branches placed in a semi-circle during the summer months, under which they lie with a fire in the middle, and in the winter months the same form is retained only made more substantial by the sides being heightened and supported by a few sticks, meeting at the top and covered over with bark, earth or grass, which forms when finished a domicile in the form of a half dome. When an encampment takes place the 'wurlies' as they are called are generally made close together and in rows" (Cawthorne 1844, p.20).

The Little Para River is described as a key rendezvous point, where early settlers met with "*companies of natives in the district*" who "*for many years after the proclamation of the state….made the Little Para famous by their tribal ceremonies*" (The Advertiser 1908, p.8). The ceremonies or dances of the northern Adelaide Tribes seemed to captivate early settlers. A set of prints (Figure 6) produced from 1846-47 by George French Angas, an English explorer, naturalist, painter and Director of the Australian Museum, focuses on the *kuri* or *Kure*, a dance "*most frequent among the northern natives, particularly those dwelling on the borders of the scrub*" (Angas 1846-47 Part 3 Plate XV).



Figure 6. Prints of the *kuri* or *Kure* dance (Angus 1846-47 Part3, Plate XV).

Aboriginal people were heavily and detrimentally affected by the arrival of European settlers to SA. Aboriginal peoples experienced the devastating impact of introduced diseases, including but not limited to influenza and smallpox (Campbell 1983, p.536; Dowling 1997, p.31). A smallpox epidemic spread from the eastern states prior to 1836 and the population was further depleted by contact with other European diseases in the first thirty years after white settlement (City of Salisbury 1985, p.5). It has been estimated that there were 15,000 aboriginal people living in SA in 1788, in 1861 the number had been reduced to 9,000 and by 1881 to 6,346 (Smith 1980). The 1911 Australian Census records there were a total of 1,439 full-blood Aboriginal people in SA with an additional 893 described as half-caste (Knibbs 1911, p.2054).

It is not known how many Kaurna people there were before European settlement but by 1836 it is estimated the population was about 700 individuals and in 1842 it was noted in the *South Australian Register* that the population was around 650. By 1846 it was observed by the settlers that whole tribes had disappeared and by the 1850's there were only a few remaining Kaurna in the Adelaide area (Lockwood 2017, p.81). The last surviving full-blood Kaurna, a woman called Ivartiji died in 1929 (Amery 2016, p.1).

A number of historical accounts from the 19th Century described the Adelaide tribes in the past tense, with many authors lamenting their extinction or describing them as having moved further up the Gawler River. In the Introductory Chapter for *The Native Tribes of South Australia,* author James Dominick Woods expresses his disappointment that:

> "…*The Adelaide tribe is extinct, and so are those which dwelt near Gawler, Kapunda, the Burra, the Rufus, etc. In none of these places can a single trace of them be found. They have left no memorials behind them, and their language, as a language, exists no more...The extinction is so complete that it was with the greatest difficulty that Mr. Waterhouse, the Curator of the Museum, could collect a set of their weapons for the Paris Exhibition in the present year* (1878)" (Woods 1879, p.ix).

Further evidence that the Kaurna had permanently left Golden Grove and the surrounding Adelaide plains is provided by the account that appeared in the Adelaide Advertiser in January 1906 that consistently refers to Aboriginal people and the meetings with settlers in the past tense:

> *"…the tribe of Aboriginals afterwards known as the Adelaide tribe, because their haunts embraced the plains between the neighbourhood of Brighton and that of Gawler, used to make the Little Para, which runs through Salisbury, a rendezvous. Early settlers have often told stories of their meetings with companies of natives in the district on their way north…"* (The Advertiser 1906).

5.2 European heritage

Captain Adam Robertson and his wife arrived in SA in September 1839 on the 'Lady Lilford'. After arriving at Encounter Bay they first settled at Woodville but in 1842 purchased land from the South Australian Company on one of the headwaters of Cobbler's Creek. By 1853 Robertson owned nearly 1000 acres of land and by the 1870s the farm was a holding of over 2000 acres of mixed agricultural land, some of which was leased to other farmers therefore encouraging denser settlement of the area (Butcher, Pope, Bechervaise and Associates 1997, p.12). A house was started in 1846 with substantial additions built in approximately 1875, thus creating a two storey house with a bay window in the Italianate style. Robertson named the farm and house Golden Grove after a ship he commanded which was in turn named after an estate in Jamaica owned by another branch of the family (Geni 2018). The house remained in the Robertson family until 1930.

In 1853 Captain Robertson donated an acre of land for a new school to be established and permitted it to be called the Golden Grove Area School (Butcher et al. 1997). A post office and local general store was opened in 1859 which was designated the Golden Grove Post Office by the Postmaster General. Captain Robertson took exception to them naming it Golden Grove and wrote to the Editor of the South Australian Register who published the following:

> *"A. Robertson explains that Golden Grove is the name of his farm and not of the county round about as stated by a previous correspondent"* (SA Register 1859, p.2).

The local people called the settlement Golden Grove however there was never officially a township named Golden Grove.

The land within and surrounding Golden Grove Farm had been used from the early days of settlement for freestone quarrying which provided building materials for the colonists. From the 1930s onwards there was a substantial sand quarrying industry in the area and by the 1970s the sand quarries around Golden Grove were owned and operated by Monier Besser, Boral industries or Hallett Bricks. Approximately 3.5 square km of land in the southern portion of the suburb, only 300 m from the project area, as well as 0.405 square km on the Gulfview Heights side of the western suburb boundary, are still currently being quarried.

Land was earmarked for residential development in 1962 and studies and planning proposals began in the early 1970s when the South Australian Land Commission began to acquire the land in the area. Housing estates started to be developed from 1973 and they have now subsumed most of the former agricultural land. The Golden Grove Development is a recent (1985–2003) fully planned community development. The State Government entered into a joint venture partnership, ratified by indenture, with the Delfin Property Group (now Delfin Lend Lease) for the development of the master planned community. The development is a series of villages based on an innovative urban community plan. Up to 27% of the development is set aside for public open space - there are 120 parks, 160 ha of lakes, and six km of hiking, walking and cycling trails (Bosman 2009, p.217).

The Sands & McDougall's *South Australian directory 1920* listed the population of Golden Grove as 127, with

> ...*Communication between Modbury and Adelaide - Coach daily. Mail carried on horseback to Modbury; or five miles to Salisbury, thence train"* (Sands & McDougall's 1920, p. 439).

The Australian Bureau of Statistics 2011 Census, listed the population of Golden Grove as 9,429 people living in 3,758 dwellings (ABS 2011) and the 2016 Census recorded 10,235 people living in Golden Grove with 4,095 private dwellings (ABS 2016).

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6 RISK ASSESSMENT

6.1 Site predictive statements

Risk statements are formulated to predict where unknown Aboriginal sites or objects may be found and highlight landforms that might be of cultural significance to Aboriginal people. The results of the predictive risk assessment for the project are presented in Table 9 below. The overall risk for the project to encounter unknown Aboriginal heritage sites or objects is considered to be **low**.

Table 9. Predictive Risk Assessment for Aboriginal sites/objects.

Site Type	Site Description	Associated Landform / Environment	Project Area	Probability	Risk
Stone Artefact Scatters / Isolated	Stone tools such as cores, flakes, scrapers, hammerstones, grinding stones, mullers, axe heads, tulas and tulas slugs. Debris from tool production which may include unmodified flakes and flaked pieces.	Stone artefacts can be located either on the ground and/or in sub-surface contexts. Are commonly found in the open landscape and in rock shelters and on sandy rises on floodplains adjacent to drainage features.	Given the lack of objects recorded in the vicinity there only a small chance of finding this type of site on the surface or sub-surface.	Unlikely	Low
Mound Sites	Mounds are circular or elliptical areas of sandy rises in areas of seasonal flooding. Mounds were used as campsites where there is clay soil that may become damp and sticky during floods. Mounds are usually characterised by the presence of darker soil due to the accumulation of charcoal, burnt earth and organic matter over repeated occupation. Mounds range in size, between 4 to 50 m in diameter and up to 1.5 m in height.	Mound sites, or '*mirnyongs*', are commonly associated with poorly drained soils found in wetland habitats and are found on the margins of the river floodplains.	Given the distance to fresh water there is a low risk of encountering sub-surface remnants of this site type	Unlikely	Low
Culturally Modified Trees	This site type consists of trees that have been modified through the removal of bark sections and/or timber. Trees were used to construct canoes, spears, shields and dishes and often were carved for ceremonial purposes. Toeholds were also cut into trees so bird's nests, possums and native honey could be accessed.	These site types can occur anywhere that trees of sufficient age and size are present.	As there are trees of sufficient size within the remnant vegetation there is a risk of encountering this site type.	Possible	Medium
Mythological Sites / Aboriginal Ceremony and Dreaming	Places of significance to Aboriginal people connected to ceremonial activities or dreaming stories.	They can be present in wide variety of environmental landforms.	There are no recorded sites of this type in the area and there is a low chance of this type of site being identified during works.	Unlikely	Low

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Site Type	Site Description	Associated Landform / Environment	Project Area	Probability	Risk
Burials	This site type can include an isolated bone fragment to a complete individual or group of burials. Burials include interments, bundle burials and cremations.	Burials tend to be associated with ridges and lunettes (a wind formed crescent dune) and other sand bodies as well as sandy river or creek banks.	There is a possibility of encountering this site type due to the proximity of the Little Para River however there are no known burials in the vicinity.	Unlikely	Low
Rock Art	Rock art is found across the continent as paintings, drawings, pecked or abraded imagery and mechanically produced motifs such as stencils.	Inside surfaces of the numerous mica-schist and sandstone rock-shelters and caverns commonly found adjacent the creeks in the ranges.	As the surrounding area does not have any suitable rock outcrops there is a low risk of encountering this site type.	Unlikely	Low
Potential Archaeological Deposit (PAD)	These are areas that have a potential to contain an archaeological deposit. They can be found in association with other cultural material or without. Topography, together with soil type, texture and colour is recognised as a reliable indicator of significant PADs.	They can be located in many different environmental locations including within rock shelters, along creek lines, sand dunes and anywhere a deposit can assimilate.	This type of site may be found in the area as there appears to have been minimal subsurface disturbance.	Possible	Low
Historic Sites	These are sites relating to the shared history of Aboriginal and non-Aboriginal people after first contact. Examples include missions, massacre sites, post-contact camping sites.	Not dictated by any landform or environmental factors. More common in areas that had a higher influence by Europeans after contact.	There are no reported sites of this type in the surrounding area and there is a low chance of finding this site type.	Unlikely	Low
Water Holes and Soaks	Water source including rock holes (gnamma) that collect rain water, and natural springs. A soak is a water source where the water has seeped into the sand and is stored below. Often a soak is part of an ephemeral river or creek.	Water holes and natural springs are located anywhere there is natural water and rock formations. Soaks are generally found in sandy desert country.	The area does not appear to have sufficient bedrock present therefore there is a low chance of locating this site type.	Unlikely	Low
Quarries	They consist of sources of stone that is used to manufacture stone artefacts. There are also quarries of ochre. Quarries are procurement sites and normally have an associated artefact scatter and areas of reduction or knapping areas.	Located in areas where there are large bedrock outcrops that are available for quarrying.	There are no visible outcrops of raw material suggesting a low risk of locating encountering this site type.	Unlikely	Low
			Overall Risk	**Unlikely**	**Low**

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6.2 Disturbance to sites during construction phase

The results of the risk assessment for the construction phase of the project are presented in Table 10 below. The overall risk score for the project to disturb known or unknown heritage is nine and as per the risk classification probability score (Table 4), the risk is considered to be low for both historical and Aboriginal heritage.

Table 10. Construction risk matrix.

Activity	Aspect	Potential Impact	Status	Risk Class	Probability	Risk Score	Risk Level
Surface							
Construction of housing, including infrastructure and facilities.	Aboriginal Cultural Heritage	Disturbance of **known** Aboriginal places or objects.	There are no known Aboriginal heritage sites in the project area.	4	E - Rare	10	Low
	Non-Aboriginal Cultural Heritage	Disturbance of **known** sites of non-Aboriginal heritage significance.	There are no known non-Aboriginal heritage sites in the project area.	2	E - Rare	3	Low
	Aboriginal Cultural Heritage	Disturbance of **unknown** Aboriginal places or objects.	Works will cause limited disturbance to the topsoil as it is most likely the site will be built up with fill.	4	D - Unlikely	14	Medium
	Non-Aboriginal Cultural Heritage	Disturbance of **unknown** sites of non-Aboriginal heritage significance.	Works will cause limited disturbance to the topsoil as it is most likely the site will be built up with fill.	2	D - Unlikely	5	Low
	Significant heritage landscape	Disturbance/encroachment on significant heritage landscape.	No known significant heritage landscape in area.	3	E - Rare	6	Low
Sub-surface							
Sub-surface excavations for services.	Aboriginal Cultural Heritage	Disturbance of **known** Aboriginal places or objects	There are no known Aboriginal heritage sites in the project area.	4	E - Rare	10	Low
	Non-Aboriginal Cultural Heritage	Disturbance of **known** sites of non-Aboriginal heritage significance	There are no known non-Aboriginal heritage sites in the project area.	4	E - Rare	10	Low
	Aboriginal Cultural Heritage	Disturbance of **unknown** Aboriginal places or objects	The construction will result in minimal sub-surface disturbance as it is most likely the site will be built up with fill.	4	C - Possible	18	Medium
	Non-Aboriginal Cultural Heritage	Disturbance of **unknown** sites of non-Aboriginal heritage significance	The construction will result in minimal sub-surface disturbance as it is most likely the site will be built up with fill.	2	E - Rare	3	Low
					Overall Risk	**9**	**Low**

Council Meeting - 12 October 2021

Draft preliminary report - Aboriginal and Historical Heritage Attachment 4

7 SUPPLIMENTRY HERITAGE REQUIREMENTS

Should Aboriginal or historical sites or objects of significance be disturbed during project works, the following additional heritage conditions may be required to ensure compliance with the *Aboriginal Heritage Act 1988* or the *Heritage Places Act 1993*.

7.1 Section 23 application Aboriginal Heritage Act 1988

If Aboriginal cultural material is discovered during works, notification of the discovery of the site or object of significance is to be made to the Premier through the Aboriginal Heritage Team at the DPC-AAR as required pursuant to Section 20 of the AH Act.

If the site or object of significance cannot be avoided, the proponent will require an authorisation from the Premier, as the Minister responsible for Aboriginal Affairs and Reconciliation, under Section 23 of the AH Act. Damaging, disturbing or interfering with Aboriginal sites and objects without the authorisation of the Premier is an offence under the AH Act.

7.2 Section 27 permit *Heritage Places Act 1993* (SA)

If historical material or sites are discovered during works, notification of the discovery of the site or object is to be made to Heritage South Australia of DEW as is required pursuant to Section 27 of the *Heritage Places Act 1993*. Heritage SA of DEW will determine if a permit is required and notify the proponent when works may recommence.

7.3 Cultural heritage survey

The AH Act does not mandate a requirement for an Aboriginal heritage survey and there is no legislative obligation to do so. The Kaurna Yerta Aboriginal Corporation RNTBC however should be informed of any Aboriginal objects or sites discovered during the construction. Dependant on the number and type of site an archaeological and ethnographical survey may need to be undertaken prior to any further ground disturbance works.

7.4 Cultural heritage management plan

A cultural heritage management plan (CHMP) is drafted in consultation with the relevant Aboriginal representative parties as an outcome of a heritage assessment or survey where Aboriginal heritage has been identified in the project area. The CHMP should detail the nature, extent and significance of any Aboriginal cultural heritage sites identified, and specify recommendations or measures to be taken before, during and after project activities to manage the protection of the heritage.

As no Aboriginal cultural heritage has been identified a CHMP is not required for this project

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8 CONCLUSIONS AND RECOMMENDATIONS

Historical and anecdotal evidence advises that Golden Grove is a place of cultural significance for the Kaurna people with the area providing a rich and varied archaeological record of Aboriginal occupation. A large number of sites have previously been recorded throughout the Adelaide Plains, although no sites were identified in the project area. There is one item listed in the SAM database for Golden Grove and a further 16 items recorded for the surrounding area. The lack of high risk landforms and recorded sites within the project area suggests there is a low risk that works will uncover or disturb unknown Aboriginal sites.

Golden Grove has also been shown to have an extensive history of non-Aboriginal settlement and development albeit by a small group of individuals, until the rapid housing development phase in the 1960s. The lack of recognised historical heritage sites, together with the land being used for cropping and grazing, as agricultural activity tends not to leave substantial material remains, combine to suggest that there is a low risk that works will uncover or disturb any unknown non-Aboriginal heritage sites.

The *Aboriginal Heritage Act 1988* does not mandate a requirement for a cultural heritage survey and there is no legislative requirement for one to be carried out for the project. As no known sites where identified within 1 km of the project area and the risk assessment deemed there was a low risk for disturbance to surface and sub-surface sites or objects, a cultural heritage survey has been deemed not warranted. Works can therefore proceed with caution.

Consequently, EBS Heritage advises YAS Property and Development, and its partners and contractors to consider the following recommendations:

Recommendation 1: Implement a Stop Work/Site Discovery procedure

Although the possibility of encountering or disturbing surface Aboriginal and/or historical cultural heritage is low, it is recommended that all staff and contractors are provided with a Stop Work/Site Discovery procedure in the event of an unexpected find. For convenience a site discovery procedure has been included in the appendix of this report (Appendix 1).

Recommendation 2: Use risk management controls for ground disturbance works

During sub-surface disturbances YAS Property and Development, and its partners and contractors should exercise caution at all times and ensure that the Stop Work/Site Discovery procedure is prominently displayed in the site office and that it is always adhered to.

Recommendation 3: Consult with the Registered Native Title Body Corporate

As a curtesy, inform the Kaurna Yerta Aboriginal Corporation RNTBC of the proposed works and notify them that a cultural heritage due diligence report has been undertaken which determined that there is a low risk of disturbance to unknown Aboriginal sites of objects.

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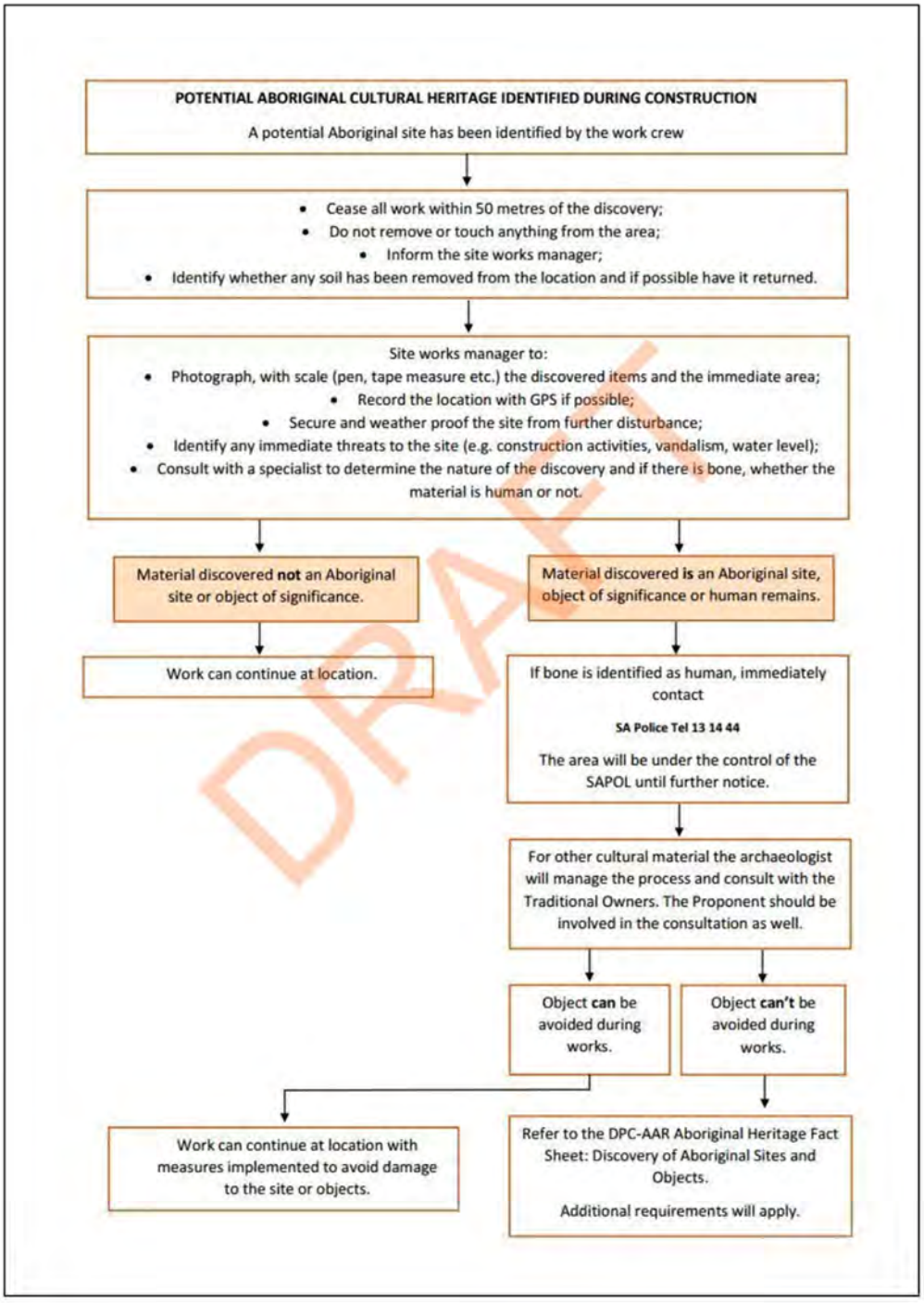
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10 APPENDICES

Appendix 1 – Stop Work/Site Discovery Procedure



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Appendix 2 – Native Title Determination Map



Appendix 3 – DPC-AAR Register Search

ABORIGINAL HERITAGE SITES

Lisa Salisbury
EBS Heritage
125 Hayward Terrace
Torrensville 5031 South Australia

Dear Lisa

Thank you for the search request dated 16 Dec 2019. The search was based on the spatial file or coordinates provided. The search area is centred on the suburb of GOLDEN GROVE. Your reference is 1053.

I advise that the central archive, which includes the Register of Aboriginal Sites and Objects (the Register), administered by Aboriginal Affairs and Reconciliation (AAR), has no entries for Aboriginal sites within 1000m of this location.

The applicant is advised that sites, objects or remains may exist in the proposed development area, even though the Register does not identify them. All Aboriginal sites and objects are protected under the *Aboriginal Heritage Act 1988* (the Act), whether they are listed in the central archive or not. Land within 200 metres of a watercourse (for example the River Murray and its overflow areas) in particular, may contain Aboriginal sites and objects.

Pursuant to the Act, it is an offence to damage, disturb or interfere with any Aboriginal site, object or remains (registered or not) without the authority of the Premier. If the planned activity is likely to damage, disturb or interfere with a site, object or remains, authorisation of the activity must be first obtained from the Premier under Section 23 of the Act. Section 20 of the Act requires that any Aboriginal sites, objects or remains, discovered on the land, need to be reported to the Premier. Penalties apply for failure to comply with the Act. It should be noted that this Aboriginal heritage advice has not addressed any relevant obligations pursuant to the *Native Title Act 1993*.

Please be aware in this area there are Aboriginal groups/organisations/traditional owners that may have an interest. These may include:

The Kaurna People
Chairperson: Jeffrey Newchurch
Address: 4/14 Swift Street Northfield SA 5085
Telephone: 0458973692
Email: jeffreynewchurch@hotmail.com
Contact Officer: Lynette Crocker
Telephone:
Email:

If you require further information, please contact the Aboriginal Heritage Team on telephone (08) 8226 8900 or send to our generic email address dpc-aar.heritagesites1@sa.gov.au

Yours sincerely,

Perry Langeberg
SENIOR INFORMATION OFFICER (HERITAGE)
ABORIGINAL AFFAIRS & RECONCILIATION

18 December 2019

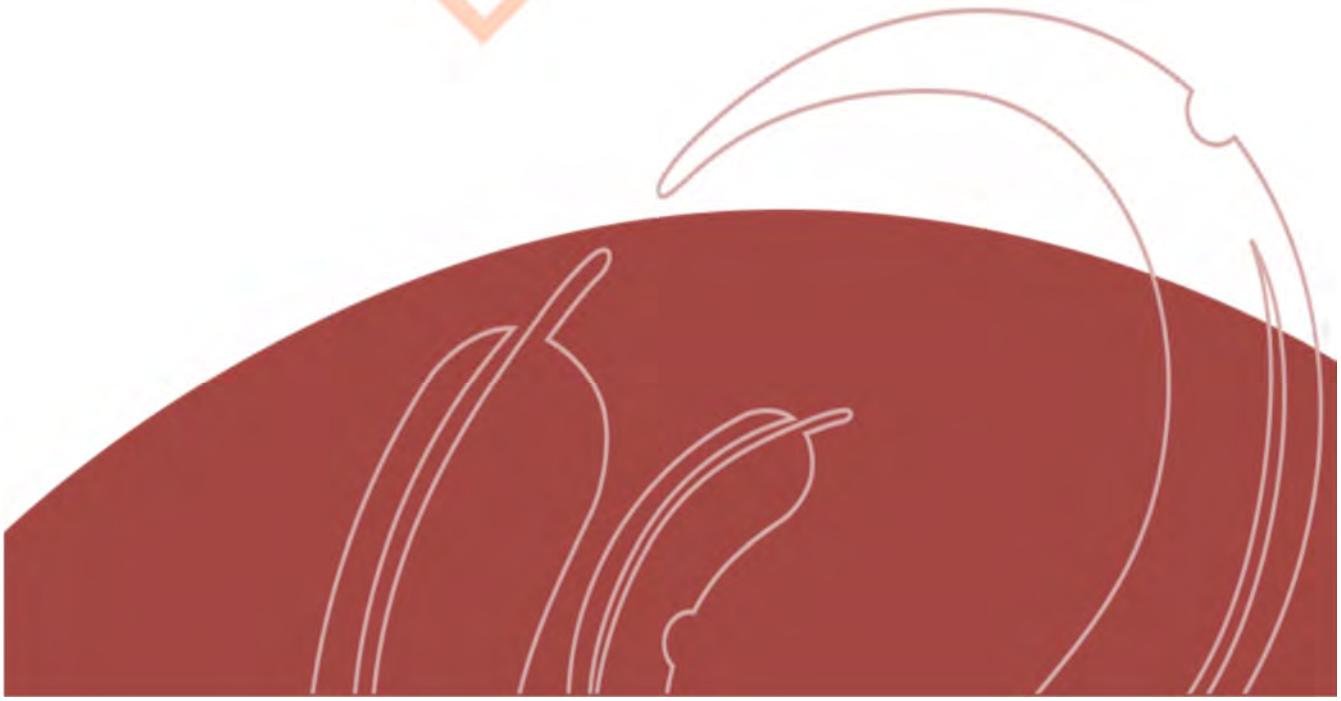
Aboriginal Affairs and Reconciliation| Date: Wed Dec 18 2019 15:12:20 GMT+1030 (ACDT)
Level 16, 30 Wakefield Street | GPO Box 2343 Adelaide SA 5001
Tel (+61) 08 8226 8900 | Fax (+61) 08 8226 8999 | www.dpc.sa.gov.au | ABN 83 524 915 929

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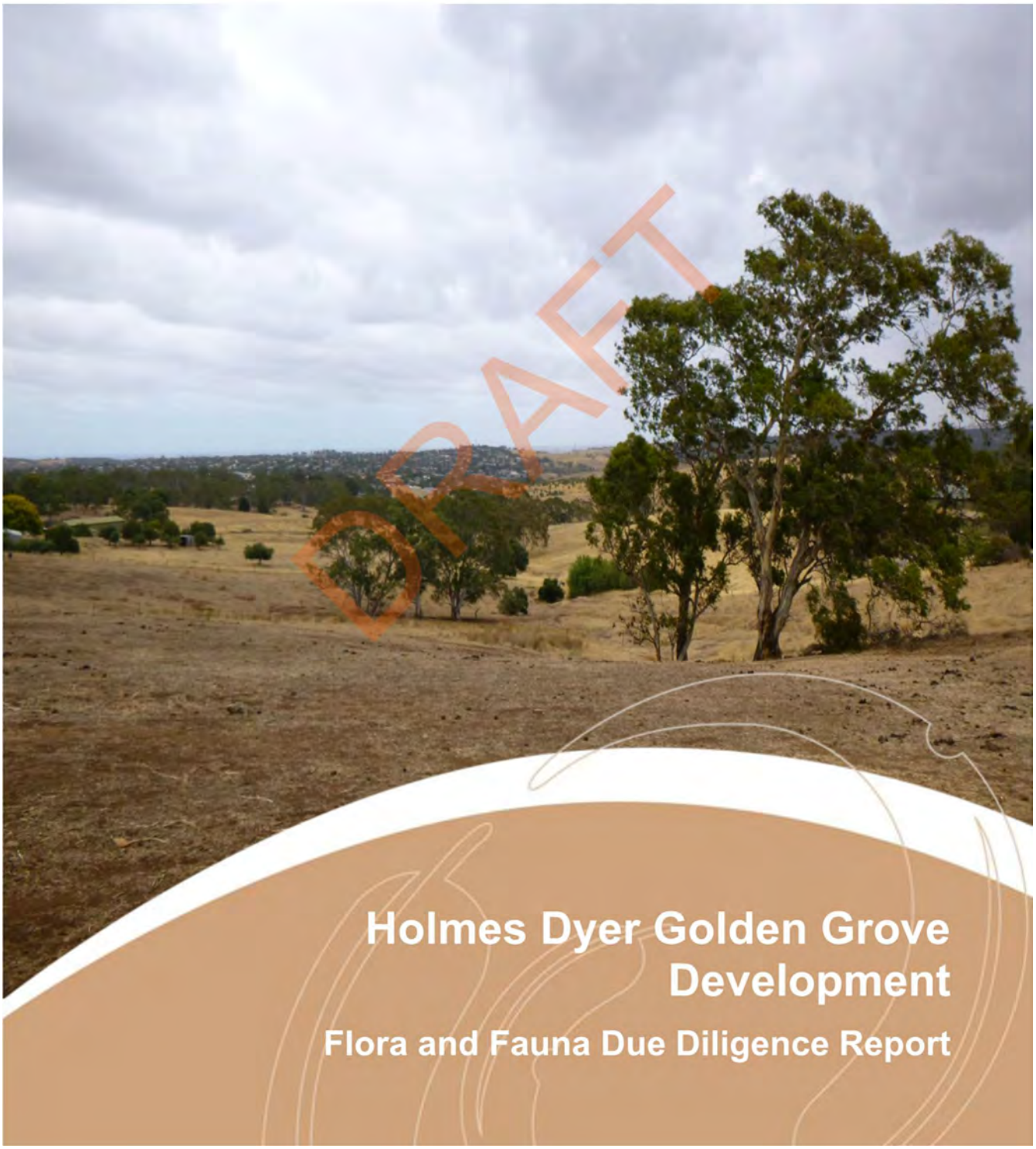
Golden Grove Concept Plan - Aboriginal and Historical Heritage Report

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EBS Heritage
125 Hayward Avenue
Torrensville, SA 5031
www.ebsecology.com.au
t. 08 7127 5607



ebs ecology



Holmes Dyer Golden Grove Development

Flora and Fauna Due Diligence Report

Holmes Dyer Golden Grove Development Flora and Fauna Due Diligence Report

25 March 2020

Version 2

Prepared by EBS Ecology for Holmes Dyer

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CITATION: EBS Ecology (2020) Holmes Dyer Golden Grove Development Flora and Fauna Due Diligence Report. Report to Holmes Dyer. EBS Ecology, Adelaide.

Cover photograph: View looking west over the Project Area from Falkenburg Road.

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GLOSSARY AND ABBREVIATION OF TERMS

*	Denotes exotic species
A	Allotment (Cadastre Parcel Reference)
BDBSA	Biological Database of South Australia
BOM	Bureau of Meteorology
BPA	Bushfire Protection Area(s)
D	Deposited Plan (Cadastre Parcel Reference)
DW	Declared Weed
EBS	Environment and Biodiversity Services Pty Ltd – trading as EBS Ecology
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ha	hectare(s)
Holmes Dyer	Holmes Dyer Pty Ltd
km	kilometre(s)
m	metre(s)
mm	millimetre(s)
NPW Act	*National Parks and Wildlife Act 1972*
NRM Act	*Natural Resources Management Act 2004*
NSW	New South Wales
NVA	*Native Vegetation Act 1991*
PAR	Plan Amendment Report
PDI Act	*Planning, Development and Infrastructure Act 2016*
PMST	Protected Matters Search Tool
Project Area	The development site
Proposal	Development, including establishment of housing, access roads and associated infrastructure
sp.	Species
ssp.	Sub-species
spp.	Species (plural)
TEC	Threatened Ecological Community (EPBC Act)
VT	Vegetation Type
WoNS	Weeds of National Significance

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EXECUTIVE SUMMARY

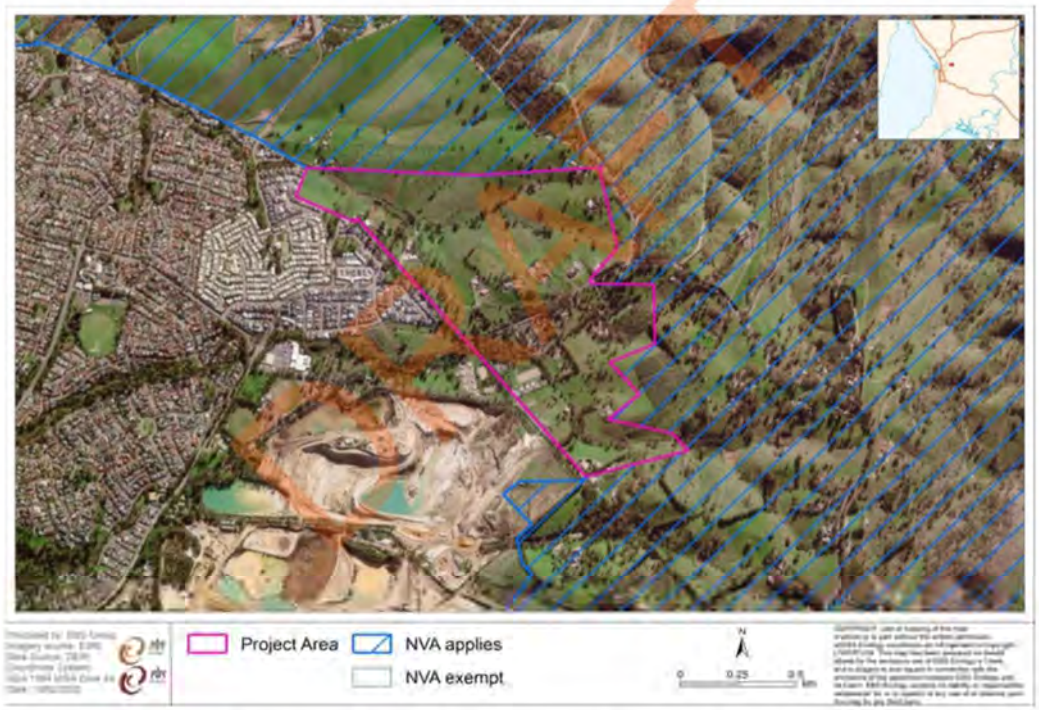
EBS Ecology (EBS) was engaged by Holmes Dyer Pty Ltd (Holmes Dyer) to undertake due diligence for the potential development of land at Golden Grove, South Australia.

This flora and fauna due diligence report summarises the relevant protection legislation, the desktop results ecological database searches, the assessment of the risk of project works harming any ecological matters, a bushfire risk assessment, and recommendations.

The report has been prepared with the aim of managing ecological issues and bushfire risks for the life of the Project.

LEGISLATIVE CONTEXT (APPROVALS)

The Proposal is located within the area of metropolitan Adelaide that is exempt from the *Native Vegetation Act 1991*, as shown in the Figure below. Clearing of vegetation for the purposes of the Proposal therefore does not require approval under the Act.



Native Vegetation Act 1991 (NVA) boundary in relation to the Project Area.

Approval will be required to clear any Regulated and Regulated Significant trees protected under the *Development Act 1993* on site. In July 2020, the new *Planning, Development and Infrastructure Act 2016* (PDI Act) will come into effect and replace the Development Act. Provisions for the protection of Regulated Trees and Regulated Significant trees will remain under the new Act, however how this impacts the Proposal will require assessment once the PDI Act is introduced.

This study indicates that two species listed as threatened and one as migratory under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) possibly occur in the Project Area. Significance of impact to these species as a result of the Proposal requires assessment according to EPBC Act guidelines to determine if referral of the Proposal is required.

DESKTOP RESULTS

Threatened flora

A search of the Biological Database of South Australia (BDBSA) identified 14 species of flora with a State conservation rating in addition to 13 species of nationally rated flora identified in the Protected Matters Search Tool (PMST) report. However, the Project Area is highly disturbed, with little remnant native vegetation, and only six threatened flora species were deemed possible to occur within the Project Area:

- *Austrostipa gibbosa* (Swollen Spear-grass)
- *Austrostipa multspiculis* (Many-flowered Spear-grass)
- *Bothriochloa macra* (Red-leg Grass)
- *Dianella longiflora* var. *grandis* (Pale Flax-lily)
- *Eucalyptus fasciculosa* (Pink Gum)
- *Juncus australis* (Austral Rush)

The above species are all listed as Rare under the *National Parks and Wildlife Act 1972* (NPW Act). None are threatened under the EPBC Act.

Threatened fauna

A search of the BDBSA and PMST identified 27 species with a State or National Rating as potentially occurring within 5 km of the Project Area. However, the Project Area is highly disturbed, with little remnant native vegetation, and only eight threatened fauna species were deemed possible to occur within the Project Area. This included six birds and two mammals, as listed below:

- White-winged Chough (*Corcorax melanorhamphos*), NPW Act Rare
- Peregrine Falcon (*Falco peregrinus*), NPW Act Rare
- White-throated Needletail (*Hirundapus caudacutus*), EPBC Act Vulnerable
- Little Lorikeet (*Parvipsitta pusilla*), NPW Act Endangered
- Scarlet Robin (*Petroica boodang boodang*), NPW Act Rare
- Yellow-tailed Black Cockatoo (*Zanda (Calyptorhynchus) funereal whitea*), NPW Act Rare
- Grey-headed Flying-fox (*Pteropus poliocephalus*), EPBC Act Vulnerable and NPW Act Rare
- Common Brushtail Possum (*Trichosurus vulpecula*), NPW Act Rare

Migratory fauna

Fifteen bird species listed as migratory under the EPBC Act were identified in the PMST report as potentially occurring within a 5 km of the Project Area. Most are wetland or aquatic species. Since there is no wetland habitat in the Project Area, only two species have been assessed as possibly occurring:

- Fork-tailed Swift (*Apus pacificus*)
- White-throated Needletail (*Hirundapus caudacutus*)

Both species are non-breeding migrants that are almost exclusively aerial. They may occur as 'fly overs' in the Project Area but are unlikely to utilise terrestrial habitats and thus be impacted by the Proposal.

Threatened Ecological Community (TEC)

One TEC was predicted to occur by the PMST report. However, field work indicates that this, or any other TEC, does not occur in the Project Area.

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FIELD SURVEY RESULTS

Broad vegetation mapping

A total of 108 hectares (ha) was surveyed with the landscape divided into seven broad Vegetation Types (VT), as shown in the table and figure below.

Vegetation Types in the Project Area.

ID	Vegetation Type	Hectares (ha)	% of Project Area
VT1	Tall riparian woodland in drainage lines and ephemeral creeks.	2.67	2.5
VT2	Open grassy *Eucalyptus* spp. woodland on mid to upper hill slopes.	8.53	7.9
VT3	Planted exotic trees and *Eucalyptus* spp. trees over exotic pasture.	10.47	9.7
VT4	Exotic grassland +/- scattered remnant trees.	53.17	49.2
VT5	*Olea europaea* ssp. europaea low woodland over exotic grasses.	6.21	5.8
VT6	Windbreaks and amenity plantings of exotic trees.	3.26	3.0
VT7	Horticultural crops and orchards, including vineyards, olive groves and market gardens.	11.99	11.1
0	No vegetation – roads, access tracks and building envelopes with associated infrastructure	11.70	10.8
	Total	108	100

Native remnant vegetation

A total of 10% (11.2 ha) of the Project Area is remnant native vegetation, including VT1 and VT2. These areas are highly disturbed by weeds, although VT2 was shown to have some native grasses in the understorey. These areas are possible habitat for the six threatened plants assessed as possibly occurring in the Project Area.

Large trees within these vegetation types are likely to be regulated by the *Development Act 1993*.

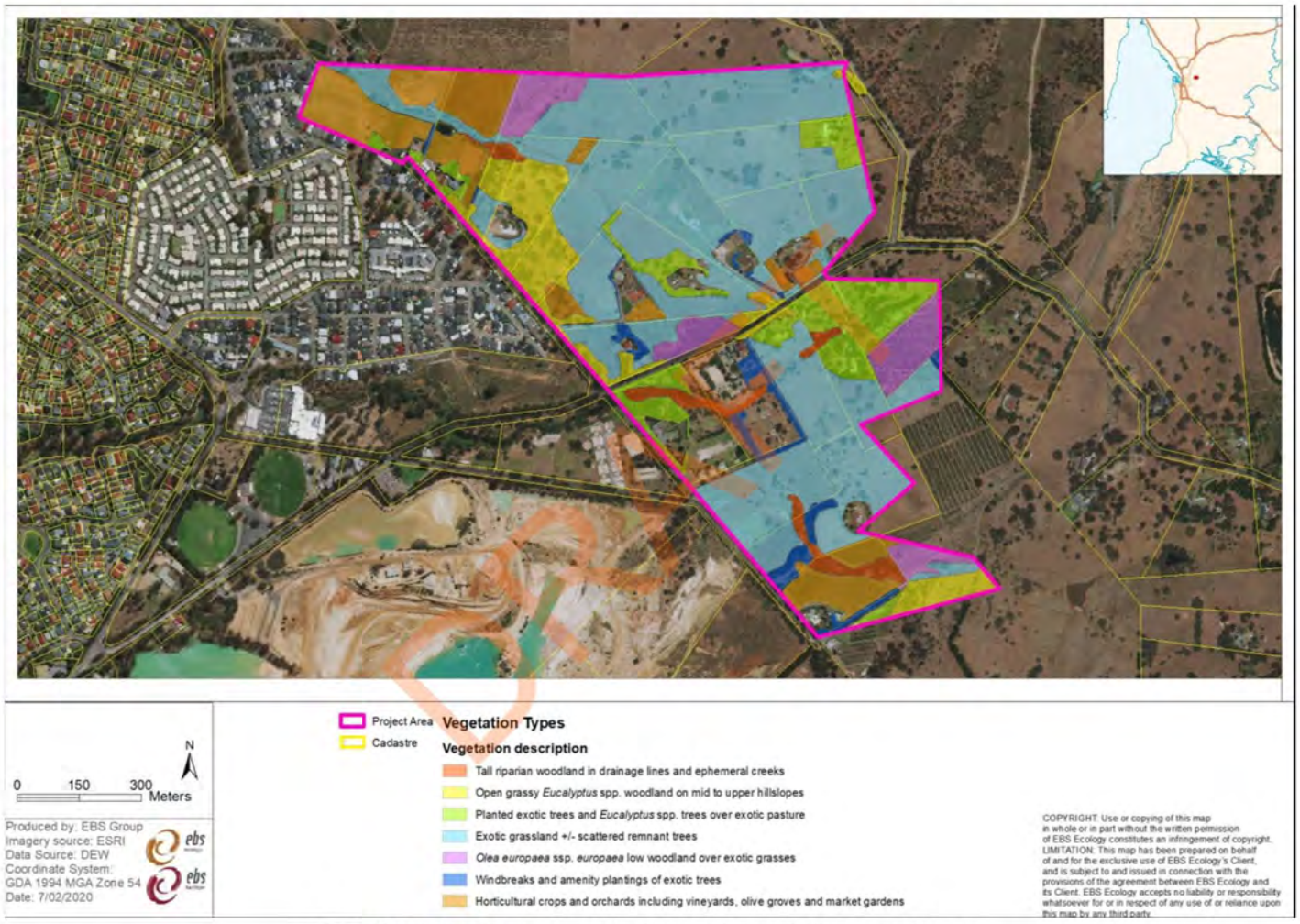
Exotic vegetation

Exotic vegetation made up 79% of the Project Area, including the Vegetation Types VT3, VT4, VT5, VT6 and VT7.

Despite being defined as exotic vegetation, the above vegetation types do provide potential habitat for some threatened species and may contain trees regulated by the *Development Act 1993*. VT4 has particular ecological significance due to the presence of large remnant trees, many of which contain hollows.

The remaining 11% of the Project Area is made up of roads, vehicle tracks, building envelopes and other non-vegetated areas. These areas have not been mapped as a Vegetation Type.

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Broad Vegetation Groups across the Project Area including on road reserve.

Weeds

Weeds were common throughout the Project Area, with exotic pasture grasses dominating the understorey of vegetation types, including native vegetation. Eight species of Declared Weeds (DW) under the *Natural Resource Management Act 2004* were recorded in the Project Area, including three Weeds of National Significance (WoNS), as listed in the table below.

Declared weeds and Weeds of National Significance recorded in the Project Area.

Scientific Name	Common Name	Status	Distribution in Project Area
Cynara cardunculus	Artichoke Thistle	WoNS / DW	Widespread in all Vegetation Types in the Project Area, but largest infestations in un-grazed paddocks.
Echium plantagineum	Salvation Jane	DW	Widespread in all Vegetation Types in the Project Area.
Fraxinus angustifolia	Desert Ash	DW	Found within Vegetation Type 1, on lower slopes, riparian areas and as planted specimens in gardens
Marrubium vulgare	Horehound	DW	Widespread in all Vegetation Types in the Project Area.
Olea europaea ssp. *europaea*	Olive	DW	Occurred as: • Single planted specimen trees • Planted orchards • Naturalised trees and tall shrubs in Vegetation Type 5. Naturalised trees forming a mid-storey in Vegetation Types 1 and 2.
Opuntia sp.	Prickly Pear	WoNS / DW	One occurrence was found during the survey at a property on Strachan Road.
Pinus halepensis	Aleppo Pine	DW	Occurs throughout the Project Area in all Vegetation Types as planted specimens, shelter belts and naturalised trees.
Rosa canina	Dog Rose	DW	Found within Vegetation Type 1 in a creek line on Strachan Road.

Fauna habitat Assessment

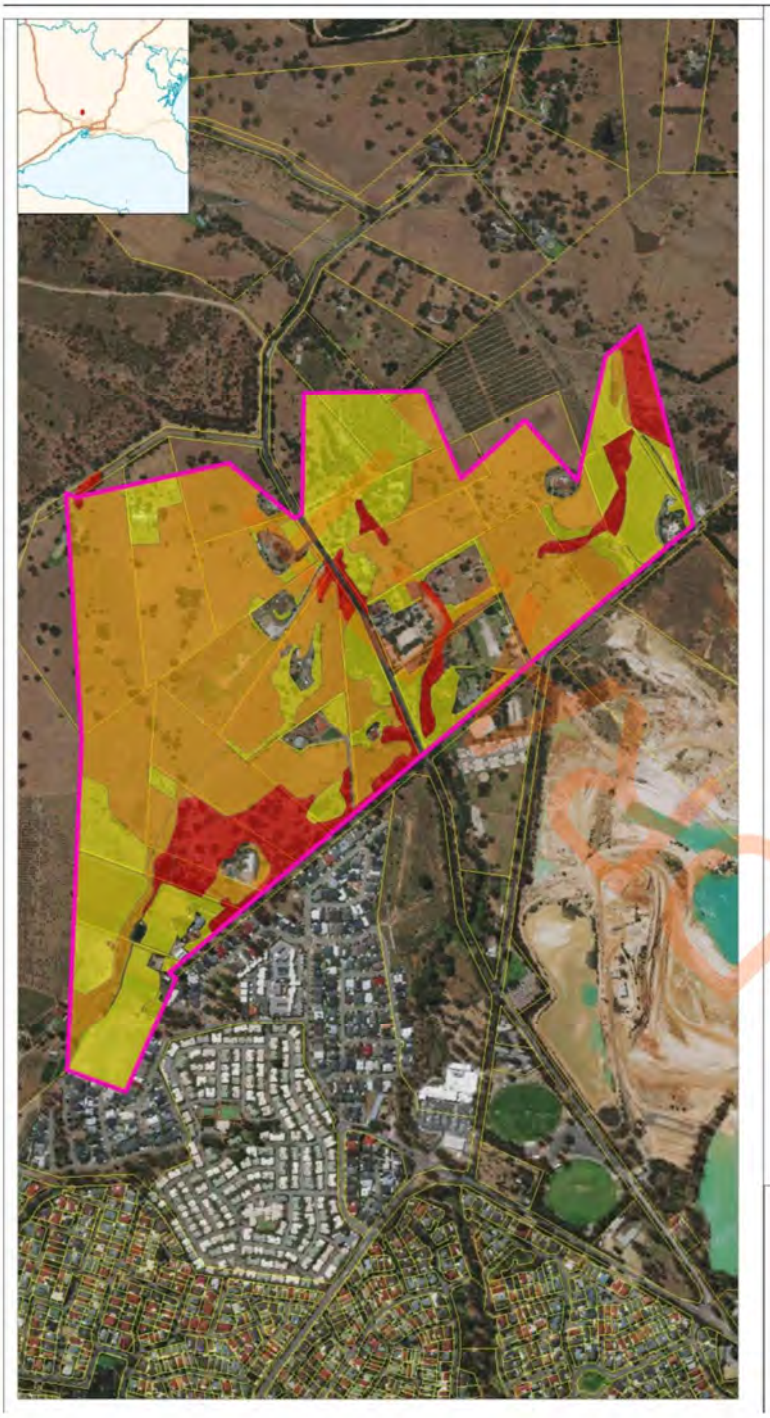
Based on the broad fauna habitat assessment, most of the Project Area was classified as being of moderate habitat value (49% of Project Area). This classification was based largely on the remnant hollow-bearing trees that occur within VT4. Only 10% of the Project Area was mapped as having high habitat value, as indicated in the table and figure below.

No species of threatened flora or fauna were recorded during the survey, although flora and fauna observations were collected opportunistically only, with no targeted survey effort.

Areas of habitat value categories in the Project Area.

Fauna habitat Value	Area (ha)	% of Project Area	Vegetation Type
Low Value	31.9	30	VT3, VT5, VT6, VT7
Moderate Value	53.17	49	VT4
High Value	11.2	10	VT1, VT2

Holmes Dyer Golden Grove Development Flora and Fauna Due Diligence Report



Fauna habitat value of the Project Area. Areas not mapped represent roads, tracks and building envelopes with a Low habitat value.

Impacts to Biodiversity

Possible impacts to biodiversity as a result of the Proposal are listed in the table below.

Potential impacts on biodiversity associated with the Proposal.

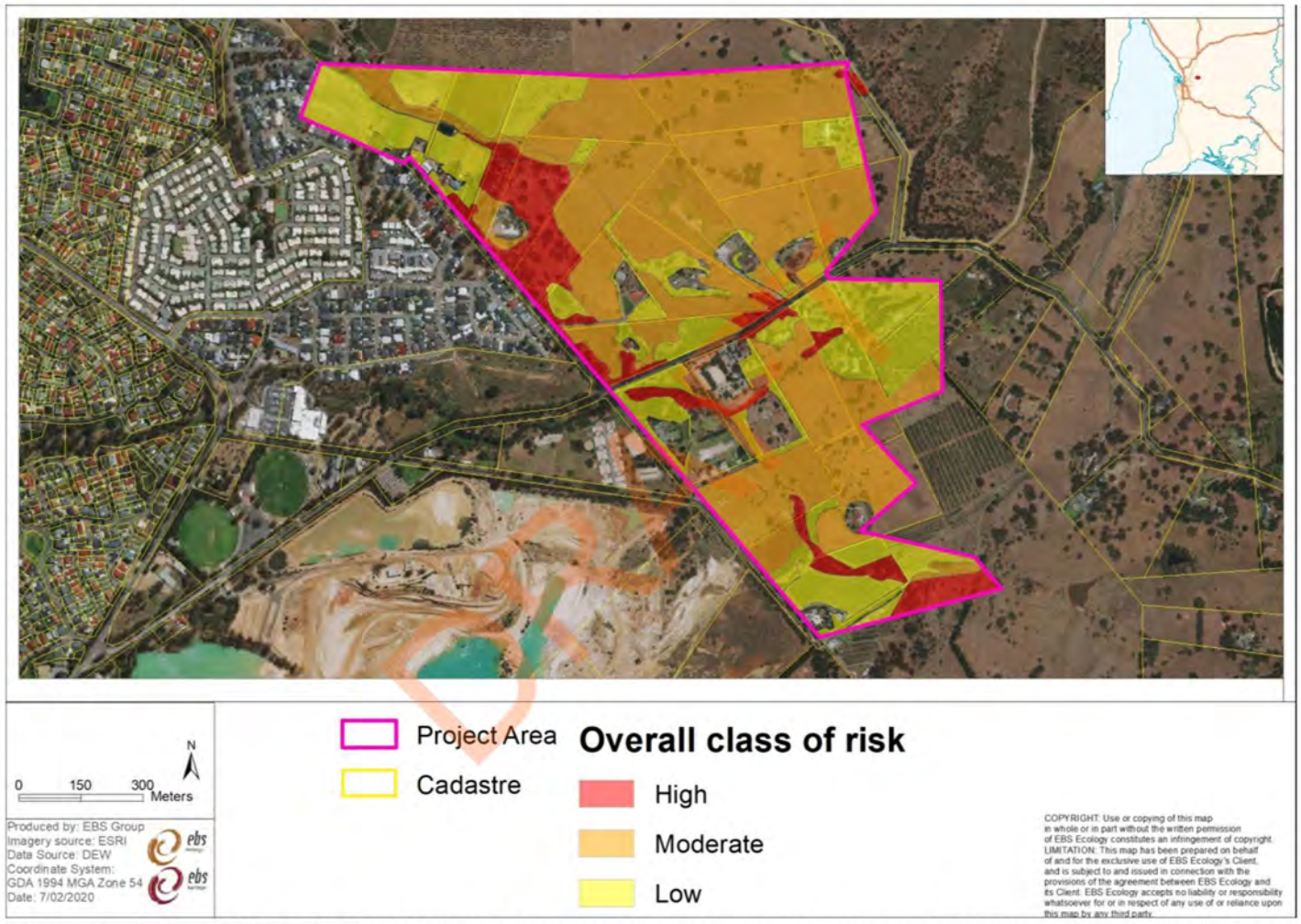
Biodiversity	Potential Impact	Significant impact
Threatened and Migratory fauna	Loss of foraging habitat Loss of breeding habitat Fragmentation of habitat Death or harm to individuals	**Unlikely to be significant.** Habitat for threatened species in the Project Area is marginal, with only species that frequent a largely cleared landscape and exotic vegetation assessed as possibly occurring. In the context of the wider landscape, the Project Area would not represent habitat critical to the survival of any of these species, nor is it likely to support an important population. Implementing management actions during development, project planning and construction, impacts can be avoided and minimised.
Threatened flora	Loss of habitat Fragmentation of habitat Removal of individuals	
Native vegetation	Fragmentation of patches Decrease in extent within local area Increase in edge effects Decline in vegetation condition Indirect impacts to vegetation offsite	**Unlikely to be significant.** Native vegetation in the Project Area is limited in extent, isolated from larger areas of vegetation in nearby areas and already highly influenced by disturbance factors such as weeds. Indirect impact to nearby vegetation, especially road corridors, is possible. However, by implementing management actions during development and project planning, impacts can be avoided and minimised.

It is unlikely that there would be significant impact to biodiversity as a result of the Proposal, given the nature of the vegetation and habitats available and the context of the Project Area within the broader landscape. However, an assessment of the risk of impact indicates that risk is higher in some Vegetation Types, as indicated in the following table and figure.

Risk of impact to biodiversity within the Project Area.

Vegetation Type	Overall Class of Risk (code)	Overall Class of Risk (description)
VT1	4	High risk
VT2	3	High risk
VT3	7	Low risk
VT4	5	Moderate risk
VT5	7	Low risk
VT6	7	Low risk
VT7	7	Low risk

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Broad assessment of fauna habitat value across the Project Area. Areas not mapped represent roads, tracks and building envelopes with a Low risk class.

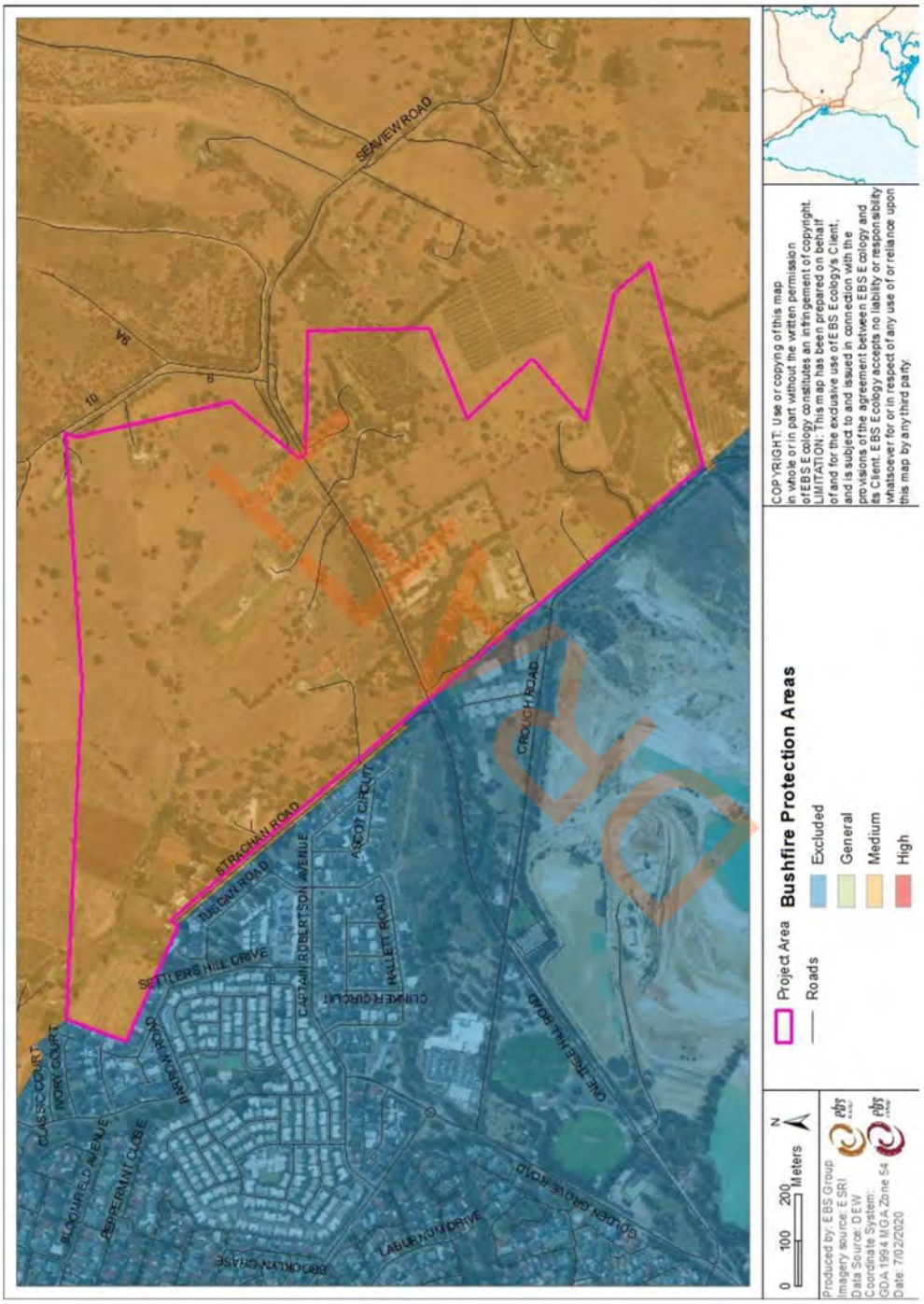
BUSHFIRE RISK

Based on the Bushfire Protection Area data set (Department for Planning, Transport and Infrastructure, 2020) the Project Area is located within the 'Medium' Bushfire Risk Category. The areas immediately west of the Project Area, bordered by Strachan Road and Strachan Lane, are excluded from Bushfire Risk.

General observation of fuel loads across the Project Area indicate that they are generally low-moderate in areas utilised for grazing and maintained for horticulture. However, where grazing pressure is light or absent, higher fuel loads exist. Similarly, in woodland areas with *Eucalyptus* spp. and *Olea europaea* ssp. *europaea* fuel loads tend towards moderate to high, as indicated in the following figure.

While the removal of vegetation associated with the development may reduce the fuel load in the long-term, initial change in land use may increase fuel loads through the phasing out of agricultural activities that currently maintain them at a low level. There is a risk of land left vacant and unmanaged for extended periods leading to higher fuel loads and increased bushfire risk in the short-term.

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Holmes Dyer Golden Grove Development Flora and Fauna Due Diligence Report

Bushfire Risk Assessment for the Project Area and surrounds.

xiii

RECOMMENDATIONS

Based on the broad assessment methods used for this study, the following recommendations have been made:

- Avoid and/or minimise clearance of the vegetation types VT1 and VT2.
- Map all hollow-bearing trees in the Project Area and consider detailed design that (1) avoids removing them where possible and (2) allows for buffer of green space.
- Undertake targeted surveys for six threatened plant species in vegetation types VT1 and VT 2. Carryout a targeted search in vegetation type VT4 for *Eucalyptus fasciculosa*.
- Consider indirect impacts to native vegetation in areas adjacent to the Project Area that occur as a result of the Proposal in the detailed design and planning phase.
- Consider indirect impacts to fauna as a result of the Proposal (e.g. increased vehicle strikes) and implement design features that minimise these impacts.
- Undertake an assessment of impact significance according to EPBC Act guidelines for EPBC Act listed threatened and migratory species that possibly occur in the Project Area.
- Undertake an assessment under the Development Act for areas of Regulated or potentially Regulated Significant trees.
- Assess the proposed Project against the bushfire protection planning provisions of the relevant local area development plan.
- During development, implement management actions that manage bushfire fuel loads at low – moderate levels.
- Implement management actions that maintain good weed hygiene to avoid introducing or spreading declared weeds and WoNS.

DRAFT

Table of Contents

1 INTRODUCTION 1

1.1 Project objectives and outcomes 1

1.1.1 Project objectives 1

1.1.2 Project outcomes: 1

1.2 Project Area 2

2 BACKGROUND INFORMATION 5

2.1 Environmental setting 5

2.1.1 Interim Biogeographical Regionalisation of Australia 5

2.1.2 Climate 6

3 COMPLIANCE AND LEGISLATIVE SUMMARY 8

3.1 Environment Protection and Biodiversity Conservation Act 1999 8

3.2 Native Vegetation Act 1991 9

3.3 National Parks and Wildlife Act 1972 9

3.4 Natural Resources Management Act 2004 10

3.5 Development Act 1993 10

4 METHODS 12

4.1 Desktop assessment 12

4.1.1 Protected Matters Search Tool – EPBC Act 12

4.1.2 Biological Database of South Australia search 12

4.1.3 Threatened ecological community mapping 12

4.1.4 Assessment of the likelihood of occurrence 12

4.1.5 Biodiversity impact risk assessment 13

4.1.6 Bushfire risk assessment 14

4.2 Field survey 15

4.2.1 Habitat assessment 15

4.3 Limitations 16

4.3.1 Desktop assessment limitations 16

4.3.2 On-ground Survey and legislative context limitations 16

5 RESULTS 17

5.1 Threatened Species and Ecological Communities 17

5.1.1 Matters of National Environmental Significance 17

5.1.2 Threatened Ecological Communities 17

5.1.3 Threatened flora 20

5.1.4 Threatened fauna 22

5.1.5 Migratory fauna 22

5.2 Field Survey – Flora 25

DRAFT

5.2.1 Flora species recorded 25
5.2.2 Summary of Vegetation Types 25
5.2.3 Broad vegetation descriptions 27
5.2.4 Development Act Vegetation 33
5.2.5 Declared Weeds and Weeds of National Significance 34
5.3 Field Survey - Fauna 35
5.3.1 Fauna field results 35
5.3.2 Fauna habitat assessment 35
5.4 Bushfire Risk Assessment 39
5.4.1 Bushfire Protection Areas 39
5.4.2 Fuel loads 39

6 DISCUSSION AND RECOMMENDATIONS 41
6.1 Summary Discussion 41
6.2 Impacts to Biodiversity 41
6.2.1 Possible impacts 41
6.2.2 Risk Assessment of impacts 42
6.3 Recommendations 42

7 REFERENCES 45

8 APPENDICES 48
Appendix 1. Threatened flora species recorded or predicted to occur within 5 km of the Project Area. 49
Appendix 2. Fauna species recorded or predicted to occur within 5 km of the Project Area. 53
Appendix 3. Migratory species predicted to occur in the Project Area (Department of the Environment and Energy, 2019). 57
Appendix 4. Flora species observed within the Project Area during the field survey. 59
Appendix 5. Fauna species observed within the Project Area during the field survey. 60
Appendix 6. Risk Assessment of Biodiversity Impacts. 61

List of Tables

Table 1. Land parcels within the Project Area. 2
Table 2. IBRA bioregion, subregion, and environmental association environmental landscape summary 5
Table 3. Likelihood rating and criteria for the presence of threatened species. 13
Table 4. Summary of the results of the EPBC Act Protected Matters Search (5 km buffer around the Project Area). 17
Table 5. Likelihood of occurrence of TEC in the Project Area. 18
Table 6. Threatened flora species assessed as possible or likely to occur in the Project Area. 20

DRAFT

Table 7. Threatened fauna species identified by EPBC Protected Matters Search Tool (1) and Biological Database of South Australia (2) as potentially occurring within 5 km of the Project Area.....22
Table 8. Vegetation Groups within the Project Area. 25
Table 9. Vegetation types of the Project Area containing Significant Regulated or Regulated trees. 33
Table 10. Weeds observed within the Project Area. 34
Table 11. Habitat value of the Project Area, where Mod refers to moderate habitat value. 36
Table 12. Potential impacts on biodiversity associated with the Proposal. 41
Table 13. Risk assessment of impacts to biodiversity. 42

List of Figures

Figure 1. Location of the Project Area. 3
Figure 2. Cadastre of the Project Area. 4
Figure 3. Average annual rainfall, maximum and minimum temperature for Parafield Airport Station (no. 023013), located approximately 7.7 km south-southwest of the Project Area (Bureau of Meteorology, 2020). 7
Figure 4. The Project Area in relation to the *Native Vegetation Act 1991* (NVA) boundary. 9
Figure 5. Risk assessment matrix used to assess the risk of impact to biodiversity. 14
Figure 6. BDBSA threatened ecological community (TEC) mapping and EPBC TEC predictive mapping for an area within 5 km of the Project Area (Department for Environment and Water, 2020a). 19
Figure 7. Threatened flora species recorded in the last 20 years within 5 km of the Project Area (Department for Environment and Water, 2020a). 21
Figure 8. Threatened fauna species recorded in the last 20 years within 5 km of the Project Area (Department for Environment and Water, 2020a). 24
Figure 9. Broad Vegetation Types in the Project Area. Areas not mapped as vegetation include building envelopes, roads and access tracks. 26
Figure 10. Assessment of fauna habitat value in the Project Area. 38
Figure 11. Bushfire Risk Assessment for the Project Area and surrounds. 40
Figure 12. Overall risk of impact to biodiversity as a result of the Proposal. 44

DRAFT

1 INTRODUCTION

EBS Ecology (EBS) was engaged by Holmes Dyer to undertake a Broad Flora and Fauna Assessment (the Project) to inform due diligence processes for a housing estate proposal (the Proposal) at Golden Grove, South Australia (SA). The Development includes establishment of housing, access roads and associated infrastructure across approximately 108 hectares (ha) on Strachan, Crouch and One Tree Hill Roads, Golden Grove (the Proposal) (Figure 1).

EBS undertook a desktop assessment and follow up field assessment of the above area to classify broad vegetation types, identify areas of environmental significance, determine the potential environmental legislative requirements and provide a high-level desktop bushfire risk assessment.

1.1 Project objectives and outcomes

1.1.1 Project objectives

The objectives of the Project were to:

- Conduct a desktop assessment to determine the presence of flora and fauna species listed under the *National Parks and Wildlife Act 1972* and *Environmental Protection and Biodiversity Conservation Act 1999*;
- Review any existing ecological reports for the Project Area and/or adjacent areas;
- Conduct a desktop Bushfire Risk Assessment and brief discussion around potential risk in the Project Area;
- Undertake a field survey to ground truth the findings of the desktop assessment, undertake a broad vegetation assessment, determine the presence of any habitat for threatened fauna species; and
- Identify any Declared Weeds under the *Natural Resources Management Act 2004* that may be significant in relation to the Project requirements.

1.1.2 Project outcomes:

The key Project outputs are to develop a Due Diligence report that addresses and includes the following:

- Compliance and legislative requirements;
- Overview of background research;
- Risk assessment across the site for potential issues (including bushfire risk);
- Identification of areas that require more detailed investigation;
- Potential constraints / sensitive areas across the Project site, indicated on GIS maps;
- Broad recommendations.

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1.2 Project Area

The Project Area comprises approximately 108 ha of private land and road reserve, located approximately 21 kilometres (km) north of the Adelaide and 8.5 km south of Elizabeth. It is within the City of Tea Tree Gully Local Government Area in the Mount Lofty Ranges Natural Resources Management (NRM) Region.

The Project Area currently includes 23 parcels currently used for a range of purposes, as indicated in Table 1. Cadastre of the Project Area is mapped in Figure 2.

Table 1. Land parcels within the Project Area.

Plan Parcel	Title	Land Use
D17477 A1	CT5774/558	Production from irrigated agriculture and plantations
D17477 A2	CT5093/561	Production from irrigated agriculture and plantations
D17477 A3	CT5291/680	Production from dryland agriculture and plantations
D17477 A4	CT5596/686	Intensive uses
D17477 A5	CT5774/559	Production from dryland agriculture and plantations
D17477 A6	CT5158/162	Intensive uses
D17477 A7	CT5408/742	Intensive uses
F102339 A19	CT5318/206	Intensive uses
F19262 A201	CT5242/348	Intensive uses
D66202 A202 (part)	CT5943/951	Intensive uses
F19262 A202 (part)	CT5114/222	Intensive uses
D19655 A23	CT5447/77	Production from irrigated agriculture and plantations
D17477 A8	CT5257/297	Intensive uses
D17477 A9	CT5159/888	Intensive uses
D17477 A10 (part)	CT5442/886	Intensive uses
D17477 A11 (part)	CT5776/344	Intensive uses
D67885 A20 (part)	CT5998/401	Production from dryland agriculture and plantations
F100647 A3	CT5171/541	Intensive uses
F132730 A39	CT5541/952	Intensive uses
F19262 A200	CT5474/845	Intensive uses
D66203 A200	CT5943/949	Intensive uses
D41608 A1000 (part)	CT5255/545	Production from irrigated agriculture and plantations Production from dryland agriculture and plantations
F132729 A38	CT5548/996	Intensive uses

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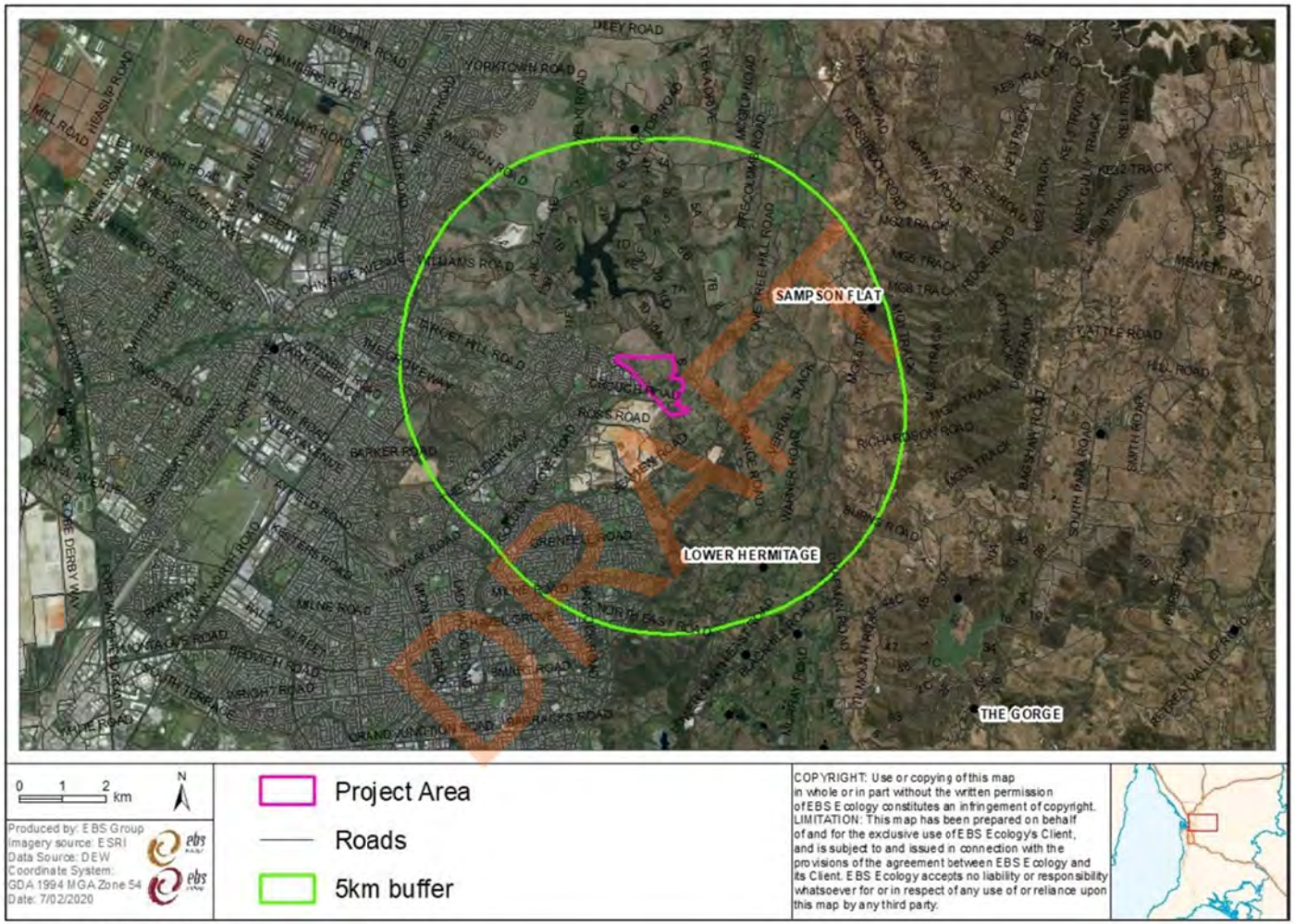


Figure 1. Location of the Project Area.

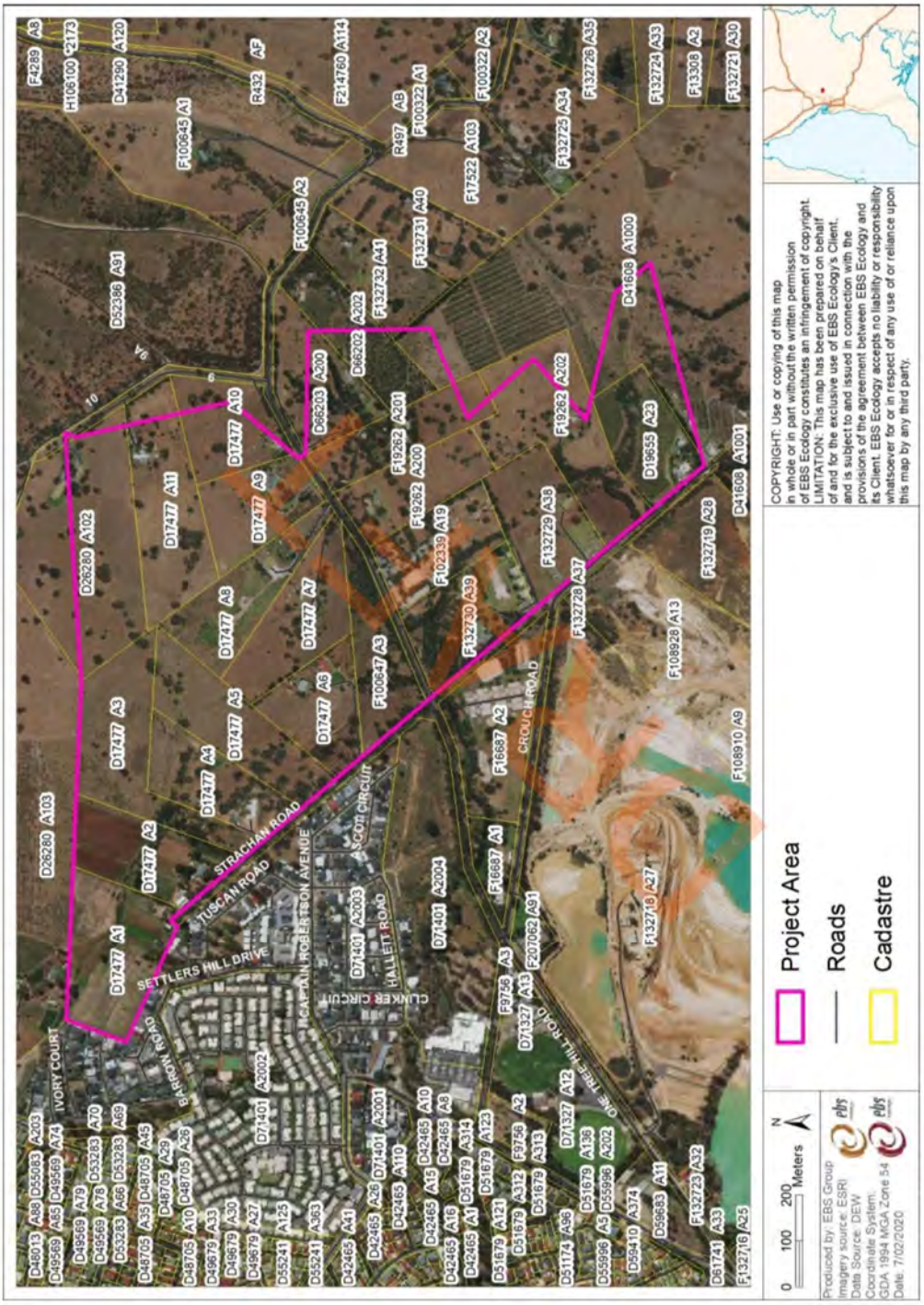


Figure 2. Cadastre of the Project Area.

2 BACKGROUND INFORMATION

2.1 Environmental setting

2.1.1 Interim Biogeographical Regionalisation of Australia

The Interim Biogeographical Regionalisation of Australia (IBRA) identifies geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information. The bioregions are further defined into subregions and environmental associations (Department of the Environment, 2012). The Project Area is in the Flinders Lofty Block IBRA bioregion, the Mount Lofty Ranges IBRA subregion. It is located on the boundary of the Adelaide Foothills and Rosedale environmental association.

Native vegetation remnancy figures for IBRA subregions and environmental associations are useful for setting regional landscape targets. Approximately 15% (46342 ha) of the Mount Lofty Ranges IBRA association is mapped as remnant vegetation, of which 27% (12706 ha) is formally conserved and protected within *National Parks and Wildlife* (NPW) *Act 1972* reserves and private Heritage Agreements under the *Native Vegetation* (NV) *Act 1991*. A full summary is provided in Table 2 .

Table 2. IBRA bioregion, subregion, and environmental association environmental landscape summary.

Flinders Lofty Block IBRA bioregion	
Temperate to arid Proterozoic ranges, alluvial fans and plains, and some outcropping volcanics, with the semi-arid to arid north supporting native cypress, Black Oak (Belah) and Mallee open woodlands, *Eremophila* and *Acacia* shrublands, and bluebush/saltbush chenopod shrublands on shallow, well-drained loams and moderately-deep, well-drained red duplex soils. The increase in rainfall to the south corresponds with an increase in low open woodlands of *Eucalyptus obliqua* and *E. baxteri* on deep lateritic soils, and *E. fasciculosa* and *E. cosmophylla* on shallower or sandy soils.	
Mount Lofty Ranges IBRA subregion	
This subregion extends from north of the Fleurieu Peninsula to the Barossa Valley, and is predominantly an undulating to low hilly upland with steeper marginal ranges and hills. The Barossa Valley is the lowest area in this subregion and represents a structural basin. The rest of the subregion consists of hilly uplands on sandstone and shale with northerly trending strike ridges and dissected lateritic tableland remnants. Low open woodland commonly dominated by *Eucalyptus obliqua* and *E. baxteri* are found in higher rainfall areas on deep, lateritic soils. Shallower or sandy soils support *E. fasciculosa, E. cosmophylla* and in the northern part of the region *E. goniocalyx*. *E. leucoxylon* dominates the woodlands on podzolised soils in the lower rainfall areas, *E. viminalis* ssp. *cygnetensis* dominate the wetter and cooler woodlands and *E. odorata* characterises drier sites. Eucalypts give way to *Allocasuarina verticillata* in the most arid woodlands and in coastal situations on shallow rocky soils.	
Remnant vegetation	Approximately 15% (46342 ha) of the subregion is mapped as remnant native vegetation, of which 27% (12706 ha) is formally conserved.
Landform	Hills and valleys; alternating subparallel hilly ridges and valleys with a general N-S trend in north. In south, hilly dissected tableland.
Geology	Dissected lateritized surface in south.
Soil	Hard setting loams with red clayey subsoils, highly calcareous loamy earths, hard setting loams with mottled yellow clayey subsoil, coherent sandy soils, cracking clays.
Vegetation	*Eucalyptus* woodlands with a shrubby understorey.

Conservation significance	129 species of threatened fauna, 270 species of threatened flora. 4 wetlands of national significance.
Adelaide Foothills IBRA environmental association	
Remnant vegetation	Approximately 1% (146 ha) of the association is mapped as remnant native vegetation, of which 32% (47ha) is formally conserved.
Landform	Foothills, plains and coastal cliffs.
Geology	Alluvium.
Soil	Cracking clays, brown calcareous earths, highly calcareous loamy earths, plastic saline clay soils, hard setting loamy soils with red clayey subsoils.
Vegetation	Pre-European vegetation would have included eucalypt woodlands, native pine, *Allocasuarina verticillata* and *Banksia marginata* woodlands, *Eucalyptus porosa*, spear grass and wallaby grass low woodland.
Conservation significance	63 species of threatened fauna, 65 species of threatened flora. 0 wetlands of national significance.
Rosedale IBRA environmental association	
Remnant vegetation	Approximately 5% (3089 ha) of the association is mapped as remnant native vegetation, of which 11% (331 ha) is formally conserved.
Landform	Undulating to rolling plain on shale with broad floodplains.
Geology	Shale and alluvium.
Soil	Hard pedal red duplex soils, reddish friable loams and brown self-mulching cracking clays.
Vegetation	Open parkland of *Eucalyptus leucoxylon*, *E. cladocalyx*, *E. camaldulensis* or exotic conifers.
Conservation significance	70 species of threatened fauna, 66 species of threatened flora. 0 wetlands of national significance.

2.1.2 Climate

The closest weather station to the Project Area is the Parafield Airport Station. This weather station is located approximately 7.7 km south-southwest of the Project Area. Climate data indicates that the Project Area experiences a Mediterranean climate, with warm to hot summers and cool to mild winters. Average maximum temperatures range from 15.2°C in July, to 29.8°C in January. Rainfall occurs predominantly over the cool winter season, with July recording the highest monthly rainfall average of 59 millimetres (mm). Summers are typically dryer, with February recording the lowest average rainfall of 18.6 mm (Bureau of Meteorology, 2020).

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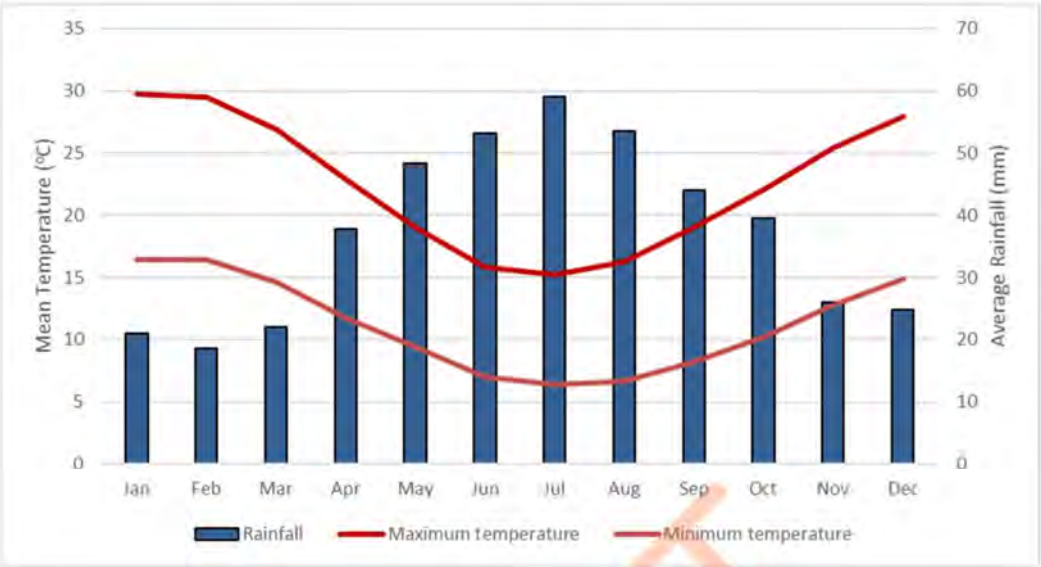


Figure 3. Average annual rainfall, maximum and minimum temperature for Parafield Airport Station (no. 023013), located approximately 7.7 km south-southwest of the Project Area (Bureau of Meteorology, 2020).

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3 COMPLIANCE AND LEGISLATIVE SUMMARY

3.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Environment Protection and Biodiversity Conservation Regulations 2000* provide a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places – defined in the Act as Matters of National Environmental Significant. The two MNES relevant to the Project Area are:

1. Listed threatened species and ecological communities;
2. Migratory species protected under international agreements;

Any action that has, will have, or is likely to have a significant impact on matters of national environmental significance requires referral under the EPBC Act. Substantial penalties apply for undertaking an action that has, will have or is likely to have significant impact on a matter of national environmental significance without approval.

The EPBC Act Significant Impact Guidelines (Department of the Environment and Energy, 2013) provide overarching guidance on determining whether an action is likely to have a significant impact on a matter of national environmental significance. In terms of nationally threatened species, the guidelines define an action as likely to have a significant impact if there is a real chance or possibility that it will:

- Lead to a long-term decrease in the population;
- Reduce the area of occupancy of the species;
- Fragment an existing population;
- Adversely affect critical habitat;
- Disrupt breeding cycles;
- Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline;
- Result in the establishment of invasive species that are harmful to the species;
- Introduce disease that may cause the species to decline; and
- Interfere with the recovery of the species.

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3.2 Native Vegetation Act 1991

The Project Area is located within the area of metropolitan Adelaide that is exempt from the *Native Vegetation Act 1991* (NVA) as shown in Figure 4.

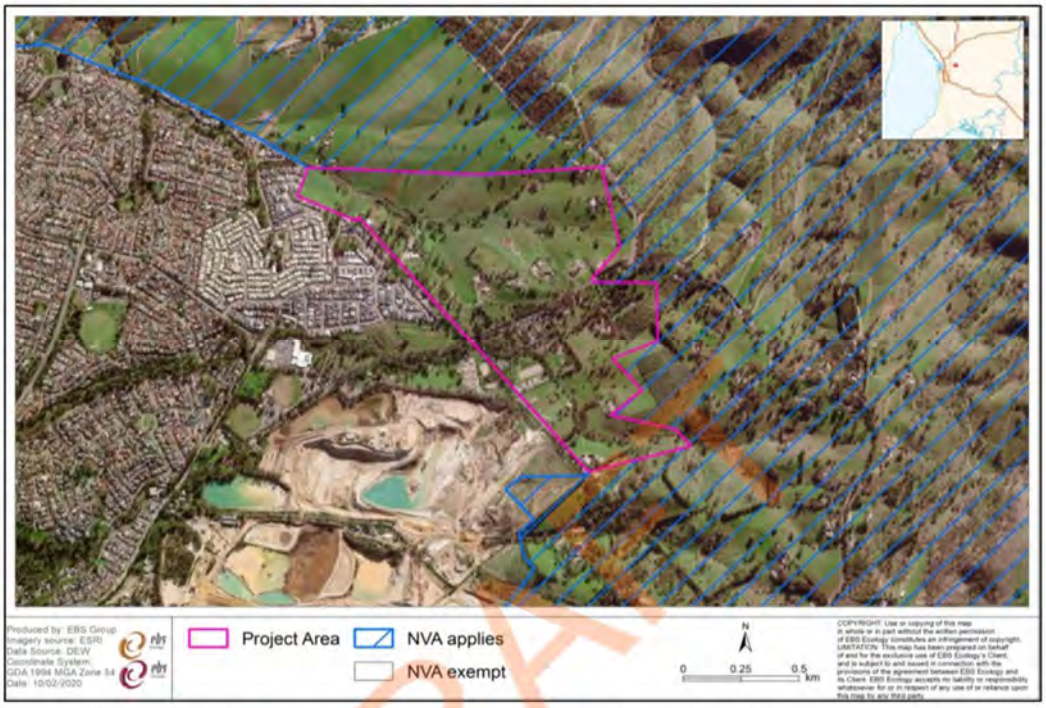


Figure 4. The Project Area in relation to the *Native Vegetation Act 1991* (NVA) boundary.

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3.3 National Parks and Wildlife Act 1972

Native plants and animals in South Australia are protected under the *National Parks and Wildlife Act 1972* (NPW Act). It is an offence to take a native plant or protected animal without approval. Threatened plant and animal species are listed in Schedules 7 (Endangered species), 8 (Vulnerable species) and 9 (Rare species) of the Act. Persons must not:

- Take a native plant on a reserve, wilderness protection area, wilderness protection zone, land reserved for public purposes, a forest reserve or any other Crown land;
- Take a native plant of a prescribed species on private land;
- Take a native plant on private land without the consent of the owner (such plants may also be covered by the NVA);
- Take a protected animal or the eggs of a protected animal without approval;
- Keep protected animals unless authorised to do so; and
- Use poison to kill a protected animal without approval.

3.4 Natural Resources Management Act 2004

Under the *Natural Resources Management Act 2004* (NRM Act) landholders have a legal responsibility to manage declared pest plants and animals and prevent land and water degradation.

Key components under the Act include the establishment of regional Natural Resource Management Boards and development of regional NRM Plans; the ability to control water use through prescription, allocations and restrictions; requirement to control pest plants and animals and activities that might result in land degradation.

A 'duty of care' is a fundamental component of this Act, i.e. ensuring one's environmental and civil obligation by taking reasonable steps to prevent land and water degradation. Persons can be prosecuted if they are considered negligent in meeting their obligations.

3.5 Development Act 1993

The South Australian *Development Act 1993*, and the *Development Regulations 2008* provide the legislative framework for carrying out planning and development works within the State. No development can be undertaken without an appropriate Development Approval being obtained from the relevant authority after an application and assessment process.

The *Planning, Development and Infrastructure Act 2016* (PDI Act) repeals the *Development Act 1993* and will gradually come into operation over the next few years. The *Development Act 1993* remains the central piece of legislation to be followed until July 2020.

South Australia's significant tree controls came into effect on 20 April 2000 through amendments to the *Development Act 1993* and the Development Regulations; the objective being the conservation of significant trees that provide important aesthetic and environmental benefit. The tree controls were refined under the *Development (Regulated Trees) Amendment Act 2009* making a distinction between 'Regulated' and 'Regulated Significant' trees. Regulated or Regulated Significant trees are described as:

- Regulated tree: any tree in Metropolitan Adelaide and/or townships in the Adelaide Hills Council or parts of the Mount Barker Council with a trunk circumference of 2.0 m or more at 1 m above the base.
- Regulated Significant tree: any tree in Metropolitan Adelaide and/or townships in the Adelaide Hills Council or parts of the Mount Barker Council with a trunk circumference of 3.0 m or more at 1 m above the base.

In the case of trees with multiple trunks, it is those with trunks with a total circumference of 2.0 (Regulated Significant trees) or 3.0 metres (m) or more (Significant trees) and an average circumference of 625 mm or more measured at a point 1.0 m above natural ground level.

Several tree species are exempt from regulated tree controls, either through their location or their species. Some species are also exempt from Development Act controls including Declared Weeds under the NRM Act and those listed as exempt in the *Development Regulations 2008*.

Any activity that damages a 'Regulated tree' or 'Regulated Significant tree' is 'development', and as such requires a development approval. Specifically, development approval is required for removal, killing or

destruction, branch or limb lopping, ringbarking or topping, or any other substantial damage to a regulated or significant tree, including to its root system other than maintenance pruning.

Trees fitting criteria as Regulated and Regulated Significant under the *Development Act 1993* must be replaced at a ratio of 2:1 (Regulated trees) or 3:1 (Significant trees) via on-ground planting or payment into the Planning and Development Fund, if their removal is approved.

Applications for vegetation clearance approval and development approval are encouraged to be made at the same time. Development authorisation for the division of land and construction of roads and other infrastructure under the *Development Act 1993* must have been obtained to be granted clearance approval.

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4 METHODS

4.1 Desktop assessment

An initial desktop assessment was conducted to assess the potential for any threatened species or ecological community listed under the EPBC Act and/or NPW Act to occur within the Project Area. This was achieved by undertaking database search of the Biological Database of South Australia (BDBSA) and generating a Protected Matters Search Tool (PMST) report for the Project Area.

4.1.1 Protected Matters Search Tool – EPBC Act

A Protected Matters Search Tool (PMST) report for a 5 km buffer of the Project Area was generated on 18 December 2019 to identify Matters of National Environmental Significance under the EPBC Act. The PMST is maintained by the Department of the Environment and Energy and was used to identify flora and fauna species or ecological communities of national environmental significance that may occur or have suitable habitat within the Project Area.

4.1.2 Biological Database of South Australia search

Flora and Fauna species likely to occur in, or in proximity to the Project Area that are listed under South Australia's NPW Act were searched for using the Biodiversity Database of South Australia (BDBSA). The dataset was obtained on 20 December 2019 (Department for Environment and Water, 2020a) and used to identify threatened species that have been recorded within 5 km of the Project Area in the past 20 years.

4.1.3 Threatened ecological community mapping

The following spatial datasets maintained by the Department of Environment and Water were viewed to determine the extent of Threatened Ecological Communities (TEC) in relation to the Project Area:

- Peppermint Box (*Eucalyptus odorata*) Grassy Woodland (Department for Environment and Water, 2020a),
- Iron Grass Natural Temperate Grassland (Department for Environment and Water, 2020a),
- EPBC listed TEC area or predicted occurrence (Department for Environment and Water, 2020a).

4.1.4 Assessment of the likelihood of occurrence

An assessment to determine the likelihood of occurrence for threatened species and ecosystems within the Project Area was conducted. Each of the threatened species and ecosystems identified by the BDBSA data extract and PMST report were assigned a rating (known, highly likely, likely, possible and unlikely), which described their likelihood of occurrence within the Project Area.

The following criteria were considered when assigned a likelihood rating:

- Date of the most recent record (taking into consideration the date of the last surveys conducted in the area);
- Proximity of the records (distance from the Project Area);

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- Landscape location of the records, vegetation remnancy and vegetation type of the record location (taking into consideration the landscape, remnancy and vegetation type of the Project Area, with higher likelihood assigned to species that were found in similar locations/condition/vegetation associations); and
- Knowledge of the species; habitat preferences, causes of its decline, the conspicuousness of the species and local population trends.

A summary of the likelihood criteria is shown below in Table 3.

Table 3. Likelihood rating and criteria for the presence of threatened species.

Likelihood	Criteria
Known	• The species was recorded as part of project surveys.
Highly Likely/Known	• Records in the last 10 years, the species does not have highly specific niche requirements, the habitat is largely intact and falls within the known range of the species distribution.
Likely	• Records within the previous 20 years, the area falls within the known distribution of the species and the area provides species habitat which is largely intact.
Possible	• Records within the previous 20 years, the area falls inside the known distribution of the species but the area does not provide species habitat which is largely intact. • Records within 20 - 40 years, survey effort is considered adequate, habitat is present and intact and species of similar habitat needs have been recorded in the area.
Unlikely	• Records within 20 -40 years, however suitable habitat does not occur and species of similar habitat requirements have not been recorded in the area. • No records within the previous 40 years despite suitable habitat being known to occur in the area or, • No records despite adequate survey effort.

4.1.5 Biodiversity impact risk assessment

The risk of impact on biodiversity as a result of the proposal was assessed for each vegetation type mapped during field work. Risk of impact was assessed according to the risk assessment matrix shown in Figure 5 and assigned a Risk Class as described below:

Class 1 or 2: Extreme risk of unacceptable impact. Avoid impact. Requires referral under the EPBC Act.

Class 3 or 4: High risk of unacceptable impact. If possible, avoid impact. Minimise impact where avoidance is not possible. May require referral under the EPBC Act.

Class 5 or 6: Moderate risk of unacceptable impact. Implement project design and management actions to minimise impact.

Class 7 or 8: Low risk of unacceptable impact. Implement management actions to minimise impact.

Risk classes for each impact within a Vegetation Type were then averaged and rounded to the nearest whole number to provide an overall risk class for each Vegetation Type. The Project Area was then mapped according to overall risk class.

LIKELIHOOD OF IMPACT OCCURRING	POSSIBLE CONSEQUENCE			
	Major (Direct or indirect significant irreversible impact)	**Moderate** (Direct non-significant impact)	**Minor** (Indirect non-significant impact)	**Insignificant** (negligible or indetectable impact)
Very Likely (is expected to happen)	1	2	3	4
Likely (could happen regularly)	2	3	4	5
Possible (could happen, but only occasionally)	3	4	5	6
Unlikely (could happen, but probably won't)	4	5	6	7
Very Unlikely (not expected to happen at all)	5	6	7	8

Figure 5. Risk assessment matrix used to assess the risk of impact to biodiversity.

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4.1.6 Bushfire risk assessment

The Bushfire Protection Areas (BPA) spatial data (Department for Planning, Transport and Infrastructure, 2020) was used to classify bushfire risk in the Project Area. The BPA shows the spatial extent of the Bushfire Protection provisions brought in under the Ministerial Bushfire Management Plan Amendment Report (PAR) in 2006/200. The objective of the PAR is that development should minimise the threat and impact of bushfires on life and property, while protecting the natural and rural character. In addition, buildings and the intensification of nonrural land uses should be directed away from areas of high bushfire risk.

The bushfire hazard rating is calculated using McArthur's fire model. Inputs to this model include fuel load, slope, aspect and weather (temperature and humidity). The BPA were then derived from this bushfire hazard rating and were snapped to the digital cadastre. Boundaries and codes are verified and checked by the Department for Planning, Transport and Infrastructure.

BPAs exist in the South East Region of South Australia, Riverland, Kangaroo Island, Mount Lofty Ranges and Mid North, Yorke Peninsula and Eyre Peninsula. The level of bushfire risk is rated as 'High', 'Medium', 'General' or 'Excluded' and determines the Planning Approvals plus requirements under the *Australian Building Code and Australian Standard AS 3959* for the construction of dwellings in the defined Bushfire risk areas. Some areas have criteria that, if met, will change the designated level of bushfire risk.

A broad assessment of fuel load was also made during the field assessment. This assessment was carried out through general observation only, and not measured using any other method.

4.2 Field survey

The field survey was conducted on Thursday 23 January 2020. The Project Area was accessed on foot where possible. Where access was unavailable, the Project Area was inspected from property boundaries and road corridors. Aerial imagery was also used to interpret field survey results, particularly for vegetation mapping.

The site was mapped into broad Vegetation Types using aerial imagery, background research and direct observations. A broad flora list was compiled based on dominant and common species in the various vegetation.

Fauna or signs of fauna such as scats and scratching's were recorded opportunistically during the survey. Habitat features, such as hollow-bearing trees, that might indicate the occurrence of threatened species were also recorded.

An indication is provided as to whether vegetation on site may be subject to the Development Act, NVA or NRM Act. However, some areas require closer observation to confirm requirements or management relevant to various legislative Acts.

4.2.1 Habitat assessment

Habitat on site was broadly divided into three categories - high value, moderate value and low value. The assessment was made utilising aerial photography and field assessment, with consideration of species that may utilise habitat on site. Categories were aligned with broad vegetation types mapped in the Project Area, considering the habitat attributes they provide and, particularly suitability for any threatened species assessed as possibly occurring.

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4.3 Limitations

4.3.1 Desktop assessment limitations

The content of the desktop assessment was derived from existing datasets and references from a range of sources. EBS has not attempted to verify the accuracy of any such information.

Flora and fauna records were sourced from the PMST and BDBSA. Flora and fauna records in the BDBSA include verified flora and fauna records submitted to Department for Environment and Water (DEW) or partner organisations. Although much of the data has been through a variety of validation processes, the lists may contain errors and should be used with caution. DEW give no warranty that the data is accurate or fit for any particular purpose of the user or any person to whom the user discloses the information.

The reliability of the data ranges from 100 m to over 100 km. Some fauna species, particularly birds, can traverse distances in excess of 20 km. It is also acknowledged that the presence of species may not be adequately represented by database records. Hence the PMST and BDBSA results may not highlight all potential threatened flora and fauna species that may occur in the area, within a 5 km radius.

TEC mapping data layers searched have not been ground truthed. These layers have been used as a guide only as to the extent of TEC in the Project Area. They cannot be used to determine the occurrence of absence of these ecological communities definitively.

The findings and conclusions expressed by EBS are based solely upon information in existence at the time of the assessment. The combination of database records and background research have provided a solid foundation for determining the flora and fauna that are likely to, or are known to, occur within the Project Area.

4.3.2 On-ground Survey and legislative context limitations

Data was not collected in accordance with the requirements of the NVA or the *Development Act 1993* (Regulated Significant/Significant trees). This information is beyond the scope of the due diligence Project and would take significantly more time in the field. The data collected in the field does not represent an assessment under those Acts.

Some properties were inaccessible during the field survey, due either to owners not being present or not allowing access. Vegetation groups mapped were not necessarily verified in the field. Areas inaccessible at the time of the survey were mapped from aerial imagery or based on observations made at a distance.

Habitat value and risk or impact assessments were limited by the non-targeted nature of the field survey. It is likely that these assessments could be further refined following additional survey effort, particularly in relation to threatened species and vegetation mapping.

Fauna and flora observations were made opportunistically and do not reflect a comprehensive or targeted fauna search. Much of the site is likely to not require targeted searches, but a more intensive approach may be required for some areas, particularly in remnant vegetation on roadsides.

Fuel loads were not measured. Comments on fuel loads are based on general observation of the amount of live and dead vegetative material present in the Project Area.

5 RESULTS

5.1 Threatened Species and Ecological Communities

5.1.1 Matters of National Environmental Significance

The PMST report identified one TEC, 30 threatened species, 15 migratory species and seven Commonwealth Land areas protected under the EPBC Act, which may be relevant to the Project Area (Department of the Environment and Energy, 2019). Table 4 summarises the results of the PMST report and the relevant matters of national environmental significance are discussed further below.

Note that some of these matters are not impacted by, or relevant to the Project (e.g. listed marine species, which are afforded specific protection within Commonwealth marine areas), and these matters are therefore not discussed further.

Table 4. Summary of the results of the EPBC Act Protected Matters Search (5 km buffer around the Project Area).

Search area	Matters of National Environment Significance under the EPBC Act	Identified within the search area
	World Heritage Properties	None
	National Heritage Properties	None
	Wetlands of International Significance	None
	Great Barrier Reef Marine Park	None
	Commonwealth Marine Areas	None
	Threatened Ecological Communities	1
	Threatened Species	30
	Migratory Species	15
	Commonwealth Lands	7
	Commonwealth Heritage Places	None
	Listed Marine Species	23
	Whales and other Cetaceans	None
	Critical Habitats	None
	Commonwealth Reserves	None
	State and Territory Reserves	11
	Regional Forest Agreements	None
	Invasive Species	46
	Nationally Important Wetlands	None

5.1.2 Threatened Ecological Communities

One TEC was identified in the Protected Matters Search as possibly occurring in the Project Area:

- Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia.

This community is listed as Critically Endangered under the EPBC Act. An assessment of the likelihood of occurrence of this TEC in the Project Area found that it is unlikely to occur. This is discussed further in Table 5.

The above TEC is also listed as an endangered ecosystem based on the *Provisional List of Threatened Ecosystems for South Australia* (Department for Environment and Heritage, in progress). Two other communities in this list were also assessed for likelihood of occurrence, based on predictive mapping of EPBC Act listed TECs:

- *Lomandra effusa* Tussock Grassland on shallow loams in low hills (listed under the EPBC Act as Iron-grass Natural Temperate Grassland of South Australia).
- *Eucalyptus microcarpa* Grassy Low Woodland on foothills and hill slopes of southern Mount Lofty Ranges (listed under the EPBC Act as Grey Box (*Eucalyptus microcarpa*) Grassy Woodland and Derived Native Grasslands of South-eastern Australia).

These TEC are unlikely to occur in the Project Area, as discussed in Table 5. Predictive mapping of the relevant TEC is shown in Figure 6.

South Australian threatened communities are not protected under the NPW Act (or any other legislation, unless also listed under the EBPC Act), but their clearance should be avoided and/or minimised where possible.

Table 5. Likelihood of occurrence of TEC in the Project Area.

TEC	EPBC Act Status	Likelihood of occurrence
Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia	Critically Endangered	**Unlikely** Although mapped as being within the area of occurrence of this TEC, DEW spatial data does not indicate that the TEC occurs in the Project Area (Figure 6). Vegetation in the Project Area was mostly scattered and planted trees over exotic grassland, with only small patches of grassy woodland. These areas were dominated by *E. camaldulensis* and/or *E. leucoxylon*. *E. odorata* was not recorded during the field survey (Sections 5.1.1 and 5.1.2).
Iron-grass Natural Temperate Grassland of South Australia	Critically Endangered	**Unlikely** Not predicted to occur by the PMST report. DEW spatial data does not indicate that the TEC occurs in the Project Area (Figure 6). Only the south-eastern corner of the Project Area was found to be dominated by native grasses. This area was a woodland community and did not contain *Lomandra* sp. Otherwise, the Project Area was dominated by exotic grasses and forbs (Sections 5.1.1 and 5.1.2.
Grey Box (*Eucalyptus microcarpa*) Grassy Woodland and Derived Native Grasslands of South-eastern Australia	Endangered	**Unlikely** Not predicted to occur by the PMST report. DEW spatial data does not indicate that the TEC occurs in the Project Area (Figure 6). Only the south-eastern corner of the Project Area was found to be dominated by native grasses. This area was a woodland community but did not contain *E. microcarpa*. Grassland communities were dominated by exotic species and would not meet the criteria for a Derived Grassland (Sections 5.1.1 and 5.1.2).

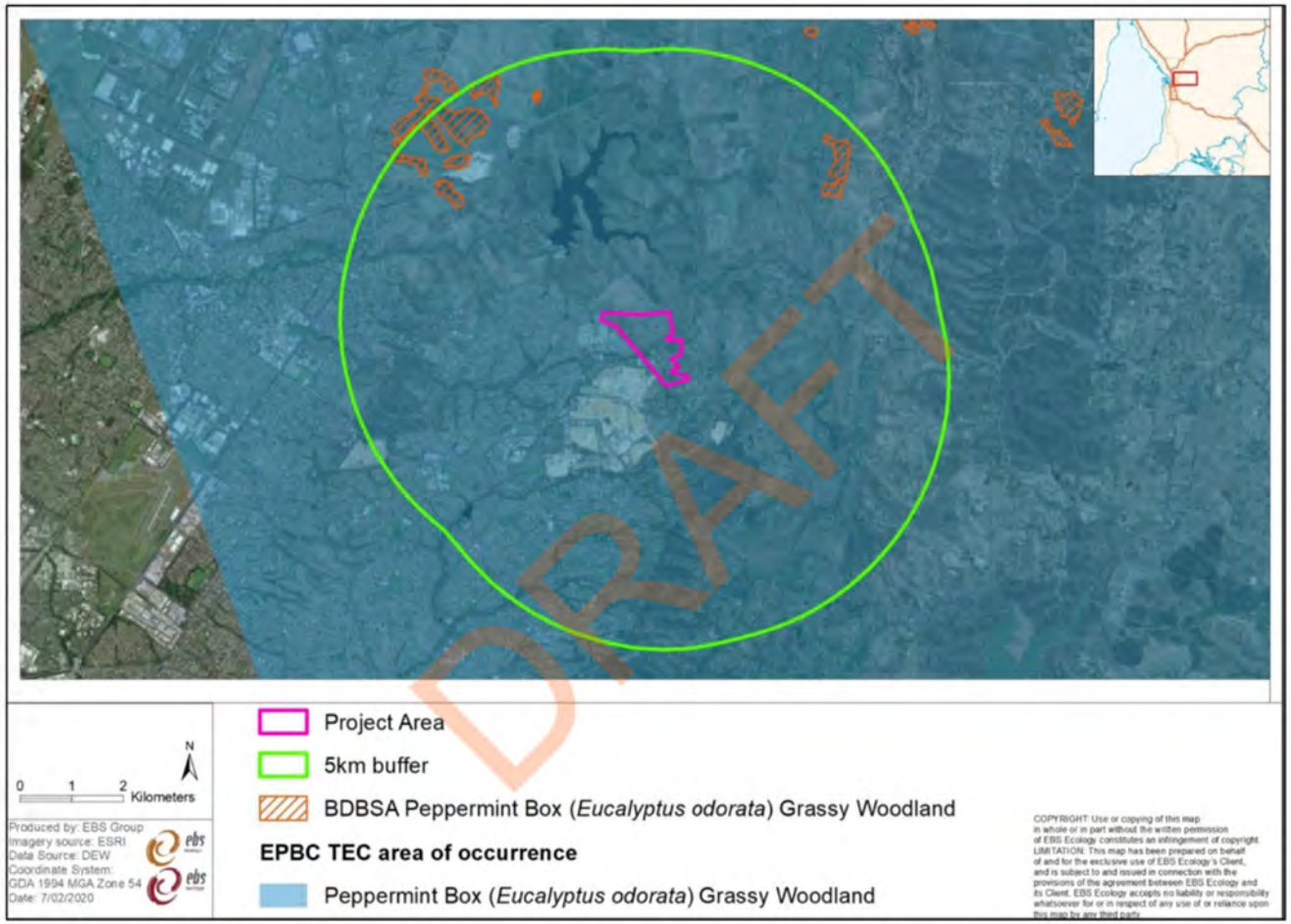


Figure 6. BDBSA threatened ecological community (TEC) mapping and EPBC TEC predictive mapping for an area within 5 km of the Project Area (Department for Environment and Water, 2020a).

Council Meeting - 12 October 2021
Page 171
Draft preliminary report - Flora and Fauna Due Diligence
Attachment 5
Attachment 5
Item 13.1

5.1.3 Threatened flora

A search of the BDBSA identified 14 species of flora with a State conservation rating recorded from within 5 km of the Project Area (Figure 7, Appendix 1). In addition, the PMST report identified 13 EPBC listed flora species as potentially occurring (Appendix 1).

Of these 27 species, 21 have been assessed as unlikely to be present in the Project Area (Appendix 1). This is largely due to the lack of suitable habitat for some species, such as wetlands, and the overall disturbed nature and poor condition of vegetation. Many threatened species identified in the desktop searches, such as orchid species, are unable to persist under such conditions.

Those species that have been assessed as possibly occurring are listed in Table 6. They are generally grass species that are known to occur in disturbed environments. All six species are listed as Rare under the NPW Act. None are listed as threatened under the EPBC Act.

The likelihood assessment for each of the 27 predicted threatened flora species is provided in Appendix 1.

Table 6. Threatened flora species assessed as possible or likely to occur in the Project Area.

Scientific name	Common name	Conservation status		Source	Last BDBSA record (year)	Likelihood of occurrence
		Aus	SA			
Austrostipa gibbosa	Swollen Spear-grass		R	2	2004	Possible
Austrostipa multispiculis	Many-flowered Spear-grass		R	2	2014	Possible
Bothriochloa macra	Red-leg Grass		R	2	1999	Possible
Dianella longifolia var. *grandis*	Pale Flax-lily		R	2	2002	Possible
Eucalyptus fasciculosa	Pink Gum		R	2	2017	Possible
Juncus australis	Austral Rush		R	2	2004	Possible

Aus: Australia (*Environment Protection and Biodiversity Conservation Act 1999*). **SA:** South Australia (*National Parks and Wildlife Act 1972*). **Conservation Codes: CE:** Critically Endangered. **EN/E:** Endangered. **VU/V:** Vulnerable. **R:** Rare.
Source: 2: BDBSA records (Department for Environment and Water, 2020a).

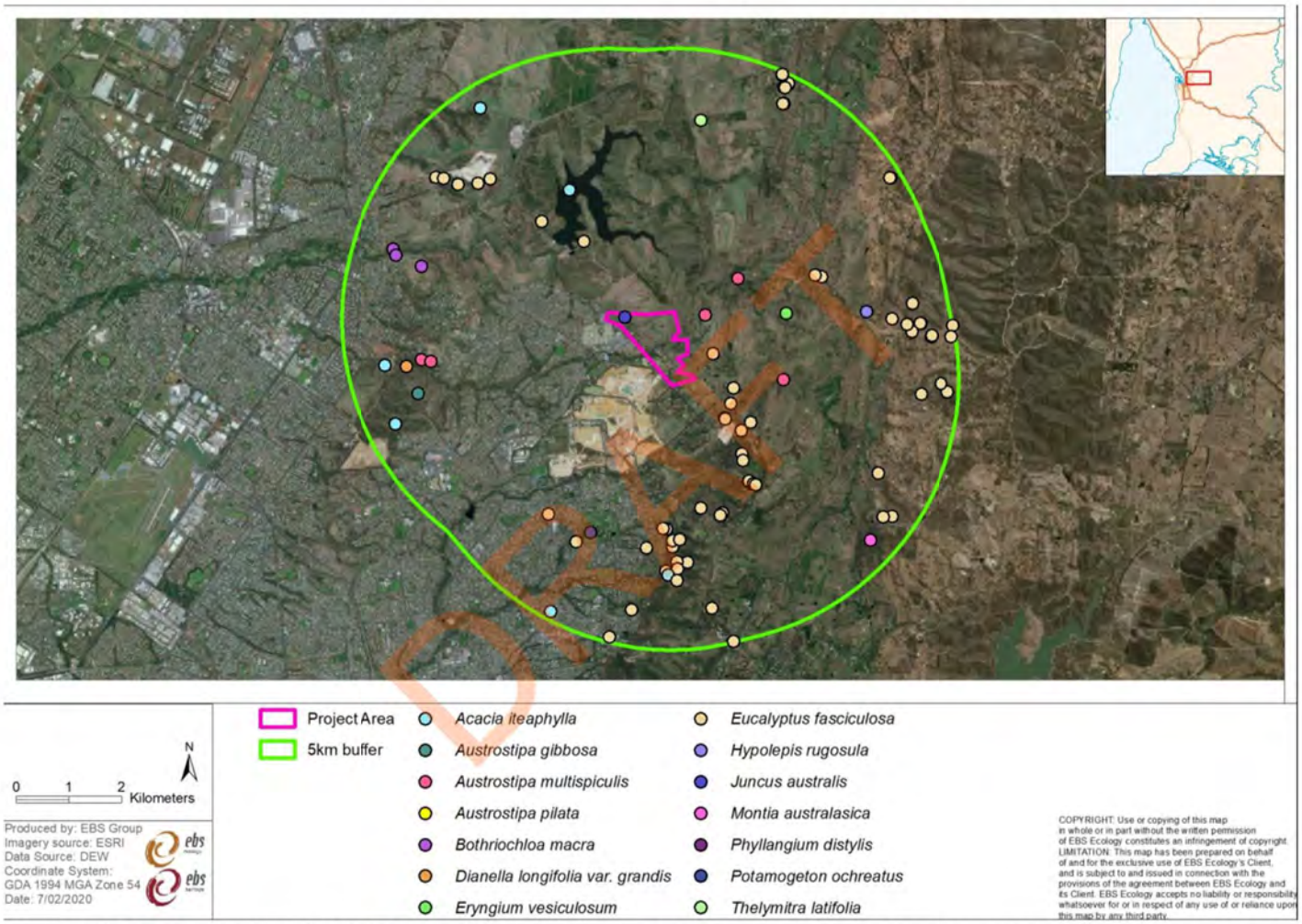


Figure 7. Threatened flora species recorded in the last 20 years within 5 km of the Project Area (Department for Environment and Water, 2020a).

Council Meeting - 12 October 2021
Page 173
Draft preliminary report - Flora and Fauna Due Diligence
Attachment 5
Attachment 5
Item 13.1

5.1.4 Threatened fauna

The desktop search identified 27 NPW Act and/or EPBC Act listed threatened fauna species as potentially occurring within 5 km of the Project Area. This includes 23 birds, three mammals and one reptile (Figure 8 and Appendix 2).

Eleven species have been recorded in the last 20 years within 5 km of the Project Area: 8 listed as Rare, 2 as Endangered and one as Vulnerable under the NPW Act. One of these species, Grey-headed Flying-fox (*Pteropus poliocephalus*) is also listed as Vulnerable under the EPBC Act.

The remaining 16 species were predicted as occurring in the Project Area by the EPBC Act PMST Report.

All fauna species were assessed as to whether they are likely to occur in the Project Area. It was found that 8 species might possibly occur, based on proximity of known records and habitat characteristics of the Project Area. Threatened fauna species that are likely to or possibly occur in the Project Area are listed in Table 7.

The likelihood assessment for each of the 27 predicted threatened fauna species is provided in Appendix 2.

Table 7. Threatened fauna species identified by EPBC Protected Matters Search Tool (1) and Biological Database of South Australia (2) as potentially occurring within 5 km of the Project Area.

Scientific name	Common name	Conservation status		Source	Last BDBSA record (year)	Likelihood of occurrence
		Aus	SA			
BIRD						
Corcorax melanorhamphos	White-winged Chough		R	2	2018	Possible
Falco peregrinus	Peregrine Falcon		R	2	2015	Possible
Hirundapus caudacutus	White-throated Needletail	VU		1	No records	Possible
Parvipsitta pusilla	Little Lorikeet		E	2	2017	Possible
Petroica boodang boodang	Scarlet Robin		R	2	2016	Possible
Zanda (Calyptorhynchus) funereal whitea	Yellow-tailed Black Cockatoo		V	2	2017	Possible
MAMMAL						
Pteropus poliocephalus	Grey-headed Flying-fox	VU	R	1, 2	2017	Possible
Trichosurus vulpecula	Common Brushtail Possum		R	2	2000	Possible

Aus: Australia (*Environment Protection and Biodiversity Conservation Act 1999*). **SA:** South Australia (*National Parks and Wildlife Act 1972*). **Conservation Codes: CE:** Critically Endangered. **EN/E:** Endangered. **VU/V:** Vulnerable. **R:** Rare.
Source: 1: EPBC Act PMST Report (Department of the Environment and Energy, 2019) **2:** BDBSA records (Department for Environment and Water, 2020a).

5.1.5 Migratory fauna

The PMST report found that 15 bird species listed as migratory under the EPBC Act may occur in the Project Area (Appendix 3). The majority are species that require wetland or forest habitats, which do not occur in the Project Area.

Only two species were assessed as possibly occurring:

- Fork-tailed Swift (*Apus pacificus*),

- White-throated Needletail (*Hirundapus caudacutus*)

The White-throated Needletail is also listed as Vulnerable under the EPBC Act (see Section 5.1.4). All other migratory species are unlikely to occur due to absence of required habitat (Appendix 3).

The two species listed above are almost exclusively aerial – foraging above a variety of habitats (including urban areas and farmland) for insects. Both are migratory and while they may occasionally occur as non-breeding visitors (Department of Agriculture, Water and the Environment, 2020a and 2020b), they are unlikely to utilise terrestrial habitats in the Project Area.

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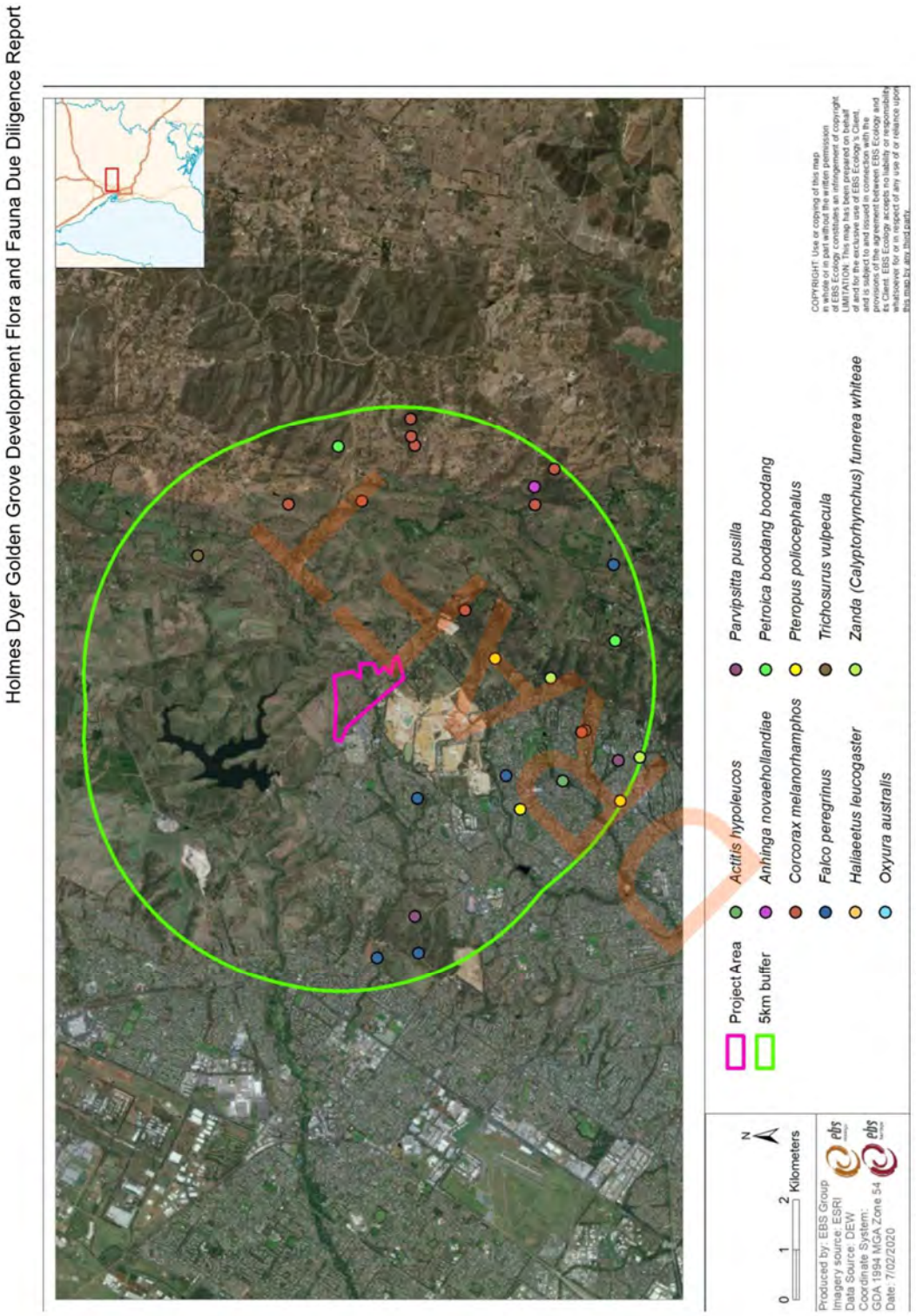


Figure 8. Threatened fauna species recorded in the last 20 years within 5 km of the Project Area (Department for Environment and Water, 2020a).

5.2 Field Survey – Flora

5.2.1 Flora species recorded

A total of 36 flora species were recorded during the field assessment. Only eight were native species, including four trees, one shrub and three grass species (Appendix 4). This is not considered to represent a comprehensive flora list and was based on the broad assessment methodology used to fulfil the scope for the current Project.

No flora species listed as threatened under the EPBC Act or NPW Act were observed.

5.2.2 Summary of Vegetation Types

Six broad Vegetation Types (VT) were recognised in the Project Area (Table 8). Three VG are not considered native vegetation (VT3, VT5 and VT6), as they consist largely of exotic species or planted native trees. VT1 and VT2 represent remnant native woodland communities, although highly disturbed by grassy and woody weeds and historical clearing activity.

Many large, remnant trees occur in VT4. These trees represent an important habitat feature within the landscape. This VT makes up the majority of the Project Area, with scattered trees concentrated around steeper slopes and drainage lines.

The VT in the Project Area are mapped in Figure 9. As discussed in Section 5.1.2, none would qualify as a TEC. Approximately 89.2% of the Project Area is vegetated, with the reminder comprising roads, access tracks, building envelopes and associated infrastructure. These areas are not represented in Table 8.

Table 8. Vegetation Groups within the Project Area.

ID	Vegetation Type	Hectares (ha)	% of Project Area
VT1	Tall riparian woodland in drainage lines and ephemeral creeks.	2.67	2.5
VT2	Open grassy *Eucalyptus* spp. woodland on mid to upper hill slopes.	8.53	7.9
VT3	Planted exotic trees and *Eucalyptus* spp. trees over exotic pasture.	10.47	9.7
VT4	Exotic grassland +/- scattered remnant trees.	53.17	49.2
VT5	*Olea europaea* ssp. europaea low woodland over exotic grasses.	6.21	5.8
VT6	Windbreaks and amenity plantings of exotic trees.	3.26	3.0
VT7	Horticultural crops and orchards, including vineyards, olive groves and market gardens.	11.99	11.1
	Total	**96.3**	**89.2**

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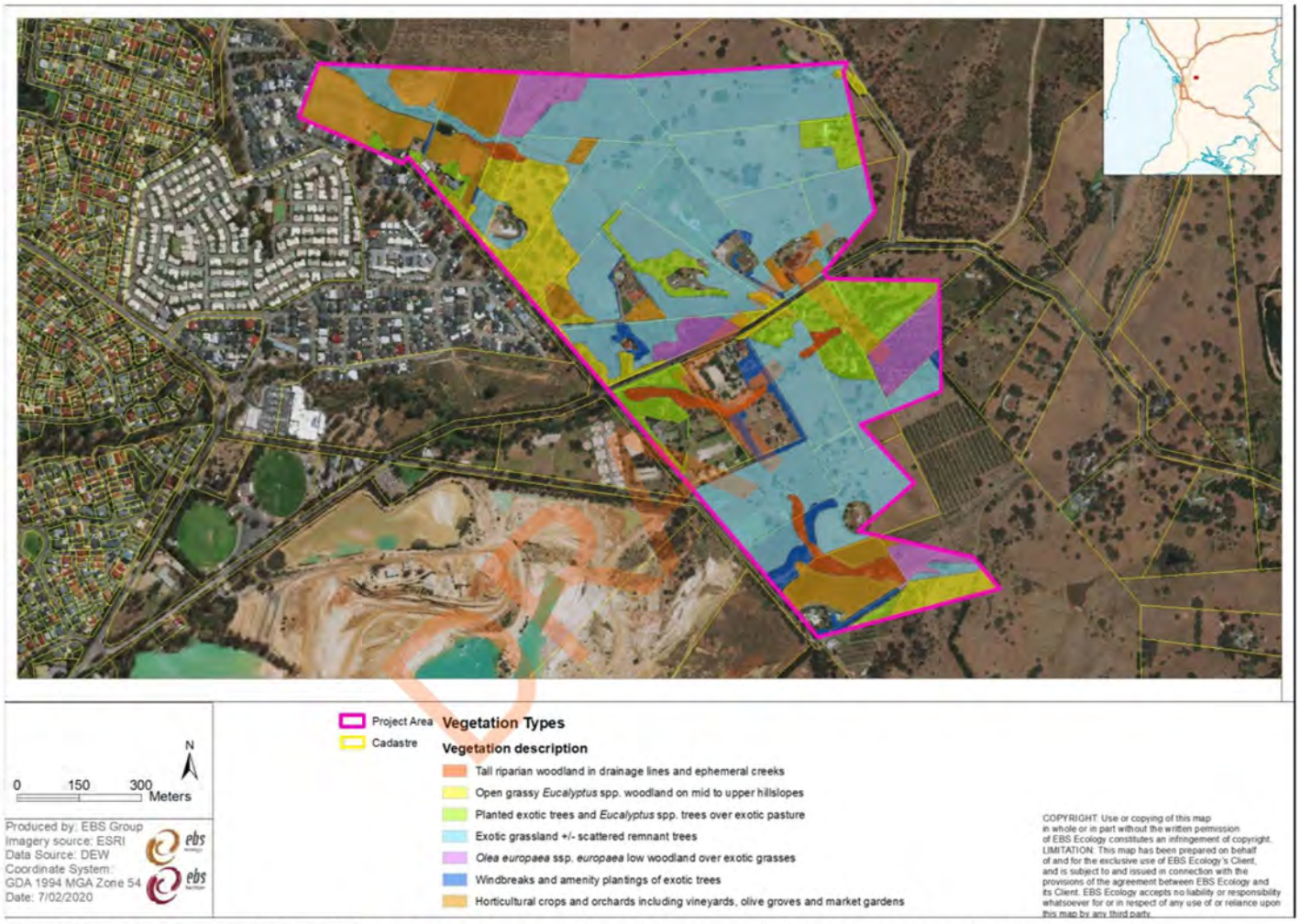


Figure 9. Broad Vegetation Types in the Project Area. Areas not mapped as vegetation include building envelopes, roads and access tracks.

5.2.3 Broad vegetation descriptions

Vegetation Type 1: Tall riparian Woodland in drainage lines and ephemeral creeks.

Area (ha)	2.67
Landform	Riparian areas of ephemeral drainage lines and creeks in valleys floors and on lower slopes.
Description	Tall woodlands, historically partly cleared, with an overstorey of large remnant *Eucalyptus camaldulensis* ssp. *camaldulensis*. Mid-storey vegetation consists of regenerating *E. camaldulensis* ssp. *camaldulensis* and exotic trees such as **Fraxinus angustifolia*. Understorey of **Phalaris aquatica* (Phalaris) and other exotic grasses and broad-leaf weeds. Restricted to ephemeral drainage lines that may be occasionally inundated.
Common/dominant flora *denotes exotic species	*E. camaldulensis* ssp. *camaldulensis*, **Fraxinus angustifolia*, **Olea europaea* ssp. *europaea* (European Olive), **Phalaris aquatica*, **Cenchrus clandestinus* (Kikuyu), **Plantago lanceolata* (Plaintain), **Cynara cardunculus* (Artichoke Thistle).
Declared Weeds (NRM Act)	**Olea europaea* ssp. *europaea)*, **Cynara cardunculus*, **Pinus halepensis*, **Echium plantagineum*, **Rosa canina* (Dog Rose).
Native flora	Remnant and regenerating overstorey.
Threatened Flora	Possible. See Sections 5.1.3 and 5.3.2
Threatened Ecological Communities	None
Subject to NVA	No
Subject to Development Act	Yes
Condition	Poor - moderate



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Vegetation Type 2: Open grassy Eucalyptus spp. woodland on mid to upper hill slopes.

Area (ha)	**8.53**
Landform	Steep to undulating hillslopes with shallow soils. Some minor rock outcropping on steeper slopes.
Description	Open grassy woodland dominated by *Eucalyptus* spp., with *E. camaldulensis* ssp. *camaldulensis* on mid slopes and *E. leucoxylon* ssp. *leucoxylon* (SA Blue Gum) and *E. porosa* (Mallee Box) on upper slopes. A sparse Midstorey of **Olea europaea* ssp. *europaea* and *Acacia paradoxa* (Kangaroo Thorn). Understorey consists of exotic grasses, however one small area in the south-east is dominated by *Themeda triandra* (Kangaroo Grass) and *Aristida behriana* (Bunch Wiregrass).
Common/dominant flora	*Eucalyptus camaldulensis* ssp. *camaldulensis, E. leucoxylon* ssp. *leucoxylon, E. porosa, *Olea europaea* ssp. *europaea, *Phalaris aquatica, *Avena barbata* (Bearded Oat), *Ehrharta longiflora* (Annual Veldt Grass), *Themeda triandra, Aristida behriana*.
Declared Weeds (NRM Act)	*Olea europaea* ssp. *europaea).*
Native flora	Open remnant native upper storey. Mid-storey mostly absent with some native grasses present in the understorey.
Threatened Flora	Possible. See Sections 5.1.3 and 5.3.2.
Threatened Ecological Communities	None
Subject to NVA	No
Subject to Development Act	Yes
Condition	Poor to moderate - moderate in areas where native grasses dominate the understorey.



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Vegetation Type 3: Planted exotic trees and Eucalyptus spp. over exotic pasture.

Area (ha)	**10.47**
Landform	Undulating hills
Description	Undulating hills cleared for agriculture and planted with exotic trees such as *Pinus* sp. Mid-storey is absent and the understorey is composed of exotic pasture of grasses, such as *Avena barbata* and broad-leaved forbs.
Common/dominant flora	**Olea europaea* ssp. *europaea, *Pinus halepensis, Eucalyptus cladocalyx, Corymbia citriodora, *Phalaris aquatica, *Avena barbata, *Ehrharta longiflora, *Plantago lanceolata, Echium plantagenium.*
Declared Weeds (NRM Act)	Olive *(*Olea europaea* ssp. *europaea)*. Artichoke Thistle *(*Cynara cardunculus* ssp. *flavescens)*, Aleppo Pine *(*Pinus halepensis)*, Salvation Jane *(*Echium plantagineum)*, Prickly Pear (*Opuntia* sp).
Native vegetation	May contain some scattered remnant trees (*Eucalyptus* spp.).
Threatened Flora	Unlikely. See Sections 5.1.3 and 5.3.2.
Threatened Ecological Communities	None
Subject to NVA	No
Subject to Development Act	Yes
Condition (descriptive only)	Poor



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Vegetation Type 4: Exotic grassland +/- scattered remnant trees.

Area (ha)	**53.17**
Landform	Mid to upper slopes of undulating hills and lower slopes and drainage lines in valleys.
Description	Grassland of exotic species such as *Avena barbata* and Quaking Grass (*Briza maxima*). Scattered remnant trees including *Eucalyptus camaldulensis* ssp. *camaldulensis* on lower slopes and valley floors and *E. leucoxylon* +/- *E. porosa* on mid and upper slopes.
Common/dominant flora	*Eucalyptus camaldulensis* ssp. *camaldulensis, Eucalyptus leucoxylon ssp. leucoxylon, Avena barbata, Briza maxima, Cenchrus clandestinus,* Smooth Catsear (*Hypochaeris glabra*), *Plantago lanceolata.*
Declared Weeds (NRM Act)	**Cynara cardunculus,*Pinus halepensis, *Echium plantagineum*
Native flora	Scattered remnant *Eucalyptus* spp. trees.
Threatened Flora	Possible. See Sections 5.1.3 and 5.3.2.
Threatened Ecological Communities	None
Subject to NVA	No
Subject to Development Act	Yes
Condition	Poor



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Vegetation Type 5: *Olea europaea* ssp. *europaea* low open woodland over exotic grasses.

Area (ha)	**6.21**
Landform	Mid to upper slopes of undulating hills.
Description	Exotic vegetation consisting of a low open woodland of naturalised *Olea europaea* ssp. *europaea* over exotic grasses and broad-leaved forbs
Common/dominant flora	**Olea europaea* ssp. *europaea, *Avena barbata, *Ehrharta longiflora, *Cynara cardunculus, Echium plantagenium.*
Declared Weeds (NRM Act)	**Olea europaea* ssp. *europaea, *Cynara cardunculus, Echium plantagenium.*
Native flora	None
Threatened Flora	Unlikely. See Sections 5.1.3 and 5.3.2.
Threatened Ecological Communities	None
Subject to NVA	No
Subject to Development Act	No
Condition	Poor



Vegetation Type 6: Windbreaks and amenity plantings of exotic trees.

Area (ha)	**3.26**
Landform	Undulating hills, including lower to upper slopes, hilltops and valley floors.
Description	Dense plantings of exotic trees or Australian trees not native to the Project Area. Understorey is very sparse to absent and consists of exotic grasses.
Common/dominant flora	**Pinus halepensis, *Pinus radiata, Corymbia citriodora, Eucalyptus cladocalyx, *Avena barbata.*
Declared Weeds (NRM Act)	**Pinus halepensis, *Pinus radiata, *Olea europaea* ssp. *europaea, Opuntia* sp.
Native Flora	None
Threatened Flora	Unlikely. Sections 5.1.3 and 5.3.2.
Threatened Ecological Communities	None
Subject to NVA	No
Subject to Development Act	Yes
Condition	Poor

Vegetation Type 7: Horticultural crops and orchards, including vineyards, olive groves and market gardens.

Area (ha)	**11.99**
Landform	Lower to mid slopes of valleys and undulating hills.
Description	Paddocks previously cleared and planted with horticulture plantings including grape vines, olives and fruit trees. Understorey is absent or dominated by exotic grasses and broad-leaf weeds.
Common/dominant flora	Requires assessment.
Declared Weeds (NRM Act)	Requires assessment. Cultivated trees, planted and maintained for use, are not declared.
Native Flora	None
Threatened Flora	Unlikely. Sections 5.1.3 and 5.3.2.
Threatened Ecological Communities	None
Subject to NVA	No
Subject to Development Act	No
Condition	Poor

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5.2.4 *Development Act Vegetation*

The scope of the current Project did not allow time in the field for the assessment of vegetation against the Development Act. However, based on the broad assessment undertaken, it was found that five Vegetation Types probably contain Significant Regulated and/or Regulated trees, as described in Table 9. Where possible, an indication of the tree species has also been given in the Table. However, given the survey limitations, it should not be used as a definitive list.

The *Development Regulations 2008* list tree species that are exempt from the regulated and significant tree controls. Exempt tree species recorded in the Project Area are also listed in Table 9.

Table 9. Vegetation types of the Project Area containing Significant Regulated or Regulated trees.

Vegetation Type	Tree Species	Remnant / Naturalised / Planted	Exempt Tree Species
VT1: Tall riparian woodland in drainage lines and ephemeral creeks.	*Eucalyptus camaldulensis* ssp. *camaldulensis*	Remnant	**Fraxinus angustifolia* **Pinus radiata*
VT2: Open grassy *Eucalyptus* spp. woodland on mid to upper hill slopes.	*E. camaldulensis* ssp. *camaldulensis* *E. leucoxylon* ssp. *leucoxylon* *E. porosa*	Remnant	
VT3: Planted exotic and *Eucalyptus* spp. trees over exotic pasture.	**Corymbia citriodora* *E. camaldulensis* ssp. *camaldulensis*	Planted	**Cupressus macrocarpa* **Fraxinus angustifolia*

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	+E. cladocalyx *Eucalyptus* spp.		**Pinus halepensis* **Pinus radiata*
VT4: Exotic grassland +/- scattered remnant trees.	*E. camaldulensis* ssp. *camaldulensis* *E. leucoxylon* ssp. *leucoxylon* *E. porosa*	Remnant	
VT6: Windbreaks and amenity plantings of exotic trees.	*+C. citriodora* *+E. cladocalyx*	Planted	**Cupressus macrocarpa* **Pinus halepensis* **Pinus radiata*

***Denotes Australian species not native to the Project Area.**

***Denotes an exotic species.**

5.2.5 Declared Weeds and Weeds of National Significance

Eight Declared Weeds under the NRM Act were recorded in the Project Area during the broad assessment, including two Weeds of National Significance (WoNS) as indicated in Table 10. Weeds were distributed throughout the Project Area as described in the table. However, given the limitations of the field work undertaken, it is likely that Declared Weeds are more widespread than described. Additional species not listed in the table may also occur.

Planted groves and specimen trees of *Olea europaea* ssp. *europaea* are generally not considered Declared Weeds. However, those that occur as invasive naturalised trees and shrubs are classed as Declared Weeds.

Declared Weeds can be particularly invasive and require careful management through development projects to execute an appropriate 'duty of care' required by the NRM Act and ensure weed spread is reduced or avoided, particularly into areas of high value vegetation.

Table 10. Weeds observed within the Project Area.

Scientific Name	Common Name	Status	Distribution within Project Area
Cynara cardunculus	Artichoke Thistle	WoNS / Declared Weed	Widespread in all Vegetation Types in the Project Area, but largest infestations in un-grazed paddocks.
Echium plantagineum	Salvation Jane	Declared Weed	Widespread in all Vegetation Types in the Project Area.
Fraxinus angustifolia	Desert Ash	Declared Weed	Found within Vegetation Type 1, on lower slopes, riparian areas and as planted specimens in gardens
Marrubium vulgare	Horehound	Declared Weed	Widespread in all Vegetation Types in the Project Area.
Olea europaea ssp. *europaea*	Olive	Declared Weed	Occurred as: • Single planted specimen trees • Planted orchards • Naturalised trees and tall shrubs in Vegetation Type 5. • Naturalised trees forming a mid-storey in Vegetation Types 1 and 2.
Opuntia sp.	Prickly Pear	WoNS / Declared Weed	One occurrence was found during the survey at a property on Strachan Road.

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Pinus halepensis	Aleppo Pine	Declared Weed	Occurs throughout the Project Area in all Vegetation Types as planted specimens, shelter belts and naturalised trees.
Rosa canina	Dog Rose	Declared Weed	Found within Vegetation Type 1 in a creek line.

5.3 Field Survey - Fauna

5.3.1 Fauna field results

Opportunistic fauna observations recorded 20 fauna species in the Project Area, including 15 birds and five mammals. Six of these are introduced species. No species listed as threatened under the EPBC Act or NPW Act were observed (Appendix 5).

All species recorded are common in agricultural and peri-urban landscapes and were recorded throughout the Project Area.

5.3.2 Fauna habitat assessment

The habitat value of each Vegetation Type has been assessed as shown in Table 11. Two VT (VT1 and VT2) have been assessed as having high habitat value, based on the nature of the vegetation present (i.e. remnant native vegetation) and the habitat it potentially provides for the threatened species listed in the table. This represents 11.2 ha, or 10% of the Project Area.

Although VT4 contains remnant vegetation only as scattered trees, it has been assessed as having moderate habitat value. This is due to the large trees, often hollow bearing, that provide significant habitat for some threatened species. This includes breeding habitat for NPW Act listed species such as the Yellow-tailed Black Cockatoo (*Zanda (Calyptorhynchus) funereal whitea*) and Common Brushtail Possum (*Trichosurus vulpecula*) and foraging habitat for EPBC Act listed Grey-headed Flying Fox. This habitat covers 53.17 ha, or 49%, of the Project Area, but this mapping could be refined following additional field survey effort.

The remaining vegetation types have been assessed as having Low habitat value (31.9 ha or 30% of the Project Area). However, it should be noted that at times, they may still provide foraging resources for some threatened fauna. Especially species known to at least occasionally occur in modified landscapes, like the Scarlet Robin (*Petroica boodang boodang*) and those known to feed in exotic trees, such as the Yellow-tailed Black Cockatoo and Grey-headed Flying-fox.

Areas of high, moderate and low habitat value are mapped in Figure 10.

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Table 11. Habitat value of the Project Area, where Mod refers to moderate habitat value.

Vegetation Type	Threatened Ecological Community	Threatened Species Possibly Occurring		Habitat Value	Area (ha)
		Fauna	Flora		
VT1: Tall riparian woodland in drainage lines and ephemeral creeks.	No	Peregrine Falcon White-throated Needletail Little Lorikeet Scarlet Robin Grey-headed Flying-fox Common Brushtail Possum Yellow-tailed Black Cockatoo	*Juncus australis*	High	11.2
VT2: Open grassy *Eucalyptus* spp. woodland on mid to upper hill slopes.	No	White-winged Chough Peregrine Falcon White-throated Needletail Little Lorikeet Scarlet Robin Grey-headed Flying-fox Common Brushtail Possum Yellow-tailed Black Cockatoo	*Austrostipa gibbosa* *Austrostipa multispiculis* *Bothriochloa macra* *Dianella longiflora* var. *grandis* *Eucalyptus fasciculosa*	High	
VT4: Exotic grassland +/- scattered remnant trees.	No	Peregrine Falcon White-throated Needletail Little Lorikeet Scarlet Robin Grey-headed Flying-fox Common Brushtail Possum Yellow-tailed Black Cockatoo	*Eucalyptus fasciculosa*	Mod	53.17
VT3: Planted exotic and *Eucalyptus* spp. trees over exotic pasture.	No	Peregrine Falcon White-throated Needletail Scarlet Robin Grey-headed Flying-fox Yellow-tailed Black Cockatoo	Unlikely	Low	31.93
VT5: *Olea europaea* ssp. europaea low woodland over exotic grasses.	No	Peregrine Falcon White-throated Needletail Scarlet Robin	Unlikely	Low	
VT6: Windbreaks and amenity plantings of exotic trees.	No	Peregrine Falcon White-throated Neddletail Scarlet Robin Grey-headed Flying-fox Yellow-tailed Black Cockatoo	Unlikely	Low	

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Vegetation Type	Threatened Ecological Community	Threatened Species Possibly Occurring		Habitat Value	Area (ha)
		Fauna	Flora		
VT7: Horticultural crops and orchards, including vineyards, olive groves and market gardens.	No	Peregrine Falcon White-throated Needletail Scarlet Robin Grey-headed Flying-fox	Unlikely	Low	

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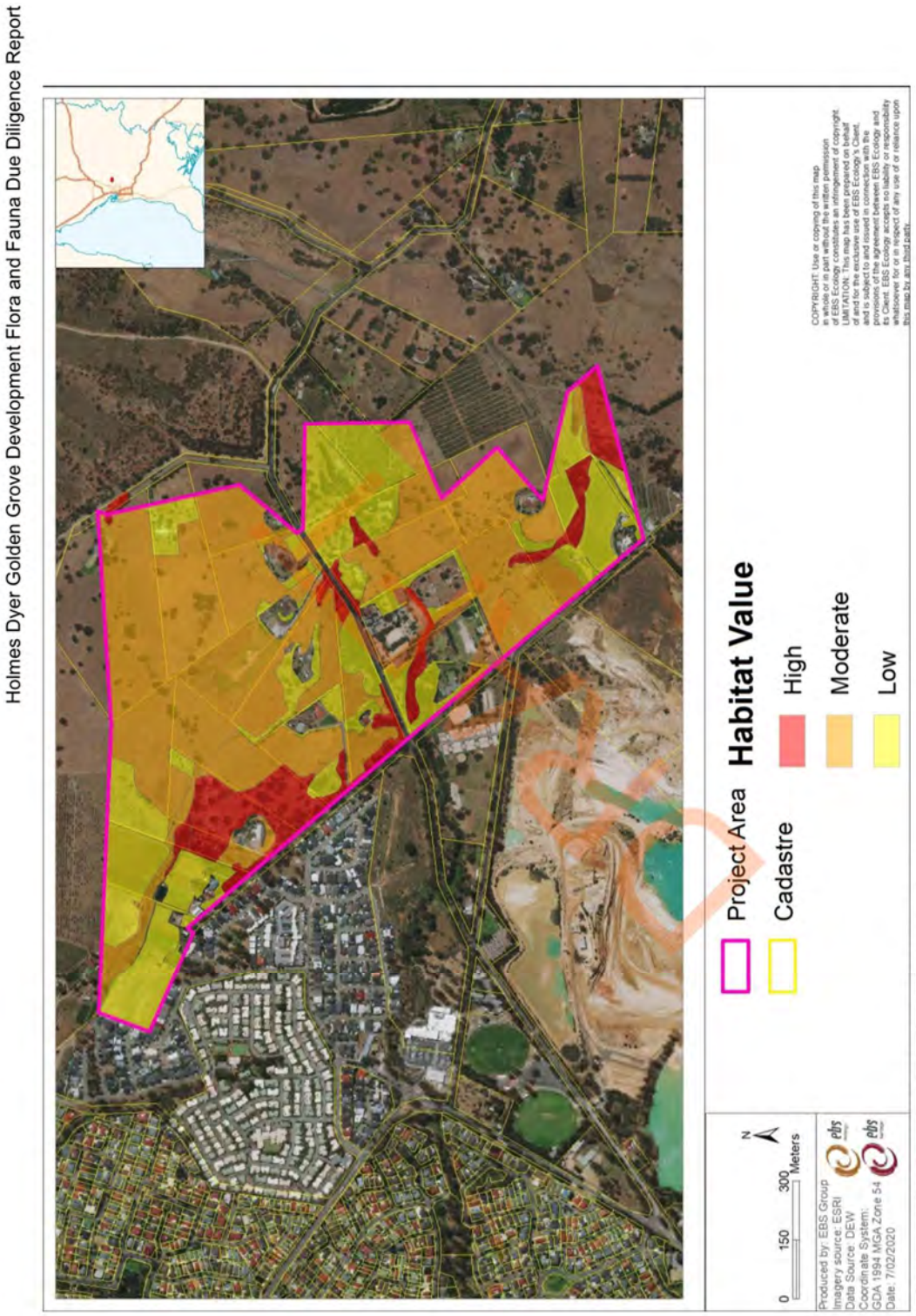


Figure 10. Assessment of fauna habitat value in the Project Area.

5.4 Bushfire Risk Assessment

5.4.1 Bushfire Protection Areas

Based on the BPA data set (Department for Planning, Transport and Infrastructure, 2020) the Project Area is located within the 'Medium' Bushfire Risk Category. The area immediately west of the Project Area, bordered by Strachan Road and Strachan Lane, are excluded from Bushfire Risk (Figure 11).

Proposals to develop property within medium bushfire risk areas are assessed against the bushfire protection planning provisions of the relevant local area development plan.

All new dwellings or tourist accommodation will be assessed for compliance with the following criteria (Government of South Australia, 2019):

- have a dedicated firefighting water supply of at least 2,000 litres (Minister's Specification SA 78);
- ensure that gaps between the dwelling floor and the ground are enclosed to prevent burning debris from entering;
- be set back 20 metres from flammable or combustible vegetation;
- be located and designed to minimise risk from bushfires;
- have access roads and tracks that are appropriately designed and built for entry and exit of vehicles, including fire fighting vehicles, during a fire.

Other planning requirements relating to the property will be contained within the relevant local area development plan (Government of South Australia, 2019). In addition, new buildings in medium bushfire risk areas will be assessed against the provisions of the building rules. They can either:

- Be built to a set of specific requirements without the need for a site assessment, or
- They can have a site assessment to accurately determine the expected level of bushfire attack.

The specific requirements for new buildings located in a medium bushfire risk area must comply with the construction requirements for an expected Bushfire Attack Level 12.5. Details of these requirements can be found in the state variations to the Building Code of Australia.

5.4.2 Fuel loads

General observation of fuel loads across the Project Area indicate that they are generally low-moderate in areas utilised for grazing and maintained for horticulture. However, where grazing pressure is light or absent, higher fuel loads exist. Similarly, in woodland areas with *Eucalyptus* spp. and *Olea europaea* ssp. *europaea* fuel loads tend towards moderate to high.

While the removal of vegetation associated with the development may reduce the fuel load in the long-term, initial change in land use may increase fuel loads through the phasing out of agricultural activities that currently maintain them at a low level. There is a risk of land left vacant and unmanaged for extended periods leading to higher fuel loads and increased bushfire risk in the short-term.

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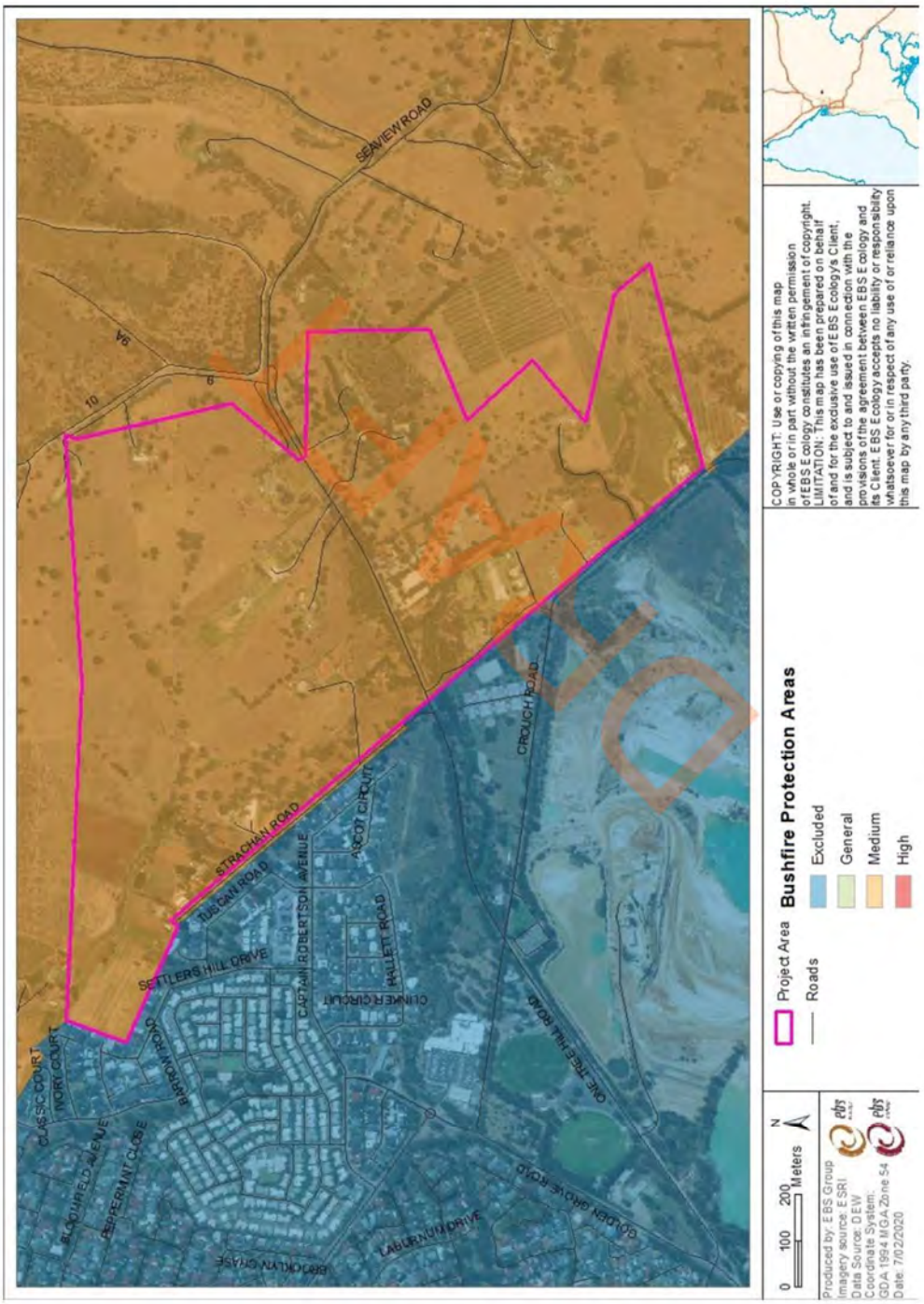


Figure 11. Bushfire Risk Assessment for the Project Area and surrounds.

6 DISCUSSION AND RECOMMENDATIONS

6.1 Summary Discussion

The Project Area largely consists of rural living areas with a mix of agricultural land uses, including grazing and horticulture. Vegetation observed reflects this, consisting mostly of exotic grassland with scattered trees and planted exotic trees.

Native vegetation is limited to woodlands of vegetation types VT1 and VT2 and scattered remnant trees within VT4. Exotic grasses and broad-leaved forbs dominate the understorey of all vegetation types, although a small area of VT2 contains several native grass species.

No threatened species were observed during the field survey, but based on the desktop study and habitat available, six threatened flora and nine threatened and/or migratory fauna species were assessed as possibly occurring in the Project Area. Given the nature of habitat and extent of the Proposal, it is unlikely that any impact would constitute a significant impact to any of these species. While it is unlikely that the Proposal would require referral under the EPBC Act, impact to the three EPBC listed species has not been properly assessed against EPBC Act significant impact guidelines.

Areas of high habitat value include woodland vegetation types (VT1 and VT2), where some native understorey species occur and large *Eucalyptus* trees provide both foraging and breeding resources. Scattered remnant trees located within VT4 also provide significant habitat, particularly along drainage lines where larger, hollow-bearing trees occur. This VT has been mapped as having moderate habitat value. However, as not all trees are likely to be hollow, this mapping could be refined following greater survey effort.

All other Vegetation Types provide low habitat value for fauna, although several threatened species assessed as possibly occurring are known to utilise exotic vegetation at times. For example, Grey-headed Flying-foxes are known to utilise exotic fruit trees as a food source.

6.2 Impacts to Biodiversity

6.2.1 Possible impacts

Possible impacts to biodiversity associated with the Proposal are listed in Table 12. The Table indicates whether these impacts are likely to be significant, however this assessment is based on the information within this report and has not been carried out in accordance with any significant impact guidelines. It provides an indication only of the likelihood of any significant impact of flora and/or fauna.

Table 12. Potential impacts on biodiversity associated with the Proposal.

Biodiversity	Potential Impact	Significant impact
Threatened and Migratory fauna	Loss of foraging habitat Loss of breeding habitat Fragmentation of habitat Death or harm to individuals	**Unlikely to be significant.** Habitat for threatened species in the Project Area is marginal, with only species that frequent a largely cleared landscape and exotic vegetation assessed as possibly occurring. In the context of the wider landscape, the Project Area would not represent habitat

Biodiversity	Potential Impact	Significant impact
Threatened flora	Loss of habitat Fragmentation of habitat Removal of individuals	critical to the survival of any of these species, nor is it likely to support an important population. Implementing management actions during development, project planning and construction, impacts can be avoided and minimised.
Native vegetation	Fragmentation of patches Decrease in extent within local area Increase in edge effects Decline in vegetation condition Indirect impacts to vegetation offsite	**Unlikely to be significant.** Native vegetation in the Project Area is limited in extent, isolated from larger areas of vegetation in nearby areas and already highly influenced by disturbance factors such as weeds. Indirect impact to nearby vegetation, especially road corridors, is possible. However, by implementing management actions during development and project planning, impacts can be avoided and minimised.

6.2.2 Risk Assessment of impacts

The risk assessment indicates that there is a higher risk of biodiversity being impacted by the proposal where native vegetation and significant habitat attributes are located. There is a low risk to biodiversity where exotic vegetation occurs, as shown in Table 13. These areas are mapped in Figure 12.

Risk assessment for each of the impacts described in Section 6.2.1 is given in Appendix 6. Further field survey effort would enable risk assessment to be refined, for example if threatened species were determined as absent from the Project Area.

Table 13. Risk assessment of impacts to biodiversity.

Vegetation Type	Overall Class of Risk (code)	Overall Class of Risk (description)
VT1	4	High risk
VT2	3	High risk
VT3	7	Low risk
VT4	5	Moderate risk
VT5	7	Low risk
VT6	7	Low risk
VT7	7	Low risk

6.3 Recommendations

Based on the findings of this broad assessment, the following recommendations are made:

- Avoid and/or minimise clearance of the vegetation types VT1 and VT2
- Map all hollow-bearing trees in the Project Area and consider detailed design that avoids removing them where possible.
- Undertake targeted surveys for six threatened plant species in vegetation types VT1 and VT2. Carryout a targeted search in vegetation type VT4 for *Eucalyptus fasciculosa*.

- Consider indirect impacts to native vegetation in areas adjacent to the Project Area that occur as a result of the Proposal in the detailed design and planning phase.
- Consider indirect impacts to fauna as a result of the Proposal (e.g. increased vehicle strikes) and implement design features that minimise these impacts.
- Undertake an assessment of impact significance according to EPBC Act guidelines for EPBC Act listed threatened and migratory species that possibly occur in the Project Area.
- Undertake an assessment under the Development Act for areas of Regulated or potentially Regulated Significant trees.
- Assess the proposed Project against the bushfire protection planning provisions of the relevant local area development plan.
- During development, implement management actions that manage bushfire fuel loads at low – moderate levels.
- Implement management actions that maintain good weed hygiene to avoid introducing or spreading declared weeds and WoNS.

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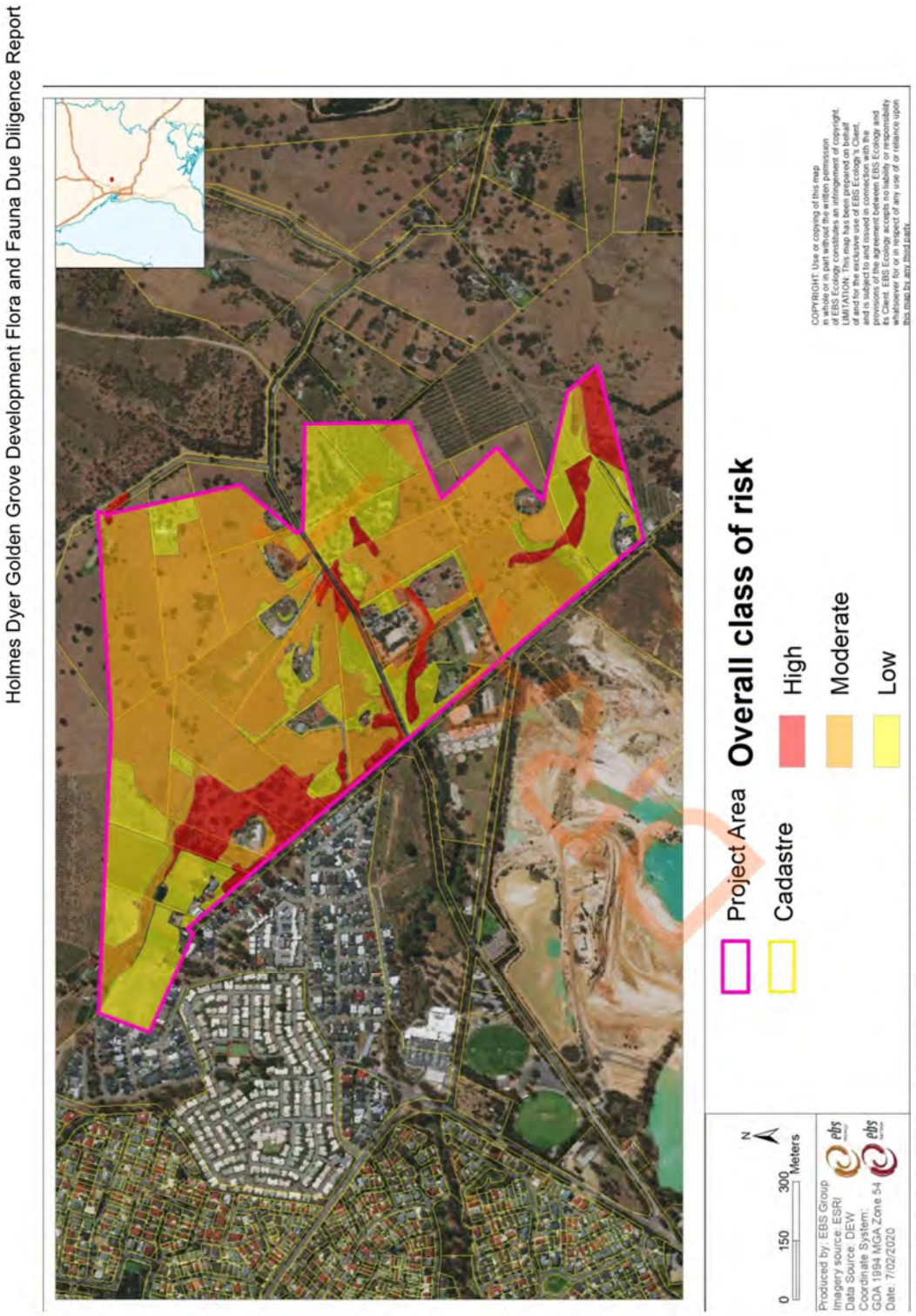


Figure 12. Overall risk of impact to biodiversity as a result of the Proposal.

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8 APPENDICES

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Appendix 1. Threatened flora species recorded or predicted to occur within 5 km of the Project Area.

Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus.	SA			
Acacia iteaphylla	Flinders Ranges Wattle	2		R	2016	Occurs naturally in the Gawler Ranges and Flinders Ranges. Naturalised in other parts of SA (World Wide Wattle, 2020).	**Unlikely** While this species might occur as planted or naturalised specimens in the Project Area, it is outside the natural distribution of the species.
Austrostipa gibbosa	Swollen Spear-grass	2		R	2004	Open woodland or grassland (Royal Botanic Gardens and Domain Trust, 2020a).	**Possible** Possible in remnant woodland where native grasses occur.
Austrostipa multispiculis	Many-flowered Spear-grass	2		R	2014	Eucalyptus woodland and along creek lines and in grassland (Jessop, Dashorst, & James, 2006).	**Possible** Possible in remnant woodland where native grasses occur.
Austrostipa pilata	Prickly Spear-grass	2		V	2003	Hillslope mallee with rocky soils or sandy loam to clay loam (Jessop, Dashorst, & James, 2006).	**Unlikely** There is no mallee habitat or rocky soils in the Project Area.
Bothriochloa macra	Red-leg Grass	2		R	1999	Able to colonise disturbed areas, occurring in open grassland or grassy woodland communities (Jessop, Dashorst, & James, 2006).	**Possible** Possible in remnant woodland where native grasses occur.
Caldenia argocalla	White-beauty Spider-orchid	1	EN	E	No records	Occurs in *Eucalyptus macrorhyncha - E. leucoxylon E. leucoxylon* woodland. The native understorey is predominantly herbaceous at both locations. Dominant understorey species at Spring Gully are wallaby grass (*Danthonia* spp.) and *Poa* spp. Preferred habitat is open grassy woodland on relatively fertile soil, a habitat that is greatly depleted, fragmented and threatened in SA (Department for Environment and Heritage, 2008a).	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.
Caladenia behrii	Pink-lipped Spider-orchid	1	EN	E	No records	Occurs on loamy soils in *Eucalyptus goniocalyx/E. obliqua/E. fasciculosa* or *E. obliqua/E. microcarpa/E. fasciculosa* woodland, usually on moderate slopes. Very sensitive to grazing by native and introduced herbivores and does not persist in weed infested areas (Department for Environment and Heritage, 2008b).	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species. All woodland areas within the Project Area are grazed at times, or have been in the recent past.

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Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus.	SA			
Caladenia rigida	Stiff White Spider-orchid	1	EN	E	No records	*C. rigida* grows in Eucalyptus woodlands, often with *E. leucoxylon* (South Australian Blue Gum) and *E. goniocalyx* (Long-leafed Box). The understorey usually includes *Xanthorrhoea semiplana* (Mount Lofty Grasstree), *Acacia pycnantha* (Golden Wattle), and *Hibbertia exutiacies* (Guinea-flower) (Department for Environment and Heritage).	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.
Caladenia tensa	Greencomb Spider-orchid	1	EN		No records	The Greencomb Spider-orchid grows on red-brown sandy loams on rises in open woodland dominated by *Eucalyptus leucoxylon* and Rottnest Island Pine (*Callitris preissii*) (Department of the Environment and Energy, 2020a).	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.
Dianella longiflora var. grandis	Pale Flax-lily	2		R	2002	Occurs under a variety of overstorey Eucalypt species but is a grassy woodland specialist, e.g. *E. leucoxylon*, *E. dalrympleana*, *E. viminalis*, *E. obliqua* and *E. microcarpa* (Department for Environment and Heritage, 2008c).	**Possible** Possible in remnant woodland where native grasses occur.
Eryngium vesiculosum	Prostrate Blue Devil	2		R	2004	Low-lying damp areas often with humic sandy soils or granite (Royal Botanic Gardens and Domain Trust, 2020b).	**Unlikely** No ganitic or humic sandy soils in the Project Area.
Eucalyptus fasciculosa	Pink Gum	2		R	2017	Sandy or rocky areas on low fertile soils. Often associated with *E. leucoxylon* (Nicolle, 2013).	**Possible** Possible in remnant woodland areas and as scattered trees in exotic pasture.
Euphrasia collina ssp. osbornii	Osborn's Eyebright	1	EN	E	No records	Generally occurs in mallee scrubland but has also been found growing in sclerophyll forest and sometimes in sclerophyll woodland, heathy openings in wet sclerophyll forest and a swamp at Mount Compass (Department for Environment and Heritage, 2008d).	**Unlikely** No mallee or swamp habitat in the Project Area.
Glycine latrobeana	Clover Glycine	1	VU	V	No records	*Eucalyptus viminalis* woodland and open woodland with *E. leucoxylon*, and understoreys ranging from mid-dense to very sparse and dominated by either *Leptocarpus brownii*, or *Acacia pycnantha, Leptospermum myrsinoides, Gonocarpus elatus,* and *Themeda triandra*; or *Pteridium esculentum, Dichondra repens, Acaena* sp., and *Ajuga* sp. (Department for Environment and Heritage, 2008e)	**Unlikely** No native understorey present, except in small are of woodland. No records within 5 km of the Project Area.
Hypolepis rugosula	Ruddy Ground-fern	2		R	2004	Extensive colonies in swampy situations in gullies (Royal Botanic Gardens and Domain Trust, 2020c).	**Unlikely**

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Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus.	SA			
							No swampy gully habitats occur in the Project Area.
Juncus australis	Austral Rush	2		R	2004	Wet or seasonally wet situations in grasslands and woodlands (Royal Botanic Gardens and Domain Trust, 2020d).	**Possible** Possible in ephemeral creek/floodplain at north western end of Project Area. Area was not accessed during field survey to verify vegetation present.
Montia australasica	White Purslane	2		R	2001	Grows in moist areas including swamps and running water (Department for Environment and Water, 2020b)	**Unlikely** No permanent swamps or running water habitats present in the Project Area.
Olearia pannosa ssp. pannosa	Silver Daisy-bush	1	VU	V	No records	Mallee, woodland and forest communities, predominantly on slopes and woodland or mallee areas with rocky soils (Department for Environment and Heritage, 2008f).	**Unlikely** The small areas of woodland habitat in the Project Area are highly disturbed and contain only one native shrub species.
Phyllangium distylis	Tiny Mitrewort	2		R	2010	Sandy heaths and open shrublands, muddy soaks and the margins of ephemeral wetlands (Threatened Species Section, 2020).	**Unlikely** There are no sandy heath habitats present in the Project Area.
Potamogeton ochreatus	Blunt Pondweed	2		R	2009	Occurs in still and flowing water to 4.5 m deep in rivers, channels, lakes and dams (Department for Environment and Heritage, 2008g).	**Unlikely** There are no permanent aquatic habitats in the Project Area.
Prasophyllum pallidum	Pale Leek-orchid	1	VU	V	No records	Grows singly or in small groups on the more fertile soils of woodland and well-grassed open forests (Department for Environment and Heritage, 2008h).	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.
Prasophyllum pruinosum	Plum Leek-orchid	1	EN	V	No records	Open woodland and grassy forest with *Callitris gracilis*, *Eucalyptus leucoxylon* and *E. fasciculosa*. Occurs in the open or in the shelter of broom-like shrubs in well-drained fertile loams and sandy soils (Department for Environment and Heritage, 2008i).	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.
Pterostylis cucullata	Leafy Greenhood	1	VU	V	No records	*P. cucullata* grows in *Eucalyptus leucoxylon*, *E. fasciculosa* and *E. obliqua* grassy woodland. The understorey usually includes *Acacia pycnantha*, *A. melanoxylon* and *Bursaria spinosa*. The groundcover	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.

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Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus.	SA			
						is dense with grasses, ferns, lilies and other herbs (Department for Environment and Heritage).	
Pterostylis sp. Hale	Hale Dwarf Greenhood	1	EN	E	No records	Occurs on shallow gravels on ridge tops in *Eucalyptus goniocalyx/Callitris gracilis* woodland (Department for Environment and Heritage, 2008j).	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.
Thelymitra latifolia	Blue Star Sun-orchid	2		V	2004	Grows in open forest, woodland, grassy woodland, heathland and grassland in well-drained soil.	**Unlikely** Understorey in woodland areas is highly disturbed and vegetated mostly with weed species.
Thelymitra matthewsii	Spiral Sun-orchid	1	VU	E	No records	Favours heathy open forests and woodlands in well-drained sand and clay loams. (Duncun, 2010).	**Unlikely** No heathy habitats occur in the Project area.
Veronica derwentiana ssp. homalodonta	Mount Lofty Speedwell	1	CE	E	No records	Grows beside streams and waterfalls or associated with limestone caverns. Occurs in moist sites in gullies or near creeks in high rainfall areas (Department for Environment and Heritage, 2008k).	**Unlikely** There are no stream/waterfall habitats or cave formations in the Project Area.

Aus: Australia (*Environment Protection and Biodiversity Conservation Act 1999*). SA: South Australia (*National Parks and Wildlife Act 1972*). Conservation codes: CE: Critically Endangered. EN/E: Endangered. VU/V: Vulnerable. R: Rare.
Source: 1 - EPBC Act Protected Matters Search Tool (Department of the Environment and Energy, 2019). **2 – BDBSA records search** (Department for Environment and Water, 2020a).

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Appendix 2. Fauna species recorded or predicted to occur within 5 km of the Project Area.

Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus	SA			
BIRDS							
Actitis hypoleucos	Common Sandpiper	4		R	2002	Shallow pebbly, muddy or sandy edges of rivers, streams, dams, lakes (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Anhinga novaehollandiae	Australasian Darter	4		R	1999	Larger shallow waterbodies. Rivers, lakes, swamps, reservoirs etc. (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Botaurus poiciloptilus	Australasian Bittern	3	EN	V	None	Water in tall reedbeds, sedges, ruches, lignum (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Calidris canutus	Red Knot	3	EN		None	Tidal mudflats, sandflats and beaches (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Calidris ferruginea	Curlew Sandpiper	3	CR		None	Tidal mudflats, saltmarsh, saline wetlands and sewage ponds (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Cinclosoma punctatum anachoreta	Mt Lofty Ranges Spotted Quail-thrush	3	CR	E	None	Former habitats include *Eucalyptus microcarpa* woodland with *Lepidosperma semiteres* dominant in the understorey and scattered shrubs including *Olearia ramulosa*, *Xanthorrhoea semiplana*, *Acacia acinacea*, *A. paradoxa* and *A. pycnantha*. Other sites had an overstorey of *Eucalyptus viminalis* or *E. fasciculosa*, but still with *Lepidosperma semiteres* prominent (Department for Environment and Heritage, 2008l).	**Unlikely** Preferred habitat (i.e. *E. microcarpa* woodland) does not occur in the Project Area. Understorey is exotic, and where native species do exist, *L. semiteres* is absent. There are no records of the species within 5 km of the Project Area.
Corcorax melanorhamphos	White-winged Chough	4		R	2018	Drier forests and woodlands (Pizzey & Knight, 1997).	**Possible** Although not recorded during the field assessment, the proximity of recent records and the presence of some

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Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus	SA			
							woodland suggests the species may possibly occur in the Project Area at times.
Falco peregrinus	Peregrine Falcon	4		R	2015	Cliffs, gorges, timbered watercourses, plains, open woodlands, buildings (Pizzey & Knight, 1997).	**Possible** Habitat in the Project Area is suitable and there are recent nearby records.
Grantiella picta	Painted Honeyeater	3	VU	R	None	Mistletoes in Eucalyptus forest and woodland. Migratory and nomadic with movements influenced by fruiting mistletoes (Pizzey & Knight, 1997).	**Unlikely** Vegetation in the Project Area is unlikely to support sufficient resources (i.e. fruiting mistletoe) to sustain a population of the species.
Haliaeetus leucogaster	White-bellied Sea-eagle	4		E	2017	Coasts, islands, estuaries, inland rivers, lakes, reservoirs.	**Unlikely** There is no suitable wetland habitat in the Project Area.
Hirundapus caudacutus	White-throated Needletail	3	VU		None	Airspace over forests, woodlands, farmlands, plains (Pizzey & Knight, 1997).	**Possible** The species may occur over the Project Area, however it is unlikely to use terrestrial habitats.
Hylacola pyrrhopygia parkeri	Chestnut-rumped Heathwren (Mt Lofty Ranges)	3	EN	E	None	The critical characteristic of habitat appears to be the presence of a dense shrubby layer (Long & Bentley, 2010).	**Unlikely** Remnant native vegetation in the Project Area lacks a dense shrubby layer.
Leipoa ocellata	Malleefowl	3	VU	V	None	Mallee, Acacia, Sheoak, coastal heath. Mostly on sandy or gravel soils (Pizzey & Knight, 1997).	**Unlikely** No mallee habitats are present and native vegetation in the Project Area lacks a shrub layer and dense litter.
Numenius madagascariensis	Eastern Curlew	3	CR	V	None	Estuaries, tidal flats, sandspits, saltmarshes and mangroves. Bare grasslands near water (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Oxyura australis	Blue-billed Duck	4		R	2001	Well-vegetated freshwater swamps, large dams and lakes (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.

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Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus	SA			
Parvipsitta pusilla	Little Lorikeet	4		E	2017	Forests, woodlands, large trees in open country (i.e. scattered trees) (Pizzey & Knight, 1997).	**Possible** Large native trees, when in blossom, may provide a foraging resource for this species.
Pedionomus torquatus	Plains-wanderer	3	CR	E	None	Sparse and treeless native grasslands with bare ground. Sparse saltbush and shrubland (Pizzey & Knight, 1997).	**Unlikely** There is no native grassland habitat in the Project Area.
Petroica boodang boodang	Scarlet Robin	4		R	2016	Forests, woodlands and vegetation on watercourses. Moving to more open habitats in winter, such as parks, orchards and gardens (Pizzey & Knight, 1997).	**Possible** The Project Area is suitable habitat for birds during their winter dispersal.
Rostratula australis	Australian Painted Snipe	3	EN	V	None	Well-vegetated swamps and margins of wetlands, dams and sewage ponds. Lignum and marshy areas (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Sternula nereis nereis	Australian Fairy Tern	3	VU		None	Coastal waters, bays, inlets. Saline or brackish lakes and wetlands near the coast (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Thinornis rubricollis rubricollis	Hooded Plover (eastern)	3	VU	V	None	Broad, sandy ocean beaches. Coastal and inland salt lakes (Pizzey & Knight, 1997).	**Unlikely** There is no suitable wetland habitat in the Project Area.
Zoothera lunulata halmaturina	Bassian Thrush (South Australian)	3	VU	R	None	Damp Eucalypt forest and woodland. Suitable habitat confined to creek lines and dune swales (Department for Environment and Heritage, 2008m).	**Unlikely** No damp forest or woodland habitat is present in the Project Area. Creek lines that are present are ephemeral and do not provide permanently damp environments.
Zanda (Calyptorhynchus) funereal whiteae	Yellow-tailed Black Cockatoo	4		V	2017	Eucalypt forest and woodlands. Planted shelterbelts and plantations of *Eucalyptus* spp. and *Pinus* spp. (Pizzey & Knight, 1997).	**Possible** Planted trees, such as *Pinus* spp., provide suitable foraging resources and large, remnant trees provide suitable breeding hollows, particularly larger *E. camaldulensis*.
MAMMALS							

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Scientific name	Common name	Source	Conservation status		Last sighting (year)	Habitat Constraints	Likelihood Assessment
			Aus	SA			
Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern)	3	EN	V	None	Southern Brown Bandicoots (eastern) are known to inhabit a variety of habitats including heathland, shrubland, sedge land, heathy open forest and woodland. Within these vegetation communities they typically inhabit areas of dense ground cover. Species experts define suitable habitat for Southern Brown Bandicoots (eastern) to be any patches of native or exotic vegetation, within their distribution, which contains understorey vegetation structure with 50–80% average foliage density in the 0.2–1 m height range (Department of the Environment and Energy, 2020b).	**Unlikely** Vegetation in the Project Area, either exotic or native, is not of enough density in the 0.2 – 1 m range to support this species.
Pteropus poliocephalus	Grey-headed Flying-fox	4	VU	R	2017	A single Grey-headed Flying-fox camp is established in SA, at the Adelaide Botanic Gardens. The bats can forage up to 50 km from the camp each night. Flying-fox foraging habitat includes blossoms, nectar and fruit from native and exotic trees and shrub species (Department for Environment and Water, 2013).	**Possible** The Project Area is within the foraging range of bats utilising the permanent camp at Adelaide. Orchards, remnant trees and gardens provide suitable foraging habitats for the species.
Trichosurus vulpecula	Common Brushtail Possum	4		R	2000	Open forest and woodland, particularly along watercourses. Resident in bushland, parks and backyards.	**Possible** Large remnant hollow-bearing trees are suitable habitat for this species.
REPTILES							
Aprasia pseudopulchella	Flinders Ranges Worm-lizard	3	VU		None	Occurs in open woodland, native tussock grassland, riparian habitats and rocky isolates. Prefers stony soils or clay soils with a stony surface (Department for Environment and Heritage, 2008n).	**Unlikely** No suitable native grassland or rocky habitats in the Project Area.

Aus: Australia (*Environment Protection and Biodiversity Conservation Act 1999*). SA: South Australia (*National Parks and Wildlife Act 1972*). Conservation codes: CE: Critically Endangered. EN/E: Endangered. VU/V: Vulnerable. R: Rare. *: Introduced.
Source: 3 - EPBC Act Protected Matters Search Tool (Department of the Environment and Energy, 2019). **4 – BDBSA records search** (Department for Environment and Water, 2020a).

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Appendix 3. Migratory species predicted to occur in the Project Area (Department of the Environment and Energy, 2019).

Scientific name	Common name	Conservation status		Habitat Constraints	Likelihood Assessment
		Aus	SA		
MIGRATORY MARINE					
Apus pacificus	Fork-tailed Swift			Almost exclusively aerial, occurring over inland plains, coastal areas and foothills including over settled areas such as towns, farmland and urban areas **(Department of Agriculture, Water and the Environment, 2020a)**.	**Possible** The species might possibly occur over the Project Area, however it is unlikely to utilise terrestrial habitats.
MIGRATORY TERRESTRIAL SPECIES					
Hirundapus caudacutus	White-throated Needletail	VU		See Appendix 2	**Possible** See Appendix 2
Motacilla cinerea	Grey Wagtail			Near running water in sandy, rocky streams in escarpments and rainforests. Sewage ponds, ploughed fields (Pizzey & Knight, 1997).	**Unlikely** No suitable habitat in the Project Area
Motacilla flava	Yellow Wagtail			Swamp margins, sewage ponds and saltmarshes (Pizzey & Knight, 1997).	**Unlikely** No suitable habitat in the Project Area
Myiagra cyanoleuca	Satin Flycatcher		E	Satin Flycatchers inhabit heavily vegetated gullies in eucalypt-dominated forests and taller woodlands (Department of Agriculture, Water and the Environment, 2020b).	**Unlikely** No suitable habitat in the Project Area
Rhipidura ruffifrons	Rufous Fantail			Undergrowth of rainforests and wetter Eucalyptus forest (Pizzey & Knight, 1997).	**Unlikely** No suitable habitat in the Project Area
MIGRATORY WETLAND SPECIES					
Actitis hypoleucos	Common Sandpiper		R	See Appendix 2	**Unlikely** See Appendix 2
Calidris acuminata	Sharp-tailed Sandpiper			Tidal mudflats, saltmarshes, mangroves. Shallow inland wetlands and floodwaters. Sewage ponds (Pizzey & Knight, 1997).	**Unlikely** No wetland habitat in the Project Area.
Calidris canutus	Red Knot	EN		See Appendix 2	**Unlikely** See Appendix 2
Calidris ferruginea	Curlew Sandpiper	CE		See Appendix 2	**Unlikely**

DRAFT

Council Meeting - 12 October 2021
Page 209
Draft preliminary report - Flora and Fauna Due Diligence
Attachment 5
Attachment 5
Item 13.1

Scientific name	Common name	Conservation status		Habitat Constraints	Likelihood Assessment
		Aus	SA		
					See Appendix 2
Calidris melanotus	Pectoral Sandpiper		R	Shallow fresh and saline wetlands, including coastal lagoons, estuaries, bays, swamps and lakes (Pizzey & Knight, 1997).	**Unlikely** No wetland habitat in the Project Area.
Gallinago hardwickii	Latham's Snipe		R	Permanent and ephemeral wetlands, usually in open, freshwater wetlands with low, dense vegetation (Pizzey & Knight, 1997).	**Unlikely** No wetland habitat in the Project Area.
Numenius madagascariensis	Eastern Curlew	CE		See Appendix 2	**Unlikely** See Appendix 2
Pandion haliaetus	Osprey		E	Coastal habitats and terrestrial wetlands. Mostly in coastal areas but also inland on large rivers, requiring extensive areas of open water for foraging (Pizzey & Knight, 1997).	**Unlikely** No suitable habitat (open water wetlands) in the Project Area.
Tringa nebularia	Common Greenshank			Variety of inland and coastal wetlands (Pizzey & Knight, 1997).	**Unlikely** No wetland habitat in the Project Area.

Aus: Australia (*Environment Protection and Biodiversity Conservation Act 1999*). SA: South Australia (*National Parks and Wildlife Act 1972*). Conservation codes: CE: Critically Endangered. EN/E: Endangered. VU/V: Vulnerable. R: Rare. *: Introduced.

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Appendix 4. Flora species observed within the Project Area during the field survey.

*	Scientific name	Common name	Conservation status		Declared Weed (NRM Act)	WoNS
			Aus	SA		
	Acacia paradoxa	Kangaroo Thorn				
	Acacia salicina	Broughton Willow				
	Aristida behriana	Bunch Wiregrass				
	Austrostipa sp.	Spear grass				
*	*Avena barbata*	Bearded Oat				
*	*Briza maxima*	Quaking Grass				
*	*Bromus diandrus*	Great Brome				
*	*Cenchrus clandestinus*	Kikuyu				
*	*Conyza* sp.	Fleabane				
*	*Corymbia citriodora*	Lemon-scented Gum				
*	*Cotoneaster* sp.	Cotoneaster				
*	*Cynara cardunculus*	Artichoke Thistle			Yes	Yes
*	*Cynodon dactylon*	Couch Grass				
*	*Echium plantagenium*	Salvation Jane			Yes	
*	*Ehrharta longiflora*	Annual Veldt Grass				
	Eucalyptus camaldulensis ssp. *camaldulensis*	River Red Gum				
	Eucalyptus cladocalyx	Sugar Gum				
	Eucalyptus leucoxylon ssp. *leucoxylon*	South Australian Blue Gum				
	Eucalyptus porosa	Mallee Box				
*	*Foeniculum vulgare*	Fennel				
*	*Fraxinus angustifolia*	Desert Ash			Yes	
*	*Hypochaeris glabra*	Smooth Catsear				
*	*Lactuca serriola*	Prickly Lettuce				
	Lysiana exocarpi	Harlequin Mistletoe				
*	*Madicago polymorpha*	Burr-medic				
*	*Marrubium vulgare*	Horehound			Yes	
*	*Olea europaea* ssp. *europaea*	European Olive			Yes	
*	*Opuntia* sp.	Prickly Pear			Yes	Yes
*	*Phalaris aquatica*	Phalaris				
*	*Pinus halepensis*	Aleppo Pine			Yes	
*	*Pinus radiata*	Radiata Pine				
*	*Plantago lanceolata*	Plantain				
*	*Rosa canina*	Dog Rose			Yes	
*	*Sonchus oleraceus*	Common Sow Thistle				
	Themeda triandra	Kangaroo Grass				
*	*Trifolium* sp.	clover				

Aus: Australia (*Environment Protection and Biodiversity Conservation Act 1999*). SA: South Australia (*National Parks and Wildlife Act 1972*). Conservation codes: CE: Critically Endangered. EN/E: Endangered. VU/V: Vulnerable. R: Rare. *: Introduced.
WoNS: Weeds of National Significance

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Appendix 5. Fauna species observed within the Project Area during the field survey.

*	Scientific name	Common name	Conservation status	
			Aus	SA
BIRDS				
	Cacatua sanguinea	Little Corella		
*	*Columba livia*	Rock Dove		
	Coracina novaehollandiae	Black-faced Cuckoo-shrike		
	Corvus sp.	raven species		
	Cracticus tibicen	Australian Magpie		
	Dacelo novaeguineae	Laughing Kookaburra		
	Eolophus roseicapilla	Galah		
	Glossopsitta concinna	Musk Lorikeet		
	Manorina melanocephala	Noisy Miner		
*	*Passer domesticus*	House Sparrow		
	Platycercus elegans ssp. *adelaidae*	Adelaide Rosella		
	Psephotus haematonotus	Red-rumped Parrot		
	Rhipidura leucophrys	Willie Wagtail		
*	*Sturnus vulgare*	Common Starling		
	Trichoglossus moluccanus	Rainbow Lorikeet		
MAMMAL				
*	*Lepus europaeus*	European Hare		
	Macropus fuliginosus	Western Grey Kangaroo		
*	*Oryctolagus cinuculus*	European Rabbit		
	Phascolarctos cinereus	Koala		
*	*Vulpes vulpes*	Red Fox		

Aus: Australia (*Environment Protection and Biodiversity Conservation Act 1999*). SA: South Australia (*National Parks and Wildlife Act 1972*). Conservation codes: CE: Critically Endangered. EN/E: Endangered. VU/V: Vulnerable. R: Rare. *: Introduced.

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Appendix 6. Risk Assessment of Biodiversity Impacts.

Vegetation Type	Biodiversity	Impact	Class of Risk	Overall Class of Risk
VT1	Threatened and migratory fauna	Loss of foraging habitat	3	4
		Loss of breeding habitat	3	
		Fragmentation of habitat	3	
		Death or harm to individuals	3	
	Threatened flora	Loss of habitat	5	
		Fragmentation of habitat	5	
		Removal of individuals	5	
	Native vegetation	Fragmentation of patches	4	
		Decrease in extent within local area	2	
		Increase in edge effects	4	
		Decline in vegetation condition	4	
		Indirect impacts to vegetation offsite	4	

Vegetation Type	Biodiversity	Impact	Class of Risk	Overall Class of Risk
VT2	Threatened and migratory fauna	Loss of foraging habitat	3	3
		Loss of breeding habitat	3	
		Fragmentation of habitat	3	
		Death or harm to individuals	3	
	Threatened flora	Loss of habitat	3	
		Fragmentation of habitat	3	
		Removal of individuals	3	
	Native vegetation	Fragmentation of patches	4	
		Decrease in extent within local area	2	
		Increase in edge effects	4	
		Decline in vegetation condition	4	
		Indirect impacts to vegetation offsite	4	

Vegetation Type	Biodiversity	Impact	Class of Risk	Overall Class of Risk
VT3	Threatened and migratory fauna	Loss of foraging habitat	3	7
		Loss of breeding habitat	8	
		Fragmentation of habitat	8	
		Death or harm to individuals	8	
	Threatened flora	Loss of habitat	8	
		Fragmentation of habitat	8	
		Removal of individuals	8	
	Native vegetation	Fragmentation of patches	8	
		Decrease in extent within local area	8	
		Increase in edge effects	8	

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		Decline in vegetation condition	8	
		Indirect impacts to vegetation offsite	3	

Vegetation Type	Biodiversity	Impact	Class of Risk	Overall Class of Risk
VT4	Threatened and migratory fauna	Loss of foraging habitat	4	5
		Loss of breeding habitat	3	
		Fragmentation of habitat	8	
		Death or harm to individuals	3	
	Threatened flora	Loss of habitat	5	
		Fragmentation of habitat	5	
		Removal of individuals	3	
	Native vegetation	Fragmentation of patches	5	
		Decrease in extent within local area	5	
		Increase in edge effects	5	
		Decline in vegetation condition	5	
		Indirect impacts to vegetation offsite	3	

Vegetation Type	Biodiversity	Impact	Class of Risk	Overall Class of Risk
VT5	Threatened and migratory fauna	Loss of foraging habitat	4	7
		Loss of breeding habitat	8	
		Fragmentation of habitat	8	
		Death or harm to individuals	8	
	Threatened flora	Loss of habitat	8	
		Fragmentation of habitat	8	
		Removal of individuals	8	
	Native vegetation	Fragmentation of patches	8	
		Decrease in extent within local area	8	
		Increase in edge effects	8	
		Decline in vegetation condition	8	
		Indirect impacts to vegetation offsite	3	

Vegetation Type	Biodiversity	Impact	Class of Risk	Overall Class of Risk
VT6	Threatened and migratory fauna	Loss of foraging habitat	4	7
		Loss of breeding habitat	8	
		Fragmentation of habitat	8	
		Death or harm to individuals	8	
	Threatened flora	Loss of habitat	8	
		Fragmentation of habitat	8	
		Removal of individuals	8	
	Native vegetation	Fragmentation of patches	8	
		Decrease in extent within local area	8	

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		Increase in edge effects	8	
		Decline in vegetation condition	8	
		Indirect impacts to vegetation offsite	3	

Vegetation Type	Biodiversity	Impact	Class of Risk	Overall Class of Risk
VT7	Threatened and migratory fauna	Loss of foraging habitat	4	7
		Loss of breeding habitat	8	
		Fragmentation of habitat	8	
		Death or harm to individuals	8	
	Threatened flora	Loss of habitat	8	
		Fragmentation of habitat	8	
		Removal of individuals	8	
	Native vegetation	Fragmentation of patches	8	
		Decrease in extent within local area	8	
		Increase in edge effects	8	
		Decline in vegetation condition	8	
		Indirect impacts to vegetation offsite	3	

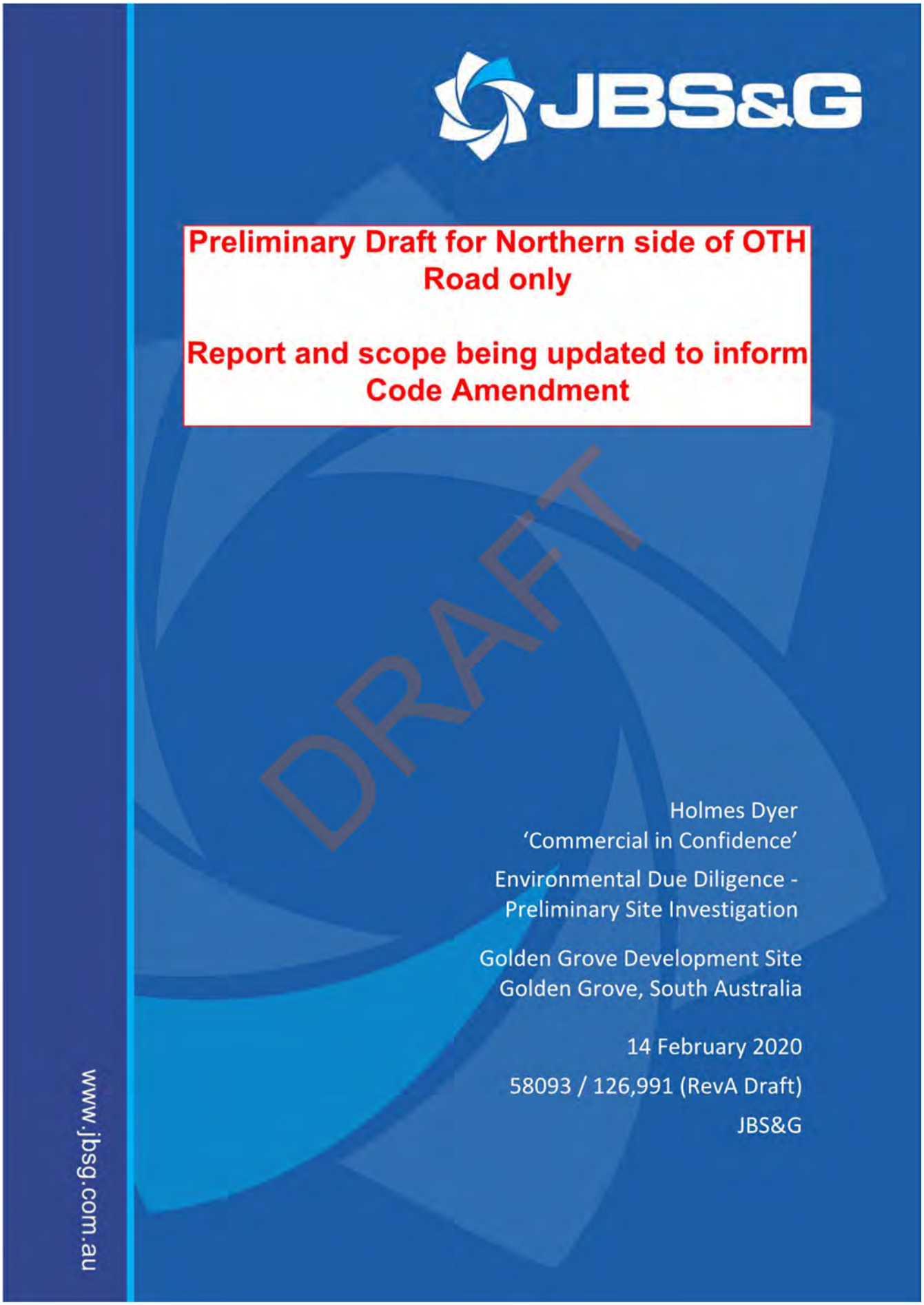
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Holmes Dyer Golden Grove Development Flora and Fauna Due Diligence Report

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JBS&G
Preliminary Draft for Northern side of OTH Road only
Report and scope being updated to inform Code Amendment
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Holmes Dyer
'Commercial in Confidence'
Environmental Due Diligence - Preliminary Site Investigation
Golden Grove Development Site
Golden Grove, South Australia
14 February 2020
58093 / 126,991 (RevA Draft)
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'Commercial in Confidence'

Environmental Due Diligence - Preliminary Site Investigation

Golden Grove Development Site
Golden Grove, South Australia

14 February 2020

58093 / 126,991 (RevA Draft)

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Table of Contents

Abbreviations vi

Executive Summary 7

1. Introduction 1
   - 1.1 Background 1
   - 1.2 Objectives 1
   - 1.3 Scope of Works 1
   - 1.4 Methodology 3

2. Site Conditions & Surrounding Environment 3
   - 2.1 Site Details / Identification 3
   - 2.2 Site Description 4
   - 2.3 Current Land Use 4
     - 2.3.1 Surrounding Land Use 4
   - 2.4 Site Inspection 5
     - 2.4.1 Property 1 - Allotment 1 Deposited Plan 174477 6
     - 2.4.2 Property 2 - Allotment 2 Deposited Plan 174477 6
     - 2.4.3 Property 3 - Allotment 3 Deposited Plan 174477 7
     - 2.4.4 Property 4 - Allotment 4 Deposited Plan 174477 7
     - 2.4.5 Property 5 - Allotment 5 Deposited Plan 174477 8
     - 2.4.6 Property 6 - Allotment 6 Deposited Plan 174477 8
     - 2.4.7 Property 7 - Allotment 3 Filed Plan 100647 9
     - 2.4.8 Property 8 - Allotment 7 Deposited Plan 174477 9
     - 2.4.9 Property 9 - Allotment 8 Deposited Plan 174477 10
     - 2.4.10 Property 10 - Allotment 9 Deposited Plan 174477 10
     - 2.4.11 Property 11 - Allotment 10 Deposited Plan 174477 11
     - 2.4.12 Property 12 - Allotment 11 Deposited Plan 174477 11
     - 2.4.13 Property 13 - Allotment 20 Deposited Plan 67885 12
   - 2.5 Anecdotal Information 2
   - 2.6 Development Zoning 2
   - 2.7 Review of Land Ownership 3
   - 2.8 Review of Aerial Photographs 3
   - 2.9 Review of SA EPA Records 9
     - 2.9.1 Section 7 Searches 9
     - 2.9.2 Site Contamination Index 9
   - 2.10 Review of SafeWork SA Dangerous Goods Records 10
   - 2.11 Review of Development and Property File Records 11
   - 2.12 Review of National, State and Local Government Heritage Records 11

DRAFT

2.13 Site Services Infrastructure Network 13
2.14 Review of Data Integrity 13
2.15 Summary of Historical Land Use 13
2.16 Potentially Contaminating Activities (PCAs) 14
2.16.1 On-site PCAs 14
2.16.2 Off-site PCAs 16
2.17 Previous Environmental Assessments 16
3. Environmental Setting 17
3.1 Regional Topography 17
3.2 Regional Hydrology 17
3.3 Regional Geology and Soils 18
3.4 Regional Hydrogeology 18
3.5 Acid Sulfate Soils 19
4. Preliminary Conceptual Site Model 20
5. Conclusions 22
5.1 Recommendations 23
6. Limitations 24

List of Tables

Table 1.1: PSI Components 3
Table 2.1: Site Details 3
Table 2.2: Summary of Aerial Photograph Observations 4
Table 2.3: Search Contamination Site Index – Golden Grove and Surrounding Suburbs (SA EPA) 10
Table 2.5: National, State and Local Government Heritage Records surrounding the Site 11
Table 2.6: On-Site Potentially Contaminating Activities 14
Table 3.1: Registered Groundwater Bore Details Summary 19
Table 4.1: Conceptual Site Model 20

List of Figures

Figure 1 – Site Location
Figure 2 – Golden Grove Site Layout – Separable Property Identification
Figure 3A to 3D – Site Layout – Site Inspection Observations
Figure 4A to 4I – Historical Aerials 1949 to 2019
Figure 5 – Site Specific Heritage Places

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Appendices

Appendix A Current Certificate of Titles for Properties (1 – 13)

Appendix B Site Inspection – Photo Log

Appendix C Tea Tree Gully Council Development Plan (Extract)

Appendix D Historical Site Certificate of Titles

Appendix E SA EPA Section 7 Search Results Letter (Property 1 – 13)

Appendix F SafeWork SA Dangerous Goods Search Letter Response

Appendix G Dial Before You Dig Search Results

Appendix H WaterConnect 2.5 km Well Search Results

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Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AHD	Australian Height Datum
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended in May 2013)
ASRIS	Australian Soil Resource Information System
BTEX	Benzene, Toluene, Ethylbenzene and Xylene chemicals
COPC	Contaminate of Potential Concern
cm	centimetres
CSM	Conceptual Site Model
CT	Certificate of Title
DA	Development Application
DBYD	Dial Before You Dig
DEW	Department for Environment and Water
DPA	Development Plan Amendment
DPTI	Department of Planning, Transport, and Infrastructure
EPA/SA EPA	Environment Protection Authority (South Australia)
FRA	Fractured Rock Aquifer
ha	Hectare
Holmes Dyer	Holmes Dyer Pty Ltd (the Client)
JBS&G	JBS&G Australia Pty Ltd
km	Kilometre
L / Lt	Litre
LTO	Land Titles Office
m	Metre
m bgl	Metres Below Ground Level
Ma	Million Years Ago
PACM	Potential Asbestos Containing Material
PAEC	Potential Areas of Environmental Concern
PCA	Potentially Contaminating Activity
PCBs	Polychlorinated Biphenyls
PAH	Polycyclic Aromatic Hydrocarbons
PSI	Preliminary Site Investigation
Q	Quaternary aged
RuL	Rural Living
SA	South Australia
SAHC	South Australian Health Commission
SWLs	Standing Water Levels
the Act	Environment Protection Act 1993
TRH / TPH	Total Recoverable Hydrocarbons / Total Petroleum Hydrocarbons

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Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by Holmes Dyer (the Client) to undertake due diligence environmental assessment works in the form of a Preliminary Site Investigation (PSI) for a collection of properties referred to as the Golden Grove Site (or the Site) located in suburb of Golden Grove, Adelaide, South Australia.

The site comprises of approximately 67.3 hectares (ha) in 13 separable Certificates of Titles (CTs) and is broadly used as 'rural' residential land. JBS&G understands that the properties subject to the PSI are proposed to be purchased and subdivided as part of a large-scale residential property development. JBS&G is aware that prior to land purchase and subsequent development beginning an environmental report demonstrating the land suitability for the intended use (sensitive land use – residential) is required.

A JBS&G senior field scientist attended the Golden Grove Site on 28 January 202 and completed an inspection of the 13 separable titles, with multiple properties providing limited access to conduct a detailed inspection. The Site is currently being used as predominantly large hectare residential properties within a semi-rural setting. Agricultural activities currently appear to occur on approximately 30% of the separable properties, including market garden (Property 1 & 2 commercial operation), a hobby farms (stock and produce), and horse stabling. Additionally, and of note, Property 9 appears to be currently used for an earthworks business, with storage of heavy machinery and building/soil stockpiles. The remaining 70% of properties are of residential use within vacant lots consisting of cleared (of majority native vegetation) grassed land. A majority of the vacant portions of the properties show remnants of historic agricultural activities, though no longer active or poorly maintained, including horse stabling, hobby farms, and olive groves.

Early historical aerial photography (1949 - 1989) appears to show the site has previously been used for primary production/ agricultural activities, either cropping or stock grazing land, with the land being cleared of native vegetation. The review of landownership shows the Site was contained within a single cadastre title from 1876 till around the late 1970 early 1980s where it was partially subdivided and sold off. The site was subject to subdivision to its current allotments around the late 1980s and transferred to current ownership till the late 2000s, where land ownership, change of allotments and land use has remained. A change in land use during the late 70s – early 80s appears to have allowed the smaller division of the Site into rural residential block (minimum 4 -6 ha), in which the development of these houses appear underway in 1989. From approximately 1988-1989 to present, the property boundaries and ownership of the properties have remained inactive. Furthermore, a review of information from the South Australia Environmental Protection Authority (SA EPA) and other State and Local Government Departments did not identify any knowledge of site contamination, environmental licences (with exception for SafeWorkSA Dangerous Goods Search Results which are considered believed to be a false positive), or significant changes in land use at the Site.

Potential contaminating activities (PCAs) for the Golden Grove Site uncovered during the investigation include, agricultural activities (both current and historic), potential use of herbicides / pesticide chemicals in relation to agricultural land use, the potential importation of fill material (soil stockpiles noted during investigation), automotive wrecking activities, minor mechanical maintenance work and onsite above ground storage tanks (potentially diesel) associated with a earthworks commercial operation, and potential storage of bulk (~200L) of unknown chemical onsite. During the site inspection, observations were noted in regard to infrastructure with the potential to cause site contamination (residential buildings, out-buildings, agricultural sheds) and all infrastructure was considered to be in good condition with limited evidence of significant PCAs onsite. The Site was also inspected for signs of any bulk chemical storage infrastructure, with only the AST (potentially diesel) on Property 9 and the potential historical chemical storage on Property

6, noted as observed significant chemical storage onsite (no underground storage tanks or associated infrastructure observed during inspection) or any signs of spills or leaks of chemical liquids. The soil has been indicated, within the investigation area, as a potential contaminant pathway of concern, based on the land use and PCAs undertaken onsite (both current and historic). Groundwater is not considered a media of significant concern, based on the depth from ground level (~50 + m below ground level) and the lack of substantial PCAs conducted onsite both historically and current. The PSI indicates that any existence of significant site contamination is considered low and depended on (current) individual Property activities.

JBS&G recommends the following to further qualify and quantify the Sites contamination status in line with future development requirements:

- A broad scale soil assessment onsite targeting known PCAs including imported fill material (soil stockpiles, potential burial pits/disturbed grounds, chemical storage areas, and more intensive agricultural activities (market gardens, vineyards, stock yards). The soil assessment would aim to test for a broad screen of COPCs, as well as targeted COPCs with regard to individual properties and onsite activities, with potential for further assessment based off the findings (including soil, soil assessment, and/or groundwater);
- The decommissioning of onsite groundwater wells prior to construction beginning on the development, in line with guideline requirements. The decommissioning of the wells minimises the risk of potential contamination ingress from surface sources; and
- The design of the soil assessment to assist with waste classification of the potential excavation soil material to be disposed offsite, as per the planned redevelopment and design of residential housing to be undertaken, and to achieve efficiencies.

Due to the change in land use to a more sensitive use (rural living to residential), a site contamination audit report may be required for development approval.

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1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Holmes Dyer (the Client) to undertake due diligence environmental assessment works in the form of a Preliminary Site Investigation (PSI) for a collection of properties referred to as the Golden Grove Site (or the Site) located in suburb of Golden Grove, Adelaide, South Australia.

A figure showing the Golden Grove Site location is included as **Figure 1**.

The site comprises of approximately 67.3 hectares (ha) in 13 separable Certificates of Titles (CTs) and is broadly used as 'rural' residential land. JBS&G understands that the properties subject to the PSI are proposed to be purchased and subdivided as part of a large-scale residential property development. JBS&G is aware that prior to land purchase and subsequent development beginning an environmental report demonstrating the land suitability for the intended use (sensitive land use – residential) is required. The proposed development is also understood to be limited in the north east and east borders by council development zoning, separable to the cadastre boundaries, which is defined by the Hills Face Zoning boundary.

1.2 Objectives

The objectives of the PSI were to:

- Assess the potential for contamination to be present based on current and historical activities at the Site;
- Assess the potential for contamination to be present based on current and historical activities surrounding the Site;
- Assess the likelihood of site contamination (if any) impacting on the proposed use of the Site as a residential development; and
- Determine whether any additional works are required to assess or characterise any potential human health or environmental risks.

This PSI summarises the publicly available information that JBS&G has reviewed in preparing this PSI and considers the likelihood of site contamination existing, in the context of the proposed land use.

1.3 Scope of Works

The scope of works undertaken to achieve the objectives outlined in **Section 1.2** includes the following:

- Review of the history of ownership [all certificates of title (CTs) pertaining to the Site];
- Historical aerial photograph review;
- Interviews with people involved in historical site activities (if available) and sources of information which may relate to chemical storage, waste and wastewater disposal occurring on Site;
- Identification of potential issues associated with surrounding properties, including observation of the surrounding land uses and a search of the SA Environment Protection Authority (EPA) Public Register Directory, which lists sites for which the SA EPA holds information in relation to site contamination;
- Review of historical uses of the Site, including historical ownership;
- Review of local geology, hydrology, and hydrogeology in relation to the Site;

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- Review of any other available relevant information detailing activities that have taken place on the Site;
- Search of EPA records for the Site (Section 7 search);
- Search of council records and historical information pertaining to the Site;
- Review of current and historical dangerous goods licences;
- Inspection of the Site by a Senior Environmental Scientist consisting of a walkover of priority areas of the Site identified during a desktop review; and
- Review of any previous environmental investigation reports made available pertaining to the Site or the area surrounding the Site that potentially impact the contamination status of the Site.

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1.4 Methodology

The PSI was undertaken in general accordance with the procedures presented in the *National Environment Protection (Assessment of Site Contamination) Measure 1999*[1], as amended in 2013 (ASC NEPM, 1999) with particular reference to Schedule B2 – *Site Characterisation*.

In addition to the ASC NEPM (1999), local legislation and guidelines provided additional guidance for the PSI with respect to site contamination and potentially contaminating activities (PCA), including:

- The South Australian *Environment Protection Act 1993* [2];
- The South Australian *Environment Protection Regulations 2009*[3]; and
- The South Australian Environmental Protection Authority (SA EPA). *Guidelines for the Assessment and Remediation of Site Contamination*[4].

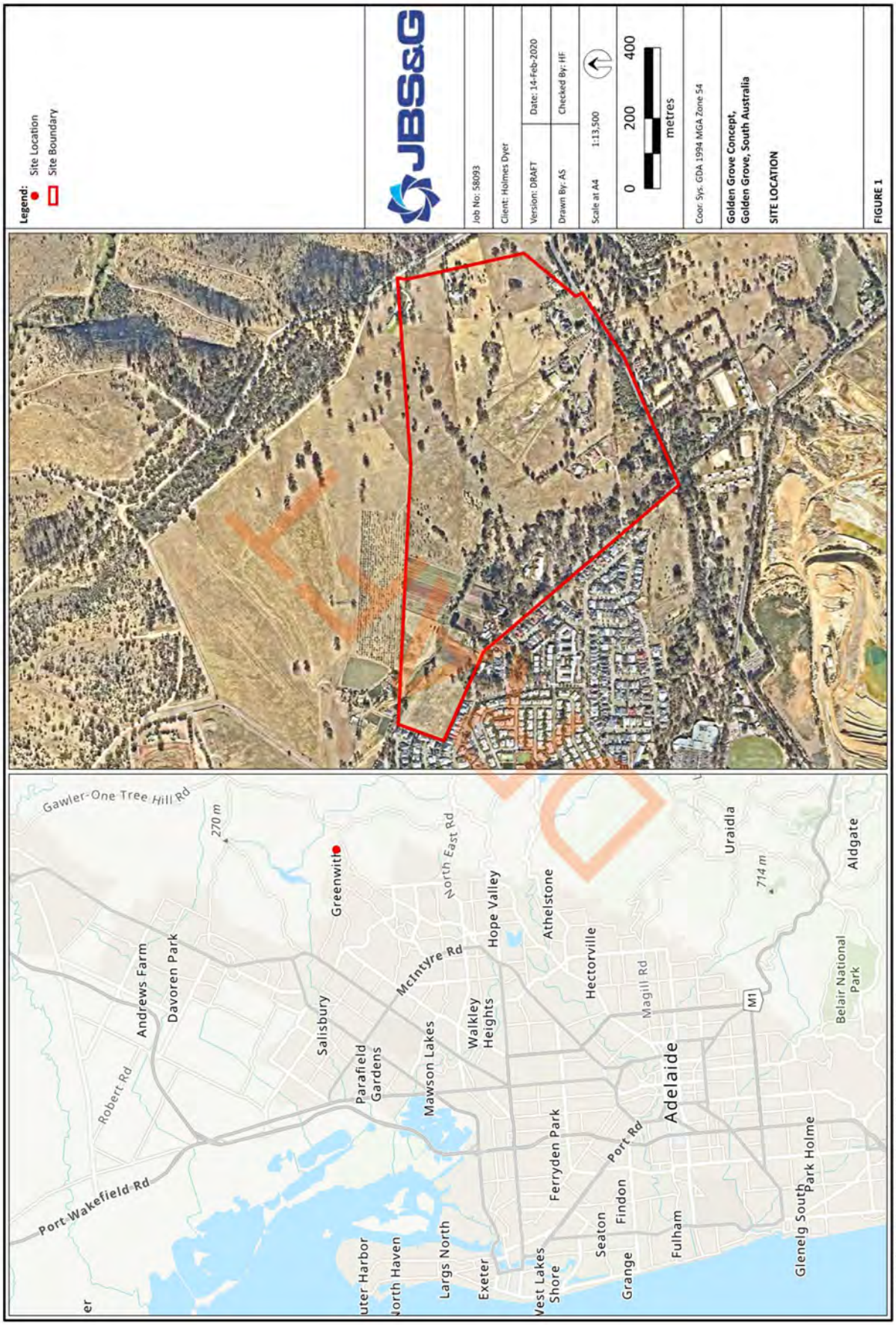
The PSI has considered each of the components summarised in **Table 1.1** below:

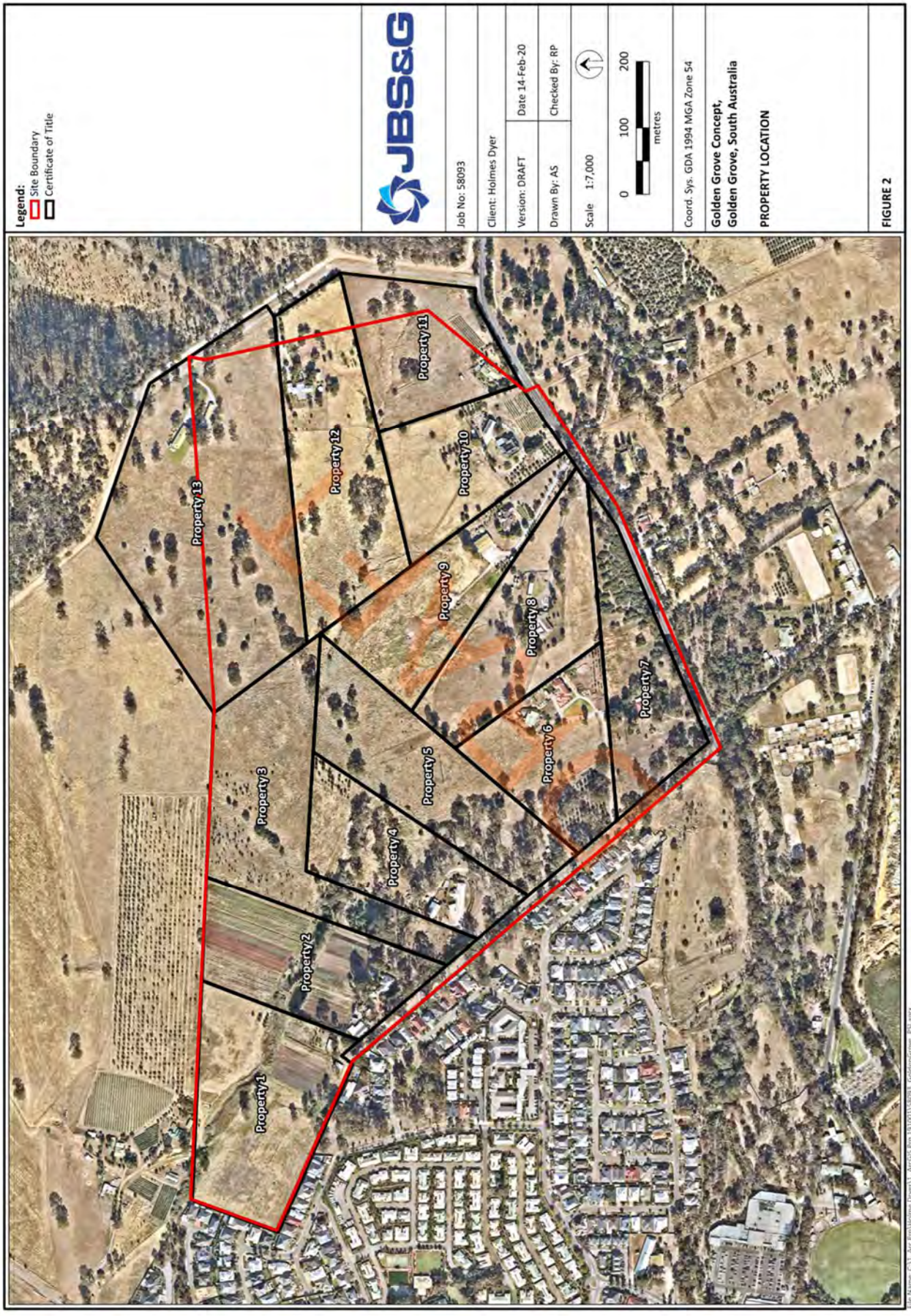
Table 1.1: PSI Components

Component	Report Section
Site inspection	**Section 2.1**
Anecdotal information	**Section 2.5**
Development zoning	**Section 2.6**
Review of current and historical land ownership	**Section 2.7**
Review of aerial photography	**Section 2.8**
Review of SA EPA records	**Section 2.9**
Review of SafeWorkSA dangerous goods records	**Section 2.10**
Review of development and planning Records	**Section 2.11**
Review of heritage Records	**Section 2.12**
Summary of current and historic land uses	**Section 2.16**
Summary of potentially contaminating activities (PCAs)	**Section 2.16**
Review of geological settings	**Section 3.3**
Review of hydrogeological settings	**Table 3.1**
Summary of environmental setting	**Section 3**
Preliminary conceptual site model	**Section 4**
Investigation conclusions and recommendations	**Section 5**

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1 NEPC 2013, *National Environment Protection (Assessment of Site Contamination) Measure 1999*, amended in 2013
2 South Australian Government 1993, *Environment Protection Act 1993*
3 South Australian Government 2009, *Environment Protection Regulations 2009*
4 South Australian Environment Protection Authority (2018), *Guidelines for the Assessment and Remediation of Site Contamination*


Legend:
Site Location
Site Boundary
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date: 14-Feb-2020
Drawn By: AS
Checked By: HF
Scale at A4 1:13,500
0 200 400
metres
Coor. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
SITE LOCATION
FIGURE 1
Gawler-One Tree Hill Rd
270 m
Greenwith
North East Rd
Hope Valley
Athelstone
Uraidla
714 m
Aldgate
Andrews Farm
Davoren Park
McIntyre Rd
Hectorville
Magill Rd
Belair National Park
Salisbury
Walkley Heights
M1
Robert Rd
Parafield Gardens
Mawson Lakes
Adelaide
Ferryden Park
Port Rd
Port Wakefield Rd
Seaton
Findon
Fulham
Glenelg South
Park Holme
Largs North
Exeter
Grange
Document Path: C:\1 Arc Pro\Holme Dyer\1 ArcGIS Pro 191001\58093_GoldenGrove_PSI.aprx
Image Reference: ESRI Topographic Basemap - Accessed Imagery: 14/02/20 and www.nearmap.com© - Imagery Date: 6 December 2019



Attachment 6

2. Site Conditions & Surrounding Environment

2.1 Site Details / Identification

The site details are presented in **Table 2.1.**

Table 2.1: Site Details

Category	Details
Site Street Address	The Sites properties are bordered by One Tree Hill Road (southern border), Falkenburg Road (eastern border), and Strachan Road (western border) – Golden Grove.
Plan, Certificate of Title (CT), and Property Addresses (Sorted by property number (for report)	1. CT Volume 5774 Folio 558 (Allotment 1 Deposited Plan 174477) – Strachan Road, Golden Grove 2. CT Volume 5093 Folio 561 (Allotment 2 Deposited Plan 174477) – Strachan Road, Golden Grove 3. CT Volume 5291 Folio 680 (Allotment 3 Deposited Plan 174477) – Strachan Road, Golden Grove 4. CT Volume 5596 Folio 686 (Allotment 4 Deposited Plan 174477) – Strachan Road, Golden Grove 5. CT Volume 5774 Folio 559 (Allotment 5 Deposited Plan 174477) – Strachan Road, Golden Grove 6. CT Volume 5158 Folio 162 (Allotment 6 Deposited Plan 174477) – Strachan Road, Golden Grove 7. CT Volume 5171 Folio 541 (Allotment 3 Filed Plan 100647) – 147 One Tree Hill Road, Golden Grove 8. CT Volume 5408 Folio 742 (Allotment 7 Deposited Plan 174477) – 185 One Tree Hill Road, Golden Grove 9. CT Volume 5257 Folio 297 (Allotment 8 Deposited Plan 174477) – 189 One Tree Hill Road, Golden Grove 10. CT Volume 5159 Folio 888 (Allotment 9 Deposited Plan 174477) – 195 One Tree Hill Road, Golden Grove 11. CT Volume 5442 Folio 886 (Allotment 10 Deposited Plan 174477) – 3 Falkenburg Road, Golden Grove 12. CT Volume 5776 Folio 344 (Allotment 11 Deposited Plan 174477) – 33 Falkenburg Road, Golden Grove 13. CT Volume 5998 Folio 401 (Allotment 20 Deposited Plan 67885) – 51 Falkenburg Road, Golden Grove
Plan Description	In The Areas Named Golden Grove, Hundred Of Yatala
Site Area (Total)	Approximately 67,250 m² or 67.3 ha
Local Government	City of Tea Tree Gully
Site Zoning	Rural Living (RuL)
Bushfire Protection Planning	Medium Bushfire Risk
Current Use	Rural / Residential
Proposed Use	Residential
Historic Use	Rural – Primary Production (cropping and stock farming)

A full copy of the current CTs is included in **Appendix A**. The site layout and associated property nomenclature (as presented in **Table 2.1**) is included in **Figure 2.**

2.2 Site Description

A JBS&G Senior Field Scientist completed an inspection of the of the Golden Grove Site on 28 January 2020. Of the 13 titles that constitute the Site, four (4) titles were able to be accessed and viewed in their entirety, three (3) were viewed partially (accessed property, owner not at property and did not gain consent for full inspection), and the remaining six (6) titles could not be accessed (due to requests from the current owners or locked gates), though were able to be inspected from neighbouring properties or/and road verges due to topography and property boundary fencing. Photographs from the site inspection are included in **Appendix B**.

At the time of the inspection, the Golden Grove Site broadly comprised of individual properties containing residential housing, each on approximately 4 to 6 hectares (ha) of grass/pastoral land (with exception of property 13 with an area of 12.1 ha), with occasional out-buildings including work sheds, car storage garages, agricultural storage sheds, or livestock shelters. Current land use appears as predominately residential in association with small to medium scale agricultural activities including an organic market garden, horse stables, olive groves, and hobby farms (stock and produce gardens). The landscape is undulating, with several ephemeral drainage valleys cutting through the land (trending from the east to north west).

Figure 3A to 3D present the site layout as observed during the site inspection and review of current aerial photographs.

2.3 Current Land Use

The Golden Grove Site is currently being used as predominantly large hectare residential properties within a semi-rural setting. Agricultural activities currently appear to occur on approximately 30% of the separable properties, including market garden (Property 1 & 2 commercial operation), a hobby farms (stock and produce), and horse stabling. Additionally, and of note, Property 9 appears to be currently used for an earthworks business, with storage of heavy machinery and building/soil stockpiles. The remaining 70% of properties are of residential use within vacant lots consisting of cleared (of majority native vegetation) grassed land. A majority of the vacant portions of the properties show remnants of historic agricultural activities, though no longer active or poorly maintained, including horse stabling, hobby farms, and olive groves.

With the exception of Property 1, 3, and 5, all land parcels have a utilised (currently occupied) residential house (~1980 to 1990 build) with associated out-buildings including, water tanks, vehicle and storage garages and garden shed.

2.3.1 Surrounding Land Use

The following is a list of the surrounding land uses relative to the Golden Grove Site:

- **North –** directly to the north of and neighbouring the Site appears to be an agricultural property consisting of vineyards, olive grove and pastoral land (sheep) with several residential style buildings and out-houses. Further north consists of vacant pastoral land, the Tea Tree Gully Motocross Club, a council laydown area (of quarry material – sand, gravel, and soil), and the Little Para Reservoir (primary water storage reservoir with surrounding native bushland, closed to the public);
- **East –** the east of the Site is the Little Para Reservoir as well as further rural residential properties of larger size (~10 - 20 ha) and appearance (residential housing surrounded by out-buildings and agricultural used land (olive grove, horse stabling, stock paddocks, and vineyards) within the suburbs Gould Creek and Sampson Flat;
- **South –** neighbouring the Site to the south (across One Tree Hill Road) are rural residential properties and several businesses including, horse stabling (and equestrian centres), cattery.

Portions on these rural residential properties also include hobby farms, olive groves and vineyards, motocross track and vacant lands. Further south of the Site is the Golden Grove Extractive Industries Zone (GGEIZ), the zone consists of nine private sand mines/quarry and two brick making plants (mining has occurred since 1947)[5];

- **West** – neighbouring the Site to the west (across Strachan Road) is a newly developed housing development as well as commercial health services, retirement community (Lifestyle SA), retail complex, and a sporting complex. Additionally, to the south west of the site is a small cemetery associated with the Golden Grove Uniting Church (and neighbouring the sand mining operations).

As presented within the property site inspection, the immediately area surrounding the Golden Grove Site contains minor PCAs including electrical transformers, illegal dumping, apparent fill importation, and the GGEIZ. Excluding the GGEIZ there is not a significant industrial zone or industrial activities surrounding the Site.

2.4 Site Inspection

A JBS&G senior field scientist attended the Golden Grove Site on 28 January 2020 and completed an inspection of 13 separable titles. It is noted that six (6) of the titles were not able to be fully inspected due to lack of landowner permission and access. These six titles / properties were subject to external inspections from road verges, neighbouring properties, and detailed up to date aerial photographs. Three of the properties were partially inspection through the activity of gaining property owners permission (owner was not home but was able to access the 'front' of the property).

Site photographs from the inspection (**Photos 1 to 47**), displaying points of interest are included in **Appendix B**.

The vast majority of the Golden Grove Site consisted of pastoral grass/cropping land within an undulating landform. One distinct drainage valley cut through the Site, trending east to north west, with several moderately sized drainage valleys branching in. The majority of land titles have a primary residential house with smaller out-buildings for storage of vehicles or agricultural products (sheds and garages). Most of the properties have partitioned the land with agricultural fencing into paddocks to suit past and present farming activities (crops, stock paddocks, and residential areas). At the time of inspection, the majority of properties were not actively used for substantial agricultural (or business) purposes, with the exception of the Monika's Organic Farm (Property 2 & eastern portion of Property 1) and earthworks business (Property ().

The observed site inspection conditions have been divided into the separable land parcels for ease of clarification. Descriptions of Property 1 to 13 are provided with **Section 2.4.1 to 2.4.13**. below. Information for the site inspections, with regard to groundwater wells within the Site, was supplemented by information gathered from the online groundwater database[6]. Furthermore, all properties with habitable buildings use inground septic waste tanks (not attached to municipal wastewater system) and most housing using cooking/ heating gas via Liquid Petroleum Gas (LPG) storage tanks.

[5] http://www.energymining.sa.gov.au/minerals/mining/mines_and_quarries/golden_grove_extractive_industries_zone. Viewed 28 January 2020.

[6] https://www.waterconnect.sa.gov.au/Systems/GD/Pages/Default.aspx . Viewed 28 January 2020.

2.4.1 Property 1 - Allotment 1 Deposited Plan 174477

Property 1, with approximate area of 6.2 ha, is a vacant block of rectangular shape bound to the west by a newly established housing development. The Site is accessed at the northern end of Strachan Road (Photo 1), as well as an internal gate from Property 2. The property is predominately vacant, appearing as cleared pastoral land with a drainage valley cutting through the northern portion of the property (trending southeast to north west). Additionally, the property also slopes towards the west. The south east portion of the Site is currently (and since early 2010s) used for intensive market gardens as a commercial operation (Photo 2 and 3). Within this south east corner is also two storage shed (~ 12 x 6 m), which appear for the use of agricultural equipment/ machinery. Additionally, there is also a small storage pile of building material, a small dam to the north of the sheds, and a concrete water tank adjacent to Strachan Road. A groundwater well (for irrigation purposes) is also present onsite, adjacent to the storage sheds.

No observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste (other than inert building waste next to shed), or any PCAs were noted during the site inspection on Property 1. At the time of inspection, the landowner was not present onsite in order to conduct an interview and obtain site specific historical anecdotal information. A brief site interview with the owner of Property 2, advised the lease of the property as part of the Monika's Organics commercial operations and access to perform a full site inspection was not granted.

Of note, points of interest (POI) surrounding the property, include an electrical transformer cubicle located on the south east corner boundary (Photo 4) and the neighbouring vineyard to the north of the property. Open municipal road drainage along Strachan Road channels surface water into the properties dam.

2.4.2 Property 2 - Allotment 2 Deposited Plan 174477

Property 2, with approximate (rectangular) area of 4.8 ha, consists of a residential house with associated out-buildings and large cold storage shed (20 x 25 m) for the commercial operations of the commercial organic market garden onsite (Photo 5), access to the property is along Strachan Road. The properties building infrastructure is located in the southern portion of the Site and includes the commercial loading facilities, produce transport bins, vehicle parking, several shipping containers, machinery storage (tractors, tractor attachments, and boats), and minor inert building waste (present in Photo 6). The property is centrally intersected by the drainage valley trending east to west, in which a water storage dam has also been constructed (with associated pumping equipment). The market garden cultivation occurs on approximately 70% of the property and is certified organically run[7] (no chemicals during the farming process). From aerial observations, the longitudinal sections of the market garden appear to be sequentially tilled, planted, and harvest with differing produce very frequently (Photo 7). The market garden activities only appear to be disturbing the surface soils on the property, with no observable excavations visible onsite. Additional observation of the property includes several waste piles of organic material including produce waste, felled trees, wood piles, and several large 20 kL concrete water tanks (Photo 8).

The exceptions of the above-mentioned land disturbances (surface soil tilling, dam construction), no observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste, or any PCAs were noted during the site inspection on Property 2. The landowner was present onsite, though did not permit access/ site inspection and only provided minimal anecdotal information on surrounding land use.

Of note, POI surrounding the property include the electrical transformer located on the south west corner boundary of the site and new residential development neighbouring the southern border.

[7] https://monikasorganics.com.au/about/. Viewed 28 January 2020

2.4.3 Property 3 - Allotment 3 Deposited Plan 174477

Property 3, an irregular shaped block of approximate area of 6.5 ha, consists predominately of vacant pastoral land. The southern portion of the Site was observed as a well vegetated sloping (to the north) parcel of land, with vehicle access towards the centrally located drainage channel. Within the southern portion of the Property is a storage shed (12 x 6 m) surrounded by inert building waste material (concrete, steel, household plastics, wooden pallets), trailers, concrete water tanks, and fencing material (Photo 9). The shed and area around the shed appear unkept and does not appear to be used for living quarters. Several derelict animal/ stock pens were observed to the south of the shed (Photo 10), with associated shed (empty). Within the southwest area of the Property, multiple (~10) soil stockpiles were observed, of approximate 20-30 m^3 in volume each. These stockpiles were covered with overgrown vegetation, though appear to be natural soils with gravels, no significant anthropological materials were observed (such as bricks, building waste, PACM) on the surface of the soil stockpiles (Photo 11). Two derelict iron water tanks were also present within this area, adjacent to the access gate.

The northern portion of the site (north of the drainage valley), was observed as an overgrown (grass and weeds) paddock on a sloping site (Photo 12). Several established trees and shrubs (as well as scattered olive trees) are present in this area, predominately along the natural drainage lines. Two small iron shed/shelters are present in the area, both derelict and empty.

No observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste (except for the small amount of inert waste around the onsite shed), or any PCAs were noted during the site inspection on Property 3. The landowner was not present onsite (lack of dwelling) at the time of the site inspection and only a partial inspection was conducted of the site due to lack of owner's permission. Subsequently, no onsite interview with the landowner was conducted for the acquisition of any further details of the sites history.

No significant POI surrounding the property were observed during the site inspection.

2.4.4 Property 4 - Allotment 4 Deposited Plan 174477

Property 4, with an approximate area of 4.3 ha, is accessed along Strachan Road via a concrete driveway. The property broadly consists of the residential house and associated outhouses within the southern portion of the property (Photo 13) and vacant pastoral land in the north. The residential portion of the property consists of a house, garage, pool, patio area, and large shed. The residential portion of the property was observed to be well maintained with no visible PCAs present. The shed on the property (while not accessible) appears to be used for car storage/maintenance, with multiple vehicles stored around the shed and further north of the shed. The cars (approximately 20) appear to be partial wrecked and stored on unsealed grounds (Photo 14). Within this car storage area, there was also observed a wood and inert building material storage area (Photo 15). The ground surrounding the vehicles was overgrown at the time of inspection and no observable signs of ground contamination (no spills of oil or fuel associated with the vehicles) were noted.

The remaining portions of the property were observed to be vacant pastoral land sloping down into the drainage valley. The pastoral land does not appear to have been divided for with fencing for stock purposes. Within the north east portion of the site an irrigation groundwater well is present with associated well head infrastructure and pump shed (Photo 16). Adjacent to the pump shed and to the south, several small soil stockpiles of what appears to be natural soil material.

No observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste, or any PCAs were noted during the site inspection on Property 4. Minor PCAs associated with the presence of the multiple wrecked cars is the only observable issue on the property. The landowner was not present and only a partial site inspection was conducted, further observations were made from neighbouring properties and current aerials. Furthermore, due to the

landowners absence no interview was conducted to obtain site specific historical anecdotal information.

No significant POI surrounding the property were observed during the site inspection.

2.4.5 Property 5 - Allotment 5 Deposited Plan 174477

Property 5, with approximate area of 5.5 ha and accessed via a farm gate of Strachan Road, is a vacant pastoral block of rectangular shape. The property does not have any residential buildings onsite, with only two small building (shed and stock shelter) within the southern portion surrounded by established trees (Photo 17). The shed (while not accessed) appear for the use for the storage of agricultural products. The property is currently being used as a cattle pasture (six cows present onsite at time of inspection), with the southern portion of the block appearing as most active (Photo 18). A concrete water tank and stock trough was also observed within this southern portion.

The northern portion of the property slopes down towards the drainage valley with overgrown vegetation and scattered established trees (mostly in place along the ephemeral creek) (Photo 19). Several pieces of inert building material (concrete bricks and blocks) were noted within the creek bed. A large electrical transmission line pylon is presented within the middle of the property, with the transmission lines running in a north west – southeast direction (Photo 20).

No observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste, or any PCAs were noted during the site inspection on Property 5. No landowner was present at the time of the site inspection (no residential buildings onsite), though a brief interview was conducted with the landowner of Property 6, whom stated they lease the neighbouring property (Property 5) for the use of their cattle. No other information of significants was obtained during the interview with the owner of Property 6.

No significant POI surrounding the property were observed during the site inspection.

2.4.6 Property 6 - Allotment 6 Deposited Plan 174477

Property 6, with approximate area of 4.1 ha and accessed via Strachan Road, broadly consists of a residential complex within the south east corner of the property, central stock paddock, and western olive grove/ tree plantation. The residential complex (approximately 30% of the property) consists of the centrally located residential house, the agricultural equipment storage shed in the north, and the produce garden/ orchard in the south. The residential house is a large building with associated garden shed and manicured lawns. To the north of the house a large storage shed, and workshop is located. The shed contains tractor storage, equipment storage and small agricultural workshop. Surrounding the shed includes two large concrete storage tanks, stock pens and loading yards, chicken coop and inert building material storage (metals, timber, quarry material, bricks, and iron sheeting) (Photo 21). Several un-bunded 200 L drums were scattered in this area though appeared empty of any chemical product (no anecdotal evidence on historical use). The ground to the west of the shed has been excavated for levelling purposes. To the south of the residential house is a large produce garden 270 m^2 which appears to be regularly tilled (surface soils disturbed). Several soil stockpiles are present in this area and appear to be organic soil and mulch for use in the garden (Photo 22). The area is subject to irrigation and there was no observations of significant chemical use or storage in relation to the gardens. Several large piles of inert building waste and material (totalling ~ 200 m^3) was noted along the eastern end of the driveway consisting of concrete rubble, natural stones and bricks (Photo 23).

The central stock paddock is predominately cleared of trees and covered by unkept grass. A small excavated (~ 80 m^3) dam is located on the northern boundary, though dry at the time of inspection (the excavated soil was stockpiles adjacent to the dam). Multiple cattle (six) were located in the adjacent property (Property 5) and had access to the paddock via an open gate on the northern boundary. The western portion of the property consists of both an olive grove and immature tree

plantation. Along the eastern edge of the olive grove the ground appears disturbed and several piles of vegetation and concrete rubble were noted on the surface (Photo 24).

The landowner was present at the time of the site inspection, and access to the property was granted to perform an extensive inspection. A brief site interview was conducted with the landowner during the inspection. The landowner expressed of no known PCAs occurring onsite in relation to burial pits, significant chemical use or storage, or importation of any fill material outside of known building materials and organic soil material stockpiles present onsite.

From the obtained information, no observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste (with exception of unknown material within sighted onsite stockpiles), onsite chemical storage, or any PCAs were noted during the site inspection on Property 6.

Offsite, an electrical transformer cubicle (offsite PCA) was noted on the western boundary. No other PCAs were noted neighbouring this site.

2.4.7 Property 7 - Allotment 3 Filed Plan 100647

Properties 7, with approximate area of 4.0 ha with accessed via One Tree Hill Road, a triangle shape block bounded on to the west by Strachan Road. The property broadly consists of a centrally located residential building surrounded to the west and east by a stock paddock, as well as an olive grove within the eastern corner of the property. The residential house is small in size and consists of the house and attached garage used for equipment storage (Photo 25). Several water tanks and car storage areas are present surrounding the house. Several derelict horse paddocks with shelters are located on the southern boundary of the property with associated fencing (Photo 26). To the west of the house is a small pile of inert waste material consisting of household furniture, whitegoods and municipal waste (Photo 27). The western paddock also contains a large electrical pylon, with the transmission line trending north south (Photo 28) and several derelict iron shed in the north west corner of the property. The western corner of the property contains a unkept olive grove, which appears overgrown.

The landowner was not present at the time of the inspection and as such only a limited site inspection was performed. Further observations on the property were made from public road verges, neighbouring properties, and current aerials. Derived from the observations made onsite, no observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste (with exception of unknown material within sighted onsite stockpiles), onsite chemical storage, or any PCAs were noted during the site inspection on Property 7.

2.4.8 Property 8 - Allotment 7 Deposited Plan 174477

Properties 8, with an approximate area of 5.3 ha is assessable via One Tree Hill Road and broadly consists of an irregular shaped block with a centrally located residential complex surrounded by stock paddocks. The residential area (Photo 29) is accessed via a 100 m unsealed driveway and consists of house, detached garage, agricultural shed, water tanks, inert materials storage (timber, building waste, wooden pallets, disused whitegoods), and chick coup. The residential area including the materials storage area appears well maintained and organised (Photo 30). To the north, south and west of the residential complex are separable stock paddocks used for hobby farming and at the time of the site inspection (Photo 31 and 32), contained livestock (sheep, approximately 20 - 30 head). A medium size truck is presently stored in the southern paddock, adjacent to the driveway. The northern portion of the property appears as a vacant block of land with grass cover and scattered established trees along the boundary. The vacant land appears to be historically used as a training track for horse, as outlines of the track are visible on current aerials.

The landowner was not present at the time of the inspection and as such a detailed inspection was not performed. Further observations on the property were made from public road verges,

neighbouring properties, and current aerials. A follow up phone interview with the property owner was conducted, whom indicated that since ownership of the property in the 1980s, not PCAs have occurred onsite with regards to significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste, or onsite chemical storage. The properties dangerous goods search results (**Section 2.10**) were also discussed, in which the property owner had no knowledge of the presence of an underground storage tank for class 3 liquids occurring onsite, as presented in the search results for the property.

No POI or PCAs were noted in close proximity to the property within the road verge or adjacent offsite properties.

2.4.9 Property 9 - Allotment 8 Deposited Plan 174477

Property 9, with an approximate area of 4.7 ha is accessed via One Tree Hill Road, broadly consists of rectangular shaped block with a residential portion in the southern half and vacant paddock in the north. The residential property accessed along a 120 m driveway and via a large metal security gate (Photo 33) consists of the residential house, manicured garden, water tanks, large shed and machinery laydown area. The large shed and laydown area are presumed to be part of a earthworks business and consists of an unsealed gravel pad, storage of heavy machinery (excavators, skid steer, trucks, and trailers) (Photo 34), an aboveground storage tank (AST; presumed to be a diesel tank) (Photo 35), and associated inert equipment storage. The shed appears to be used for machinery storage and general maintenance.

To the north of the residential area is a vacant and cleared block of land (grass coverage) with material stockpile storage (Photo 36). From aerial imagery the stockpiles appear to be of natural soil material, quarry material (blue metal, road base, sand etc), and inert building waste (concrete, bricks, rubble). It is assumed that the stockpiles are storage on part of the earthworks business present on the property. North of the stockpile a large area of ground (180 m2) appears to be disturbed for the purpose of either material storage or disposal of waste material. The soil stockpiles onsite were unable to be assess in detail to determine type and potential contaminating status of the materials. The remaining area of the vacant area appears undisturbed and covered in unkept grass, with the exception of a fire break mowed around the properties boundary fence.

The landowners were present at the time of the site inspection, though access to the property was not granted. The landowners also did not supply any anecdotal evidence regarding the current or historical environmental status of their property. Observations on the property were made from public road verges, neighbouring properties, and current aerials.

Derived from the limited site inspection, potential onsite PCAs on Property 9 include, an onsite AST, imported fill material stockpiles, mechanical works, and building waste stockpiles (illegal dumping).

No POI or PCAs were noted in close proximity to the property within the road verge or adjacent offsite properties.

2.4.10 Property 10 - Allotment 9 Deposited Plan 174477

Property 10, with an approximate area of 2.8 ha and accessed via One Tree Hill Road, is broadly separable into 2 land uses; the southern residential area and the northern vacant block used as stock paddocks. The southern residential portion of the block consists of the residential house (Photo 37), large shed for storage of agricultural equipment (tractor), storage of inert farming equipment / building material to the north of the shed (Photo 38), small workshop, chicken coup, water tanks, small vineyard and olive grove. A small portion of ground (10 x 10 m) to the west of the house appears to have been recently disturbed (Photo 39), though observed to be a disused garden bed. The residential portion of the property appears well maintained and fenced off from the northern paddocks.

The northern paddock was observed as a cleared portion of land with grass coverage and minor scattered trees. The paddock slopes towards the north and the drainage valley in the neighbouring property. Several stockpiles were noted within the paddock (seven in total) and consisted of two stockpiles of timber (felled trees), one pile of bricks and pavers, three soil stockpiles of what appears of as a natural material (Photo 40), and a soil stockpile of excavated material from dam development (north west corner of the property). The paddock is currently used for a hobby farm and contains 15 – 20 sheep, with a small iron animal shelter present in the central area of the paddock.

The landowner was present at the time of the site inspection, and access to the property was granted to perform an extensive inspection. The landowner did not supply any notable anecdotal evidence regarding the current or historical environmental status of their property.

From the obtained information, no observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste (with exception of unknown material within sighted onsite stockpiles), onsite chemical storage, or any PCAs were noted during the site inspection on Property 10.

No POI or PCAs were noted in close proximity to the property within the road verge or adjacent offsite properties.

2.4.11 Property 11 - Allotment 10 Deposited Plan 174477

Property 11, with an approximate area of 2.8 ha, accessed via Falkenburg Road, broadly consists of a rectangular block of land with a residential portion of the block along the southern boundary (approximately 20% of the property area) and two large stock paddocks in the central/ northern portion of the property. The residential portion of the property consists of a residential house (south west corner), associated infrastructure (shed, garden shed, water tanks, pool, manicured gardens and small olive grove) (Photo 40). Several small stock holding pens are present to the south of the house and appear to be used for horses.

The remaining part of the property consists of several cleared stock paddocks with associated small animal shelters. Multiple sheep (~20 sheep) were observed to within the eastern paddock (Photo 41). The northern paddock area slopes down towards the north west, with several erosional drainage valleys visible trending into the main valley (north west corner) (Photo 42).

The landowners were not present at the time of the site inspection, and access to the property was not granted (an interview from the neighbouring property owners (Property 13) indicated this property was not participating in the surveys. Observations on the property were made from public road verges, neighbouring properties, and current aerials. The landowners also were not able to supply any anecdotal evidence regarding the current or historical environmental status of their property.

From the obtained information no observations of significantly disturbed ground surface (potential burial pits), dumped municipal / industrial waste (with exception of unknown material within sighted onsite stockpiles), or any PCAs were noted during the limited site inspection on Property 11.

Of note, POI surrounding the property include an electrical transformer cubicle on the south east boundary of the property (adjacent to the access point). Council illegal dumping street signs were present on the entrance of Falkenburg Road, though no waste was noted in the vicinity or along Falkenburg Road.

2.4.12 Property 12 - Allotment 11 Deposited Plan 174477

Property 12, with an approximate area of 4.5 ha, is accessed via Falkenburg Road, broadly consists of a rectangular block with a residential portion of the property within the north east corner, surrounded by small holding paddocks (Photo 43) and the central to western portion of the block consisting of a large cleared paddock (Photo 44). The residential portion of the property (approximately 15% of the area) consist of a residential house and outhouses including garage, shed,

and multiple water tanks. The house is surrounded by established trees and shrubs. A groundwater well (unknown purpose) is registered on the property and located within the residential portion of the property.

The remaining portion of the property consists of cleared stock paddocks with scattered established trees and a drainage valley that cuts through the south western portion of the block (trending east – west). There was no stock observed on the property during the site inspection works.

The landowners were not present at the time of the site inspection, and access to the property was not granted (an interview from the neighbouring property owners (Property 13) indicated this property was not participating in the surveys. Observations on the property were made from public road verges, neighbouring properties, and current aerials. The landowners also were not able to supply any anecdotal evidence regarding the current or historical environmental status of their property.

From the obtained information no observations of significantly disturbed ground surface (potential burial pits), illegally dumped municipal / industrial waste, storage of bulk chemicals, or any significant PCAs were noted during the limited site inspection on Property 12.

Offsite, an electrical transformer cubicle (offsite PCA) was noted on the eastern boundary. No other PCAs were noted neighbouring this site.

2.4.13 Property 13 - Allotment 20 Deposited Plan 67885

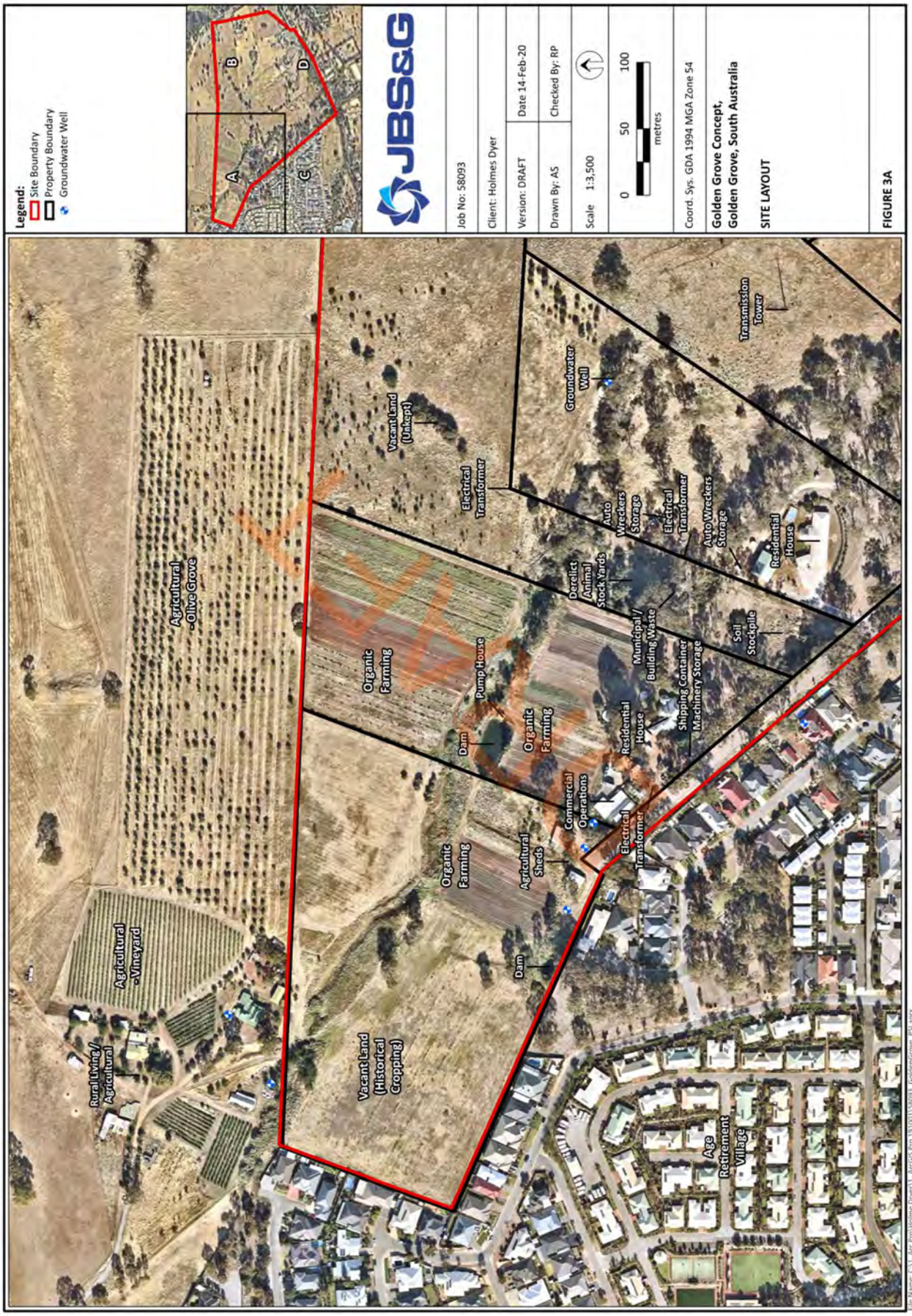
Property 13, with an approximate area of 12.1 ha, is accessed via Falkenburg Road, broadly consists of a rectangular block with the residential buildings situated within the eastern portion (approximately 5% of the properties area) and the central to western portions of the block used as a hobby farm (stock paddocks, cleared of vegetation). The residential house sits centrally in the eastern portion of the property and consists of house and several outhouses (garden shed, storage shed with separable dwellings, water tanks and manicured lawns/garden (Photo 45). To the north and south of the residential house are two smaller stock holding paddocks, with the northern paddock also containing the stock loading equipment/fencing (Photo 46) (loading via Falkenburg Road) and small storage area for trailers and inert building material. Two groundwater wells are registered to be located on the Property, with one of the groundwater wells (unknown purpose) located on the eastern boundary and most likely situated in a small shed observed south of the residential buildings. The second groundwater well (for stock purposes) is located on the southern boundary but was not observed.

The north and central portion of the site consists of one large stock paddock for cattle (five to ten cattle were spotted during site visit). This area slopes down towards the west and contains multiple drainage valleys with a stock dam centrally located on the property.

The landowners were present at the time of the site inspection, though access to the property was not granted. The landowners also were not able to supply any anecdotal evidence regarding the current or historical environmental status of their property. Observations on the property were made from public road verges, neighbouring properties, and current aerials.

From the obtained information no observations of significantly disturbed ground surface (potential burial pits), illegally dumped municipal / industrial waste, storage of bulk chemicals, or any significant PCAs were noted during the limited site inspection on Property 13.

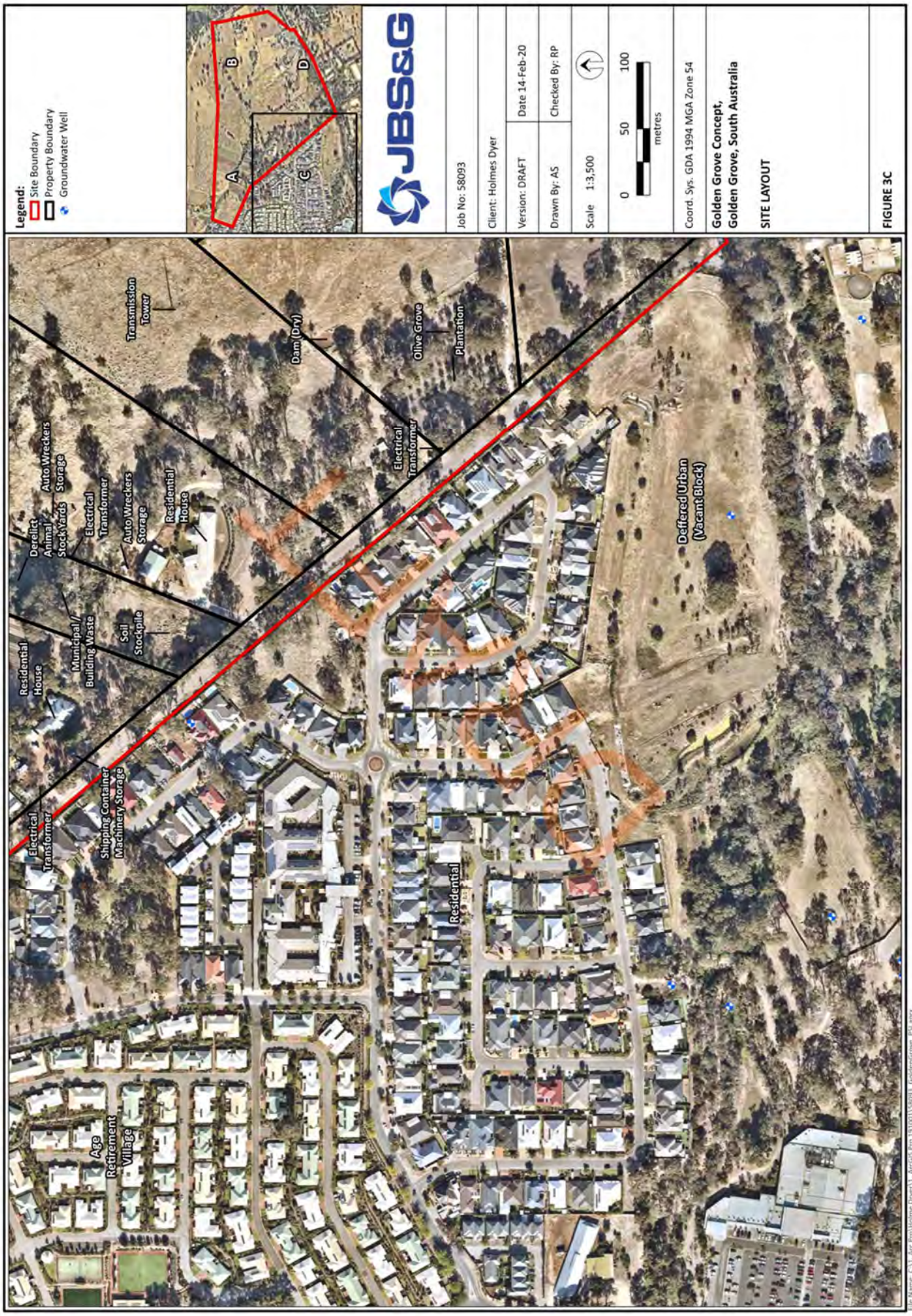
Offsite, an electrical transformer cubicle (offsite PCA) was noted on the eastern boundary (Photo 47). No other PCAs were noted neighbouring this site.

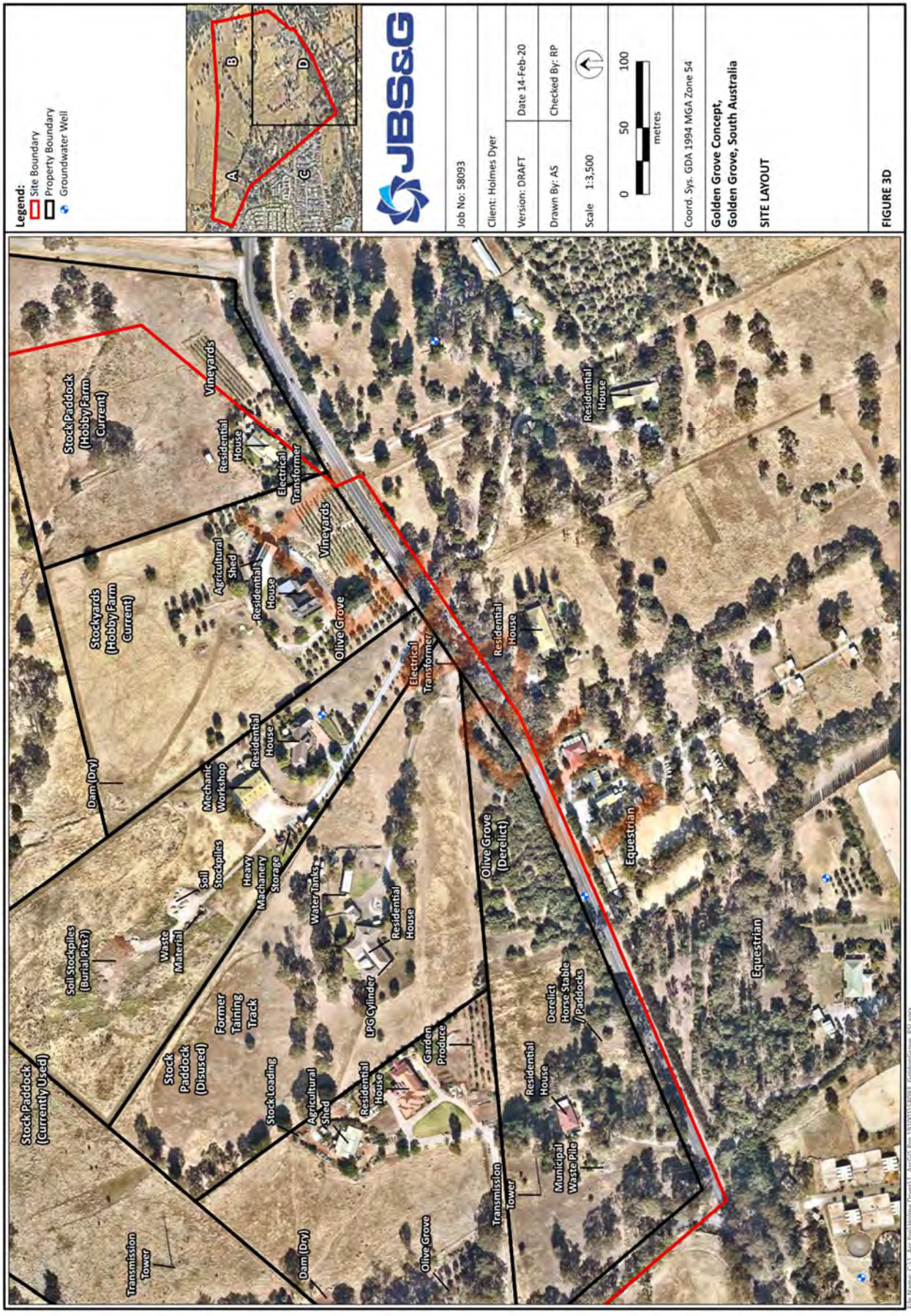

Legend:
Site Boundary
Property Boundary
Groundwater Well
A
B
C
D
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: RP
Scale 1:3,500
0 50 100
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
SITE LAYOUT
FIGURE 3A
Agricultural - Olive Grove
Agricultural - Vineyard
Rural Living / Agricultural
Vacant Land (Historical Cropping)
Organic Farming
Pump House
Dam
Organic Farming
Agricultural Sheds
Dam
Organic Farming
Commercial Operations
Electrical Transformer
Residential House
Shipping Container Machinery Storage
Municipal / Building Waste
Derelict Animal Stock Yards
Soil Stockpile
Vacant Land (Unkept)
Electrical Transformer
Auto Wreckers Storage
Groundwater Well
Electrical Transformer
Auto Wreckers Storage
Residential House
Transmission Tower
Age Retirement Village



Item 13.1

Attachment 6


Legend:
Site Boundary
Property Boundary
Groundwater Well
A
B
C
D
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: RP
Scale 1:3,500
0 50 100
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
SITE LAYOUT
FIGURE 3C
Transmission Tower
Dam (Dry)
Olive Grove Plantation
Electrical Transformer
Auto Wreckers Storage
Derelict Animal Stockyards
Electrical Transformer
Auto Wreckers Storage
Residential House
Residential House
Municipal/ Building Waste
Soil Stockpile
Shipping Container Machinery Storage
Electrical Transformer
Deffered Urban (Vacant Block)
Residential
Age Retirement Village



Attachment 6

2.5 Anecdotal Information

Multiple interviews were conducted with landowners to establish the historic and present environmental condition of the Golden Grove Site and if any PCAs are being conducted onsite including bulk chemical storage/usage and importation of fill material or waste material burial pits. As presented in **Section 2.1**, ~70% of the properties landowners were either not available for comments or did not want to participate in an interview to provide anecdotal information their property, the overarching Golden Grove Site or neighbouring land use.

2.6 Development Zoning

The site lies solely within the Rural Living Zone of the Tea Tree Gully Council Development Plan[8]. The current objectives of any development in this zone are:

- A zone consisting of large allotments, detached dwellings and rural activities that do not adversely impact the amenity of the locality; and
- Development that contributes to the desired character of the zone.

Land use envisaged within the zone includes; detached dwelling, domestic outbuilding in association with a detached dwelling, domestic structure, dwelling addition, Farming, Farm building, and stable. Added notation of land use include:

- No more than one dwelling per allotment;
- The keeping of animals should be ancillary to in association with the residential use of the land; and
- The keeping of horses should only be undertaken if the horses are accommodated within a stable or shelter with supplementary feeding to maintain pasture cover.

Western portions of Property 11, 12 and 13 lies outside of the rural living development zone and sit within the Hill Face Development Zone. These portions of the property where are excluded from the client's development plans, though assessed as part of the properties and broader Site as per cadastre boundaries. The objectives of the Hill Face Zone include; A zone in which the natural character is preserved and enhanced or re-established and a zone accommodating low intensity agricultural activities and public/private open space.

No information, amendments to the development plan, regarding the future changes to the development zoning over the site was available through the council website.

The neighbouring development zones in relation to the Site include:

- Hills face Zone – to the north and east;
- Residential – towards the west;
- Deferred Urban – bordering the south west corner of the Site;
- Rural Living – to the south of the Site; and
- Mineral Extraction (associated with the GGEIZ) sand mine to the south west of the site.

An extract of the Development Plan discussing the desired character of the area is included in **Appendix C** – which currently allows for Rural Living use.

[8]Department of Planning, Transport & Infrastructure 2018, Development Plan, Tea Tree Gully Council, consolidated 27 December 2018.

2.7 Review of Land Ownership

Land ownership records have been obtained from the Lands Titles Office (LTO) which date back to 1876. A summary of the major historic landownership alterations of the 13 properties is presented below. A detailed list of the individual ownership history is included in **Appendix D**.

A summary of the Golden Grove Sites ownership history includes:

- The Site (and potentially surrounding land) was all part of the same cadastre title from 1876 to till around the late 1980s (all 13 current titles) where it was subdivided over multiple years. The ownership history over this time include the major changes of:
  - Original owner – John Robertson (Golden Grove Esquire) in 1876;
  - Ownership occupations within the period of 1932 and 1969 include Presbyterian Church (Strachan family), Farmer (McPharlin family), Adelaide Merchant (Basnett family), Grazier (Strachan family, Christies Stone Quarries (Pty Ltd), Dairyman and Primary Producer (Pitcher Family);
  - Appears to have been bought/transferred to the Minster of Works (SA Government) in 1972. Before being sold to Ilario Lamberto and Giuseppe Emanuele (a commercial operation) in 1980. The Emanuele company/family held the land for 5 – 10 years before subdivision occurred;
  - The Emanuele company/family appear to be the individuals that conducted the division of land into the separable allotments in mid to late 1980s;
- Property 4 (CT5171/541) appears to be have been subdivided from the main block in 1972 by Allan Strachan (Grazier), this was then transferred to the new and current owners (Hayden family, unknown occupation);
- Transfer of current allotments to current owners occurred between 1986 and 1988 for Properties 2, 3, 5, and 8, with several other allotments being held by the Emanuele company till late 1990s to early 2000s till transferred to the current owners; and
- With exception of Property 1, and Property 4, all current owners were transferred the property titles from the former site owners (Emanuele company). There appears to be no change in ownership of any of the properties since 2007 (Property 13, internal family change of title).

2.8 Review of Aerial Photographs

Table 2.2 presents a summary of the review of historical aerial photographs relating to the Site. For reference to aerial specifics, the current day property boundaries are used to provide location clarity. The Copies of the aerial photographs were obtained from DEW Mapland and NearMap and are presented in **Figures 4A through 4I** with the approximate site boundary overlayed on each photograph.

Table 2.2: Summary of Aerial Photograph Observations

Aerial Date	Observational Comments

1949	• Overall Site – the Site appears as agricultural land (cropping or stock). Site appears separated into large parcels of land (fencing visible), with a similar overall boundary to the current site, with the currently named roads (One Tree Hill Rd, part of Falkenburg Rd, and Strachan Rd) defining the east, south and west boundaries, these roads appear as unsealed tracks. The ephemeral drainage valley with upstream branches is present, similar to current form.
	• Notable specifics of the 1949 aerial include:
	  • The Site appears to have been cleared of majority of native vegetation for use as pastoral or stock grazing land, several trees are present onsite along the drainage valley.
	  • Only one dwelling/building is present onsite in 1949, within Property 3/4. The building appears to be a residential style of building, with access via a track (currently Strachan Road for reference);
	  • The surrounding land use appears to be similar to the Site, cleared of native vegetation with land used appearing for cropping and stock use. West of the Strachan Road track, the ground appears to have been disturbed in what appears to be a small sand mining operation (based on current and historical activities in the area). The area appears to be sparsely occupied, with only ~ 5 dwellings and buildings spread at ~ 1km intervals. The area currently occupied by the little para reservoir appears similar to the Site and is clear of native vegetation with a couple of minor orchards/olive groves visible. The current sand mining operation (GGEIZ) appears to be occurring (smaller operation) south of the site (below One Tree Hill Road); and
	  • The aerial photograph is in black and white.

1959	• Overall Site – the Site appears similar to 1949, as agricultural land (cropping or stock). The photography is of lower quality, with land use more apparent for stock/grazing. There appears to be no significant change to land use or property boundaries in comparison to 1949 aerials.
	• Notable specifics of the 1959 aerial include:
	  • Slight increase in erosion around the western portion of the Site (around Property 4/ 5), with several unsealed tracks present within this area;
	  • The surrounding land use appears similar to 1949, with changes of note including increase and size and 'activity' of the sand mining operation to the west of the property along Strachan Rd, One Tree Hill appears to have been upgraded and widened (still appears unsealed), and an increase of impacted land associated with the sand mining operation to the south; and
	• The aerial photograph is in black and white.

1968	• Overall Site – the Site appears similar to 1959, as agricultural land (cropping or stock). The photography is of moderate quality. There appears to be no significant change to land use or property boundaries in comparison to 1959 aerials.
	• Notable specifics of the 1969 aerial include:
	  • Increased operations and establishment of more track, disturbed land surrounding the house on property 3/ 4, this area appears to be associated with the sand mining operation along Strachan Rd (neighbouring property);
	  • The drainage valley within the Site, especially in the north west portion appears to have eroded more along the channel;
	  • The surrounding land use appears similar to 1959, with exception of an increase in agricultural activity to the west (cropping is visible, and the establishment of several building associated with it and slight change to the road structure); and
	• The aerial photograph is in black and white.

Aerial Date	Observational Comments

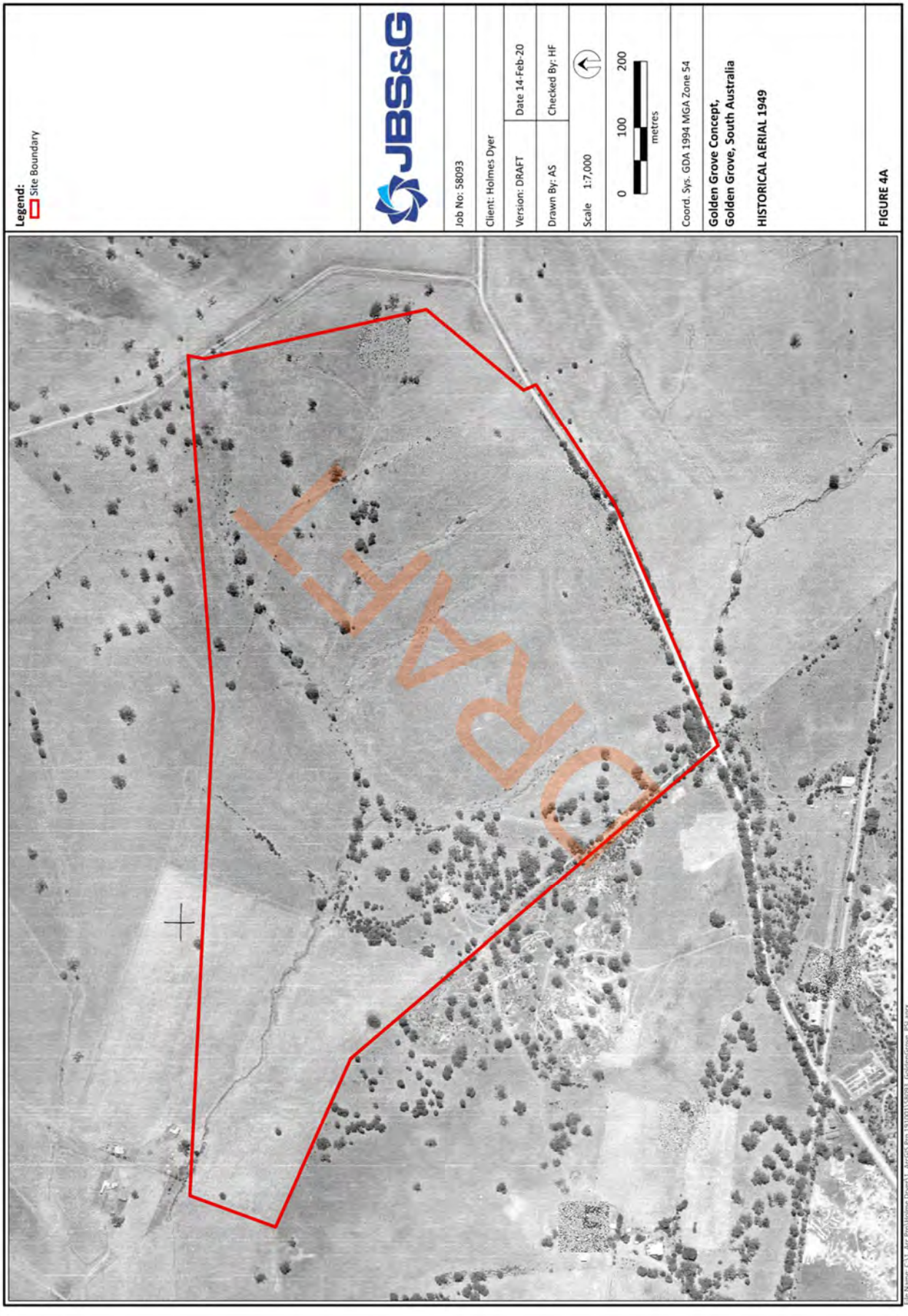
1979	• Overall Site – the Site appears similar to 1969, as agricultural land (cropping or stock). The photography is of good quality, with the majority of the Site appearing as grazing paddocks. Property 7 (boundary and residential building) has been established in 1979 and is similar to current layout.
	• Notable specifics of the 1979 aerial include:
	  • The erosion around the drainage valley onsite is more apparent within the aerial;
	  • The high voltage electrical transmission lines that extend through the Site are visible (as current layout) with pylons present in Property 5 and 7;
	  • The surrounding land use appears to change slightly, especially to the south and west of the Site, with the establishment of several more rural properties. The sand mining operations neighbouring the Site is more visible, with the presence of a pit observable. The main road, One Tree Hill Road appear to have been sealed by 1979. The sand mining operations to the south of the Site (GGEIZ) appear to have expanded to the south; and
	• The aerial photograph is in colour.

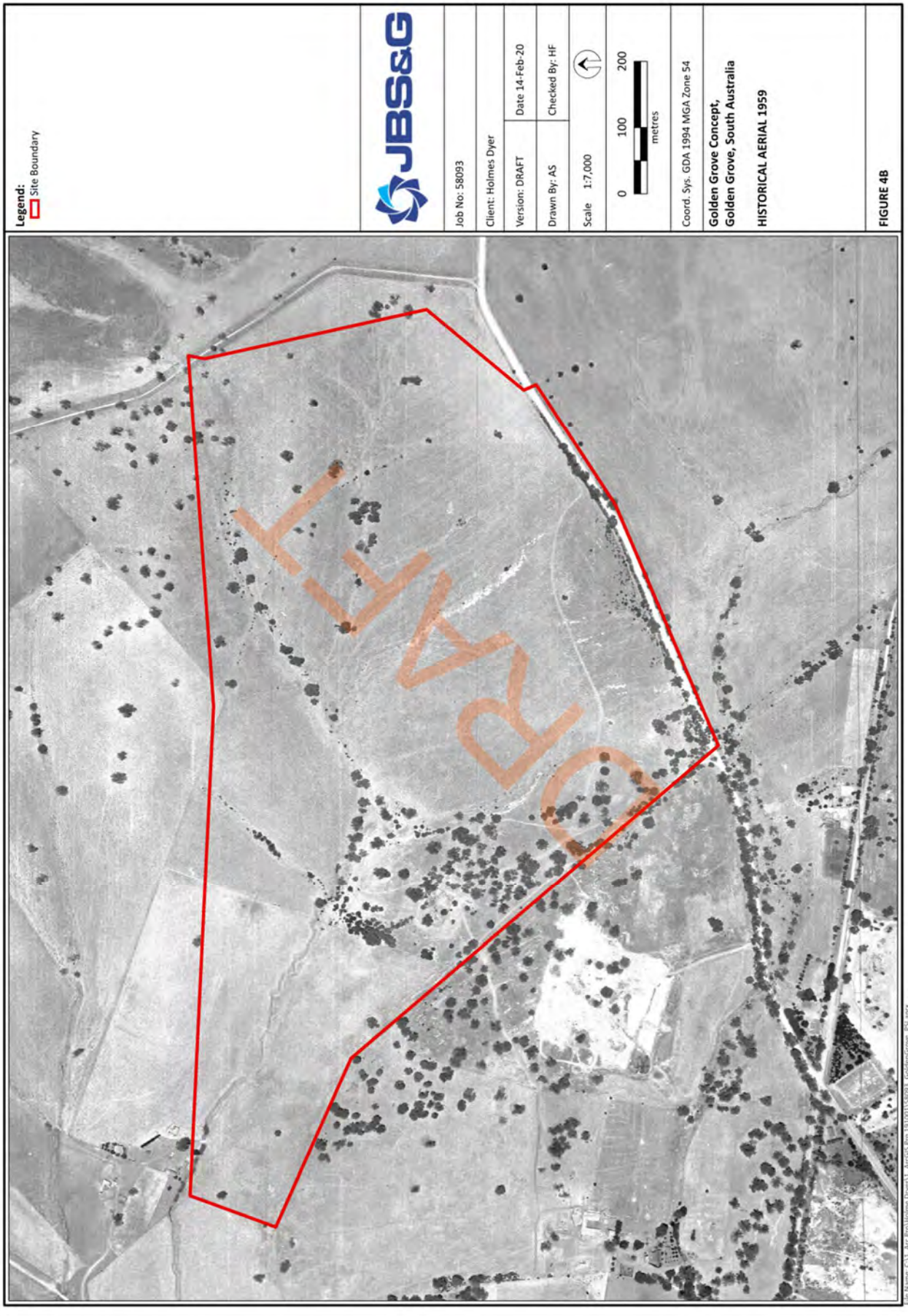
1989	• Overall Site – the Site has had moderate development occur since 1979, with the majority of properties on the site establishing the current property boundaries including Property 3, 4, 5, 6, 8, 12 and 13. New residential buildings (in current layout) have been established on Properties 8, 12, and 13, with the remaining properties only establishing outbuildings (shed) onsite. The general layout of these properties and majority of buildings in 1989 appear as present day. Other properties within the Site appear to not have been developed such as Property 1, 2, 9, 10 and 11;
	• Notable specifics of the 1989 aerial include:
	  • Property 3 appears to be active, with several small buildings and cleared land in the southern portion of the property;
	  • A small shed in present on Property 2, with no other development or activities surrounding visible. Strachan Road appears to have been upgraded and established, and appears sealed;
	  • Property 6, presents as the current boundaries, with only the large agricultural shed (as current) onsite, the dam on the northern boundary appears to have been excavated by 1989;
	  • A slight increase in development on Property 7 with the establishment of stock paddocks and gardens surrounding the house;
	  • The residential buildings on Property 8, 12, and 13 appear similar to current layout;
	  • The site appears to be used largely for stock grazing;
	  • The surrounding land use appears to change significantly with an increase in infill of rural residential properties, mostly to the south of the Site. several equestrian focused properties are present along One Tree Hill Road. To the west, the sand mine neighbouring the Site appears to be non-operational. Additional observations surrounding the Site include, an increase of vegetation along roads, establishment of the motocross park to the north of the Site, and the development of the Little Para Reservoir to the north (including Dam and drainage lines (the area still appears cleared of native vegetation);
	  • Residential housing development has been infilled and completed, while to the north the orchard has been developed into residential properties, further north the industrial park has been infilled with further buildings/businesses, and on the corner of Hepenstal Rd and Main South Road, a hotel has been built. To the east and south (Onkaparinga River National Park), all appears similar to 1979, with an increase of vegetation within the park (the national park was established in 1985). To the south west, the evaporation ponds have been expanded with multiple more (less engineered ponds) ponds being established (associated with the meat works to the south west). Furthermore, the quarry is visible on the southern banks of the Onkaparinga River; and
	• The aerial photograph is in colour.

Aerial Date	Observational Comments
1999	• Overall Site –A significant increase in residential and agricultural development on the Site appears in the 1999 aerial, with all main residential buildings and outbuildings present, and land use similar to that of current layout; • Notable specifics of the 1999 aerial include: • Property 1 appears to be extensively used for market garden crops in association with a neighbouring property to the north. The current sheds appear established in the south east corner; • Property 2 – the residential house has been established, as well as the surrounding land used for market gardens. A dam appears to be excavated neighbouring the drainage valley (which appears currently used as a dam). • Property 3 appears as observed in the 1989 aerial; • Property 4 – the residential buildings appear newly built, with ground disturbance adjacent to the drainage channel (appears to be the dumping of soil material from the residential building associating with block levelling); • Property 6 – increased development of the property including surrounding the agricultural shed and portioning of property for land use (paddock, olive grove, produce gardens); • Property 8 – establishment of a training track in the northern portion of the property; • Property 9 – development of residential and shed, as current layout. the property also appears with the earthworks laydown areas (as current) including the soil storage area; • Property 10 – the residential building has been built, with the surrounding produce gardens (olive grove and vineyard) appear to be under development. the northern portion of the property appears as current use (Stock; hobby farm) and small dam developed in the north west corner; • Property 11 – the residential buildings have been established on the property; • Property 12 – a slight increase in development visible surrounding the residential portion of the property, including small stockyards/ pens to the south of the house; • Property 13 - a slight increase in development visible surrounding the residential portion of the property, establishment of a dam in the central area (within drainage valley); • The surrounding land use appears to change, with the most significant change to the west of the Site where residential housing development has occurred infilling historical agricultural land, the development neighbours the north west portion of the site. Additionally, a small sand mine has been expanded and developed to in-between the Site and the new residential development. to the east of the Site, the Little Para Reservoir appears to be revegetating the area, with significant trees visible. South of the Site appears to be similar, if not slightly more developed than the previous historical aerial (1989).; and • The aerial photograph is in colour.
2005	• Overall Site – the Site appears very similar to the 1999 aerial. The only major change noted is the lack of agricultural activity on Property 1; • Notable specifics of the 2005 aerial include: • Property 4 – establishment of a small olive grove within the north east corner of the property; • Property 6 – residential house built (as current) with produce gardens present; • Property 10 – olive garden and vineyards established; • Property 11 – olive garden / orchard established east of residential house; • The surrounding land use appears to be similar to that of the 1999 aerial, with continued increase of residential housing development to the west of the site. the sand mine to the west of the site appear to have been decommissioned and infilled, and the Little Para Reservoir appears to be continuing with reestablishment of the native vegetation, with density increasing; and • The aerial photograph is in colour.

Aerial Date	Observational Comments
2009	• Overall Site – the Site appears very similar to the 2005 aerial. Visual changes of note include, an increase of established trees in the western portion of the Site and increased intensive agricultural activity on Property 2. All the Site's properties appear more established and in line with current observations; • The surrounding land use appears to be similar to that of the 2005 aerial with exception to the west where residential development as advance westerly over the historical sand mining operations and bordering the western boundary of the Site. this housing development appears to be under construction and is yet to be complete in full. To the east of the Site, the Little Para Reservoir continues to increase in vegetation density; and • The aerial photograph is in colour.
2019	• The Site and surrounds appear to be largely unchanged from the 2009 aerials. A visible degradation of some of the residential out-buildings and agricultural infrastructure (horse training areas) is notable within the current aerials. Surrounding the site has continued with regard to the residential development completed to the west and the increase in vegetation within the Little Para Reservoir to the east; and • The aerial photograph is in colour.

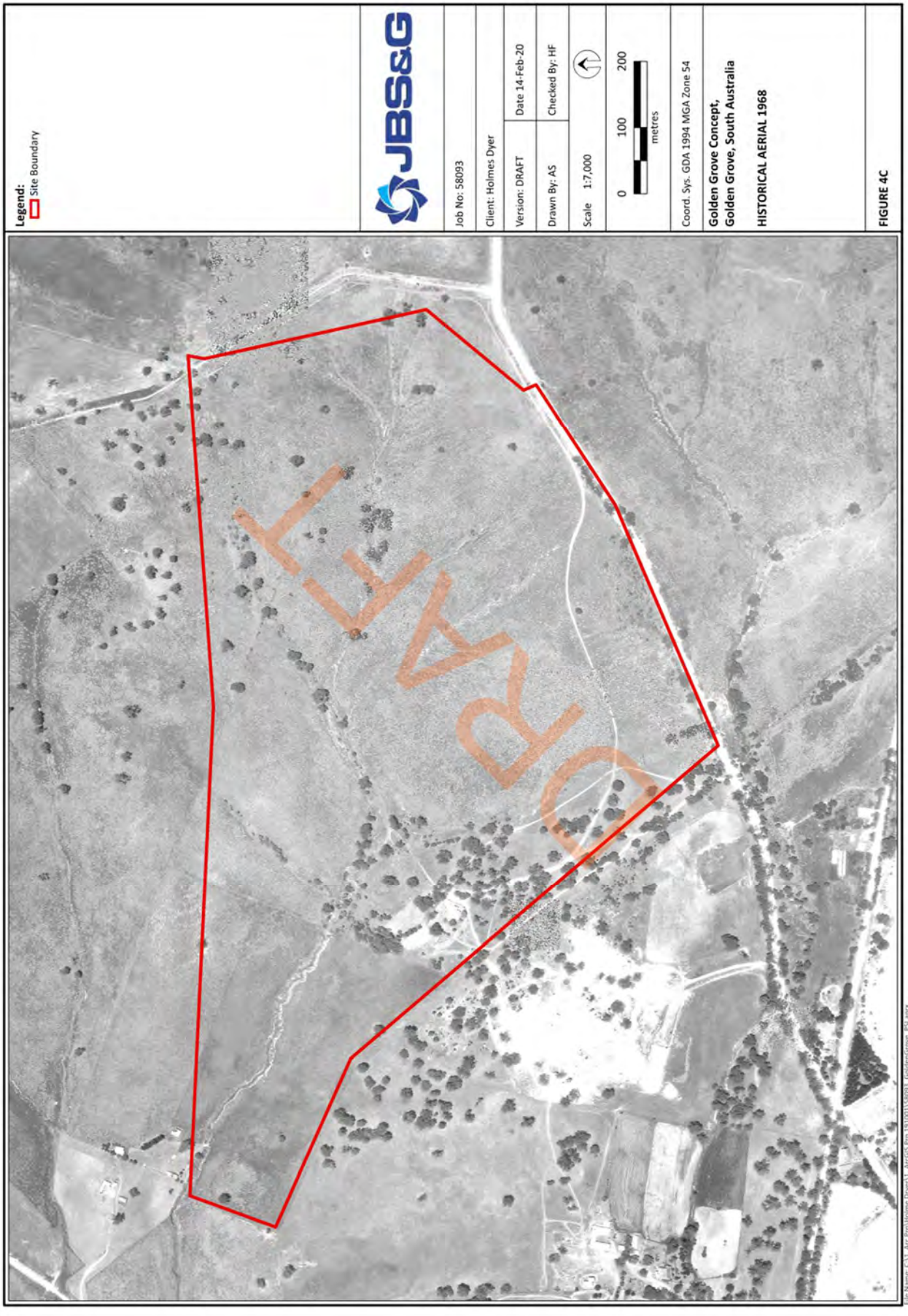
DRAFT

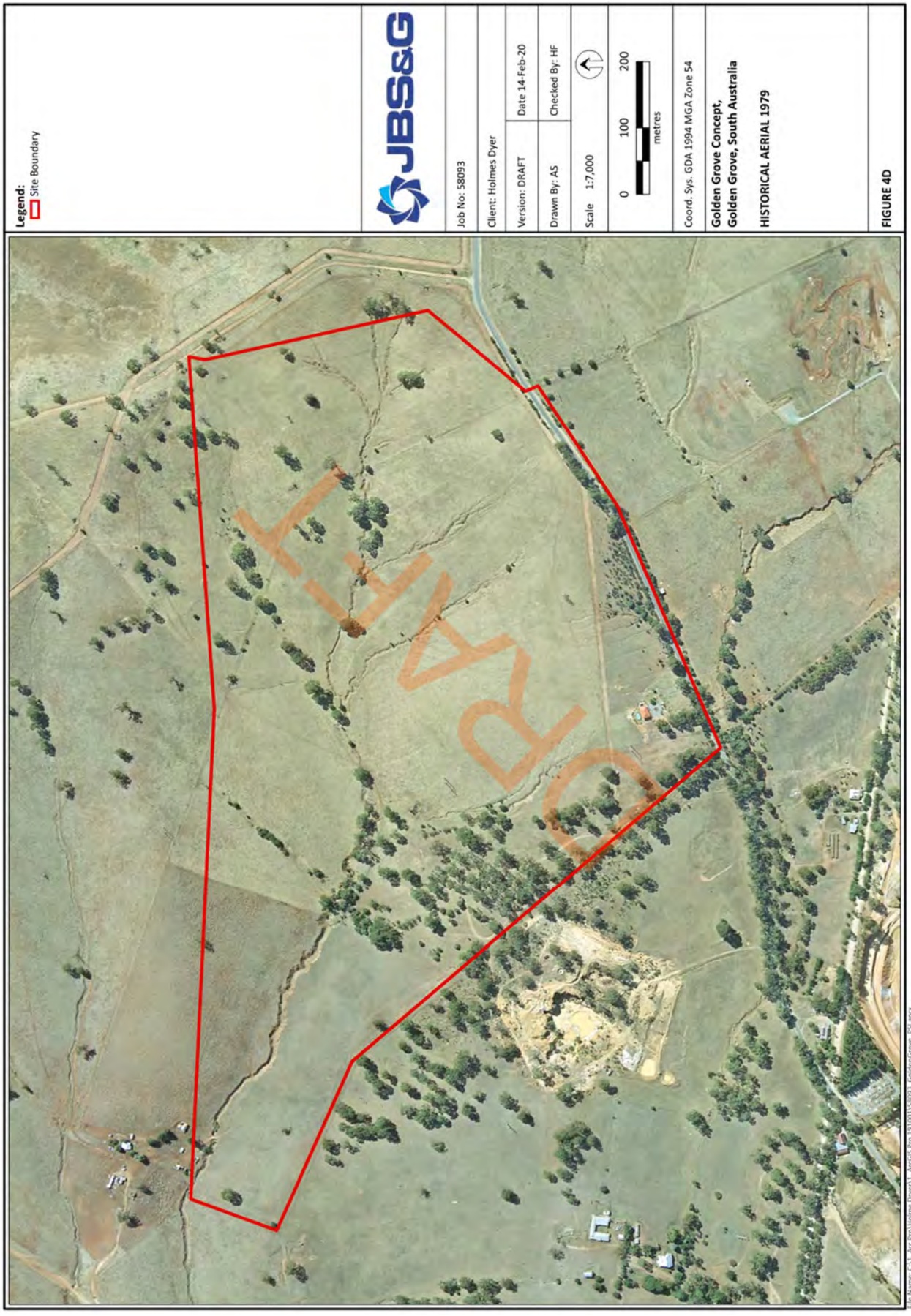

Legend:
Site Boundary
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: HF
Scale 1:7,000
0 100 200
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
HISTORICAL AERIAL 1949
FIGURE 4A
DRAFT



Item 13.1

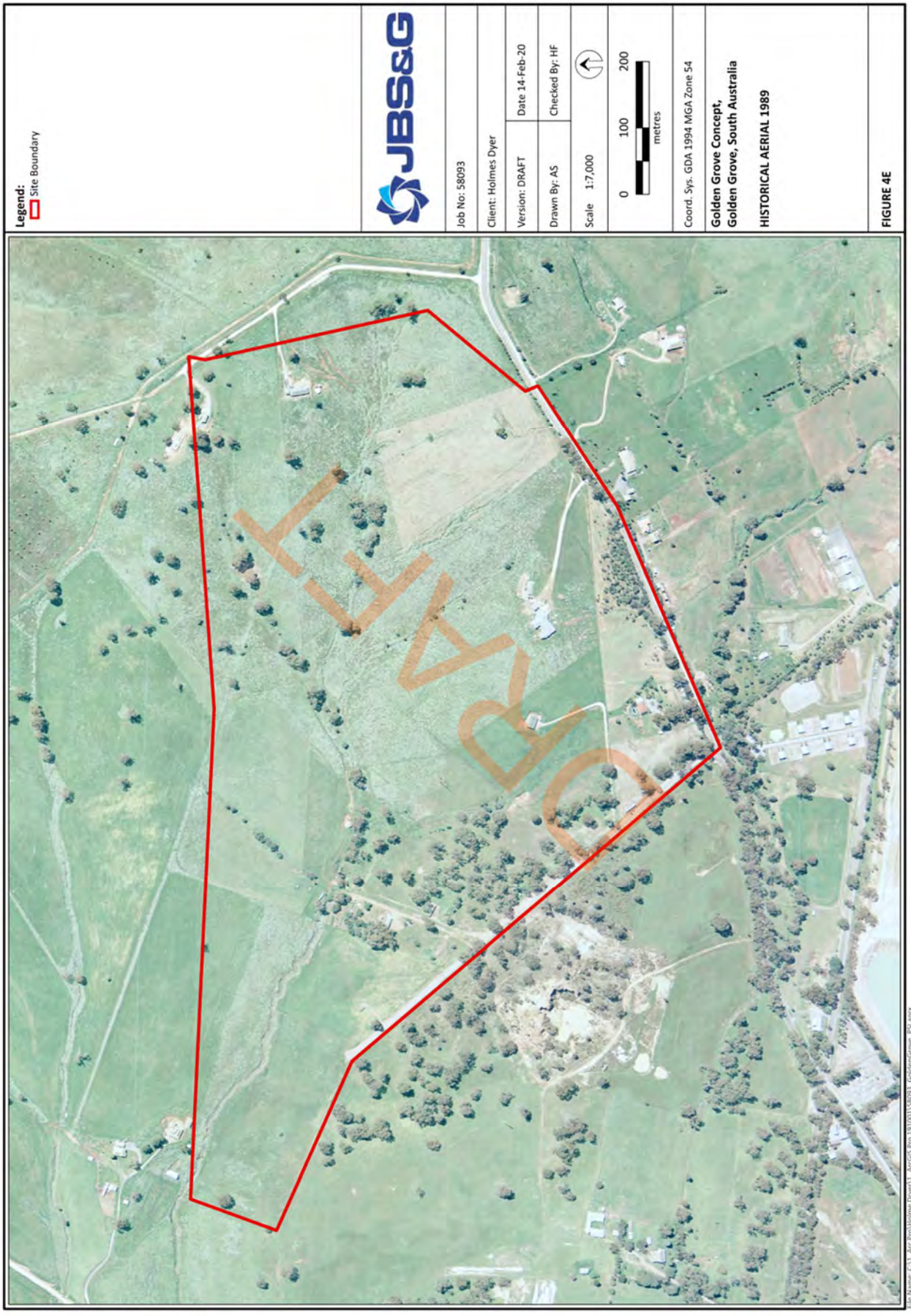
Attachment 6

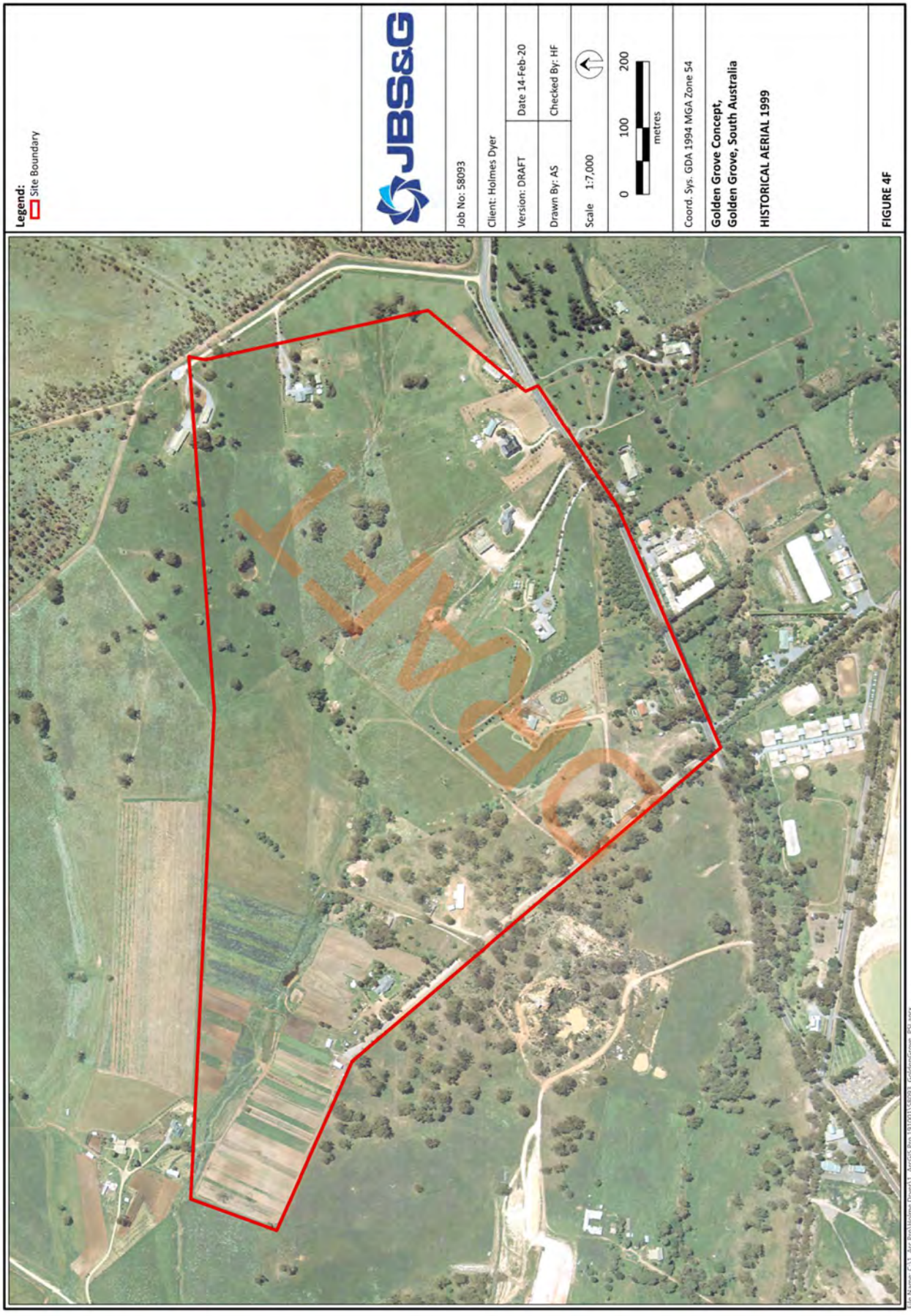

Legend:
Site Boundary
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: HF
Scale 1:7,000
0 100 200
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
HISTORICAL AERIAL 1968
FIGURE 4C
DRAFT



Item 13.1

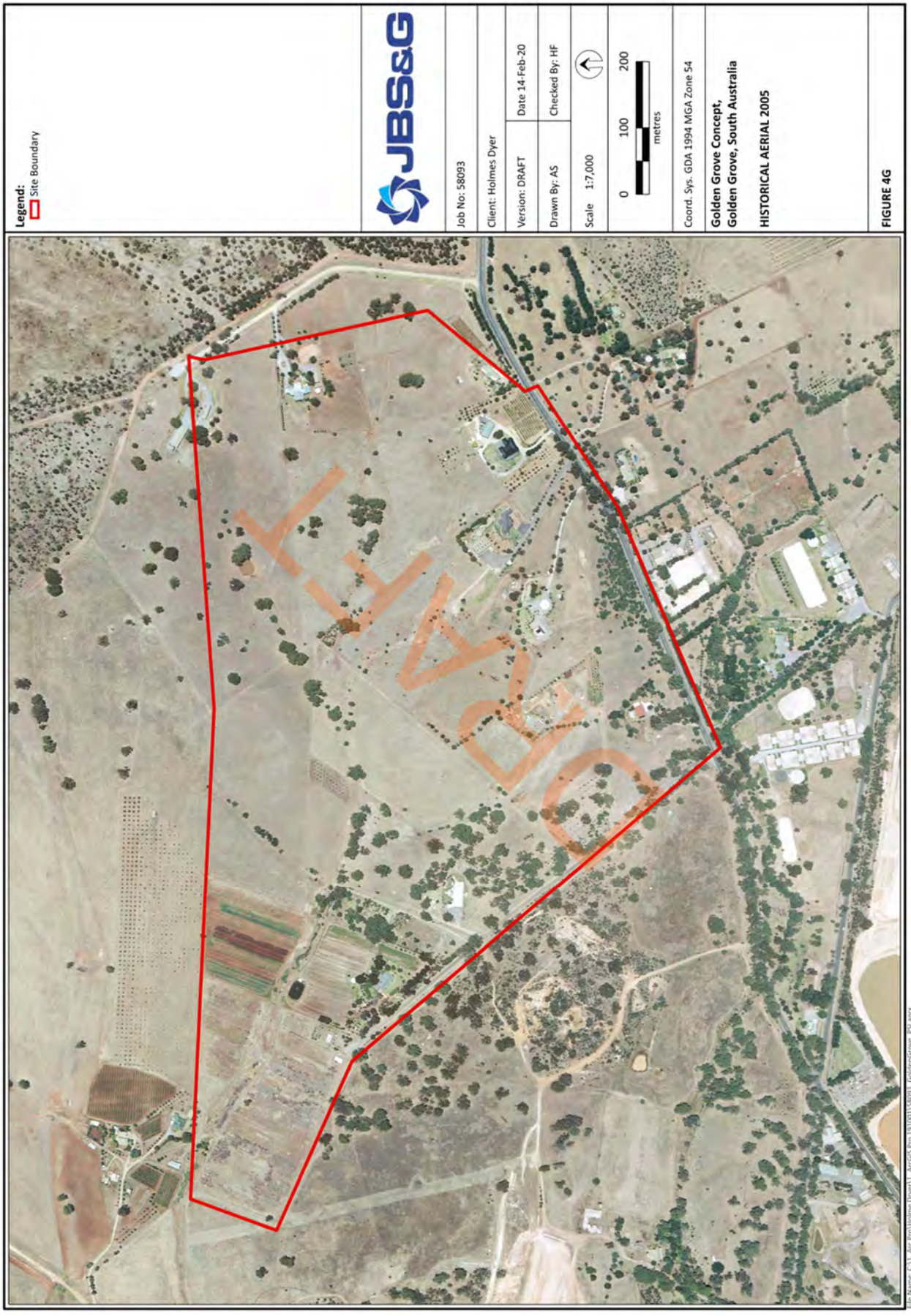
Attachment 6

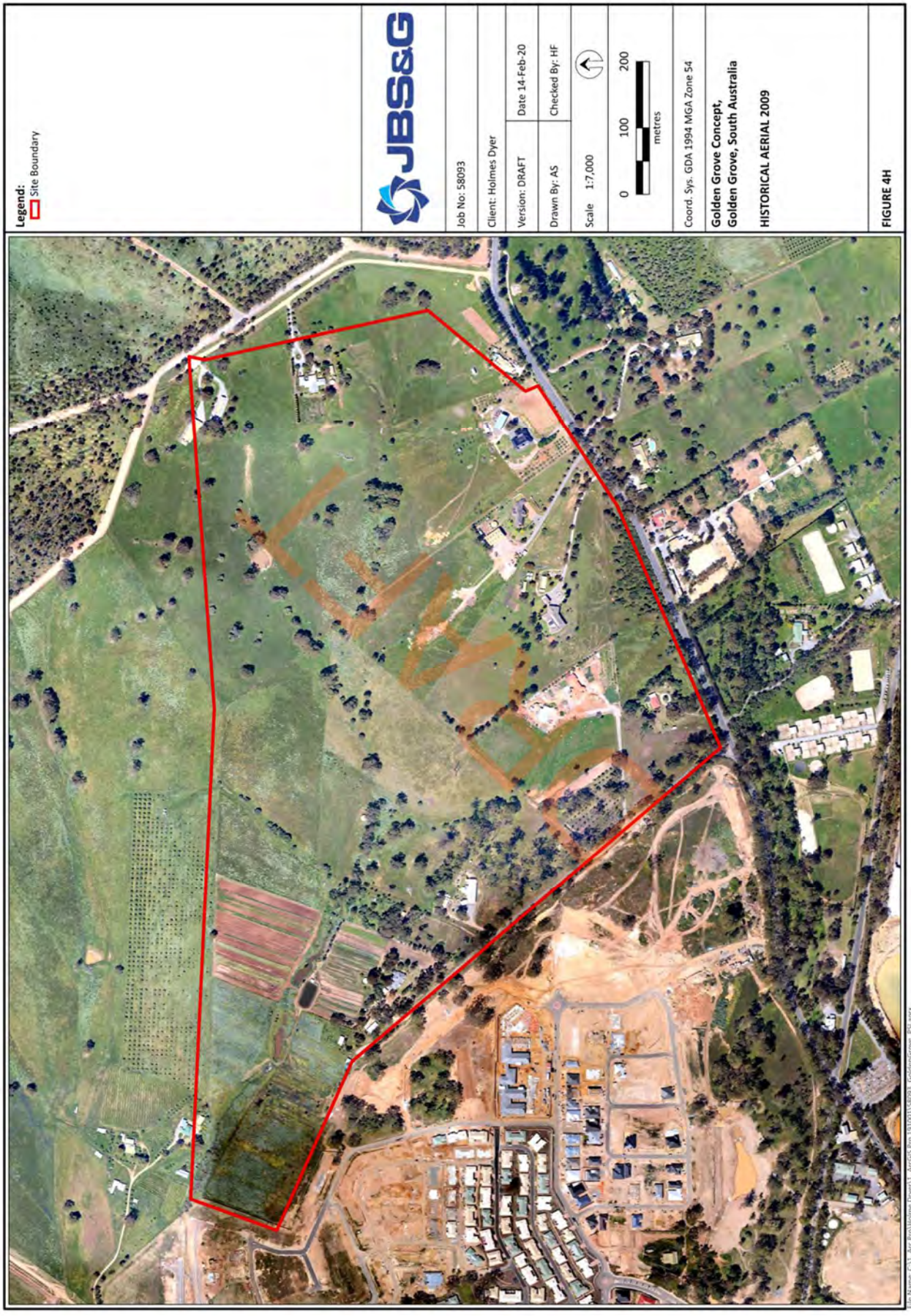

Legend:
Site Boundary
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: HF
Scale 1:7,000
0 100 200
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
HISTORICAL AERIAL 1989
FIGURE 4E
DRAFT
File Name: C:\3_ArcPro\Holme Dyer\3_ArcGIS Pro 3\3106\13809\3_GoldenGrove_JPG.aprx
Reference: South Australian Department of Environment, Water and Natural Resources (Mapland)



Item 13.1

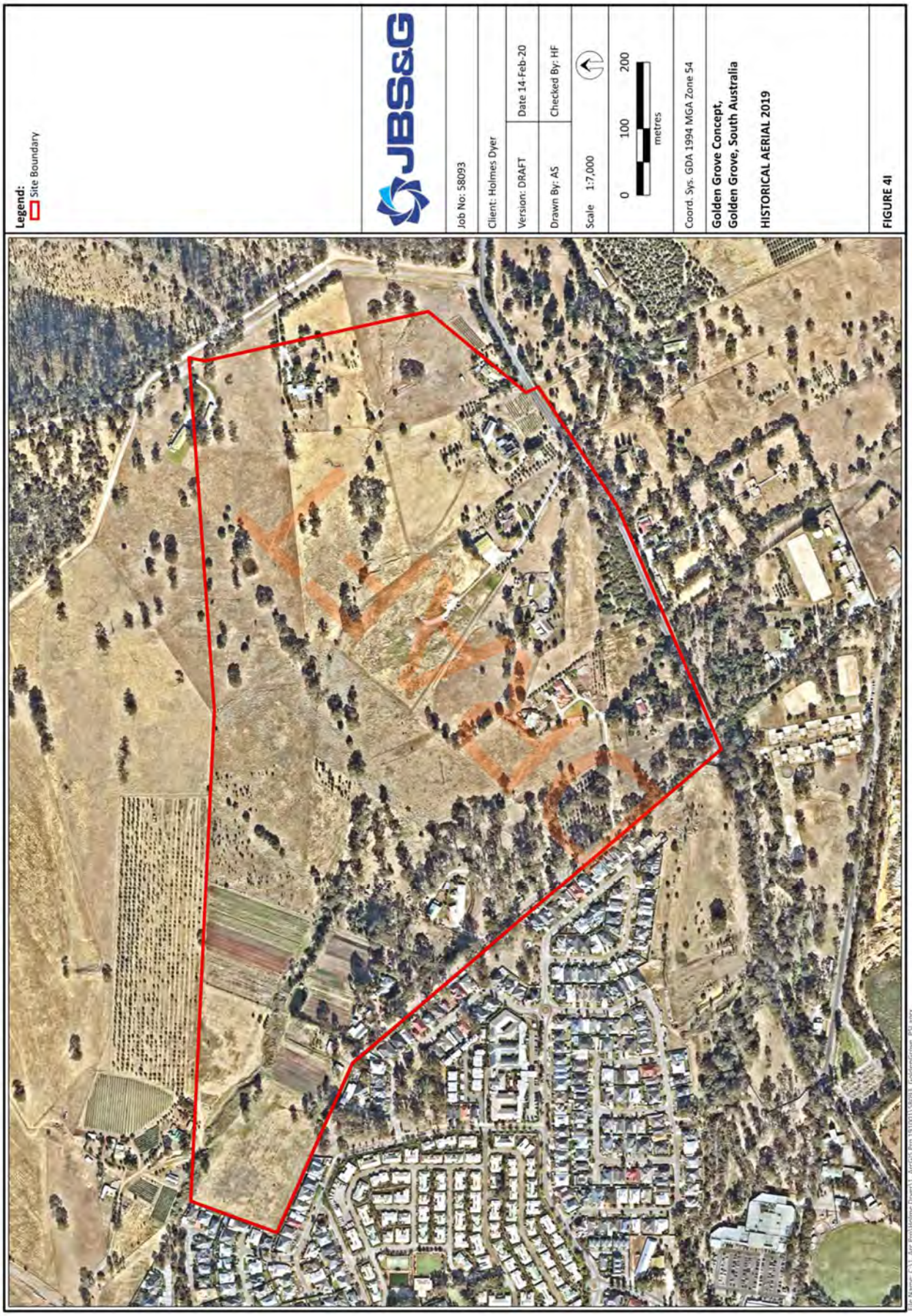
Attachment 6


Legend:
Site Boundary
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: HF
Scale 1:7,000
0 100 200
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
HISTORICAL AERIAL 2005
FIGURE 4G
DRAFT



Item 13.1

Attachment 6


Legend:
Site Boundary
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: HF
Scale 1:7,000
0 100 200
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
HISTORICAL AERIAL 2019
FIGURE 4I

2.9 Review of SA EPA Records

JBS&G has conducted a review of publicly available SA EPA records including a Section 7 searches and the EPA's Site Contamination Index[9] for the Golden Grove Site and individual properties within.

2.9.1 Section 7 Searches

JBS&G has conducted an EPA Section 7 Search for each parcel of land within the Golden Grove Site (Property 1 to 13, as described in **Table 2.1**). The search results are summarised below:

- EPA do not hold information relating to orders or agreements under the *Environment Protection Act 1993* (the Act) in relation to either parcel of land;
- EPA do not hold information relating to current or historic licences/authorisations issued under the Act in relation to either parcel of land;
- EPA do not hold information relating to activities of environmental significance, waste depots or activities producing listed wastes, current or historic in relation to either parcel of land;
- EPA do not hold information relating to the existence of site contamination, including:
  - Details of serious or material environmental harm caused or threatened in the course of an activity;
  - Details of site contamination notified to the EPA under Section 83A of the Act;
  - Copies of environmental reports that are required to be recorded in the EPA Public Register;
  - Copies of a site contamination audit report (including pre- 2009) or the commencement or termination of a site contamination audit;
  - Details of any agreements for the transfer of liability for site contamination;
  - Details of voluntary site contamination assessment or remediation proposals entered into under the Act;
  - Details of records held by the former South Australian Waste Management Commission relating to waste having been deposited; and
  - Copies of Health Commission Reports prepared by the South Australian Health Commission.

The above search results indicate that there are no previously known contamination issues with regard to the property details within the Golden Grove Site. Copies of the EPA Section 7 search result letters are included in **Appendix E**.

2.9.2 Site Contamination Index

JBS&G conducted a search with the SA EPA Site Contamination Index Search, which provides a list of site contamination information received by the SA EPA and recorded in the public register under the *Environment Protection Act 1993*.

Search results for the suburb of Golden Grove (and surrounding suburbs in close proximity including Gould Creek and Greenwith), presented in **Table 2.3**, indicates that there are no site contamination records in the SA EPA Public Register on the Site or on the adjacent sites, both contemporary and

[9] https://www.epa.sa.gov.au/data_and_publications/site_contamination_index/search-the-contamination-register, accessed 5 February 2020

historic records that show any PCAs that could affect the site conditions. This supports the Section 7 search that was undertaken.

Table 2.3: Search Contamination Site Index – Golden Grove and Surrounding Suburbs (SA EPA)

Notification no	Type	Address	Potentially Contaminating Activity	Potentially Affecting the Site
61442	109 Notification	8 Ross Road GOLDEN GROVE SA 5125	Landfill sites	No (proximity 1.5 km down gradient)
61613	Liability Transfer	8 Ross Road GOLDEN GROVE SA 5125	Landfill sites	No (proximity 1.5 km down gradient)
13295	Pre 1 July 2009 Audit Notification	Yatala Vale Road GOLDEN GROVE SA 5125	Not recorded	No (proximity 3.0 km down gradient)
12348	Pre 1 July 2009 Audit Notification	Golden Grove Road GOLDEN GROVE SA 5125	Not recorded	No (proximity 3.0 km down gradient)
11789	Pre 1 July 2009 Audit Notification	Lot 12 One Tree Hill Road & Lot 13 Crouch Road GOLDEN GROVE SA 5125	Not recorded	No (proximity 0.5 km down gradient)
13295 - 001	Pre 1 July 2009 Audit Report	Yatala Vale Road GOLDEN GROVE SA 5125	Not recorded	No (proximity 3.0 km down gradient)

Furthermore, a search of the SA EPA areas under assessment (EPA have a number of site contamination areas that shows potential risks to human health, and to be assessed) and groundwater extraction prohibited areas, shows no area close to the Golden Grove Site or the surrounding suburbs.

2.10 Review of SafeWork SA Dangerous Goods Records

A SafeWork South Australia (SA) Dangerous Goods Search was conducted on a some of the individual property addresses (within the Golden Grove Site) including Properties 7 and 8. Results for the properties required were provided to JBS&G on the 4 February 2020. The other properties have yet to provide signed authorisation to conduct the searches for the dangerous goods records. **Table 2.4** presents the results recorded against both the property details (same results for both properties):

- Property 7 - 147 One Tree Hill Road, Golden Grove SA 5125; and
- Property 8 - 185 One Tree Hill Road, Golden Grove Sa 5125.

Table 2.4: Dangerous Substances Licence Search Results

Class	Quantity	Storage Type
2	420 kg	Gas Cylinder Above Ground External
2	4.5 kL	Gas Tank Above Ground External
3	10.6 kL	Liquid Tank Underground External

The above ground gas cylinders (420 kg) presented in the results were noted during the site inspection, with the majority of residential dwellings within the Site storing the gas cylinders in close proximity to the house, for use with residential needs (heating and cooking). The storage of above ground gas cylinders (of Class 2) presents no risk to the environmental conditions on the site.

The presence of both the above ground gas tanks and underground liquid tanks on the properties (7 and 8) was reported within the dangerous goods search results. The site inspection conducted for both properties presented any indication of current or historical infrastructure relating to the tanks (both above and below ground). Furthermore, an interview was conducted with the landowner of Property 8, whom had no knowledge of the large volume chemical storage units onsite, since ownership of the site began in the 1980s. It is likely these results present as false positive due to the nature of the properties, land use, and information gathered during the site inspections.

A copy of the SafeWork SA letter response is included in **Appendix F**.

2.11 Review of Development and Property File Records

A search of the 'Property Location Browser[10]' property enquiry database identified no current or pending development applications (land division) in relation to the properties (1 to 13) within the Site.

2.12 Review of National, State and Local Government Heritage Records

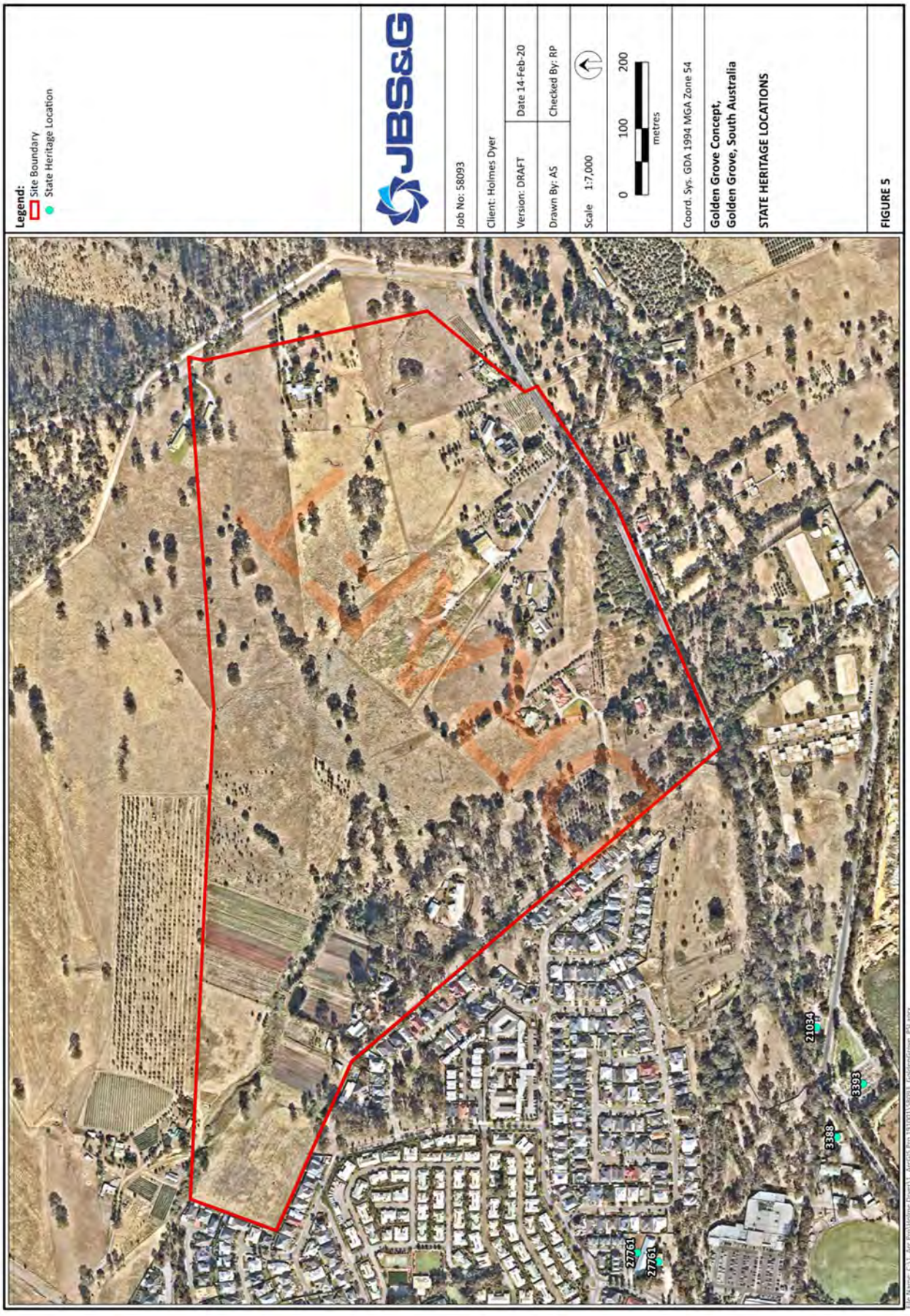
A search of the South Australian Heritage Places Database[11] indicates that the Golden Grove Site does not hold state or local heritage status within the boundaries. A map of the heritage areas is included in **Figure 4**. A list of the Heritage sites in close proximity to the Site is presented below in **Table 2.5**.

Table 2.5: National, State and Local Government Heritage Records surrounding the Site

Heritage No	Address	LGA	Details	Class	State Heritage Place No	Council Reference
3388	Lot 3 Crouch Road GOLDEN GROVE	Tea Tree Gully	Golden Grove Uniting Church	Local		28
21034	Lot 1 Crouch Road GOLDEN GROVE	Tea Tree Gully	House - Former Golden Grove School	Local		79
21037	1375 Golden Grove Road GOLDEN GROVE	Tea Tree Gully	House	Local		76
3393	Lot 7 One Tree Hill Road GOLDEN GROVE	Tea Tree Gully	Golden Grove Cemetery	Local		33
3366	One Tree Hill Road GOLDEN GROVE	Tea Tree Gully	Dwelling ('The Park')	State	14456	
27761	Sandstock Boulevard GOLDEN GROVE	Tea Tree Gully	Golden Grove House, including Stone Cellar/Store	State	12809	
21061	42 Satsuma Crescent GOLDEN GROVE	Tea Tree Gully	Former Ross Dairy Farm	Local		64
3394	Lot 102 The Grove Way GOLDEN GROVE	Tea Tree Gully	Brooklyn Villa Farmhouse	Local		34

No heritage properties are considered likely to affect the contamination status of the Site. The registered heritage sites of interest surrounding the Golden Grove Site are presented in **Figure 5**.

[10] https://maps.sa.gov.au/SAPPA/. Viewed on the 5 February 2020
[11] http://maps.sa.gov.au/heritagesearch/HeritageSearchLocation.aspx, accessed 5 February 2020


Legend:
Site Boundary
State Heritage Location
JBS&G
Job No: 58093
Client: Holmes Dyer
Version: DRAFT
Date 14-Feb-20
Drawn By: AS
Checked By: RP
Scale 1:7,000
0 100 200
metres
Coord. Sys. GDA 1994 MGA Zone 54
Golden Grove Concept,
Golden Grove, South Australia
STATE HERITAGE LOCATIONS
FIGURE 5
21034
3393
6883
27761
27762

2.13 Site Services Infrastructure Network

Plans for underground services in the vicinity of the Golden Grove Site were obtained via the Dial Before You Dig (DBYD) service[12]. Of interest to the Site and contamination status is the electrical transformers cubicles (eight transformers observed) present both within the site (two within Property 3 and 4) and around the Site (the remaining six). During the site inspection, these transformers appeared in good condition, with no signs of leaking of fluids present around the base. Additionally, the DBYD searches confirm the lack of wastewater connection within the Site and the observation (during site inspection) of each residential house connected to a septic tank. While the presence of septic tanks onsite is not considered a PCA, it is of interest with regard potential contamination status surrounding the units.

The result for all known services in the search area is provided in **Appendix G**.

2.14 Review of Data Integrity

The information obtained from the historical sources review has been found to be in general agreement. It is therefore considered that the information provided in this historical assessment has an acceptable level of accuracy.

2.15 Summary of Historical Land Use

Early historical aerial photography (1949 - 1989) appears to show the site has previously been used for primary production/ agricultural activities, either cropping or stock grazing land, with the land being cleared of native vegetation. The review of landownership shows the Site was contained within a single cadastre title from 1876 till around the late 1970 early 1980s where it was partially subdivided and sold off. The site was subject to subdivision to its current allotments around the late 1980s and transferred to current ownership till the late 2000s, where land ownership, change of allotments and land use has remained.

A change in land use during the late 70s – early 80s appears to have allowed the smaller division of the Site into rural residential block (minimum 4 -6 ha), in which the development of these houses appear underway in 1989. From approximately 1988-1989 to present, the property boundaries and ownership of the properties have not changed (with exception of a couple of properties changing ownership in 1990-2000s, see **Appendix D**). In addition, land use activities (hobby farm, market gardens, produce gardens, vineyard, olive grove, stock/grazing and vacant land) have not significantly changed during this time, and only have appeared to cease or minimise operations on some of the properties with infrastructure being abandoned onsite. Currently only a couple of the properties are being used for their 'original' (1980-1990s) activities, with the land surrounding the residential house (and outbuildings) becoming vacant, reduction of use or disused. No significant development of the properties has occurred since 1999, with the largest notable changes in aerial evidence observed on Property 1 and 2, with the current market garden activities.

The surrounding properties/ area in relation to the Golden Grove Site has changed significantly since 1949, with the vast majority of land at that time being used for primary production/agricultural purposes (appears mostly as stock grazing land). The area to the north and broadly to the east of the Site along the was cleared of native vegetation as observed with the 1949 aerials (similar to the Site appearance). The establishment of the Little Para Reservoir and surrounding lands in 1979 changed land use to a 'native reserve'/water catchment area, with the native revegetation of the area beginning around mid-1980s to 1990s and continued steadily till present (the area was first closed to the public in 2008). The area to the east of the site showed significant development from agricultural/ rural blocks to residential development/ urban infill of housing in the 1999 aerial. The spread of urban infill continued to present (2020), where the residential developments border the

[12] https://www.1100.com.au/. Search conducted 24 January 2020

western Site boundary. The south and south east surrounding properties progressed with regards to development at a similar rate to the Golden Grove Site, with rural living and associated businesses (equestrian centres, hobby farms, and market gardens) observed developing between 1979 -1989. The large sand quarry, part of the current GGEIZ, appears to have been operating since the 1949 and has grown till present to occupy approximately 320 ha. Current land uses surrounding the Site include agricultural land and water catchment area (north and east; hills face zone), urban residential properties (west; residential zoned), as well as rural living and the GGEIZ (to the south).

2.16 Potentially Contaminating Activities (PCAs)

2.16.1 On-site PCAs

From the site inspection and desktop review (both historic and current), **Table 2.6** presents the PCAs either known to exist onsite or perceived to exist onsite based of site history.

Table 2.6: On-Site Potentially Contaminating Activities

Property Number	Potential Contaminating Activity	Comment
Property 1	• Agricultural activities • Electrical Transformer – offsite	• Potential historic use of herbicides/pesticides from cropping/farming activities. Potential build-up of nutrients and microbiological materials. • On the south east boundary.
Property 2	• Agricultural activities • Electrical Transformer – offsite	• Potential historic use of herbicides/pesticides from cropping/farming activities (currently an organic certified farm). Potential build-up of nutrients and microbiological materials. • On the western boundary.
Property 3	• Agricultural activities • Fill or soil importation • Electrical Transformer – onsite	• Potential build-up of nutrients and microbiological materials from onsite stock from onsite stock presence. • Soil stockpiles onsite of unknown origin. Within southern portion of the property • Along the eastern boundary.
Property 4	• Agricultural activities • Fill or soil importation • Vehicle recycling and wrecking activities - onsite • Electrical Transformer – onsite	• Potential build-up of nutrients and microbiological materials from onsite stock from onsite stock presence. • Soil stockpiles onsite of unknown origin. • Use of property of the storage or vehicles for the purposes of recycling or wrecking – northern boundary. • Along the western boundary
Property 5	• Agricultural activities • Electrical Transformer – offsite	• Potential build-up of nutrients and microbiological materials from onsite stock presence. • On the southern boundary.
Property 6	• Agricultural activities • Fill or soil importation • Potential burial pits/ disturbed ground surface • Bulk Chemical Storage	• Potential historic use of herbicides/pesticides from cropping activities. Potential build-up of nutrients and microbiological materials from onsite stock presence. • Soil stockpiles and materials onsite of unknown origin. Within southern portion of the property • Within the southern portion of the property, associated with the olive grove.

	• Electrical Transformer – offsite	• Drums (empty) stored onsite within the agricultural shed, unknown historical contents. • On southern boundary of the property,
Property 7	• Agricultural activities	• Potential build-up of nutrients and microbiological materials from onsite stock presence.
Property 8	• Agricultural activities	• Potential build-up of nutrients and microbiological materials from onsite stock presence.
Property 9	• Chemical Storage (AST – Diesel) • Mechanical workshop • Fill or soil importation • Electrical Transformer – offsite	• ~ 5 kL AST observed onsite, potentially for the storage of diesel. • Potential use of property for mechanical maintenance of heavy machinery. • Importation of unknown soil material and the potential for burial of unknown material. • On the southern boundary of the Property.
Property 10	• Agricultural activities • Fill or soil importation	• Potential historic use of herbicides/pesticides from cropping/farming activities. Potential build-up of nutrients and microbiological materials from onsite stock presence. • Importation of unknown fill material for use in produce gardens.
Property 11	• Agricultural activities • Fill or soil importation • Electrical Transformer – offsite	• Potential historic use of herbicides/pesticides from cropping/farming activities. Potential build-up of nutrients and microbiological materials from onsite stock presence. • Importation of unknown fill material for use in produce gardens. • On the southern boundary.
Property 12	• Agricultural activities	• Potential historic use of herbicides/pesticides from cropping/farming activities. Potential build-up of nutrients and microbiological materials from onsite stock presence.
Property 13	• Agricultural activities	• Potential historic use of herbicides/pesticides from cropping/farming activities. Potential build-up of nutrients and microbiological materials from onsite stock presence.
Road Verges	• Illegal dumping of building / municipal waste • Potential historic use of herbicides/pesticides	• Along the road verges within the site (Falkenburg Road). • Along the road verges within the site by council for weed control.

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2.16.2 Off-site PCAs

A list of the PCAs offsite that may affect the site contamination status of the Golden Grove Site are presented below:

- Electrical Transformers – surrounding the Site, current activity, several electrical transformer cubicles are spread on the Site boundary and internally along the roadside verge;
- Agricultural activities – neighbouring site present a small risk in relation the use of herbicides/pesticides from farming/cropping activities and presence of stock (hobby farms). The properties to the north (potentially up gradient) and south (down gradients, separable water catchment area) currently use the land for agricultural purposes;
- The sand quarry – south of the Site, current activity, part of the GGEIZ which is operated under the Mining Act (1971) and subsequent programs for environment protection and rehabilitation (PEPR); and
- Illegal dumping of building / municipal waste – east of the Site, current and historical activity (not observed during site inspection), predominately dumping of inert material, though chemical liquids and PACM may be present within the materials both current and historical.

2.17 Previous Environmental Assessments

There are no records available to JSB&G that indicate that any site contamination assessment and / or remediation works have been completed at the Site.

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3. Environmental Setting

3.1 Regional Topography

Review of published regional topographic data via the South Australian Government Spatial Information (LocationSA Mapviewer[13]) broadly shows that the Site moderately slopes down from the east to the west, with the Site elevation ranging from 258 m Australian Height Datum (AHD) in the south east corner of the Site to 180 m AHD within the drainage channel (north west corner of the Site). General observations have the Golden Site sloping from the east to the north west towards the lower portions of the Little Para Reservoir start of the Little Para River. Several drainage valleys occurring within the Site, that branch into a single exist point for surface waters in the north west corner of the Site (and connecting offsite to Little Para River through the residential development). the eastern boundary of the Site appears to local high point and boundary of the Site watershed. Only minor modifications to the topography appear to have be occurred from the historical developments and associated with levelling of blocks (cutting into hill face) for building requirements.

3.2 Regional Hydrology

Review of LocationSA MapViewer indicated that the closest down-gradient surface water body is the Little Para River and is approximately 1.7 m north west of the Site. As stated in **Section 3.1**, a ephemeral drainage channel/valleys is present within the Golden Grove Site, with multiple branches within the eastern portion of the Site that flow downstream.. The upper reaches of the Little Para River (relative to the Site) is only 1.7 km north west of the Site, being at the base of the Dam infrastructure. The drainage channel joins slightly below, ~100 m the dam wall. The Little Para River meanders approximately ~ 15 km in a westerly direction through the northern suburbs of Adelaide, to flow out into the southern Barker Outlet (Port Adelaide).

Within the Site several stock/ irrigation dams exist (in line with historical observations), including:

- Property 1 – small dam west of the onsite sheds, potentially fed by nearby groundwater well, it is also designed to capture surface runoff. It appears to be used for irrigation purposes of the nearby produce farm;
- Property 2 – moderately sided dam adjacent to the main drainage valley onsite, potentially fed by nearby groundwater well (a pump shed appears to be situated next to dam), it is also designed to capture surface runoff. It appears to be used for irrigation purposes of the nearby produce farm;
- Property 6 – small stock dam on the northern boundary of the property, it appears to be fed by surface run-off and rainfall. The dam appears to be used for stock watering;
- Property 10 – small stock dam on the northern boundary of the property, it appears to be fed by surface run-off and rainfall. The dam appears to be used for stock watering; and
- Property 13 - moderately sided dam within the main drainage valley onsite, potentially fed by nearby groundwater well, it is also designed to capture surface runoff. It appears to be used for stock watering purposes of the hobby farm.

The vast majority of the Site is unsealed with precipitation expected to infiltrate into the soil profile, with excess rainfall, draining through aforementioned valleys. From observations during site inspection and review of DBYD, there is no current municipal stormwater system onsite for the collection of surface run-off.

[13] *LocationSA website*, http://location.sa.gov.au/viewer/, date accessed 27 January 2020.

3.3 Regional Geology and Soils

Review of the South Australia Resource Information Geoserver (SARIG, 2019[14]) indicates that the Site is underlain predominately by Neoproterozoic (+540 million years old) metasediments of the Saddleworth Formation, with an unnamed Tertiary unit present along the south western boundary of the Site. The Saddleworth Formation (the dominate underlying geological unit in the Site) is described as a laminated siltstone with variable carbonate content and lenticular thin sandy interbeds. (Geoscience Australia, 2020[15]). The Neoproterozoic geological units are overlain by younger quaternary sediment units described as;

- East - Shallow to moderately deep acidic soils on rock;
- Central and northern boundary - 'hard red-brown texture contrast soils with neutral to alkaline subsoil; and
- Western Site boundary - Sand over clay soils.

The Site is situated between two major fault line of the Adelaide region, the Para Fault Zone approximately 5 km to the north west and the Eden-Burnside Fault Zone approximately 2 km to the south east.

3.4 Regional Hydrogeology

Registered bore information obtained from the SA Department of Environment and Water (WaterConnect, 2020[16]) is included as **Appendix G**. The search identified 424 licenced groundwater bores to be located within a 2.5 km radius of the centre of the Site (allowance for a 2.0 km buffer from the edges of the Site) and are summarised below in **Table 3.1**.

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[14] *South Australia Resource Information Geoserver*, 100k Geology – Surface Geology, SARIG, https://map.sarig.sa.gov.au/, Government of South Australia, date accessed 27 January 2020.
[15] Australian Stratigraphic Unit Database, Geoscience Australia, https://asud.ga.gov.au/, date accessed 27 January 2020.
[16] WaterConnect, Department of Environment and Water, South Australian Government, https://www.waterconnect.sa.gov.au/Pages/Home.aspx, date accessed 27 January 2020.

Table 3.1: Registered Groundwater Bore Details Summary

Well Detail	Summary
• Status	• 56 wells have been classified as abandoned, backfilled or collapsed; • 14 classified as operational (in service); • 1 reported as equipped with head works; • 1 have not been located (missing location); • 251 have an unknown status; and • 97 reported without a classified status.
• Purpose	• 85 bores have been classified as a monitoring well (or investigation, observational, or environmental well), 12 bores as domestic use (or domestic/general mixed purpose), 16 as irrigation (or mixed irrigation use), 18 for stock use, 1 for a town water supply, 6 for drainage, 223 for exploration use, 5 for industrial use, 1 is a known spring, and 56 as unknown purpose.
• Standing Water Level (SWL)	• SWL ranges from 0.87 mbgl (bore installed within the GGEIZ area) to 106 m depth (to the west of the site, deep fractured rock aquifer, within the Stoneyfell Quartzite).
• Depth	• Bore depth ranges from subsurface to 200.0 m (total depth)
• Aquifer	• Bore installed in the following aquifers include, an unnamed Neoproterozoic unit, Saddleworth Formation, Stoneyfell Quartzite, unnamed Neoproterozoic-Cambrian unit, and the Undifferentiated Tertiary sand aquifer (St Vincent Basin). With the exception of the Tertiary aquifer, all the aquifers are assumed to be fractured rock aquifer type.

Nine groundwater wells are registered within the Golden Grove Site (three observed during the site inspection), with installation depth ranging from 9.1 m to 200.0 m bgl (predominately within the Saddleworth Formation aquifer) and standing water level (SWL) of 1.4 to 75.0 m bgl. The purpose of the wells is stated as either Irrigation or stock use. Total Dissolved Solids (TDS; a measure of the groundwaters salinity has be recorded in the wells to range between 785 to 2000 mg/L (ranging from fairly good quality to unacceptable/ too saline for drinking purposes). Furthermore, groundwater extraction yields were recorded to range between 0.190 L/second (shallow aquifer) to 10.6 L/second (deep aquifer).

3.5 Acid Sulfate Soils

Based on review of geology maps, soil maps, site topography and site observations it is unlikely that acid sulfate soils would be present on-site. Based on the site's elevation, the reported geology and with regard to the Atlas of Australian Acid Sulfate Soils (ASRIS, 2020[17]), no further consideration of requirements for the management of acid sulfate soil is required.

[17] Atlas of Australian Acid Sulfate Soils, Australian Soil Resource Information System, CSIRO Australia, http://www.asris.csiro.au/themes/AcidSulfateSoils.html, date accessed 27 January 2020.

4. Preliminary Conceptual Site Model

The information herein together with the figures included with this report, aid in presenting a conceptual site model (CSM) for the Golden Grove Site, based on relevant site setting information, background historical site information and site investigation data.

The CSM is structured around source-pathway-receptor linkages and is presented in **Table 4.1**.

Table 4.1: Conceptual Site Model

CSM Element	Discussion
Identified Potential Contaminating Activities (PCAs)	The PSI identified PCAs at the Golden Grove Site as: • Fill material of unknown origin imported into the Site for residential development (assorted stockpiles present onsite); • Agricultural activities, cropping of the land which may have required use of herbicides / pesticides and use of the low-density stock farming (cattle, sheep, and horses); • Agricultural activities (vineyard), intensive crop growing with constant use of herbicides, pesticides, and potentially copper sulphates; • Bulk Chemical storage – onsite AST (probable diesel); • Electrical Transformers; • Mechanical workshop; and • Burial pits (potentially). Offsite PCAs include: • Agricultural activities – cropping and stock grazing; • Electrical Transformers; • Illegal dumping of building and municipal waste material; and • Mineral extraction (sand quarry)
Contaminants of Potential Concern (COPC)	The PSI identified the following COPC based on the above PCAs: • Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn); • Herbicides / Pesticides / Copper Sulphate; • Nutrients and biologicals; • Polychlorinated Biphenyl (PCB); • Total recoverable hydrocarbons (TRH); • Benzene, toluene, ethylbenzene, xylenes (BTEX) • Polycyclic aromatic hydrocarbons (PAH); and • Asbestos (PACM)
Potentially Contaminated Media	Based upon the environmental setting and the above identified PAEC/COPCs, potentially contaminated media at the Site has been identified as: • Fill material/surface soils; • Natural Soil; and • Groundwater
Potential Exposure Pathways	The primary exposure pathways of concern with regard to current/future site use comprise: • Direct contact (oral/dermal) with surface and near surface soil; • Incidental inhalation and/or ingestion of soil/dust; and • Use of Groundwater for domestic, irrigation or stock use.
Potential Sensitive Receptors	Potential receptors include: • Residents onsite and within neighbouring sites; • Site workers/visitors associated with current and future commercial activities including maintenance contractors engaged to works at the Site; • Future on-site workers and site occupants in the event of future site redevelopment; and • Should redevelopment occur, future landowners/occupants and residents of the Site.
Potential Preferential Pathways	Preferential pathways have been identified as natural and/ or man-made pathways that result in the preferential migration of COPC as either soils, liquids or gasses.

CSM Element	Discussion
	Man-made preferential pathways are likely present throughout the Site, generally associated with areas of previously disturbed fill material, service easements, alluvial soil channels, and at near surface depths over the remainder of the Site. Fill materials, including those surrounding subsurface infrastructure, and disturbed natural soil are anticipated to have a higher permeability than the underlying natural soil.
Data Gap Identification	Data gaps identified during review of current site conditions, historical site use and existing site investigation reports are summarised in the following points: • Fill material/surface soils. • Natural soils; and • Groundwater.
Source – Pathway – Receptor Linkages	Source-Pathway-Receptor Linkages are discussed following: • Potential source-pathway-receptor linkages have been identified on the Site for dermal contact or ingestion for maintenance workers and redevelopment/construction workers, as well as potential future residential use, biological uptake (in relation to the individual properties and the COPCs associated with those activities).

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5. Conclusions

Based on the historical information available to JBS&G and observations during the site inspection of the Golden Grove Site, it is considered that the likelihood of the existence of significant site contamination at the Site is low. This conclusion has been reached following consideration of the following:

- A review of the site history including ownership information, aerial photography and other anecdotal information suggests that the Site has been used primarily for agricultural /primary production activities from late 1800s till around the late 1970s to 1980s where subdivision of the Site occurred for rural residential purposes (rural living zoned; till current);
- A review of aerial photography of the broader area indicates that the properties surrounding and in the vicinity of the Site have been used for similar land use (both historically and currently) of primary production (stock grazing or cropping) or rural residential. Of note, significant offsite PCAs that may have influence on the Site include the GGEIZ to the south of the Site, electrical transformers surrounding the Site, and ongoing agricultural activities;
- A review of information from the SA EPA and other State and Local Government Departments did not identify any knowledge of site contamination, environmental licences or significant changes in land use at the Site. SafeWorkSA dangerous goods search results, with respect to substantial storage of chemicals (underground gas and liquids), are considered to be an error, based on current land use, site inspection results, and site interviews with owner, with no indication of significant chemical storage on these sites (Property 7 and 8);
- An inspection of current onsite infrastructure was conducted on 28 January 2020, noting that for the majority of properties limited access was available to conduct a thorough site inspection, and supernumerary site observations were made from current aerial, neighbouring properties and road vergers. Focus on the site inspection was to observe onsite activities or infrastructure with the potential to cause site contamination (residential buildings, out-buildings, agricultural sheds, and surrounding land), with all infrastructure considered to be in good condition with limited to no evidence of significant PCAs. The Site was also inspected for signs of any bulk chemical storage infrastructure, and with the exception of the potential diesel AST observed on Property 9, there was no sign of significant chemical storage onsite (underground or above ground storage tanks) or any signs of spills or leaks of chemical liquids. Current agricultural activities onsite, were not observed or comprehended to use or store bulk quantities of herbicides/pesticides, with the most extensive agricultural activities located in Property 1 and 2 being certified organic (no use of chemicals during farming);
- PCAs for the Golden Grove Site uncovered during the investigation include, agricultural activities (both current and historic), potential use of herbicides/ pesticide chemicals, the potential importation of fill material (soil stockpiles noted during investigation), potential burial pits onsite, presence of electrical transformers, and use of property for auto wreckers/parts and potential mechanical workshops; and
- The soil has been indicated, within the investigation area, as a potential contaminant pathway of concern, based on the land use and PCAs undertaken onsite. Groundwater is not considered a media of significant concern, based on the depth from ground level (generally 50-70 m bgl) and the lack of substantial PCAs conducted onsite both historically and current.

The PSI indicates that any existence of significant site contamination is considered low and depended on individual Property activities.

It is understood that selected parcels of land (the Golden Grove Site) are to be rezoned and redeveloped into a residential housing allotment (residential land use) in the form of a small block (~200- 400 m^2) housing community. JBS&G is aware that prior to construction beginning an environmental report demonstrating the land suitability for the intended use (sensitive land use – residential) is required for planning purposes.

5.1 Recommendations

JBS&G recommends the following to further qualify and quantify the Sites contamination status in line with future development requirements:

- A broad scale soil assessment onsite targeting known PCAs including imported fill material (soil stockpiles, potential burial pits/disturbed grounds, chemical storage areas, and more intensive agricultural activities (market gardens, vineyards, stock yards). The soil assessment would aim to test for a broad screen of COPCs, as well as targeted COPCs with regard to individual properties and onsite activities, with potential for further assessment based off the findings (including soil, soil assessment, and/or groundwater);
- The decommissioning of onsite groundwater wells prior to construction beginning on the development, in line with guideline requirements. The decommissioning of the wells minimises the risk of potential contamination ingress from surface sources; and
- The design of the soil assessment to assist with waste classification of the potential excavation soil material to be disposed offsite, as per the planned redevelopment and design of residential housing to be undertaken, and to achieve efficiencies.

Due to the change in land use to a more sensitive use (rural living to residential), a site contamination audit report may be required for development approval.

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6. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Appendix A Current Certificate of Titles for Properties (1 – 13)

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LAND SERVICES SA

Product	Register Search (CT 5774/558)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5774 Folio 558

Parent Title(s) CT 4269/722

Creating Dealing(s) CONVERTED TITLE

Title Issued 17/05/2000 **Edition** 6 **Edition Issued** 15/07/2016

Estate Type

FEE SIMPLE

Registered Proprietor

CARMINE GROVE PTY. LTD. (ACN: 612 806 747)
OF 355 MARTINS ROAD PARAFIELD GARDENS SA 5107

Description of Land

ALLOTMENT 1 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
10486843	CAVEAT BY ILARIO NESCI, MARIA LAURA NESCI, MARIO DEGUISA AND GIUSEPPINA PALMINA DEGUISA OVER PORTION
10862075	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
10862076	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
13136081	CAVEAT BY ROCCO LEONELLO AND JOSEPHINE LEONELLO

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
APPROVED FILED PLAN FOR LEASE PURPOSES FX48374

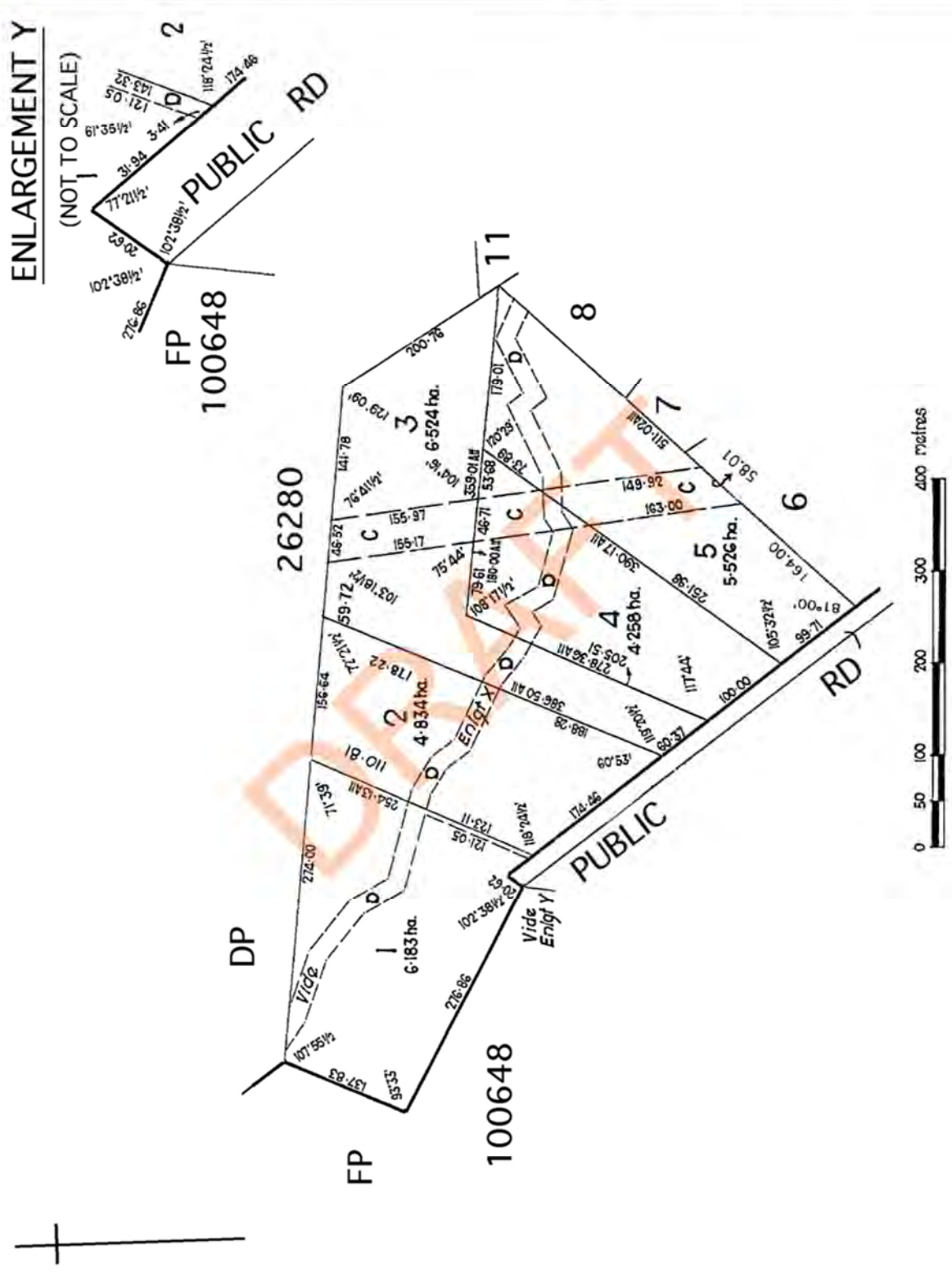
Administrative Interests NIL

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LAND SERVICES SA

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Customer Reference	58093 HF
Order ID	20191217003640

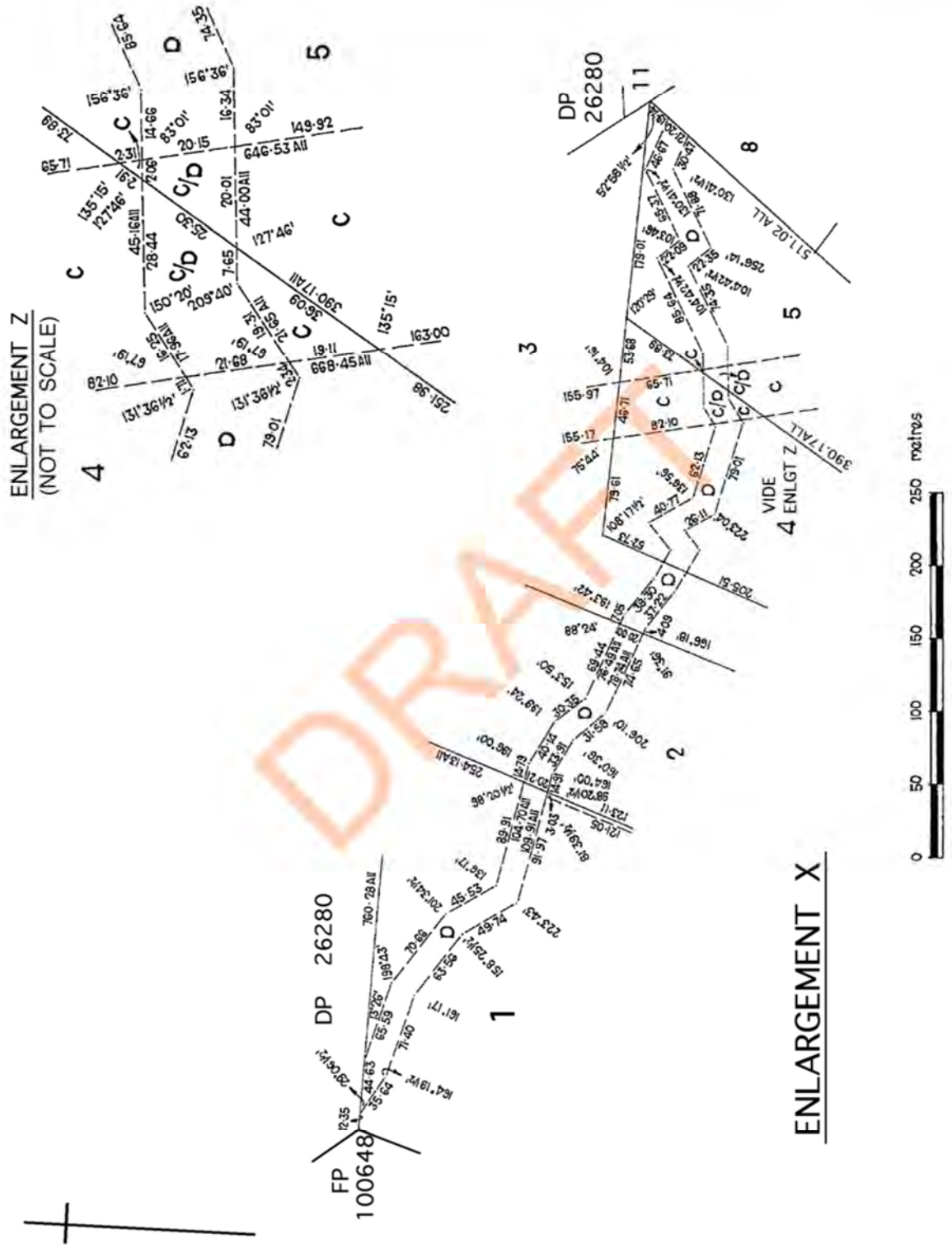


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Product	Register Search (CT 5093/561)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5093 Folio 561

Parent Title(s) CT 4336/309

Creating Dealing(s) CONVERTED TITLE

Title Issued 19/10/1992 **Edition** 4 **Edition Issued** 08/09/1998

Estate Type

FEE SIMPLE

Registered Proprietor

MONIKA NOMINEES PTY. LTD. (ACN: 071 250 774)
OF LOT 2 STRACHAN ROAD GOLDEN GROVE SA 5125

Description of Land

ALLOTMENT 2 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED E TO THE ELECTRICITY TRUST OF SOUTH AUSTRALIA (T 6461394)

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED C (T 6628850)

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
6461396	LEASE TO GOLDEN GROVE WATER CO. PTY. LTD. COMMENCING ON 30/9/1987 AND EXPIRING ON 29/9/2086 OF CERTAIN RIGHTS OVER PORTION
6746391	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6746392	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
8543733	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD.

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
APPROVED FX23999

Administrative Interests NIL

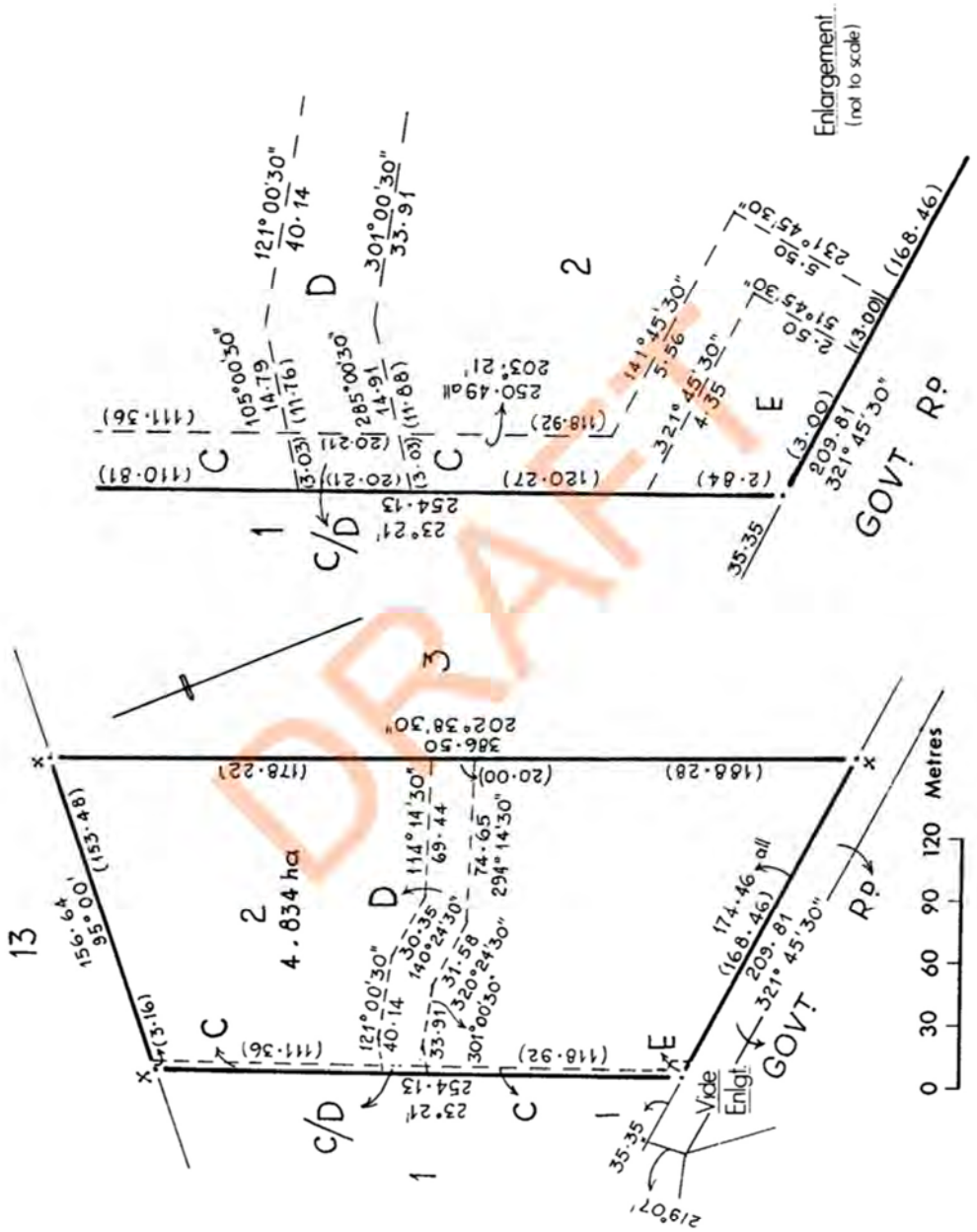
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Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

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Certificate of Title - Volume 5291 Folio 680

Parent Title(s) CT 4316/188

Creating Dealing(s) CONVERTED TITLE

Title Issued 07/09/1995 **Edition** 4 **Edition Issued** 28/06/2013

Estate Type

FEE SIMPLE

Registered Proprietor

ALDO FRANCO
OF 25 PANTOWORA DRIVE HOPE VALLEY SA 5090
3 / 6 SHARE

ELIO FRANCO
OF 1 CLYDESDALE COURT ATHELSTONE SA 5076
1 / 6 SHARE

GIUSEPPE FRANCO
OF 15 SHERWOOD ROAD REDWOOD PARK SA 5097
2 / 6 SHARE

Description of Land

ALLOTMENT 3 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED C.E AND F TO THE ELECTRICITY TRUST OF SOUTH AUSTRALIA (T 2171901 T 6461394 AND T 6461395 RESPECTIVELY)

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
6461396	LEASE TO GOLDEN GROVE WATER CO. PTY. LTD. COMMENCING ON 30/9/1987 AND EXPIRING ON 29/9/2086 OF CERTAIN RIGHTS OVER PORTIONS
6461405	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6461406	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
11952368	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD.

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

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Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
APPROVED FX23999

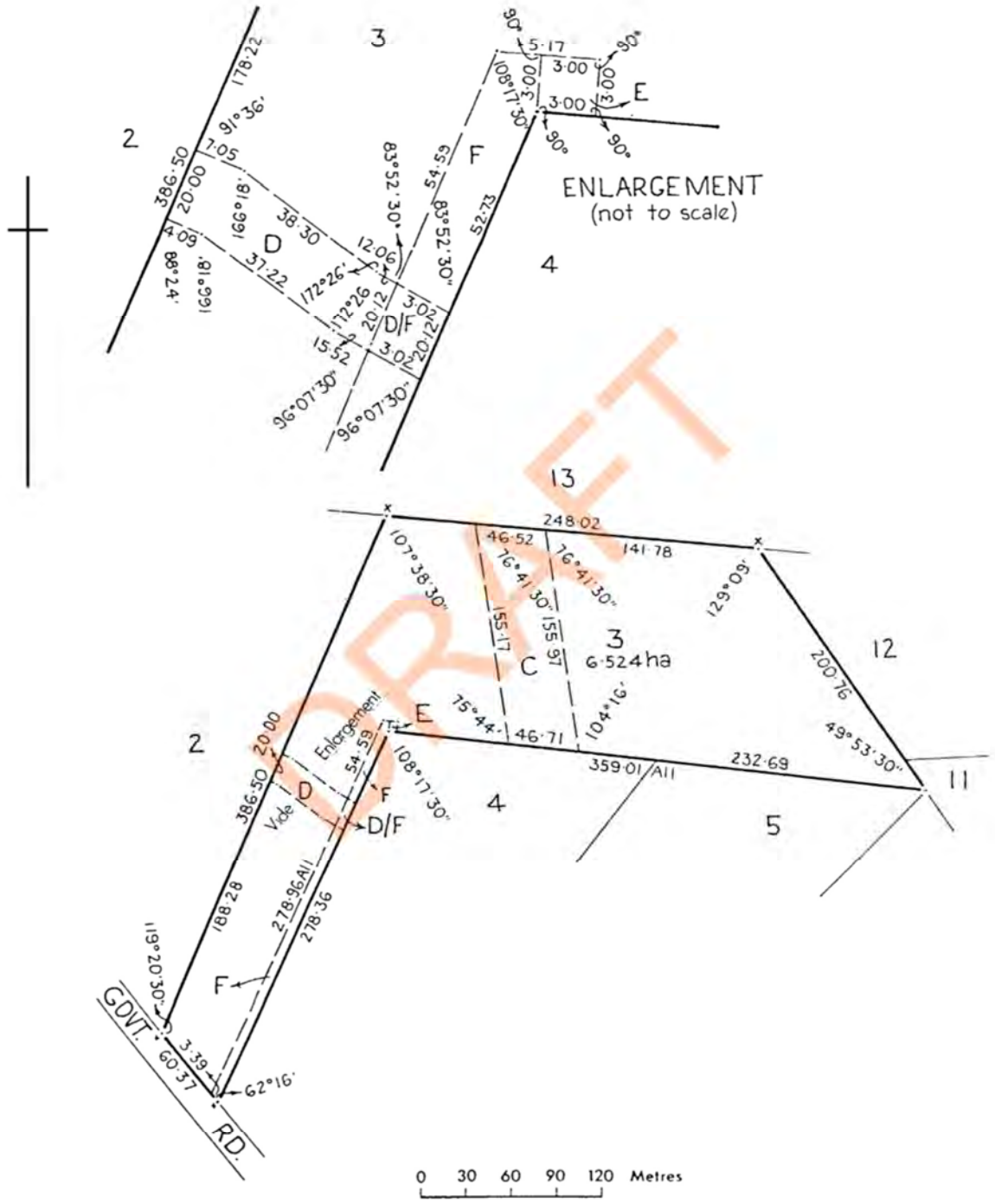
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Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

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Certificate of Title - Volume 5596 Folio 686

Parent Title(s) CT 4269/725

Creating Dealing(s) CONVERTED TITLE

Title Issued 16/11/1998 **Edition** 5 **Edition Issued** 20/11/2006

Estate Type

FEE SIMPLE

Registered Proprietor

TRACEY LEANNE RASCHELLA
OF 14 DIAGONAL ROAD CAVAN SA 5094

Description of Land

ALLOTMENT 4 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED C TO THE ETSA CORPORATION (T 2171901)

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
6461396	LEASE TO GOLDEN GROVE WATER CO. PTY. LTD. COMMENCING ON 30/9/1987 AND EXPIRING ON 29/9/2086 OF PORTION (MARKED Q IN GP 246/1986)TOGETHER WITH CERTAIN RIGHTS
8577262	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
10329138	ENCUMBRANCE TO CITY OF TEA TREE GULLY
10329139	MORTGAGE TO AUSTRALIA & NEW ZEALAND BANKING GROUP LTD.
10580191	MORTGAGE TO AUSTRALIA & NEW ZEALAND BANKING GROUP LTD.

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
APPROVED FX23999

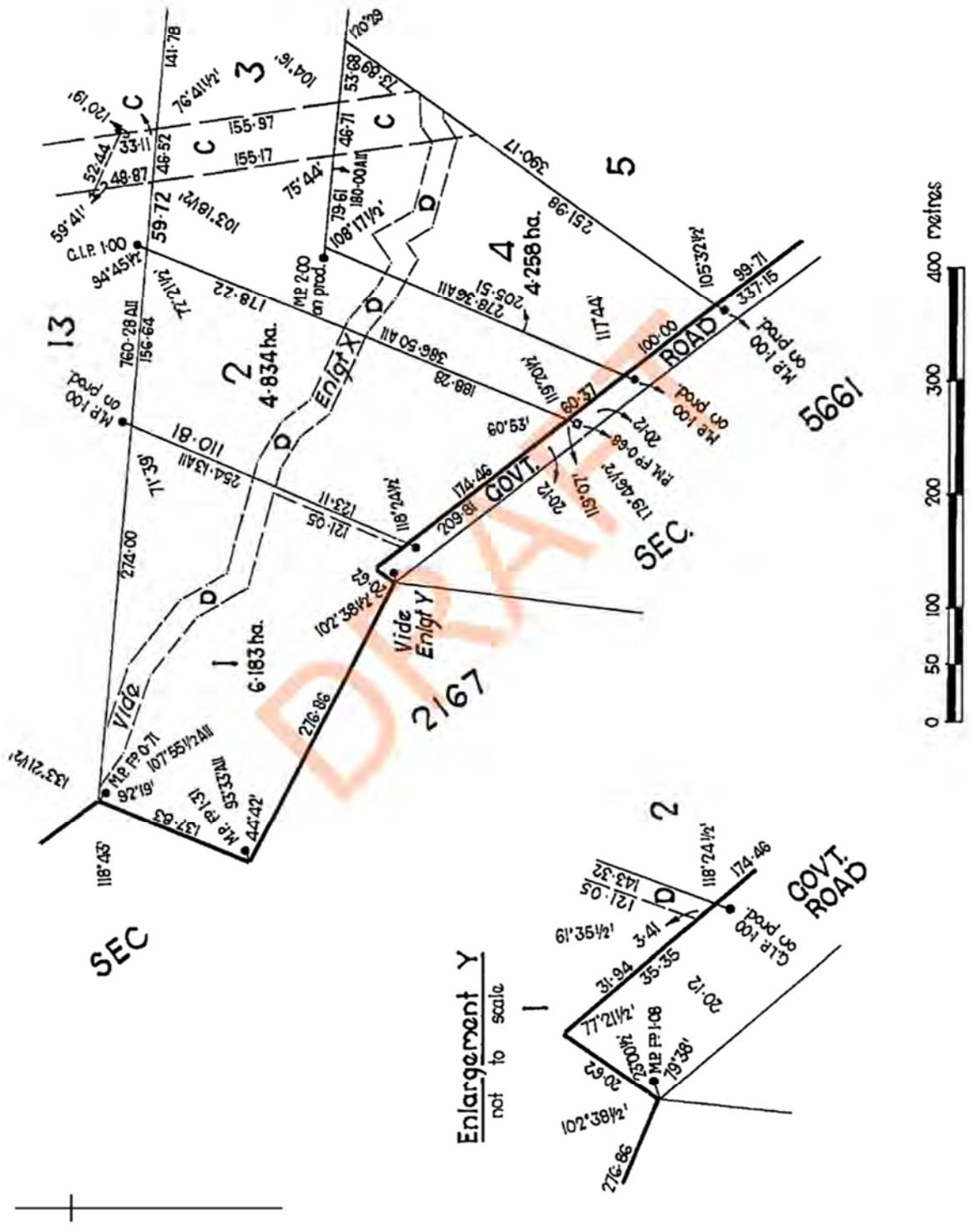
Administrative Interests NIL

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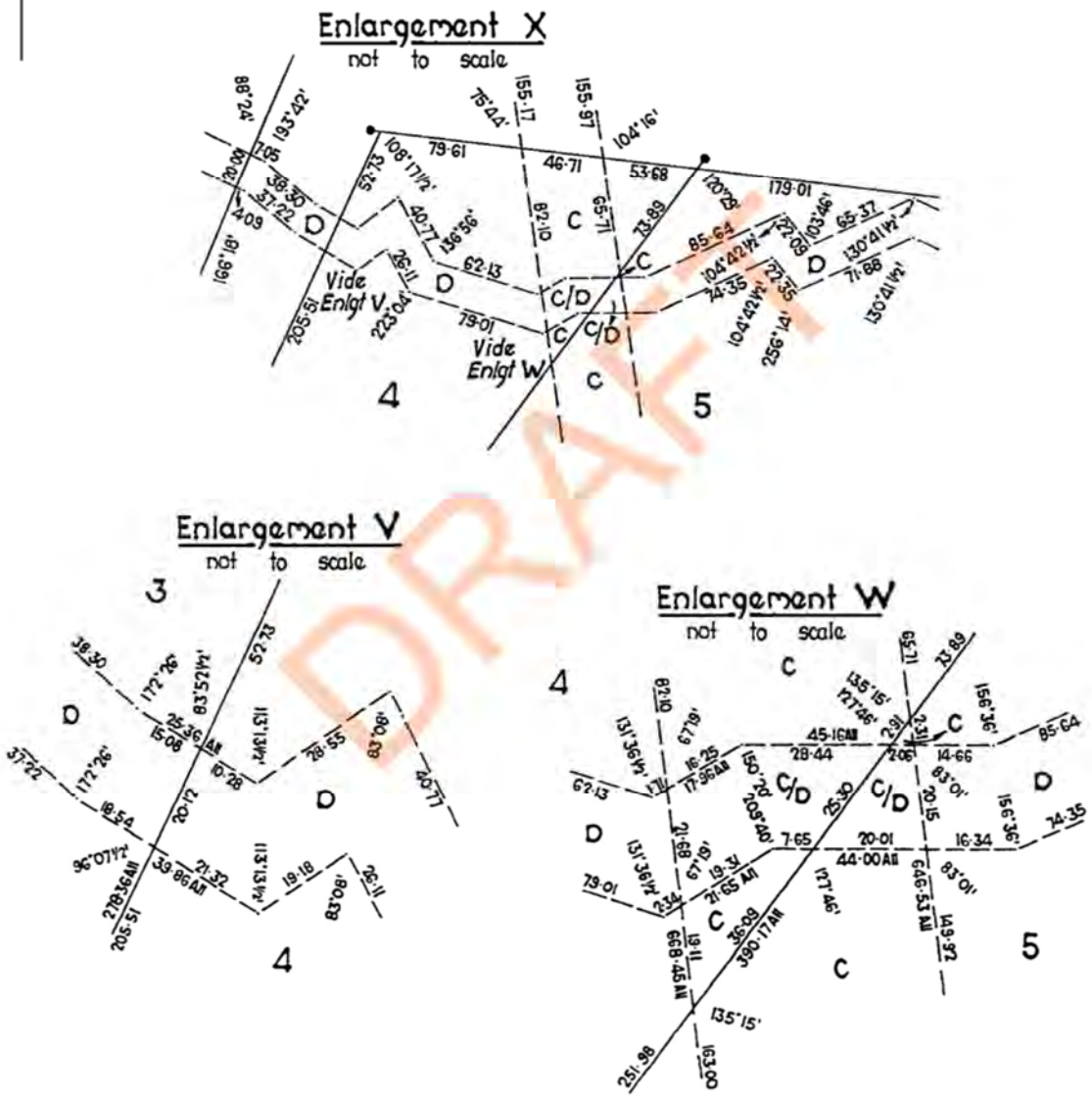
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Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

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Certificate of Title - Volume 5774 Folio 559

Parent Title(s) CT 4269/726

Creating Dealing(s) CONVERTED TITLE

Title Issued 17/05/2000 **Edition** 5 **Edition Issued** 25/07/2016

Estate Type

FEE SIMPLE

Registered Proprietor

CHARLES SALVATORE PARLETTA
OF 8 HENRY STREET HECTORVILLE SA 5073
2 / 3 SHARE

DIODORO PARLETTA
OF CARE 8 HENRY STREET HECTORVILLE SA 5073
1 / 3 SHARE

Description of Land

ALLOTMENT 5 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED C TO THE ETSA CORPORATION (T 2171901)

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
6461413	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6461414	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986

Administrative Interests NIL

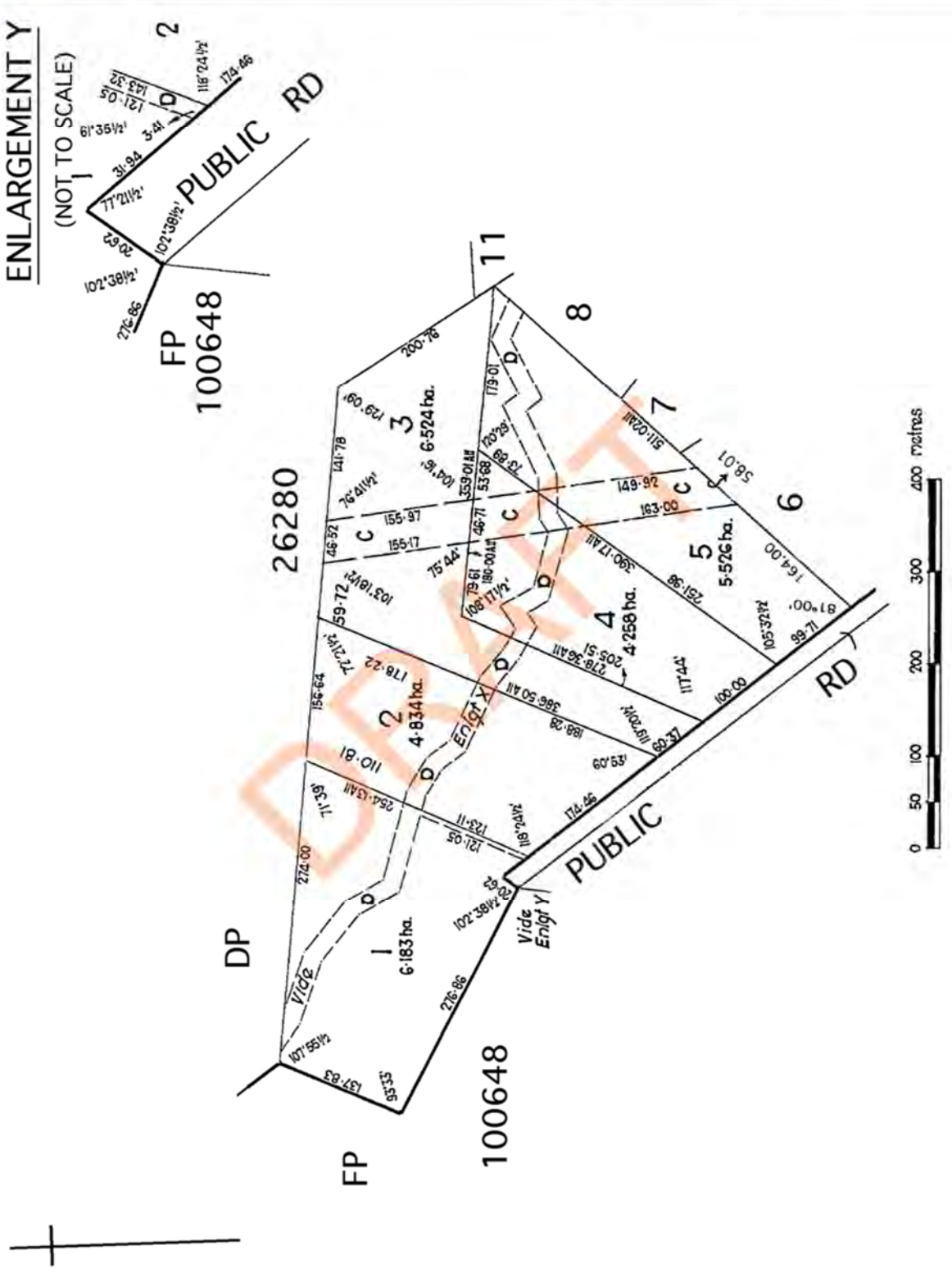
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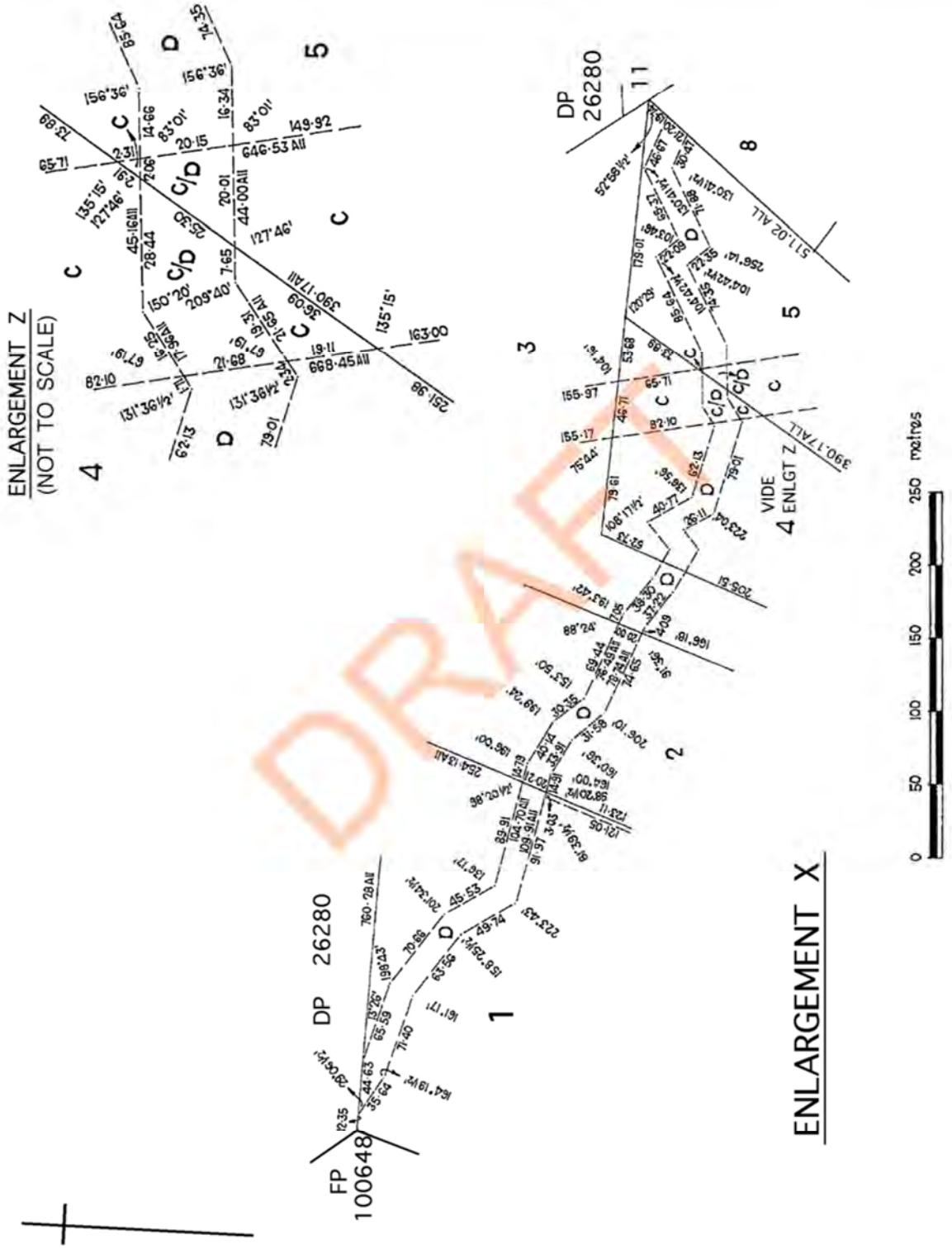
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Customer Reference	58093 HF
Order ID	20191217003640



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Product	Register Search (CT 5158/162)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5158 Folio 162

Parent Title(s) CT 4316/189

Creating Dealing(s) CONVERTED TITLE

Title Issued 01/12/1993 **Edition** 3 **Edition Issued** 22/06/2002

Estate Type

FEE SIMPLE

Registered Proprietor

PETER FEDERICO
MARIA CONCETTA IMMACOLATA FEDERICO
OF 39 GOLLOP CRESCENT REDWOOD PARK SA 5097
AS JOINT TENANTS

Description of Land

ALLOTMENT 6 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED C AND E (T 2171901 AND TG 6461394 RESPECTIVELY)

Schedule of Dealings

Dealing Number	Description
6473140	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6473141	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
9359215	MORTGAGE TO AUSTRALIA & NEW ZEALAND BANKING GROUP LTD.

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986

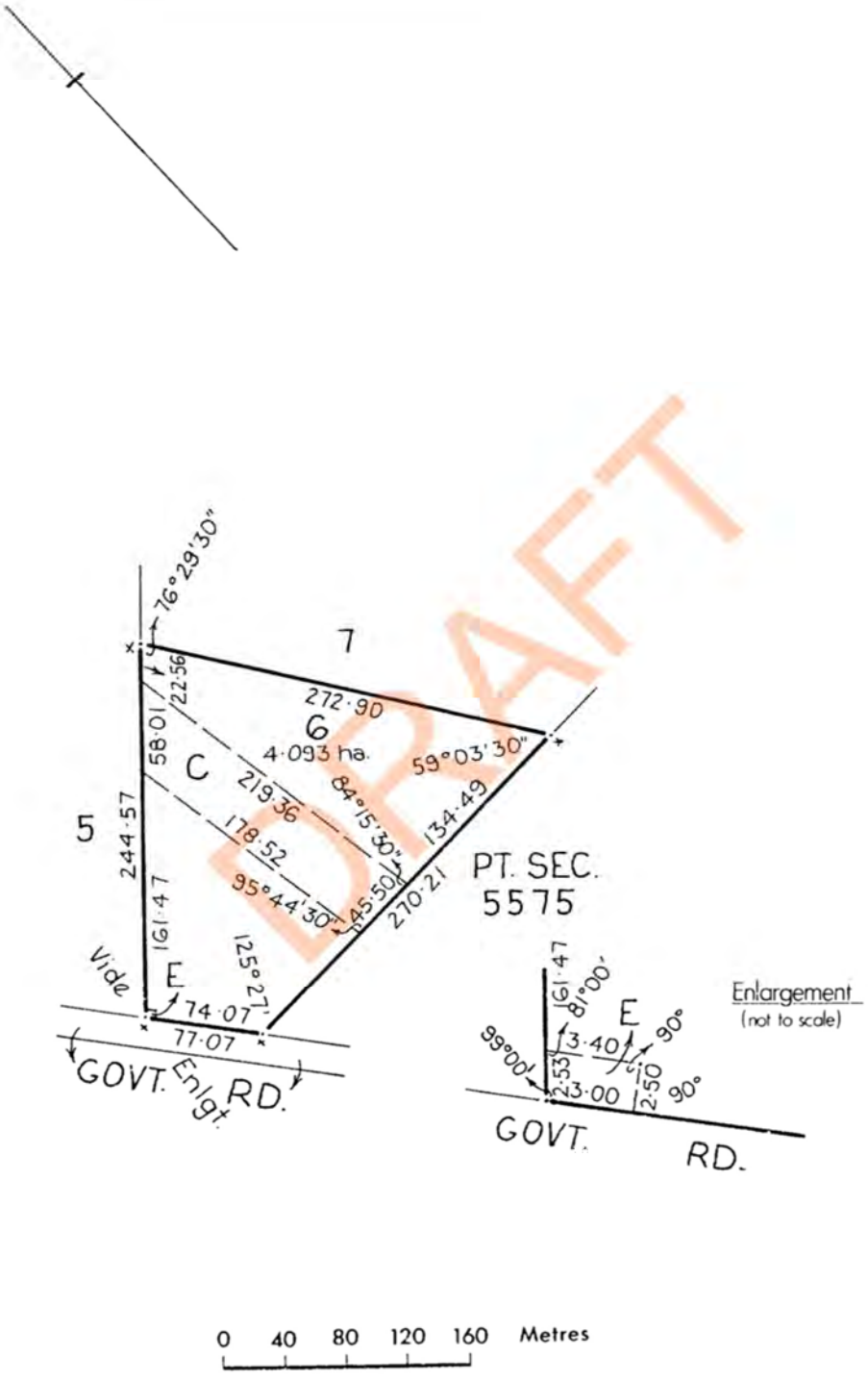
Administrative Interests NIL

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LAND SERVICES SA

Product	Register Search (CT 5158/162)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640



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LAND SERVICES SA

Product	Register Search (CT 5171/541)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5171 Folio 541

Parent Title(s) CT 3875/192

Creating Dealing(s) CONVERTED TITLE

Title Issued 24/02/1994 **Edition** 4 **Edition Issued** 05/07/2011

Estate Type

FEE SIMPLE

Registered Proprietor

JOHN MICHAEL HAYDEN
OF 4 ROY CUBAAY DRIVE TASIRIKI PARK PORT VILA VANUATU
1 / 7 SHARE

FRANCIS HAYDEN
OF 3 VIZARD STREET TEA TREE GULLY SA 5091
1 / 7 SHARE

CHRISTINA FLAHERTY
OF 153 SEAVIEW ROAD GOLDEN GROVE SA 5125
1 / 7 SHARE

SUSAN WRIGHT
OF 155 SEAVIEW ROAD GOLDEN GROVE SA 5125
1 / 7 SHARE

ANNE PAPPAS
OF 457 YATALA VALE ROAD FAIRVIEW PARK SA 5126
1 / 7 SHARE

KYUNG HAYDEN
OF UNIT 3 18 ROSE STREET MILE END SA 5031
1 / 7 SHARE

MATTHEW HULE HAYDEN
OF LOT 3 ONE TREE HILL ROAD GOLDEN GROVE SA 5125
1 / 7 SHARE

Description of Land

ALLOTMENT 3 FILED PLAN 100647
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED A TO THE ELECTRICITY TRUST OF SOUTH AUSTRALIA (T 2171901)

Schedule of Dealings

NIL

Notations

Dealings Affecting Title NIL

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LAND SERVICES SA

Product	Register Search (CT 5171/541)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

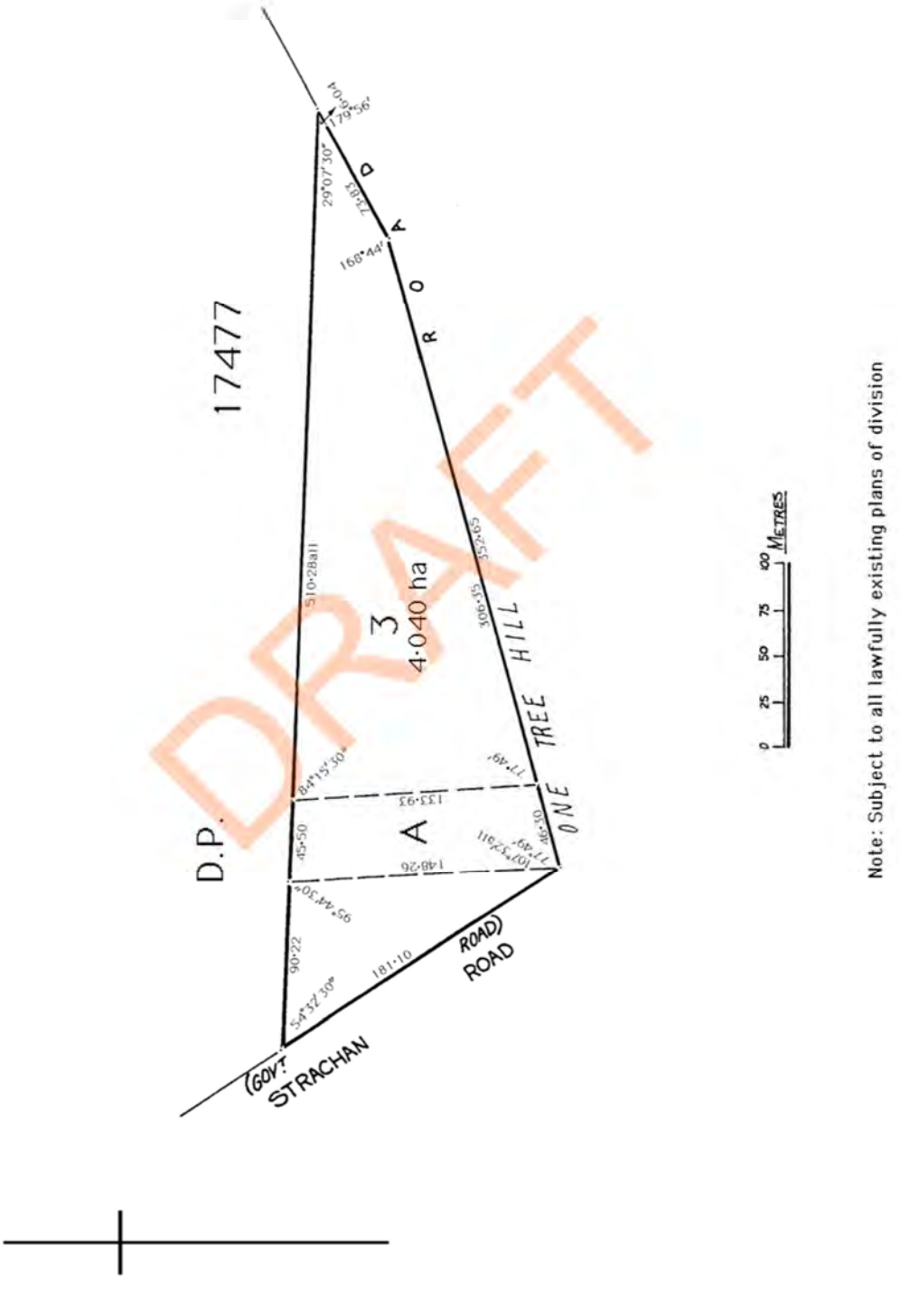
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Product	Register Search (CT 5171/541)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
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This plan is scanned from Certificate of Title 3875/192
See title text for easement details.

Note: Subject to all lawfully existing plans of division

Land Services SA
Page 3 of 3
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LAND SERVICES SA

Product	Register Search (CT 5408/742)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5408 Folio 742

Parent Title(s) CT 4269/728

Creating Dealing(s) CONVERTED TITLE

Title Issued 02/04/1997 **Edition** 3 **Edition Issued** 12/08/2000

Estate Type

FEE SIMPLE

Registered Proprietor

CON MINOPOULOS
SOULA MINOPOULOS
OF LOT 7 ONE TREE HILL ROAD GOLDEN GROVE SA 5125
AS JOINT TENANTS

Description of Land

ALLOTMENT 7 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

NIL

Schedule of Dealings

Dealing Number	Description
6461396	LEASE TO GOLDEN GROVE WATER CO. PTY. LTD. COMMENCING ON 30/9/1987 AND EXPIRING ON 29/9/2086 OF PORTION TOGETHER WITH CERTAIN RIGHTS
8242933	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
8242934	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
8242935	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA
8932503	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
APPROVED F23999

Administrative Interests NIL

DRAFT

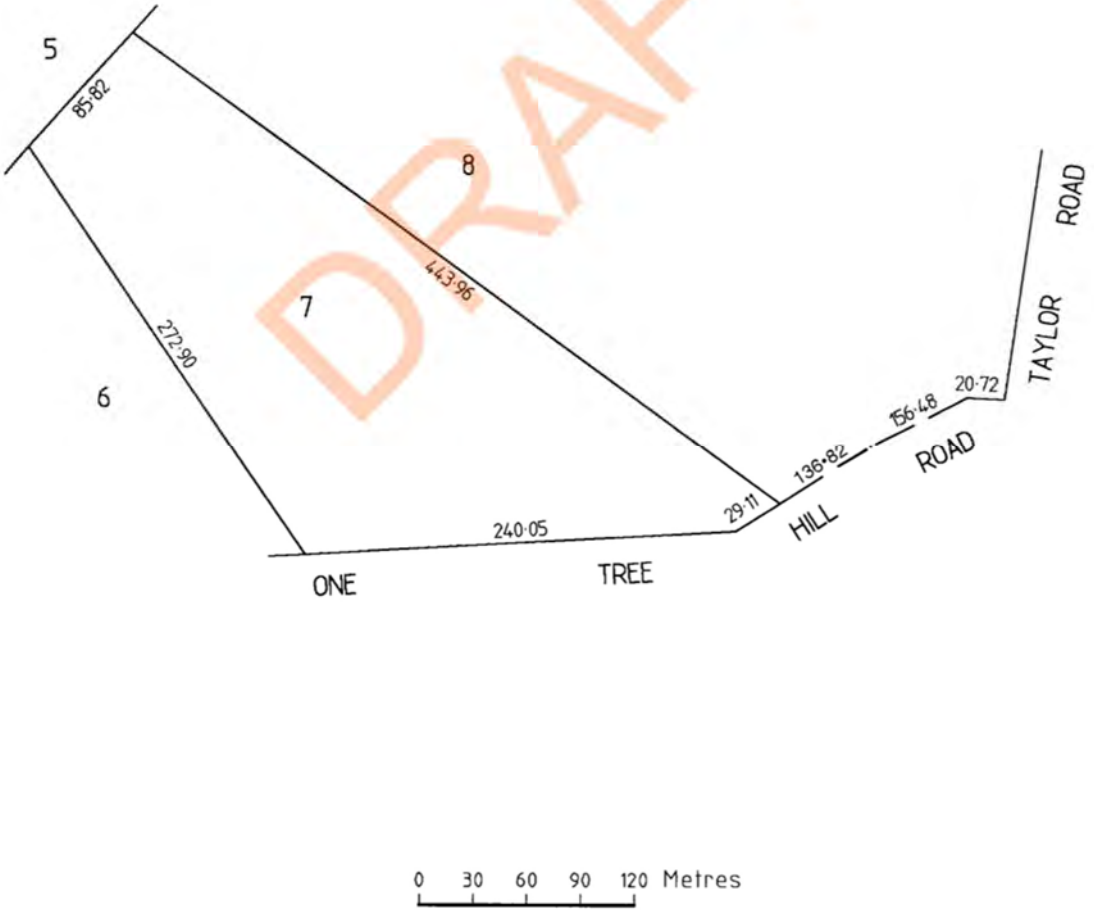
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Product	Register Search (CT 5408/742)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640





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Product	Register Search (CT 5257/297)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5257 Folio 297

Parent Title(s)	CT 4316/190				
Creating Dealing(s)	CONVERTED TITLE				
Title Issued	27/03/1995	**Edition**	6	**Edition Issued**	21/08/2000

Estate Type

FEE SIMPLE

Registered Proprietor

ANTONIO RICCI
CATERINA RICCI
OF LOT 8 ONE TREE HILL ROAD GOLDEN GROVE SA 5125
AS JOINT TENANTS

Description of Land

ALLOTMENT 8 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED E TO THE ELECTRICITY TRUST OF SOUTH AUSTRALIA (TG 6461394)

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
6461396	LEASE TO GOLDEN GROVE WATER CO. PTY. LTD. COMMENCING ON 30/9/1987 AND EXPIRING ON 29/9/2086 OF PORTION TOGETHER WITH CERTAIN RIGHTS
6954084	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6954085	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD.
7046148	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA
8008379	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA
8160426	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA
8937125	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

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Product	Register Search (CT 5257/297)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
APPROVED FX23999

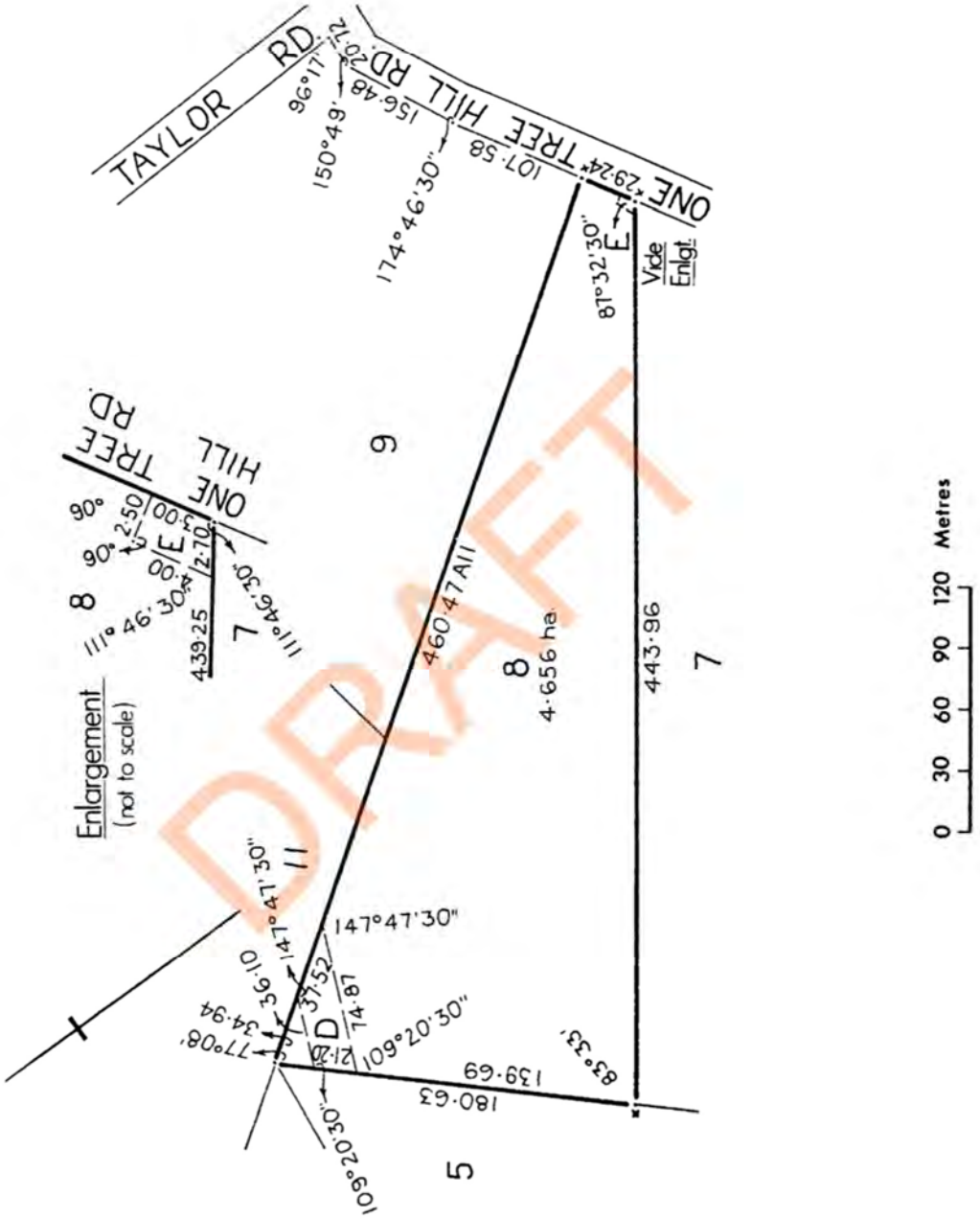
Administrative Interests NIL

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Product	Register Search (CT 5257/297)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640



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LAND SERVICES SA

Product	Register Search (CT 5159/888)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5159 Folio 888

Parent Title(s) CT 4316/191

Creating Dealing(s) CONVERTED TITLE

Title Issued 09/12/1993 **Edition** 2 **Edition Issued** 15/12/1993

Estate Type

FEE SIMPLE

Registered Proprietor

SALVATORE RINALDI
OF 48 COLLINS STREET ENFIELD SA 5085
PIETRONILLA RINALDI
OF LOT 9 ONE TREE HILL ROAD GOLDEN GROVE SA 5125
AS JOINT TENANTS

Description of Land

ALLOTMENT 9 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED E TO THE ELECTRICITY TRUST OF SOUTH AUSTRALIA (T 6461394)

Schedule of Dealings

Dealing Number	Description
6461396	LEASE TO GOLDEN GROVE WATER CO. PTY. LTD. COMMENCING ON 30/9/1987 AND EXPIRING ON 29/9/2086 OF CERTAIN RIGHTS OVER PORTION
6533981	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6533982	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
7096906	MORTGAGE TO WESTPAC BANKING CORPORATION
12722163	MORTGAGE TO WESTPAC BANKING CORPORATION (ACN: 007 457 141)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
APPROVED FX23999

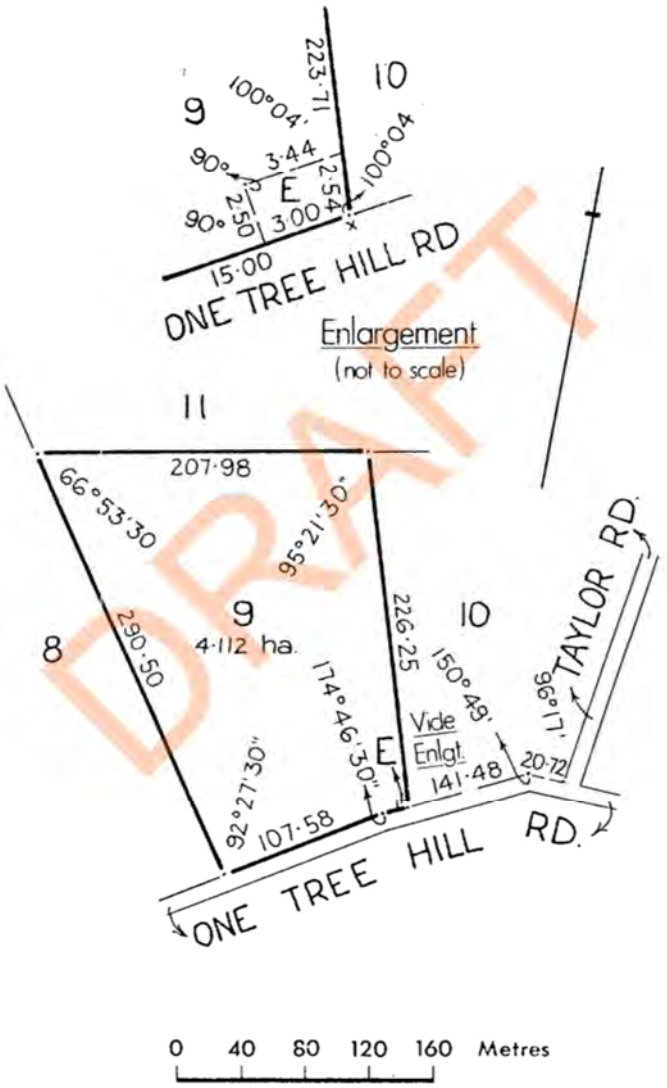
Administrative Interests NIL

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Product	Register Search (CT 5159/888)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640



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Product	Register Search (CT 5442/886)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5442 Folio 886

Parent Title(s) CT 4316/192

Creating Dealing(s) CONVERTED TITLE

Title Issued 18/08/1997 **Edition** 3 **Edition Issued** 28/04/2004

Estate Type

FEE SIMPLE

Registered Proprietor

ILIJA CIRJAK
RITA MARY CIRJAK
OF LOT 10 ONE TREE HILL ROAD GOLDEN GROVE SA 5125
AS JOINT TENANTS

Description of Land

ALLOTMENT 10 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED E TO THE ETSA CORPORATION (TG 6461394)

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
6652119	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6652120	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
9817828	MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA

Notations

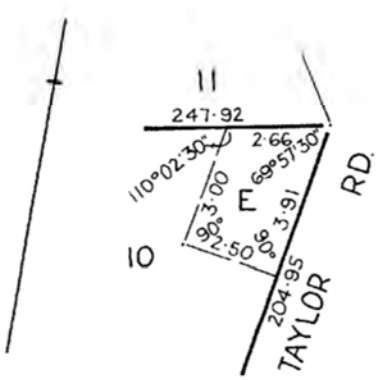
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

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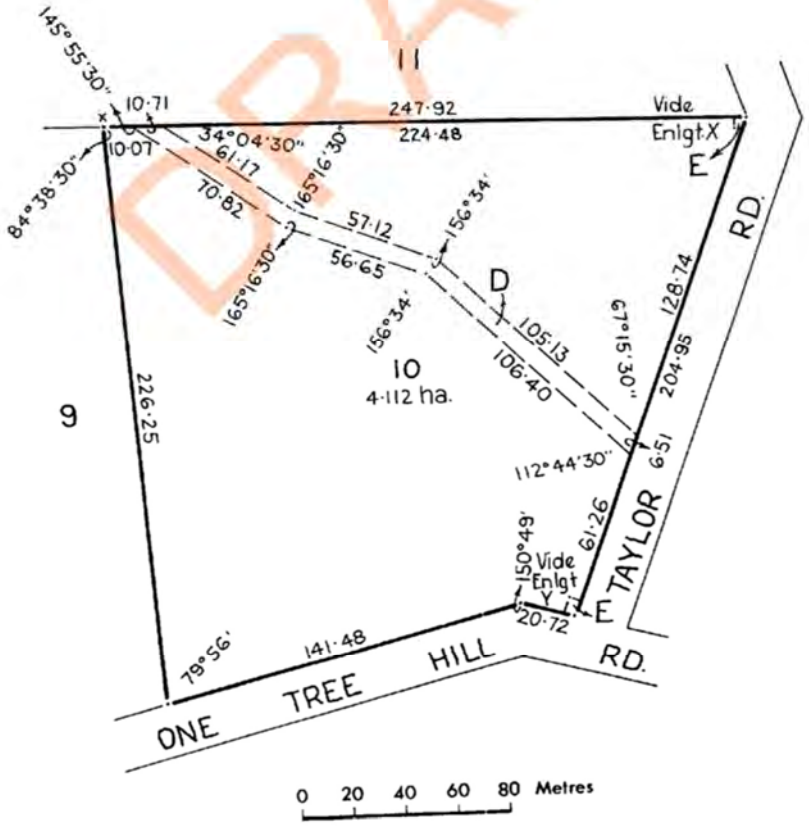
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Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640



ENLARGEMENT X
(not to scale)



ENLARGEMENT Y
(not to scale)



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Product	Register Search (CT 5776/344)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5776 Folio 344

Parent Title(s) CT 4269/732

Creating Dealing(s) CONVERTED TITLE

Title Issued 23/05/2000 **Edition** 1 **Edition Issued** 23/05/2000

Estate Type

FEE SIMPLE

Registered Proprietor

TREVOR WILLIAM RICKMAN
MARGARET ANNE RICKMAN
OF 8 JANSZ COURT FAIRVIEW PARK SA 5126
AS JOINT TENANTS

Description of Land

ALLOTMENT 11 DEPOSITED PLAN 17477
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO SERVICE EASEMENT(S) OVER THE LAND MARKED D FOR DRAINAGE PURPOSES TO THE COUNCIL FOR THE AREA (223LG RPA)

Schedule of Dealings

Dealing Number	Description
6461396	LEASE TO GOLDEN GROVE WATER CO. PTY. LTD. COMMENCING ON 30/9/1987 AND EXPIRING ON 29/9/2086 OF PORTION TOGETHER WITH CERTAIN RIGHTS
6605150	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6605151	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
6605152	MORTGAGE TO STATE BANK OF SOUTH AUSTRALIA
6605153	MORTGAGE TO STATE BANK OF SOUTH AUSTRALIA

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G246/1986
COMPARE ADDRESS FOR SERVICE OF NOTICE WITH 6605153

Administrative Interests NIL

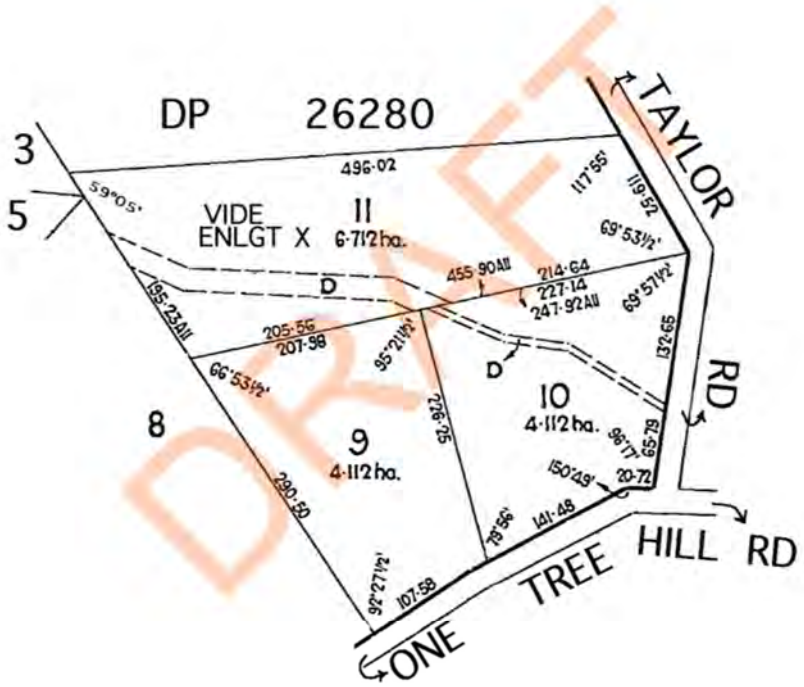
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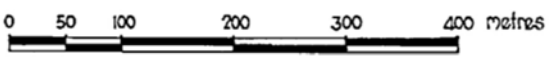
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Product	Register Search (CT 5776/344)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640



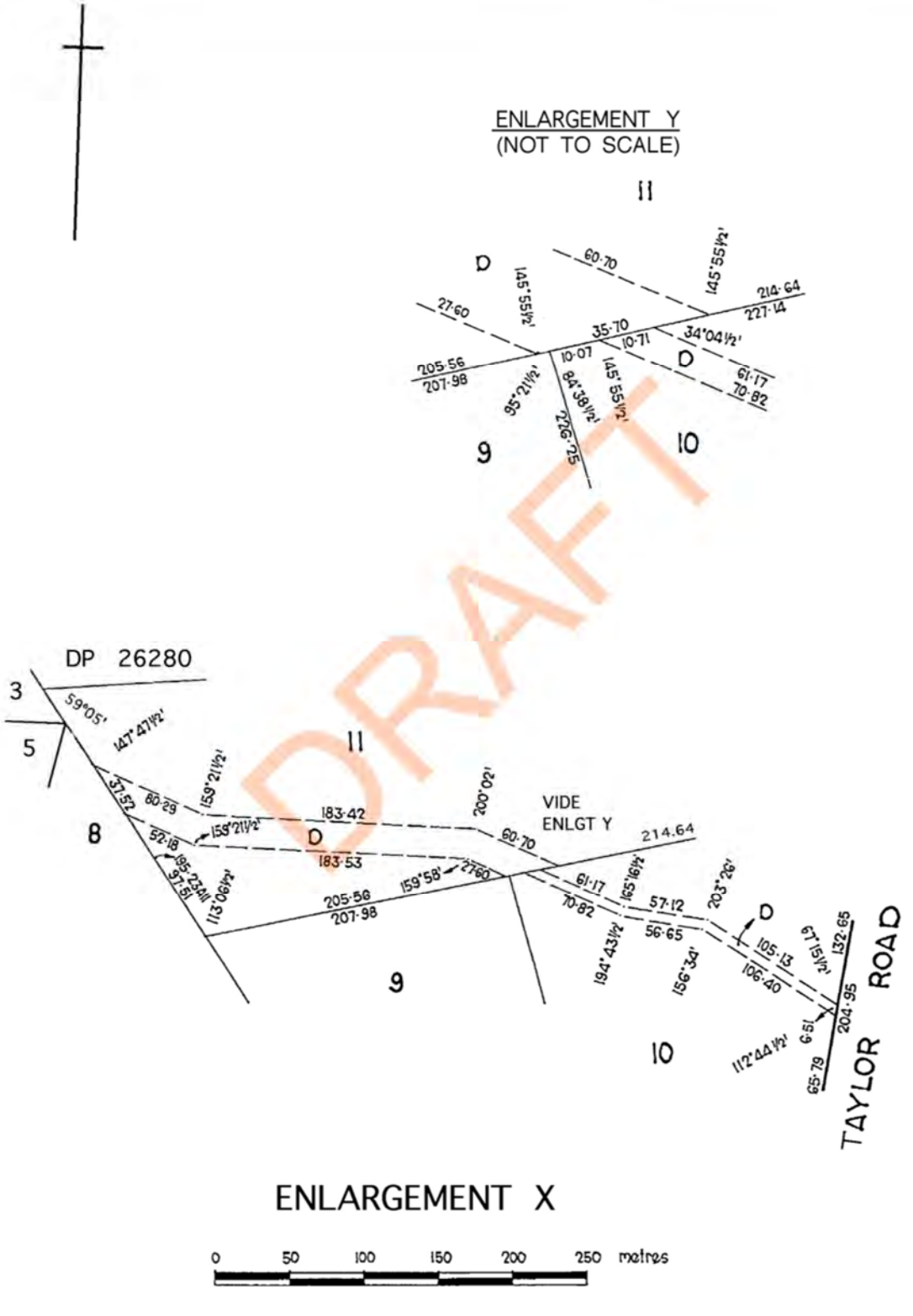




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Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
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Product	Register Search (CT 5998/401)
Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640

REAL PROPERTY ACT, 1886 South Australia

The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.

Certificate of Title - Volume 5998 Folio 401

Parent Title(s)	CT 5397/698				
Creating Dealing(s)	RTD 10214470				
Title Issued	27/11/2007	**Edition**	1	**Edition Issued**	27/11/2007

Estate Type

FEE SIMPLE

Registered Proprietor

JOSEPH PAUL GRECH
MARIA ANNA GRECH
OF PO BOX 107 GOLDEN GROVE SA 5125
AS JOINT TENANTS

Description of Land

ALLOTMENT 20 DEPOSITED PLAN 67885
IN THE AREA NAMED GOLDEN GROVE
HUNDRED OF YATALA

Easements

SUBJECT TO EASEMENT(S) OVER THE LAND MARKED V AND W TO DISTRIBUTION LESSOR CORPORATION (SUBJECT TO LEASE 8890000) (TG 6461394 AND RTD 10214470 RESPECTIVELY)

SUBJECT TO FREE AND UNRESTRICTED RIGHT(S) OF WAY OVER THE LAND MARKED X AND Y

Schedule of Dealings

Dealing Number	Description
6840469	ENCUMBRANCE TO CITY OF TEA TREE GULLY (SINGLE COPY ONLY)
6840471	ENCUMBRANCE TO GOLDEN GROVE WATER CO. PTY. LTD. (SINGLE COPY ONLY)
6840474	MORTGAGE TO WESTPAC BANKING CORPORATION
7189796	MORTGAGE TO WESTPAC BANKING CORPORATION

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

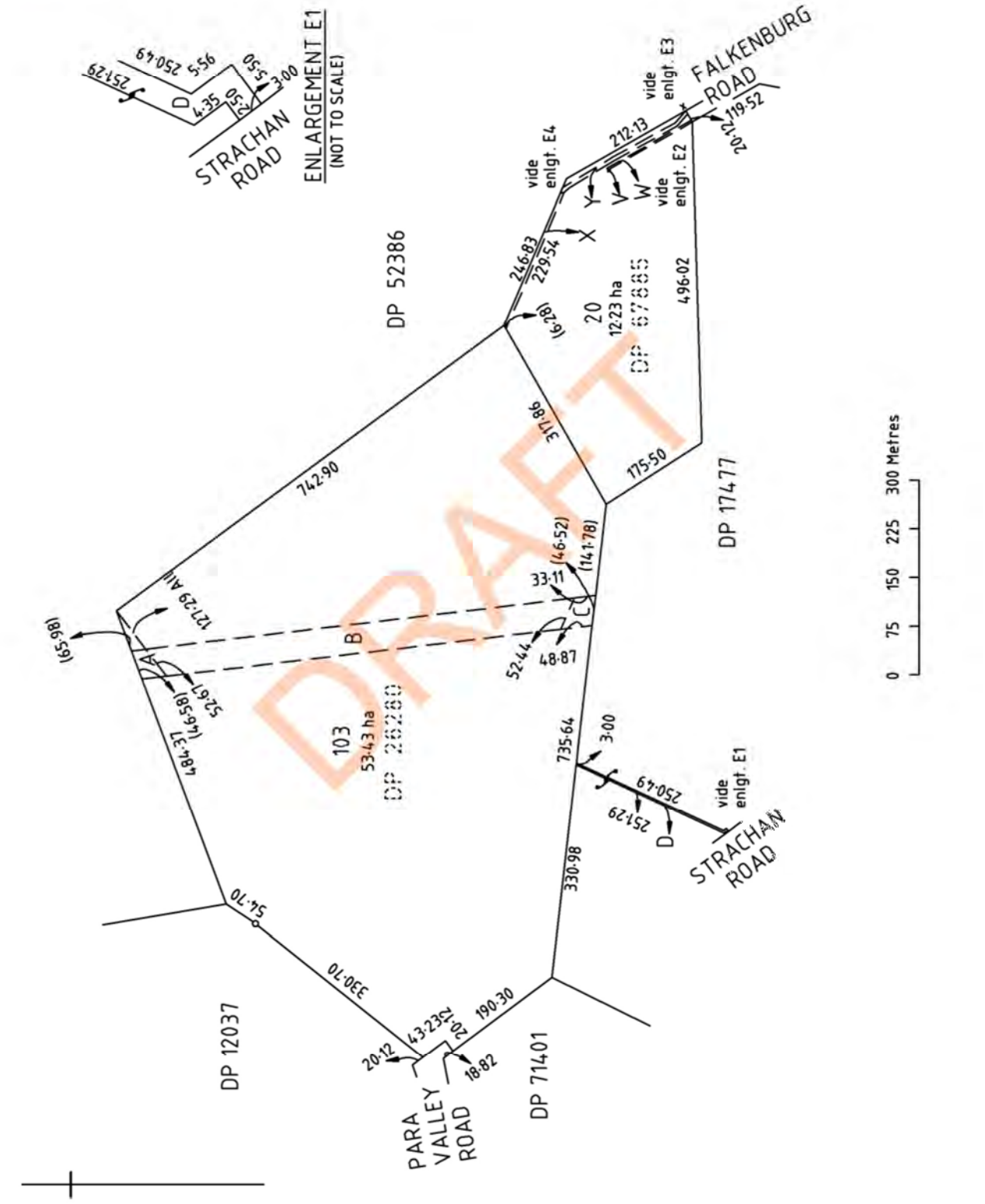
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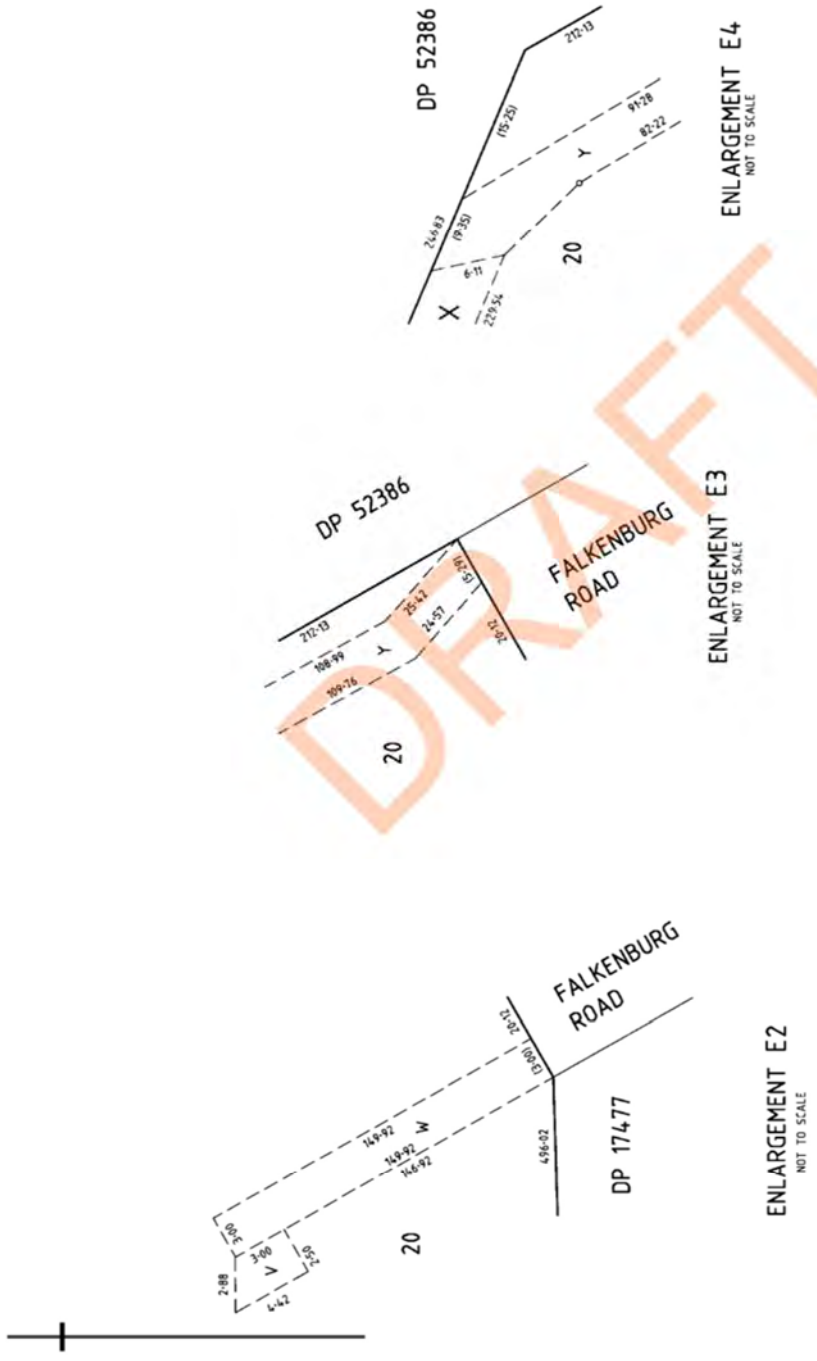
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Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
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Date/Time	17/12/2019 11:06AM
Customer Reference	58093 HF
Order ID	20191217003640



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Appendix B Site Inspection – Photo Log

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PHOTO 1 – PROPERTY 1 (EASTERN ACCESS, STRACHAN RD)



PHOTO 2 – PROPERTY 1 (VIEW OF PROPERTY (RED BOX) FROM NEIGHBOURING PROPERTY, SOUTHERN VIEW)



PHOTO 3 – PROPERTY 1 – MARKET GARDEN ACTIVITY

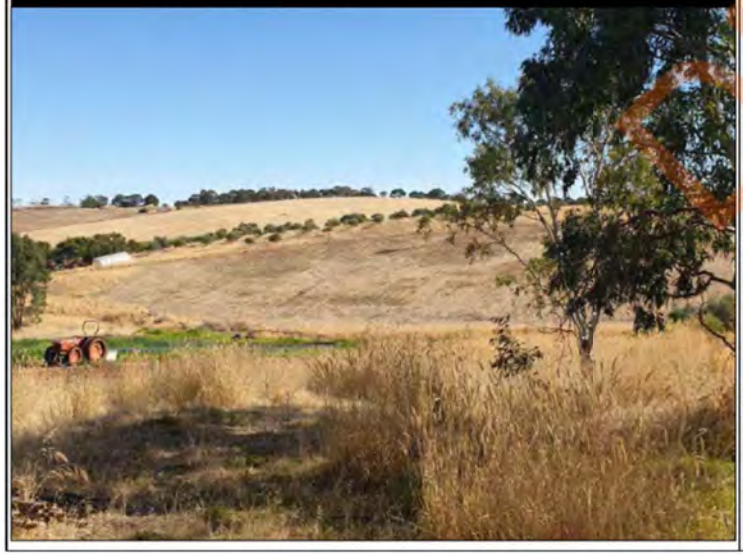


PHOTO 4 – PROPERTY 1 – ELECTRICAL TRANSFORMER (OFFSITE)



JBS&G

Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 5 – PROPERTY 2 (COMMERCIAL OPERATION, MARKET GARDEN)



PHOTO 6 – PROPERTY 2 (INFRASTRUCTURE VIEW FROM STRACHAN RD)



PHOTO 7 – PROPERTY 2 (MARKET GARDEN OBSERVED FROM PROPERTY 3, LOOKING NORTH)

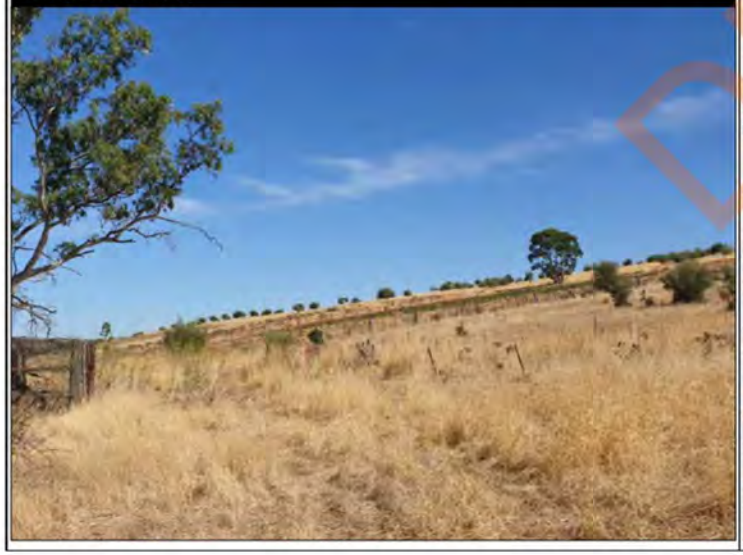


PHOTO 8 – PROPERTY 2 (SOUTH EASTERN PORTION OF THE SITE)



JBS&G

Job No: 58093

Client: Holmes Dyer

Version: RevA | Date: 03/02/2020

Drawn By: HF | Checked By: WE

Not to Scale

Coord. Sys n/a

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 9 – PROPERTY 3 (ONSITE BUILDING AND ASSOCIATED WASTE)



PHOTO 10 – PROPERTY 3 (DERELICT STOCK PENS)



PHOTO 11 – PROPERTY 3 (SOIL STOCKPILES, SOUTHERN AREA)



PHOTO 12 – PROPERTY 3 (VIEW TO NORTH EAST, OVERLOOKING NORTHERN PORTION OF PROPERTY)



DRAFT

JBS&G

Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 13 – PROPERTY 4 (RESIDENTIAL BUILDINGS)



PHOTO 14 – PROPERTY 4 (WRECKED CAR STORAGE)



PHOTO 15 – PROPERTY 4 (CAR AND TIMBER STORAGE)



PHOTO 16 – PROPERTY 4 (GROUNDWATER WELL AND PUMPHOUSE, NORTHERN AREA)



JBS&G

Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 17 – PROPERTY 5 (ONSITE BUILDINGS, WESTERN PORTION)



PHOTO 18 – PROPERTY 5 (LIVESTOCK ONSITE)



PHOTO 19 – PROPERTY 5 (EASTERN PORTION OF PROPERTY)



PHOTO 20 – PROPERTY 5 (ONSITE ELECTRICAL PYLON)



DRAFT

JBS&G

Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 21 – PROPERTY 6 (BUILDING WASTE SURROUNDING SHED)



PHOTO 22 – PROPERTY 6 (SOIL STOCKPILES ASSOCIATED WITH PRODUCE GARDEN)



PHOTO 23 – PROPERTY 6 (BUILDING WASTE STOCKPILES)



PHOTO 24 – PROPERTY 6 (POTENTIAL DISTURBED GROUND ADJACENT TO OLIVE GROVE)



JBS&G

Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 26 – PROPERTY 7 (DERELICT HORSE STABLES)

PHOTO 28 – PROPERTY 7 (WESTERN PADDOCK AND ELECTRICAL PYLON)

PHOTO 25 – PROPERTY 7 (RESIDENTIAL BUILDING ONSITE)

PHOTO 27 – PROPERTY 7 (MUNICIPAL WASTE PILE)

JBS&G

Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 29 – PROPERTY 8 (RESIDENTIAL PROPERTY)



PHOTO 30 – PROPERTY 8 (SITE STORAGE AREA)



PHOTO 31 – PROPERTY 8 (NORTHERN STOCK PADDOCK)



PHOTO 32 – PROPERTY 8 (SOUTHERN STOCK PADDOCK)



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Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

PHOTO 33 – PROPERTY 9 (ACCESS GATE)



PHOTO 34 – PROPERTY 9 (HEAVY MACHINERY LAYDOWN)



PHOTO 35 – PROPERTY 9 (ONSITE AST ON LAYDOWN)



PHOTO 36 – PROPERTY 9 (NORTHERN PADDOCK AND SOIL STORAGE AREA)



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Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

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PHOTO 37 – PROPERTY 10 (RESIDENTIAL HOUSE AND VINEYARD)



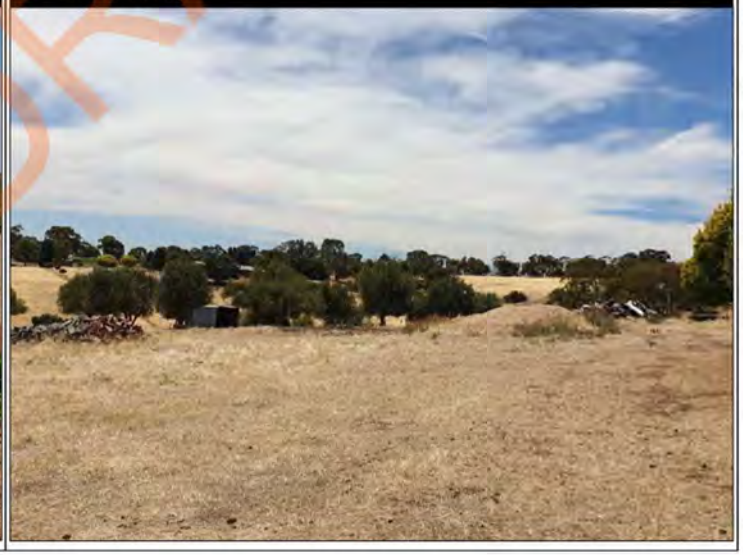
PHOTO 38 – PROPERTY 10 (BUILDING WASTE STORAGE)



PHOTO 39 – PROPERTY 10 (DISTURBED GROUND)



PHOTO 40 – PROPERTY 10 (NORTHERN PADDOCK AND MATERIAL STOCKPILES)



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Job No: 58093	
Client: Holmes Dyer	
Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE
Not to Scale	
Coord. Sys n/a	

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

ATTACHMENT B

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Item 13.1

Attachment 6

PHOTO 44 – PROPERTY 12 (LOOKING EAST AT PROPERTY 12 PADDOCKS)



PHOTO 45 – PROPERTY 13 (GROUNDWATER WELL AND PUMP SHED)



PHOTO 46 – PROPERTY 13 (STOCK LOADING YARDS)



PHOTO 47 – PROPERTY 13 (FRONT PROPERTY ACCESS AND ELECTRICAL TRANSFORMER)



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Job No: 58093

Client: Holmes Dyer

Version: RevA	Date: 03/02/2020
Drawn By: HF	Checked By: WE

Not to Scale

Coord. Sys n/a

Golden Grove Site
Golden Grove, South Australia

Site Investigation Photos – Preliminary Site Investigation

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Appendix C Tea Tree Gully Council Development Plan (Extract)

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Rural Living Zone

Refer to the *Map Reference Tables* for a list of the maps that relate to this zone.

OBJECTIVES

1 A zone consisting of large allotments, detached dwellings and rural activities that do not adversely impact the amenity of the locality.

2 Development that contributes to the desired character of the zone.

DESIRED CHARACTER

The zone creates unique residential areas within the city that offer a semi-rural lifestyle at the urban fringe. The zone is characterised by scattered detached dwellings and a mix of small scale rural uses on large allotments. Future development will continue to take the form of residential development at very low densities with associated rural and semi-rural activities that enhance the character of the zone. Industrial land uses will be replaced with more desirable land uses such as residential, rural or semi-rural uses.

The zone's semi-rural and open character is reinforced by substantial building setbacks from public roads and the use of building materials, finishes and colours that are dark, natural and muted to blend with the natural and rural landscape. Open fencing styles rather than solid fencing reinforces the character of the zone

The natural elements of the landscape, particularly the mature indigenous vegetation and watercourses that traverse the zone, contribute strongly to the zone's desirable character. Existing vegetation (particularly large eucalyptus trees) will be retained and the establishment of new vegetation will enhance the zone's semi-rural character. Development will respect Dry Creek which passes through some allotments, particularly in relation to building construction and/or earthworks that interfere with the natural contours of the land and flow of water.

The **Rural Living Zone** at Yatala Vale serves as an important buffer between urban and extractive industry land uses while providing a contrast to the adjacent urban development to the south. The extractive industries to the north of the zone operate on a large scale and are expected to continue operation until at least 2050. The extractive industry land is of state significance and development is not to prejudice the capacity to exploit these resources. The locality is expected to primarily feature very low-density rural residential living on large allotments together with a variety of semi-rural land use activities including horse keeping and horticulture. The area is characterised by significant trees located within properties and aligning Yatala Vale Road and Dry Creek. These are important elements of the character that development is not to compromise.

The **Rural Living Zone** at Golden Grove is characterised by low-density rural residential living on large allotments with associated rural activities including horse keeping, viticulture, horticulture and the keeping of animals. This portion of the zone provides a sensitive transition between the low to medium density urban development within Golden Grove and the open and natural character of the **Hills Face Zone**. Allotments within the zone at Golden Grove will retain a size of at least 4 hectares, which creates a significant contrast with the surrounding urban development. Properties are expected to feature large open areas with post and wire fencing and retain significant trees and natural creek lines traversing the landscape.

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Tea Tree Gully Council
Zone Section
Rural Living Zone

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 The following forms of development are envisaged in the zone:

- detached dwelling
- domestic outbuilding in association with a detached dwelling
- domestic structure
- dwelling addition
- farming
- farm building
- stable.

2 Development listed as non-complying is generally inappropriate.

3 There should be no more than one dwelling per allotment.

4 The keeping of animals should be ancillary to and in association with the residential use of the land.

5 The keeping of horses should only be undertaken if the horses are accommodated within a stable or shelter with supplementary feeding to maintain pasture cover.

Form and Character

6 Development should not be undertaken unless it is consistent with the desired character for the zone.

7 Dwellings should be designed within the following parameters:

Parameter	Value
Maximum building height (from natural ground level)	1 storey

8 Sheds, garages and similar outbuildings should be designed within the following parameters:

Parameter	Value
Maximum building height (from natural ground level)	1 storey

9 Sheds, garages and outbuildings should be finished in dark colours that are unobtrusive in the locality and blend in with the existing setting.

10 The storage, parking and keeping of a vehicle should occur only where:

(a) the use of the vehicle is ancillary to the existing legal use of the site

(b) the vehicle is stored, parked or kept in a suitable enclosed building or an area substantially screened from direct view of a public road or an adjoining residence by other buildings, mature vegetation or other similar visual barriers.

Land Division

11 Land division in the suburb of Golden Grove should create allotments with an area of at least 4 hectares.

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PROCEDURAL MATTERS

Complying Development

Complying developments are prescribed in Schedule 4 of the *Development Regulations 2008*.

In addition, the following forms of development are designated as complying subject to the conditions contained in *Table TTG/1 - Conditions for Complying Development*:

- advertisement.

Non-complying Development

Development (including building work, a change in the use of land, or division of an allotment) for the following is non-complying:

Form of Development	Exceptions
Advertisement and/or advertising hoarding	Advertisement and/or advertising hoarding where the development achieves at least one of (a) or (b): (a) is adjacent to a road with a speed limit of less than 80 km/h (b) has an advertisement area of 2 square metres or less and achieves all of the following: (i) the message contained thereon relates entirely to a lawful use of land (ii) the advertisement is erected on the same allotment as the use it seeks to advertise (iii) the advertisement will not result in more than two advertisements on the allotment.
Amusement machine centre	
Bus depot	
Consulting room	
Crematorium	
Dairy	
Dwelling	Except detached dwelling
Fuel depot	
General industry	
Hotel	
Industry	
Intensive animal keeping	
Land division where located within **Yatala Vale.**	Except where either (a) or (b) is achieved: (a) east of Seaview Road, north of Yatala Vale Road and west of Bellorophon Street, which results in a minimum: (i) allotment size of 4000 square metres (ii) frontage to any public road of 45 metres (b) east of Bellorophon Street, which results in a minimum allotment size of 2 hectares.
Major public service depot	

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Tea Tree Gully Council
Zone Section
Rural Living Zone

Form of Development	Exceptions
Motor repair station	
Office	
Petrol filling station	
Prescribed mining operations	
Restaurant	
Road transport terminal	
Service trade premises	
Shop or group of shops	
Special industry	
Stock sales yard	
Stock slaughter works	
Store	
Warehouse	
Waste reception, storage, treatment or disposal	

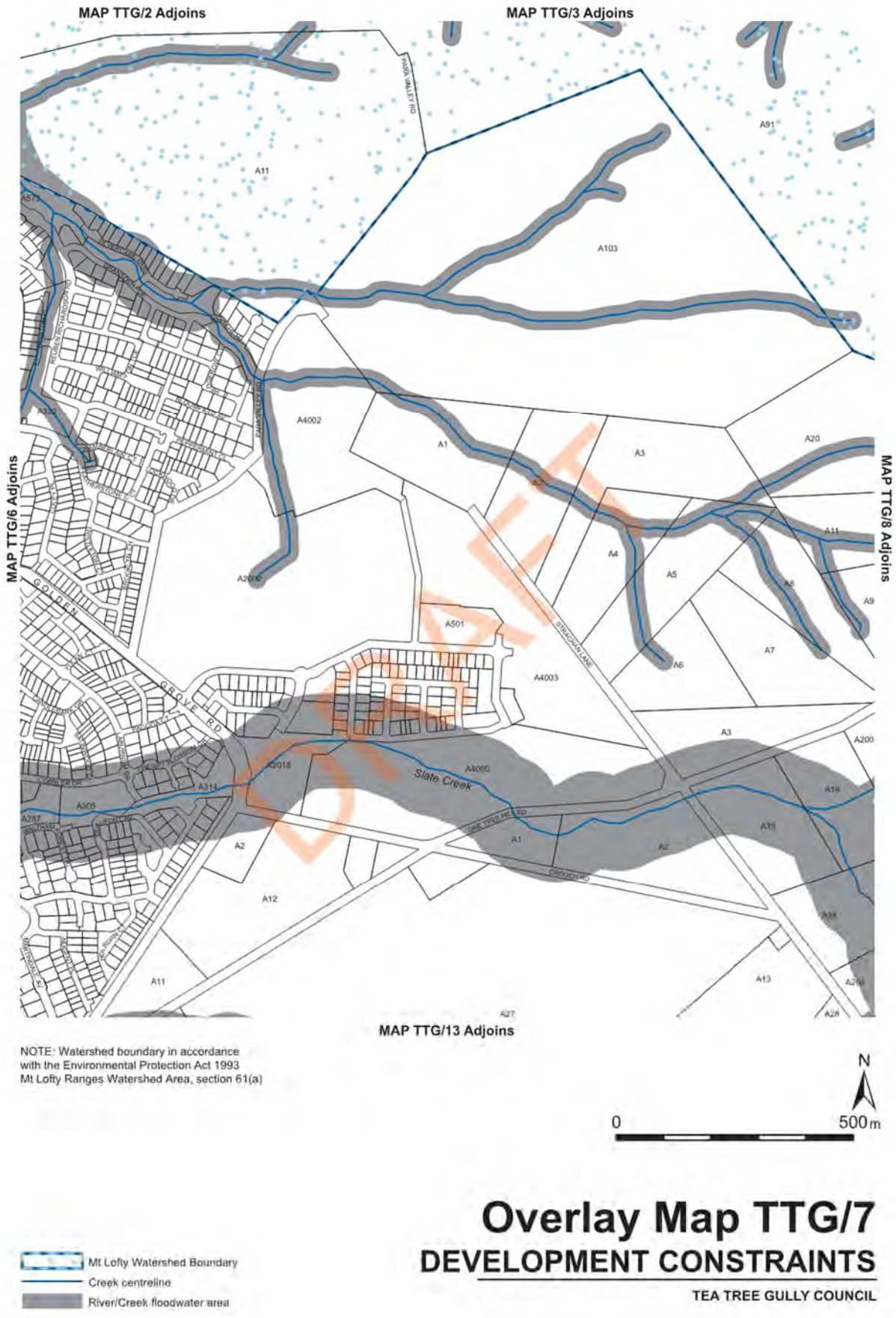
Public Notification

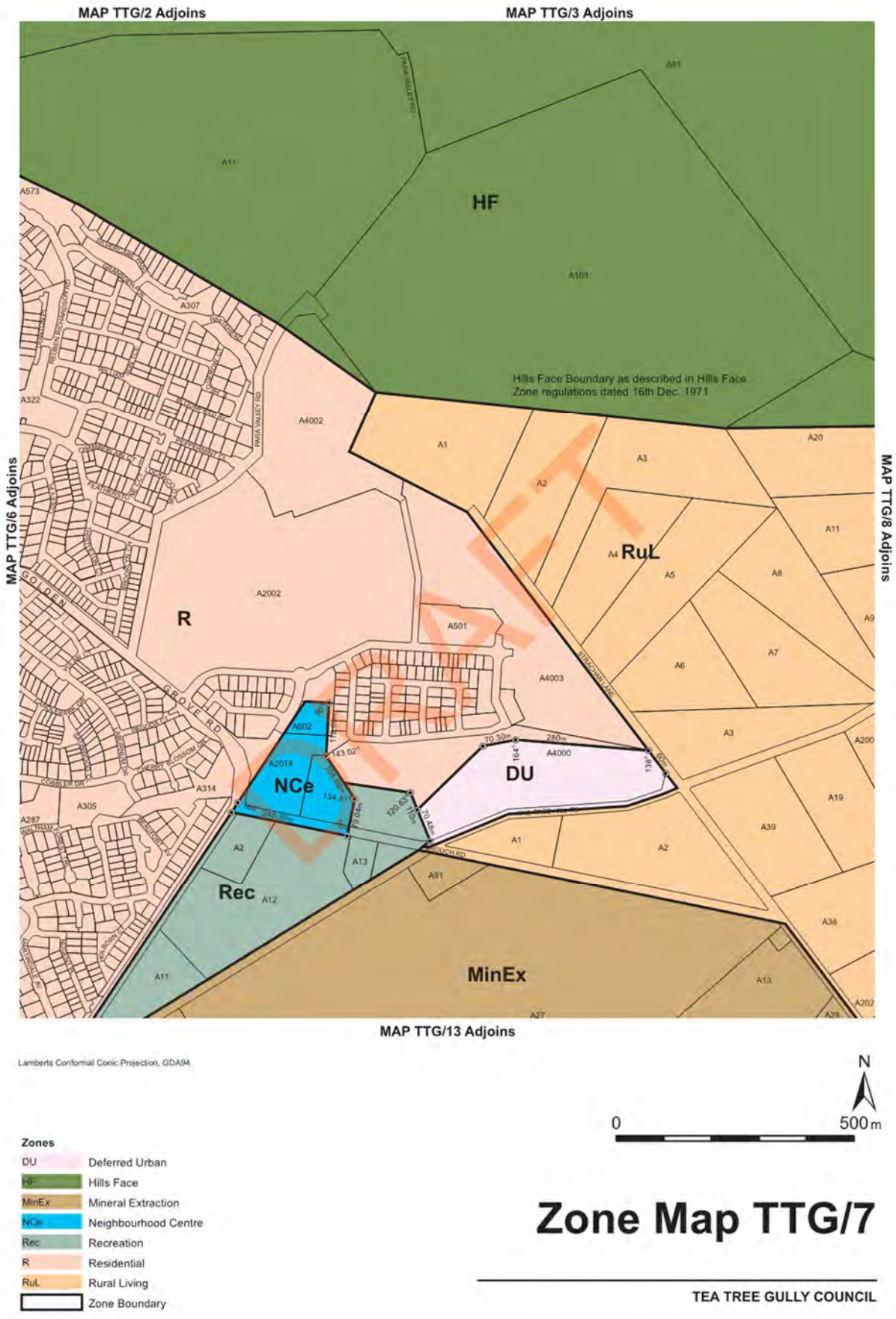
Categories of public notification are prescribed in Schedule 9 of the *Development Regulations 2008*.

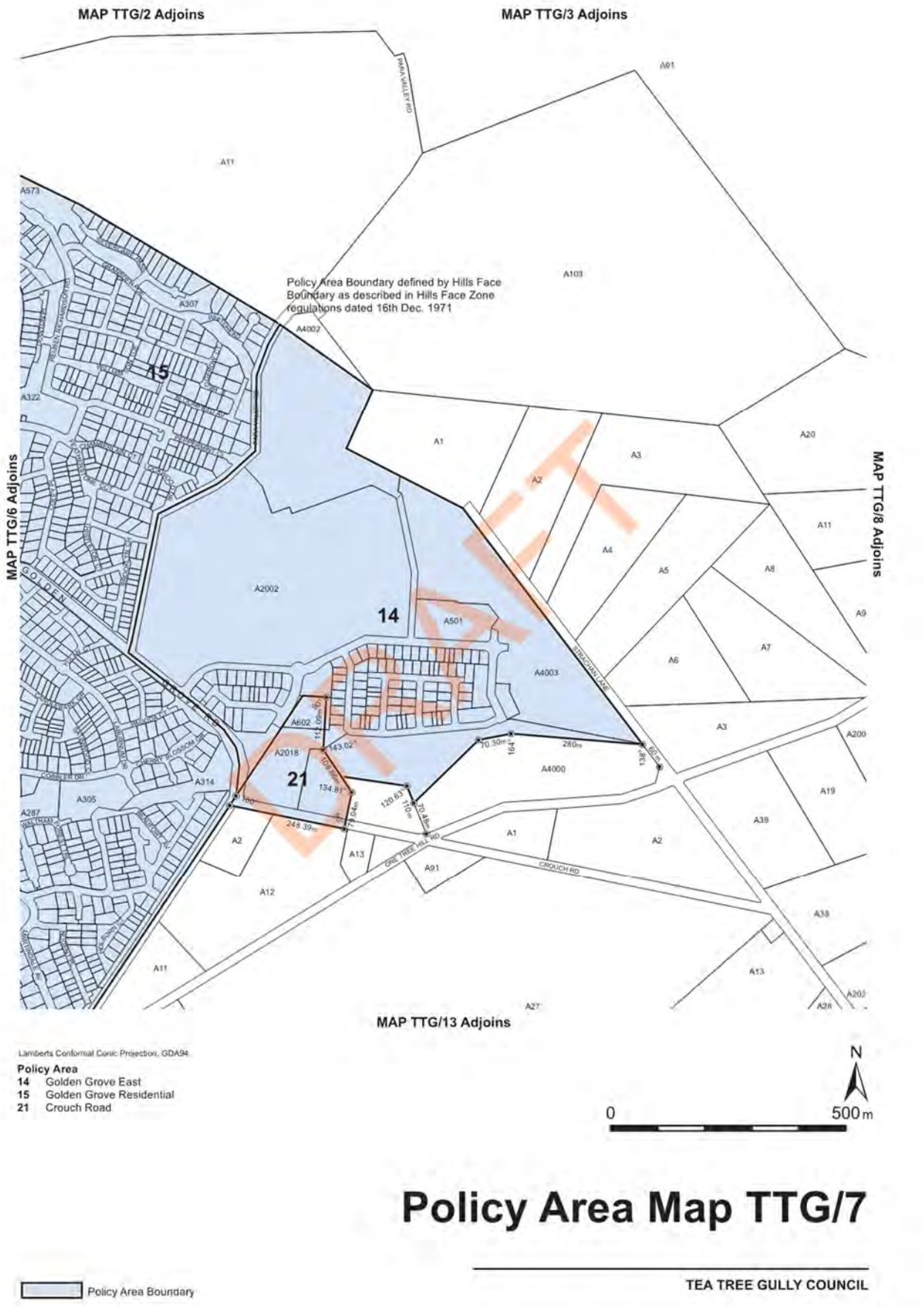
Further, the following forms of development are designated:

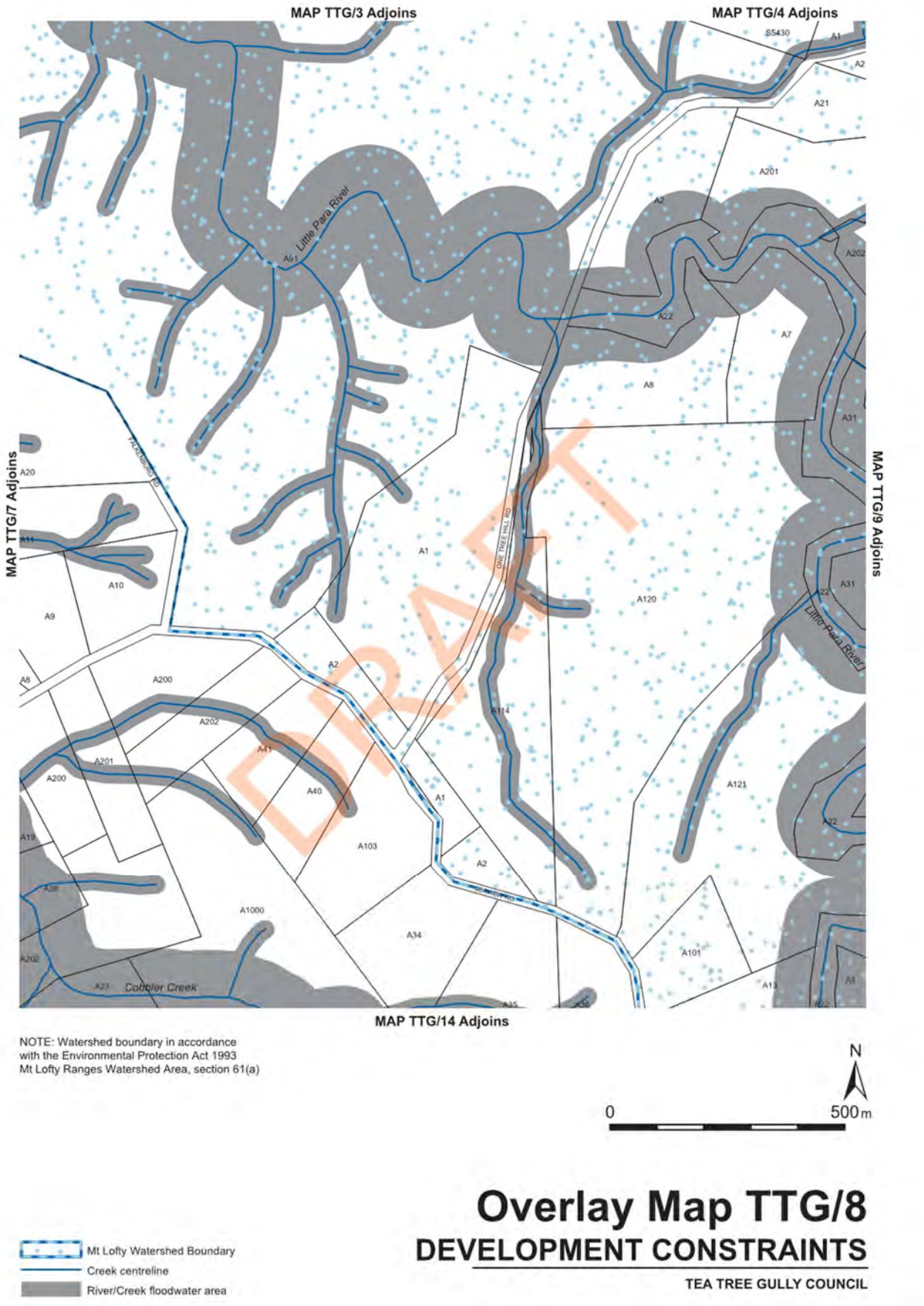
Category 1	Category 2
Detached dwelling	
Farm building	
Outbuilding in association with one or more of the following: (a) dwelling (b) horse keeping (c) horticulture.	

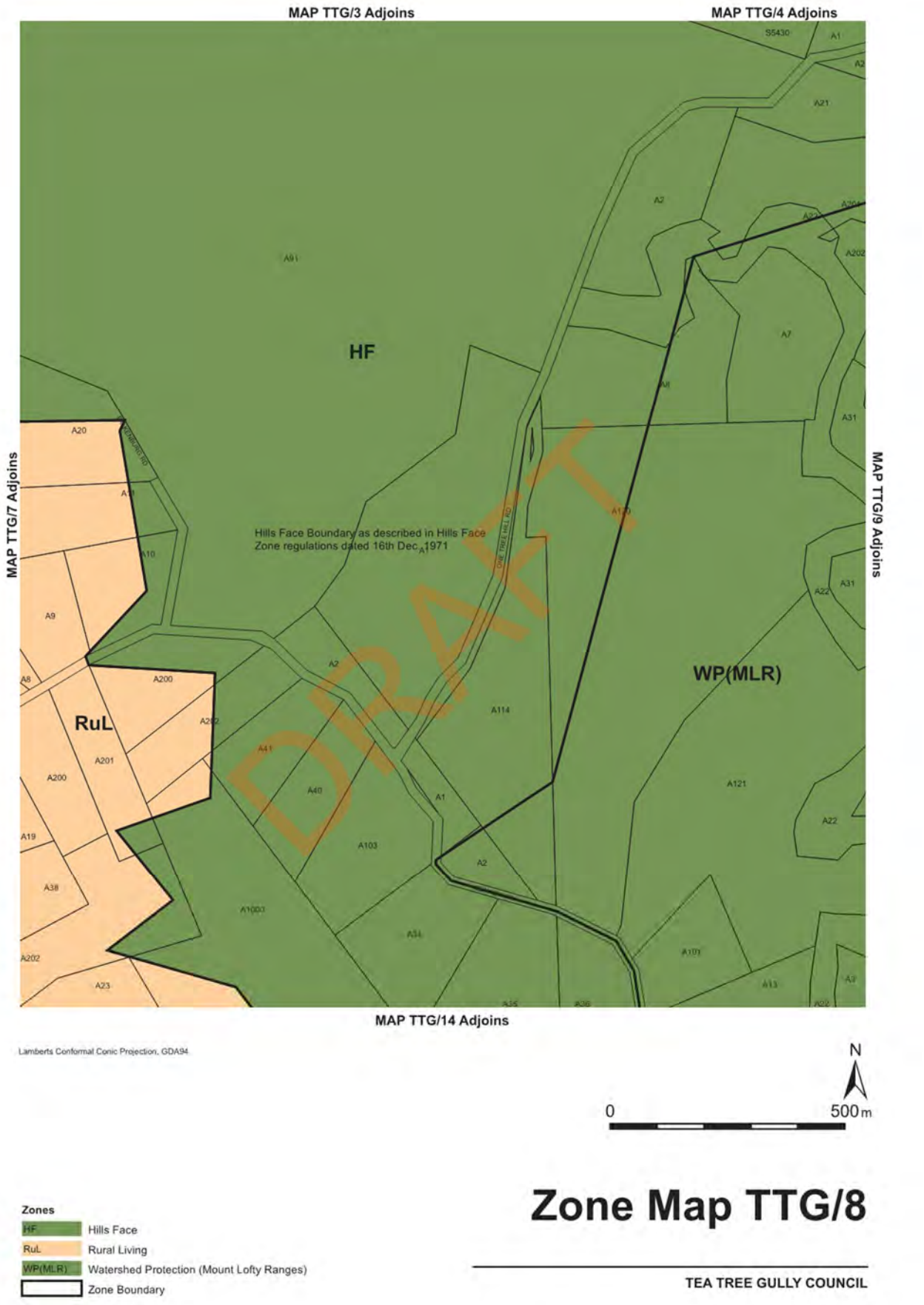
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MAP TTG/2 Adjoins
MAP TTG/3 Adjoins
MAP TTG/6 Adjoins
MAP TTG/8 Adjoins
MAP TTG/13 Adjoins
Slate Creek
GROVE RD
GOLDEN
STRADBROKE LANE
CROUCH RD
A11
A91
A103
A4002
A1
A3
A20
A4
A5
A6
A7
A8
A9
A501
A4003
A4000
A2018
A314
A305
A2
A12
A13
NOTE: Watershed boundary in accordance with the Environmental Protection Act 1993 Mt Lofty Ranges Watershed Area, section 61(a)
N
0
500 m
Mt Lofty Watershed Boundary
Creek centreline
River/Creek floodwater area
Overlay Map TTG/7
DEVELOPMENT CONSTRAINTS
TEA TREE GULLY COUNCIL


MAP TTG/2 Adjoins
MAP TTG/3 Adjoins
MAP TTG/6 Adjoins
MAP TTG/8 Adjoins
MAP TTG/13 Adjoins
HF
R
RuL
NCe
DU
Rec
MinEx
Hills Face Boundary as described in Hills Face Zone regulations dated 16th Dec. 1971
Lamberts Conformal Conic Projection, GDA94
N
0
500 m
Zones
DU Deferred Urban
HF Hills Face
MinEx Mineral Extraction
NCe Neighbourhood Centre
Rec Recreation
R Residential
RuL Rural Living
Zone Boundary
Zone Map TTG/7
TEA TREE GULLY COUNCIL


MAP TTG/2 Adjoins
MAP TTG/3 Adjoins
MAP TTG/6 Adjoins
MAP TTG/8 Adjoins
MAP TTG/13 Adjoins
Policy Area Boundary defined by Hills Face Boundary as described in Hills Face Zone regulations dated 16th Dec. 1971
15
14
21
A11
A91
A103
A4002
A1
A2
A3
A20
A4
A5
A8
A9
A7
A6
A2002
A501
A4003
A602
A2018
A4000
A200
A19
A39
A33
A202
A322
A307
A314
A305
A287
A13
A12
A27
A573
A501
A4003
A602
A2018
A4000
143.02°
134.81°
120.63°
110m
70.48m
73.04m
248.39m
70.30m
164°
280m
138°
60.1m
Lamberts Conformal Conic Projection, GDA94
Policy Area
14 Golden Grove East
15 Golden Grove Residential
21 Crouch Road
N
0
500 m
Policy Area Map TTG/7
Policy Area Boundary
TEA TREE GULLY COUNCIL


MAP TTG/3 Adjoins
MAP TTG/4 Adjoins
MAP TTG/7 Adjoins
MAP TTG/9 Adjoins
MAP TTG/14 Adjoins
Little Para River
Cobbler Creek
ONE TREE HILL RD
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NOTE: Watershed boundary in accordance with the Environmental Protection Act 1993 Mt Lofty Ranges Watershed Area, section 61(a)
N
0
500m
Mt Lofty Watershed Boundary
Creek centreline
River/Creek floodwater area
Overlay Map TTG/8
DEVELOPMENT CONSTRAINTS
TEA TREE GULLY COUNCIL


MAP TTG/3 Adjoins
MAP TTG/4 Adjoins
MAP TTG/7 Adjoins
MAP TTG/9 Adjoins
MAP TTG/14 Adjoins
HF
RuL
WP(MLR)
Hills Face Boundary as described in Hills Face Zone regulations dated 16th Dec 1971
DRAFT
Lamberts Conformal Conic Projection, GDA94
N
0
500 m
Zones
HF Hills Face
RuL Rural Living
WP(MLR) Watershed Protection (Mount Lofty Ranges)
Zone Boundary
Zone Map TTG/8
TEA TREE GULLY COUNCIL

Appendix D Historical Site Certificate of Titles

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CT 5093 / 561 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 of Section 2168, Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999		New title issued **to Ilario Lamberto and Giuseppe Emanuele (Company Directors)**
Allotment 2 of Section 2168, Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4269 Folio 723	Volume 4174 Folio 468	4 April 1986	New title issued **to Ilario Lamberto and Giuseppe Emanuele (Company Directors)**
			25 March 1986	Death of **Ilario Lamberto**
			21 December 1987	Transmitted to **Luigi Penna (Company Director)**
Allotment 2 of Section 2168, Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4316 Folio 187	Volume 4269 Folio 723	30 May 1988	New title issued to **Luigi Penna (Company Director) and Giuseppe Emanuele (Company Director)**

Allotment 2 of Section 2168, Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4336 Folio 309	Volume 4316 Folio 187	19 May 1989	New title issued to **Anthony Joseph Kelly (Landscaper) and Susan Patricia Kelly (Salesperson)**
Allotment 2 Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 5093 Folio 561	Volume 4336 Folio 309	19 October 1992	New title issued to **Monika Nominees Pty Ltd**

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CT 5158 / 162 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

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Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to Ilario Lamberto and Giuseppe Emanuele
Allotment 6 of Section 2168, Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4269 Folio 727	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele (Company Directors)**
			25 March 1986	Death of **Ilario Lamberto**
			21 December 1987	Transmitted to **Luigi Penna (Company Manager)**
Allotment 6 Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4316 Folio 189	Volume 4269 Folio 727	30 May 1988	New title issued to **Luigi Penna and Giuseppe Emanuele (Company Directors)**
			21 January 1988	Transferred to **Peter Federico (Director) and Maria Concetta Immacolata Federico (Home Duties)**

Allotment 6 Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 5158 Folio 162	Volume 4316 Folio 189	1 December 1993	New title issued to **Peter Federico and Maria Concetta Immacolata Federico**

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CT 5159 / 888 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to Ilario Lamberto and Giuseppe Emanuele
Allotment 9 of Section 2168, Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4269 Folio 730	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 9 of Section 2168, Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 4316 Folio 191	Volume 4269 Folio 730	30 May 1988	New title issued to **Luigi Penna and Giuseppe Emanuele**
			19 May 1988	Transferred to **Agostino Franze and Rosaria Franze, Vincenzo Franze and Joyce Maria Franze, Pasquale Franze and Maria Concetta Franze**

			2 May 1991	Transferred to **Salvatore Rinaldi and Pietronilla Rinaldi**
Allotment 9 Deposited Plan 17477 Golden Grove Hundred of Yatala	Volume 5159 Folio 888	Volume 4316 Folio 191	9 December 1993	New title issued to **Salvatore Rinaldi and Pietronilla Rinaldi**

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CT 5171 / 541 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

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Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 192	Volume 3810 Folio 76	27 September 1972	New title issued to **Allan James Strachan**
			25 August 1973	Transferred to **Frank Hayden, Patricia Mary Hayden and Christina Hayden**
			8 August 1974	Transferred to **Frank Hayden and Patricia Mary Hayden**
Allotment 3 Filed Plan 100647, Golden Grove Hundred of Yatala	Volume 5171 Folio 541	Volume 3875 Folio 192	24 February 1994	New title issued to **John Michael Hayden, Francis Hayden, Christina Flaherty, Susan Wright, Anne Pappas, Kyung Hayden and Matthew Hule Hayden**

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CT 5257 / 297 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

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Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to Ilario Lamberto and Giuseppe Emanuele
Allotment 8 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 729	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 8 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4316 Folio 190	Volume 4269 Folio 729	30 May 1988	New title issued to **Luigi Penna**
Allotment 8, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5257 Folio 297	Volume 4316 Volume 190	27 March 1995	New title issued to **Antonio Ricci and Caterina Ricci**

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CT 5291 / 680 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 3 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 724	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 3 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4316 Folio 188	Volume 4269 Folio 724	30 May 1988	New title issued to **Luigi Penna and Giuseppe Emanuele**
Allotment 3, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5291 Folio 680	Volume 4316 Folio 188	7 September 1995	New title issued to **Aldo Franco, Elio Franco and Giuseppe Franco**

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CT 5408 / 742 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

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Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 7 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 728	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 7, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5408 Folio 742	Volume 4269 Folio 728	2 April 1997	New title issued to **Con Minopoulos and Soula Minopoulos**

CT 5442 / 886 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

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Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 10 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 731	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 10 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4316 Folio 192	Volume 4269 Folio 731	30 May 1988	New title issued to **Luigi Penna and Giuseppe Emanuele**
			28 August 1990	Transferred to **Ilija Cirjak and Rita Mary Cirjak**

Allotment 10, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5442 Folio 886	Volume 4316 Folio 192	18 August 1997	New title issued to **Ilija Cirjak and Rita Mary Cirjak**

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CT 5596 / 686 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 4, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 725	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 4, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5596 Folio 686	Volume 4269 Folio 725	16 November 1998	New title issued to **Tracey Leanne Raschella**

CT 5774 / 558 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 1, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 722	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 1, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5774 Folio 558	Volume 4269 Folio 722	17 May 2000	New title issued to **Carmine Grove Pty Ltd**

CT 5774 / 559 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 5 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 726	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 5, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5774 Folio 559	Volume 4269 Folio 726	17 May 2000	New title issued to **Charles Salvatore Parletta and Diodoro Parletta**

CT 5776 / 344 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 11 of Section 2168, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 4269 Folio 732	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 11, Deposited Plan 17477, Golden Grove, Hundred of Yatala	Volume 5776 Folio 344	Volume 4269 Folio 732	23 May 2000	New title issued to **Trevor William Rickman and Margaret Anne Rickman**

CT 5998 / 401 – Ownership History

Property Description	Certificate of Title	Parent Title	Date	Details
Two portions of Section 5661 diving the northern portion of Section 2167 from Section 5580 Hundred of Yatala County of Adelaide	Volume 234 Folio 107		9 September 1876	New title issued to **John Robertson (Golden Grove Esquire)**
			23 June 1896	Death of **John Robertson**
			19 February 1932	Transmitted to **Archibald Duncan Robertson**
			19 February 1932	Transferred to **Allan James Strachan and The General Assembly of the Presbyterian Church of South Australia**
Sections 2178, 2179 and Closed Roads Hundred of Yatala County of Adelaide	Volume 460 Folio 50		18 September 1884	New title issued to **Thomas Gibbons McPharlin (Golden Grove Farmer)**
			15 April 1918	Transferred to **George Dodsworth Basnett (Adelaide Merchant)**
			18 April 1944	Transferred to **Alfred Joseph Crouch and Stanley Darrell Crouch**
Hundred of Yatala County of Adelaide Closed Roads	Volume 1601 Folio 107	Volume 234 Folio 107	30 March 1932	New title issued to **Allan James Strachan (Golden Grove Grazier)**
				Transferred to **Christies Stone Quarries Pty Ltd**
Portions 2169 and 2177, Portion of Section 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1618 Folio 48	Volume 1614 Folio 18 Volume 1587 Folio 62	19 August 1933	New title issued to **Wilfred Athelstan Johnson, Arthur Edmund Bendixson, Harald Ivar Sylvester Bendixson, Bertram Evelyn Bendixton and Helen Valfrid Gordon Clark (London, UK)**
			31 August 1933	Transferred to **Allan James Strachan (Golden Grove Grazier)**
			12 July 1946	Transferred to **Stanley Darrel Crouch**
Sections 2167, 2168, 2169, 5575 and Closed Road Hundred of Yatala County of Adelaide	Volume 1828 Folio 42		2 March 1944	New title issued to **Clarence Frederick Pitcher (Dairyman)**
Portions of Section 2178 and Closed Road Hundred of Yatala County of Adelaide	Volume 1831 Folio 90	Volume 460 Folio 50	15 June 1944	New title issued to **Stanley Darrell Crouch (Golden Grove Grazier)**
			12 July 1946	Transferred to **Allan James Strachan**
Section 2168, Portion of Section 5575 Hundred of Yatala County of Adelaide	Volume 1843 Folio 34		11 December 1944	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 1902 Folio 58	Volume 1831 Folio 90 Volume 1618 Folio 48	13 August 1946	New title issued to **Allan James Strachan (Grazier)**
	Volume 2690	Volume 1828	28 August 1959	New title issued to **Clarence Frederick Pitcher (Golden Grove Primary Producer)**

Section 2168, Portion of Section 5575 and a Closed Road Hundred of Yatala County of Adelaide	Folio 168	Folio 42 Volume 1843 Folio 34	5 July 1969	Death of **Clarence Frederick Pitcher**
			3 November 1969	Transmitted to **Public Trustee**
			9 September 1970	Transferred to **James Frederick Pitcher (Wool Classer), Janet Laurel Weller and Ivan Kenneth Pitcher (Apprentice Instructor)**
			3 May 1972	Transferred to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Portions of Sections 2169, 2177, 2178 and 5575, Closed Roads Hundred of Yatala County of Adelaide	Volume 2730 Folio 123	Volume 1902 Folio 58	9 February 1960	New title issued to **Allan James Strachan (Grazier)**
Closed Road Hundred of Yatala County of Adelaide	Volume 3768 Folio 119	Volume 1601 Folio 107	26 May 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3810 Folio 76	Volume 2730 Folio 123	8 December 1971	New title issued to **Allan James Strachan (Grazier)**
			30 June 1972	Transferred to **Minister of Works**
Portions of Sections 2169, 2177, 2178 and 5575 Hundred of Yatala County of Adelaide	Volume 3875 Folio 191	Volume 3810 Folio 76	27 September 1972	New title issued to **Minister of Works**
			22 July 1980	Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4139 Folio 369	Volume 3768 Folio 119	11 April 1979	New title issued to **Minister of Works**
Section 5580 and 5581, and Portion of Section 2167 Hundred of Yatala	Volume 4142 Folio 999	Volume 4139 Folio 369	20 June 1979	New title issued to **Minister of Works**
				Transferred to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 Section 2168 Filed Plan 8177 Hundred of Yatala	Volume 4174 Folio 468	Volume 2690 Folio 168 Volume 3875 Folio 191 Volume 4142 Folio 999	24 April 1981	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 2 of Section 2168, Deposited Plan 14777, Golden Grove, Hundred of Yatala	Volume 4269 Folio 723	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 12 of Section 2168, Deposited Plan 14777, Golden Grove, Hundred of Yatala	Volume 4269 Folio 733	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**
Allotment 13 of Section 2168, Deposited Plan	Volume 4269 Folio 734	Volume 4174 Folio 468	4 April 1986	New title issued to **Ilario Lamberto and Giuseppe Emanuele**

14777, Golden Grove, Hundred of Yatala				
Allotment 2 of Section 2168, Deposited Plan 14777, Golden Grove, Hundred of Yatala	Volume 4316 Folio 187	Volume 4269 Folio 723	30 May 1988	New title issued to **Luigi Penna and Giuseppe Emanuele**
Allotment 12 of Section 2168, Deposited Plan 14777, Golden Grove, Hundred of Yatala	Volume 4316 Volio 193	Volume 4269 Folio 733	30 May 1988	New title issued to **Luigi Penna and Giuseppe Emanuele**
Allotment 13 of Section 2168, Deposited Plan 14777, Golden Grove, Hundred of Yatala	Volume 4336 Volio 310	Volume 4269 Folio 734 Volume 4316 Folio 187	19 May 1989	New title issued to **Luigi Penna and Giuseppe Emanuele**
			11 December 1989	Transferred to **Joseph Paul Grech and Maria Anna Grech**
Allotment 102 of Section 2168, Deposited Plan 26280, Golden Grove, Hundred of Yatala	Volume 4356 Folio 895	Volume 4336 Folio 310 Volume 4316 Volio 193	2 April 1990	New title issued to **Joseph Paul Grech and Maria Anna Grech**
Allotment 102, Deposited Plan 26280, Golden Grove, Hundred of Yatala	Volume 5397 Folio 698	Volume 4356 Folio 895	17 February 1997	New title issued to **Joseph Paul Grech and Maria Anna Grech**
Allotment 20, Deposited Plan 67885, Golden Grove, Hundred of Yatala	Volume 5998 Folio 401	Volume 5397 Folio 698	27 November 2007	New title issued to **Joseph Paul Grech and Maria Anna Grech**

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book, Volume 4336 Folio 309

Pursuant to Transfer 6628850 Registered on Vol.4316 Folio 187

ANTHONY JOSEPH KELLY Landscaper and SUSAN PATRICIA KELLY Salesperson both of 5 Exhibition Drive Modbury North 5092 are the proprietors of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon SUBJECT to an easement for drainage purposes provided for by Section 223 ln (2) of the Real Property Act 1886 in and over those portions marked D hereon SUBJECT ALSO to an easement to The Electricity Trust of South Australia created by Transfer 6461394 in and over that portion marked E hereon SUBJECT ALSO to an easement created by Transfer 6628850 in and over those portions marked C hereon

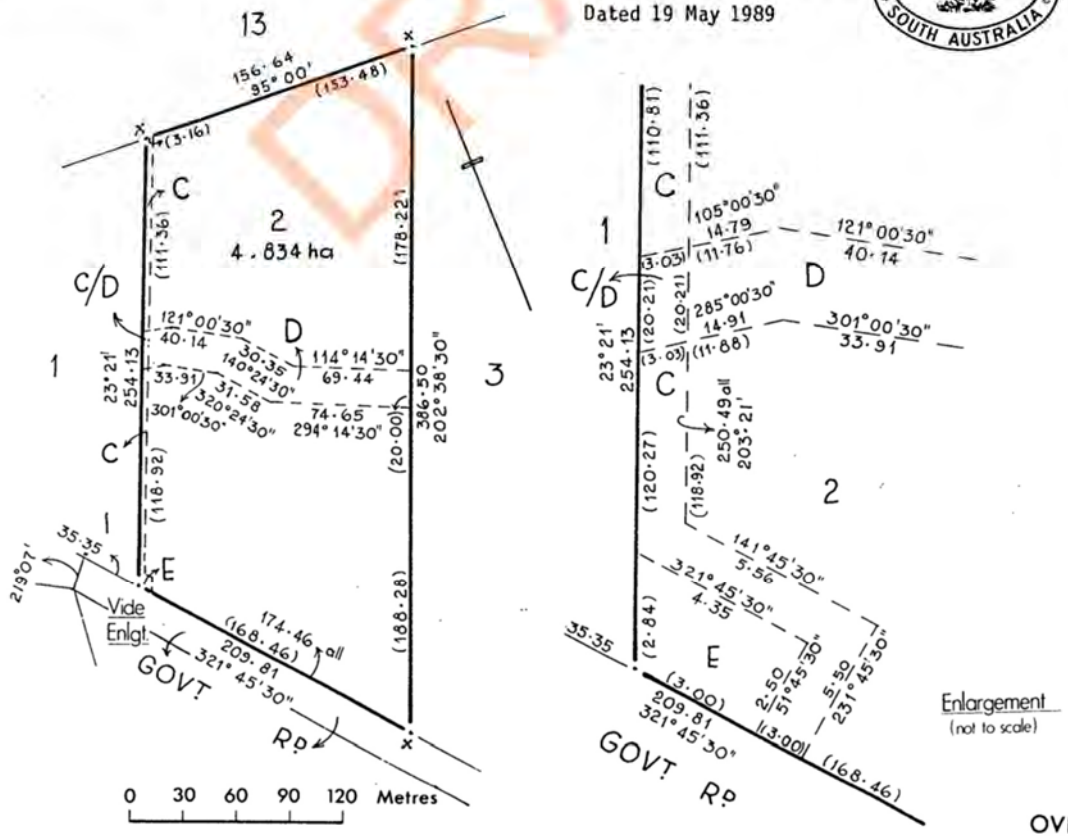
F.P. 23999 APPROVED

G.R.O. PLAN G.P.246 of 1986 FOR LEASING PURPOSES DEPOSITED OVER PORTION OF THE WITHIN LAND

Deputy Registrar-General

Dated 19 May 1989

REGISTRAR-GENERAL SOUTH AUSTRALIA



VOL 4336 FOL 309

LEASE 6461396 to GOLDEN GROVE WATER CO. PTY. LTD. of certain rights over portion of the within land Term of ninety nine years commencing on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00 (Including other land)

ENCUMBRANCE 6628851 to CITY OF TEA TREE GULLY Produced 1.11.1988 at 12:15 (Single copy only)

ENCUMBRANCE 6628852 to GOLDEN GROVE WATER CO. PTY. LTD. Produced 1.11.1988 at 12:15 (Single copy only)

MORTGAGE 6628853 to THE CO-OPERATIVE BUILDING SOCIETY OF SOUTH AUSTRALIA Produced 1.11.1988 at 12:15

MORTGAGE 6674381 to AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED Produced 25.1.1989 at 11:20

P/A 6455599
The within land is discharged from Mortgage 6628853 vide 6746386 Produced 2.6.1989 at 14:40

P/A 4523763
The within land is discharged from Mortgage 6674381 vide 6746387 Produced 2.6.1989 at 14:40

DISCHARGE of Encumbrance 6628851 vide 6746388 Produced 2.6.1989 at 14:40

DISCHARGE of Encumbrance 6628852 vide 6746389 Produced 2.6.1989 at 14:40

TRANSFER 6746390 to PASQUALE QUATTROCCHI Fruit and Vegetable Wholesaler and MONIKA QUATTROCCHI Registered Nurse both of 277 Wright Road Valley View 5093 of the within land Produced 2.6.1989 at 14:40

ENCUMBRANCE 6746391 to CITY OF TEA TREE GULLY Produced 2.6.1989 at 14:40 (Single copy only)

ENCUMBRANCE 6746392 to GOLDEN GROVE WATER CO. PTY. LTD. Produced 2.6.1989 at 14:40 (Single copy only)

MORTGAGE 6746393 to WESTPAC SAVINGS BANK LIMITED Produced 2.6.1989 at 14:40

MORTGAGE 7010023 to WESTPAC BANKING CORPORATION Produced 9.11.1990 at 10:00

The within land is discharged from Mortgage 6746393 vide 7163002 Produced 30.8.1991 at 10:00

CANCELLED

CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4316 Folio 187

Comprising 2 sheets

New Certificate for the balance of the Land in Vol.4269 Folio 723

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over that portion marked D hereon SUBJECT ALSO to an easement to The Electricity Trust of South Australia created by Transfer 6461394 in and over that portion marked E hereon

In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

Signed the 30th day of May 1988, in the presence of

G.P.O. PLAN G.P. 246 of 1986 FOR LEASING PURPOSES DEPOSITED OVER WHOLE OF THE WITHIN LAND

F.P. 23999 APPROVED

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 26594 APPROVED

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY.LTD. of certain rights over portion of the within land Term of ninety nine years Commening on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00 (Including other land)

P/A 6561805 /Reserving an Easement
The within land/is discharged from Mortgage 6030695 vide 6628847 Produced 1.11.1988 at 12:15

/Reserving an Easement
The within land/is discharged from Encumbrance 6100320 vide 6628849 Produced 1.11.1988 at 12:15

TRANSFER 6628850 to ANTHONY JOSEPH KELLY and SUSAN PATRICIA KELLY of the within land Reserving an Easement Produced 1.11.1988 at 12:15

CANCELLED as regards above land and issued VOL. 4336 FOL. 309

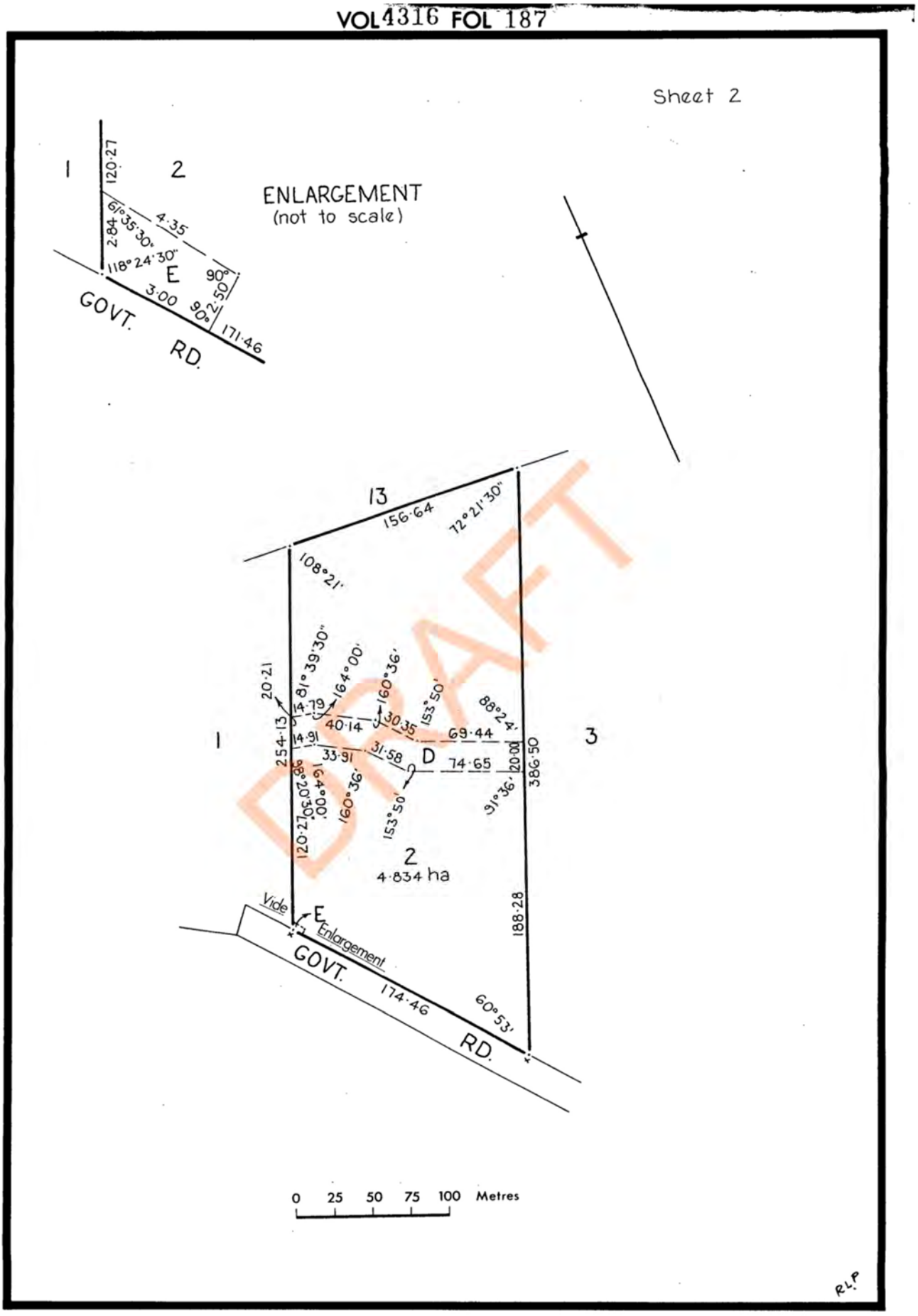
OVER

DRAFT

VOL 4316 FOL 187

CANCELLED
AND BALANCE CERTIFICATE OF TITLE
ISSUED VIDE 662885 VOL. 4336 FOL. 316

DRAFT


VOL 4316 FOL 187
Sheet 2
ENLARGEMENT
(not to scale)
1
2
120·27
61°35'30"
4·35
2·84
118°24'30"
E
90°
3·00
90°
2·50
171·46
GOVT.
RD.
13
156·64
72°21'30"
108°21'
1
3
20·21
81°39'30"
164°00'
160°36'
153°50'
88°24'
254·13
14·79
40·14
30·35
14·91
33·91
31·58
69·44
74·65
20·00
386·50
D
91°36'
160°36'
164°00'
153°50'
120·27
2
4·834 ha
188·28
Vide
E
Enlargement
GOVT.
174·46
60°53'
RD.
0 25 50 75 100 Metres
DRAFT
RLP

VOL 4316 FOL 187

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4269 Folio 723

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over that portion marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Hannaga)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

Caveat 6428608 has been withdrawn vide 6461391 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

DRAFT

VOL 4269 FOL 723

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6461394 VOL 4316 FOL 187

DRAFT

ORIGINAL

South Australia

CERTIFICATE OF TITLE

Register Book,
Volume 4174 Folio 468

(Comprising 2 Sheets)

Pursuant to Transfer 4588426 Registered on Vol.2690 Folio 168
Vol.3875 Folio 191 and Vol.4142 Folio 999

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA (L.T.R.O. FILED PLAN No.8177) and delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easements to The Electricity Trust of South Australia more particularly set forth in Transfers 2145555 and 2171901 in and over those portions marked B and C respectively hereon

In witness whereof I have signed my name and affixed my seal this 24 day of Oct 1981

Signed the 24 day of Oct)
1981, in the presence of)

G.R.O. PLAN No. 153 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

F.P. 21834
APPROVED

A.J. Sherman
Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~E 4588427~~ ~~M4588428~~

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single copy only)

MORTGAGE 4588428 to COMMONWEALTH TRADING BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m.

~~CAVEAT 5360254 Lodged 24.12.1984 at 12.20 p.m.~~

CAVEAT 5360254 lodged by ELDERS LENSWORTH FINANCE LIMITED over the within land Produced 24.12.1984 at 12.20 p.m.

WX 6030694 M6030695

Caveat 5360254 has been withdrawn vide 6030694 Produced 7.6.1985 at 11:05

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05

~~E 6100320~~
RT6113325 (DP 17477)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single copy only)

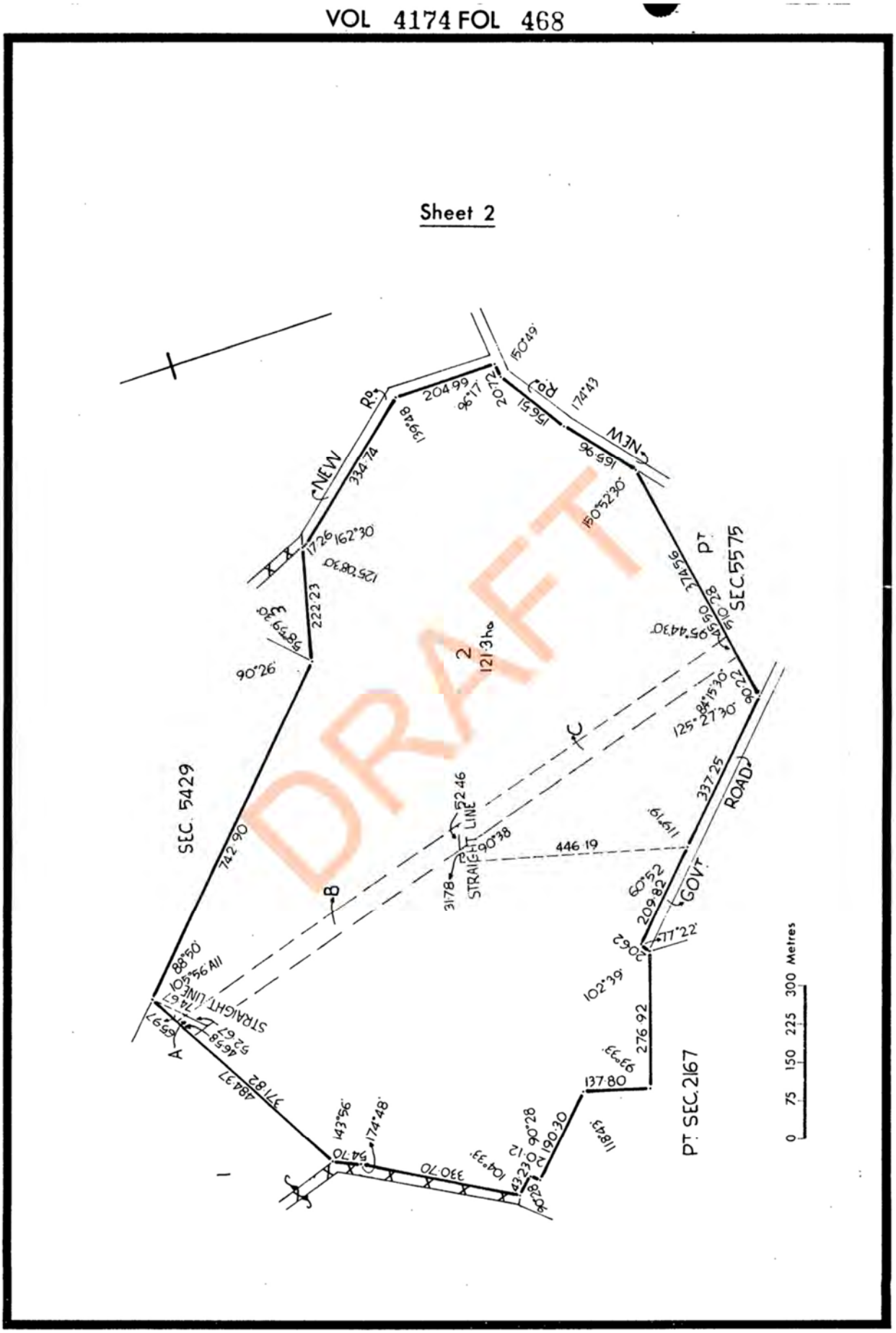
DRAFT

VOL 4174 FOL 468

Cancelled as regards ~~that portion of~~ the within land comprised in Deposited Plan 17477 and new Certificates issued (R.T. 6113324)
Vol. 4269 Folio 722 to 734 incl.

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT


VOL 4174 FOL 468
Sheet 2
DRAFT
SEC. 5429
PT SEC. 5575
PT SEC. 2167
ROAD
GOVT
STRAIGHT LINE
2
121·3ha
742·90
337·25
446·19
276·92
137·80
190·30
330·70
334·74
204·99
174·43
156·51
165·96
150·49
222·23
90·26
A
B
C
0 75 150 225 300 Metres

VOL 4174 FOL 468

DRAFT

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 2690 *Folio* 168

Balance Certificate of Title from Vol.1828 Folio 42 and Vol.1843 Folio 34

CLARENCE FREDERICK PITCHER of Golden Grove Primary Producer

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THAT PIECE of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being the SECTION 2168 containing ninety four acres and two roods or thereabouts PORTION OF SECTION 5575 containing thirty nine acres one rood and fifteen perches or thereabouts and a CLOSED ROAD containing nine acres or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green SUBJECT nevertheless to the right of way and easement with conditions granted by Memorandum of Transfer No.2145555 to The Electricity Trust of South Australia in and over portion of the said land as delineated in the said plan and therein marked Easement

Which said Section s are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this Twenty eighth day of August 1959

Signed the 28th day of August 1959, in the presence of

B. Nelson Waghorn

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 8177 APPROVED



APPLICATION No. 3049902 THE WITHIN land IS TRANSMITTED TO Public Trustee

AS THE EXECUTOR NAMED IN THE WILL DATED 25.5.1951 OF Clarence Frederick Pitcher WHO DIED 5.7.1969 VIDE PROBATE DATED 26.9.1969 PRODUCED 3.11.1969 at 12.20 p.m.

J. Hughes. DEP. REG. GEN.

OVER

DRAFT



TRANSFER No. 3134243 To
James Frederick Pitcher of Box 22 P.O. Golden Grove 5125 Wool Classer, Janet Laurel Weller of 16 Hammersmith Avenue Edwardstown SO 39 Married Woman and Ivan Kenneth Pitcher of 4 Turner Avenue Clearview 5085 Apprentice Instructor.
OF THE WITHIN LAND. PRODUCED 9-9-1970 AT 11.10a.m.
DEP. REG. GEN.
T 3312243

TRANSFER No. 3312893 To
Minister of Works
OF THE WITHIN LAND PRODUCED 2/5/1972 AT 2.15 p.m.
DEP. REG. GEN.

~~I 458426~~ E 458427 M 458428

TRANSFER No. 458426 To
Ilario Lamberto and Giuseppe Emanuele
OF THE WITHIN land as tenants in common
PRODUCED 22-7-1980 AT 2.30p.m.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED
VOL. 4174 FOL. 468

DRAFT

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 3875 *Folio* 191

Pursuant to Memorandum of Transfer No. 3333763 Registered on Vol. 3810 Folio 76

MINISTER OF WORKS

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land containing together ninety six point three seven hectares or thereabouts situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being PORTIONS OF SECTIONS 2169, 2177, 2178 and 5575 more particularly delineated and bounded as appears in the plan in the margin hereof by bold black lines SUBJECT nevertheless to the rights of way and easements with conditions granted by Memoranda of Transfer Nod. 2171901 and 3245764 to The Electricity Trust of South Australia in and over portions of the said land as delineated in the said plan and therein marked Easement A and Easement B respectively

Which said Sections are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this 27th day of September 1972

Signed the 27th day of September 1972, in the presence of Mawson

F.P. 8177 APPROVED

F.P. 10517 APPROVED

B. L. Nairn

Deputy Registrar-General

~~T4788426 E4788427 M4788428~~

V 4624057

REGISTRAR-GENERAL SOUTH AUSTRALIA

TRANSFER No. 4588426 To Ilario Lamberto and Giuseppe Emanuele

OF THE WITHIN Part Section 5575 and PORTION of Part Section 2169 PRODUCED 22.7.1980 AT 2.30 p.m. as to an undivided one-half share in common

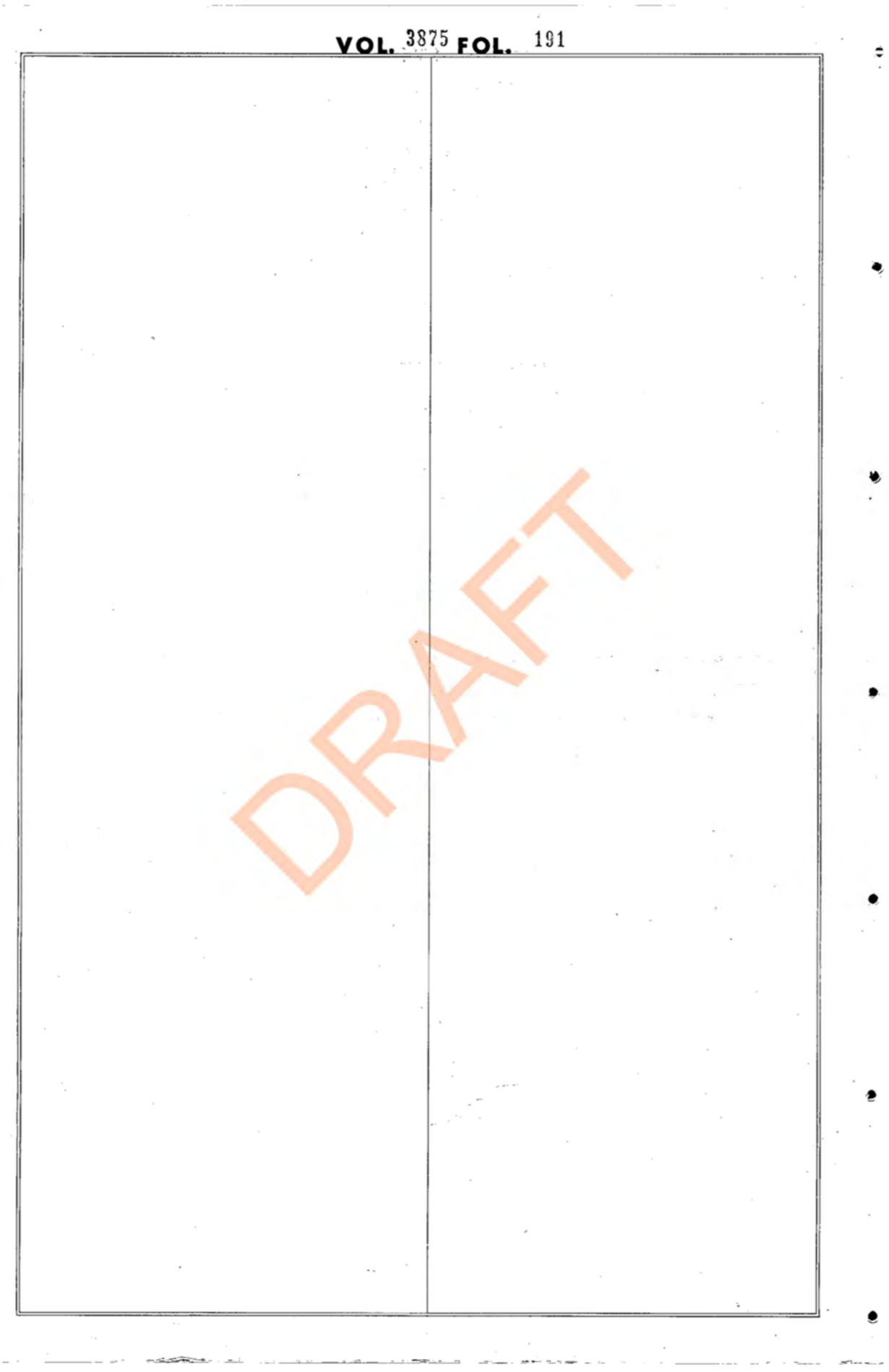
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED

VOL. 4174 FOL. 468

RT5007442. (DP 12037). T6012356

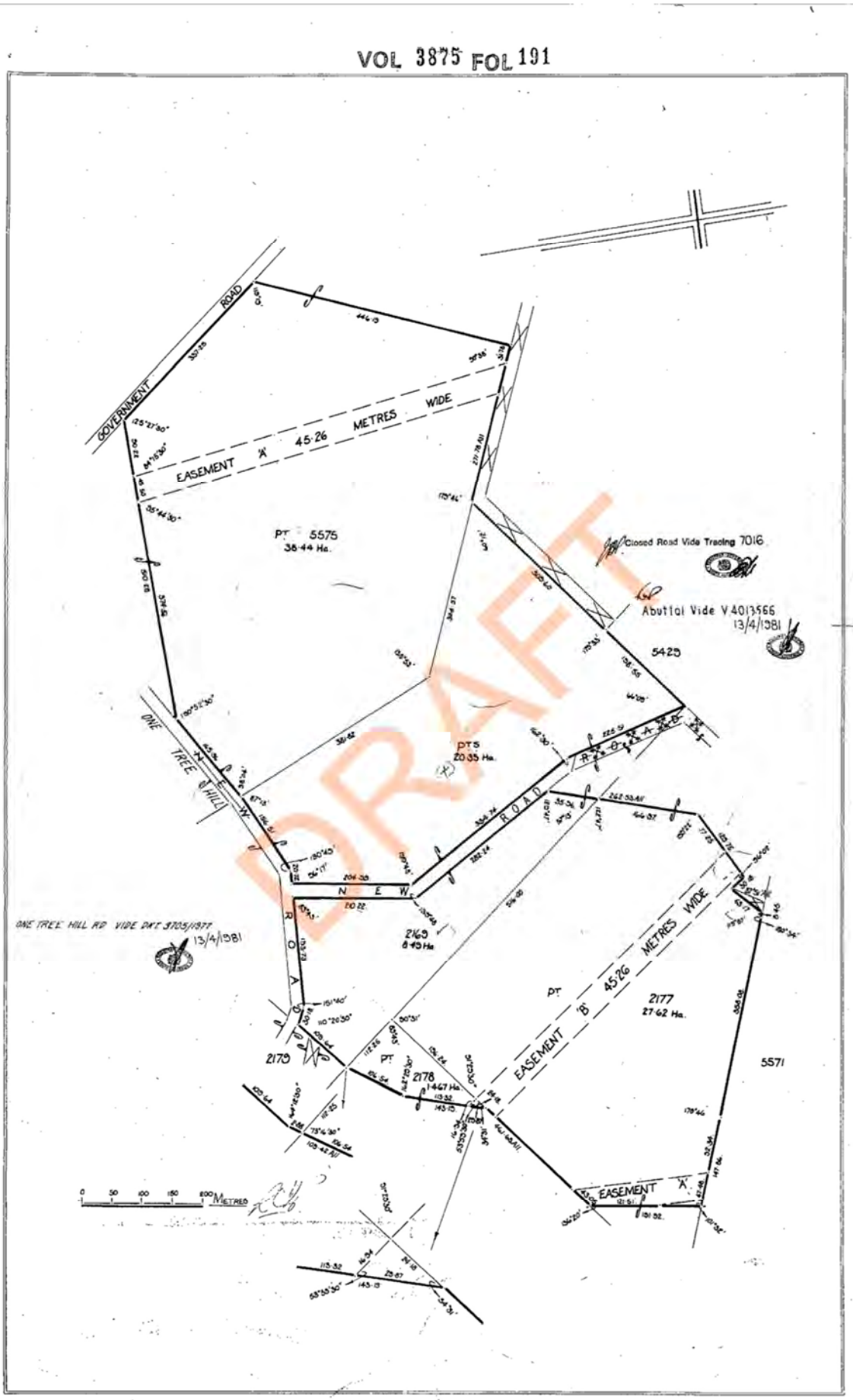
CANCELLED AND Balance CERTIFICATE OF TITLE ISSUED VIDE ~~T4788427~~ VOL 4400 FOL 805

DRAFT


VOL. 3875 FOL. 191
DRAFT

VOL 3875 FOL 191

DRAFT


VOL 3875 FOL 191
GOVERNMENT ROAD
EASEMENT 'A' 45·26 METRES WIDE
PT 5575
38·44 Ha.
Closed Road Vide Trading 7016
Abuttal Vide V 4013566
13/4/1981
5425
ONE TREE HILL
PT 5
20·35 Ha.
ROAD
N E W
ONE TREE HILL RD VIDE DAT 3705/1977
13/4/1981
2169
8·43 Ha
PT
2177
27·62 Ha.
EASEMENT 'B' 45·26 METRES WIDE
2179
PT
2178
1·467 Ha.
5571
EASEMENT 'A'
0 50 100 150 200 METRES
DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4142 Folio 999

(Comprising 2 Sheets)

New Certificate for the balance of the Land in Vol.4139 Folio 369

MINISTER OF WORKS is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in SECTIONS 5580 and 5581 and PORTION OF SECTION 2167 HUNDRED OF YATALA delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easement to The Electricity Trust of South Australia more particularly set forth in Transfer 4325244 in and over those portions marked B hereon

In witness whereof I have signed my name and affixed my seal this 20th day of June 1979

Signed the 20th day of June

1979, in the presence of R. Davis } R.J. Sharman

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 8177 APPROVED

F.P. 10517 APPROVED

T4588426 E4588427 M4588428

ROAD PLAN 7639 AFFECTS THIS C T ENQUIRIES ON 4TH FLOOR (S.G.O. ROAD SECTION) COLONEL LIGHT CENTRE

V4527583

TRANSFER 4588426 to ILARIO LAMBERTO and GIUSEPPE EMANUELE of PORTION of the within Section 5580 AS TENANTS IN COMMON Produced 22.7.1980 at 2.30 p.m.

CANCELLED as regards above Land and New C.T. issued

Vol. 4174 Fol. 468

RT5007472 (DP12037).

T6012355 T6012356

The within Easement A has been extinguished vide G.R.O. Memorial No.156 Book 540 Registered in the General Registry Office

Entered: 27·5·1993

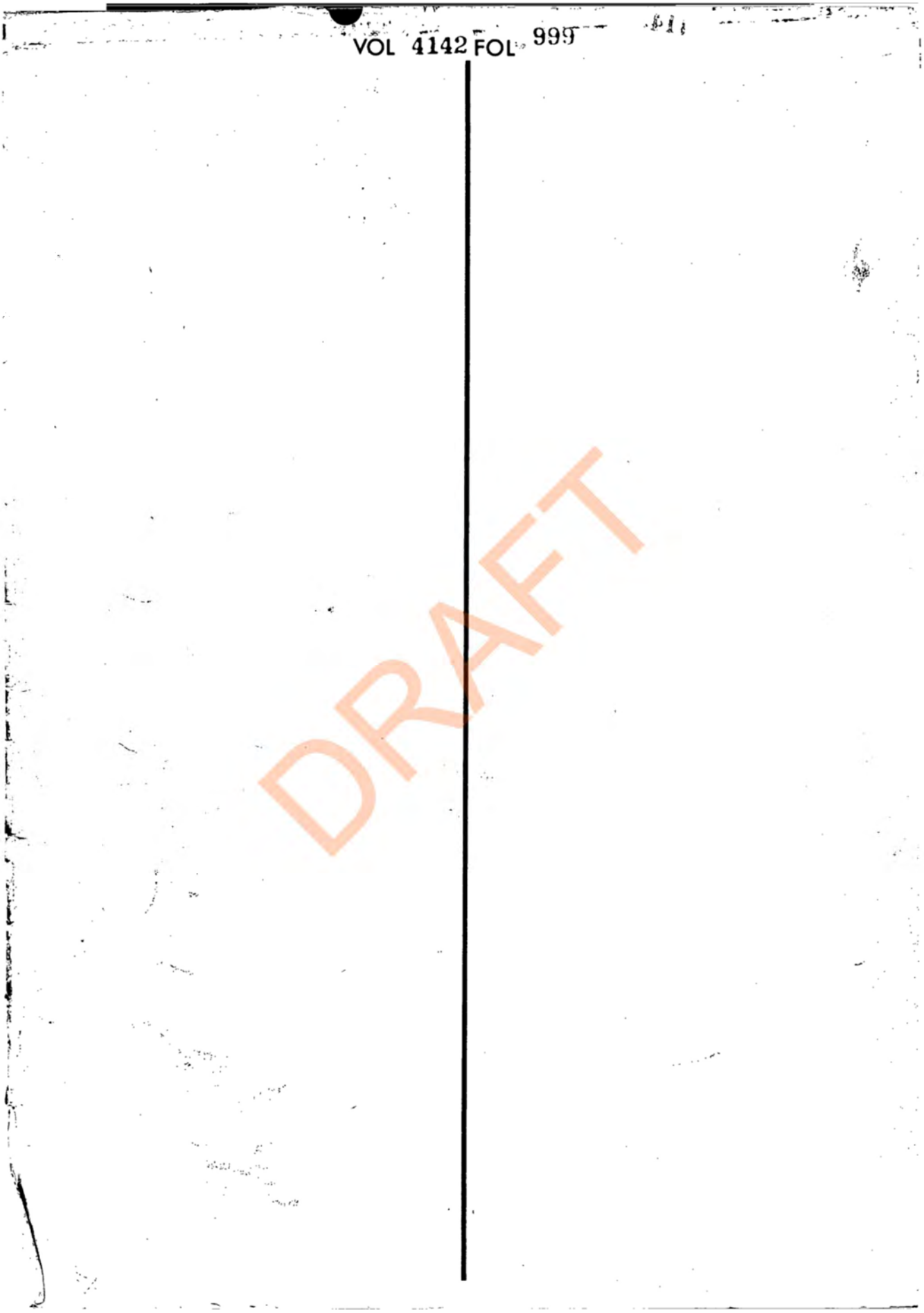
CANCELLED

AND Balance CERTIFICATE OF TITLE

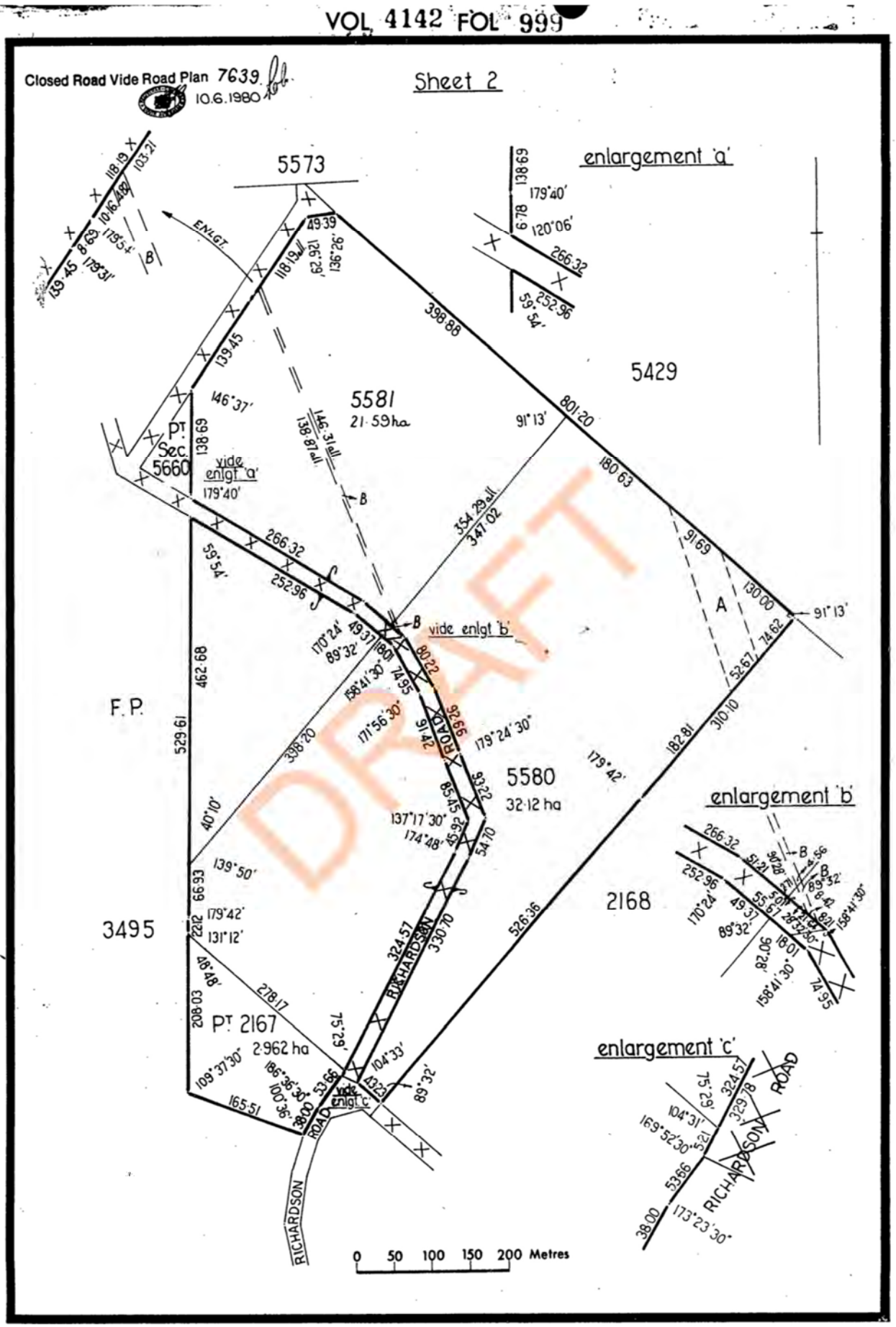
ISSUED VIDE VOL 4400 FOL 805

7489377

DRAFT



DRAFT


VOL 4142 FOL 999
Closed Road Vide Road Plan 7639
10.6.1980
Sheet 2
5573
enlargement 'a'
5581
21·59ha
5429
PT Sec. 5660
vide enlgt 'a'
179°40'
vide enlgt 'b'
5580
32·12 ha
F.P.
3495
PT 2167
2·962 ha
2168
enlargement 'b'
enlargement 'c'
RICHARDSON ROAD
ROAD
DRAFT
0 50 100 150 200 Metres

VOL 4142 FOL 99

DRAFT

ORIGINAL South Australia Register Book,

CERTIFICATE OF TITLE

Volume 4139 Folio 369

(Comprising 2 sheets)

Pursuant to Application 30091 and New Certificate for the whole of the Land in Vol.3768 Folio 119

MINISTER OF WORKS is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in SECTIONS 5580 and 5581 and PORTION OF SECTION 2167 HUNDRED OF YATALA delineated on the plan hereon by bold black lines SUBJECT to the easement to the Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon

In witness whereof I have signed my name and affixed my seal this 11th day of April 1979

Signed the 11th day of April 1979, in the presence of

J.A. Hughes.

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE VOL 4142 FOL 999

T-~~4325244~~

TRANSFER 4325244 to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement OVER PORTION of the within Sections 5580 and 5581 Produced 26.1.1979 at 11.30 a.m.

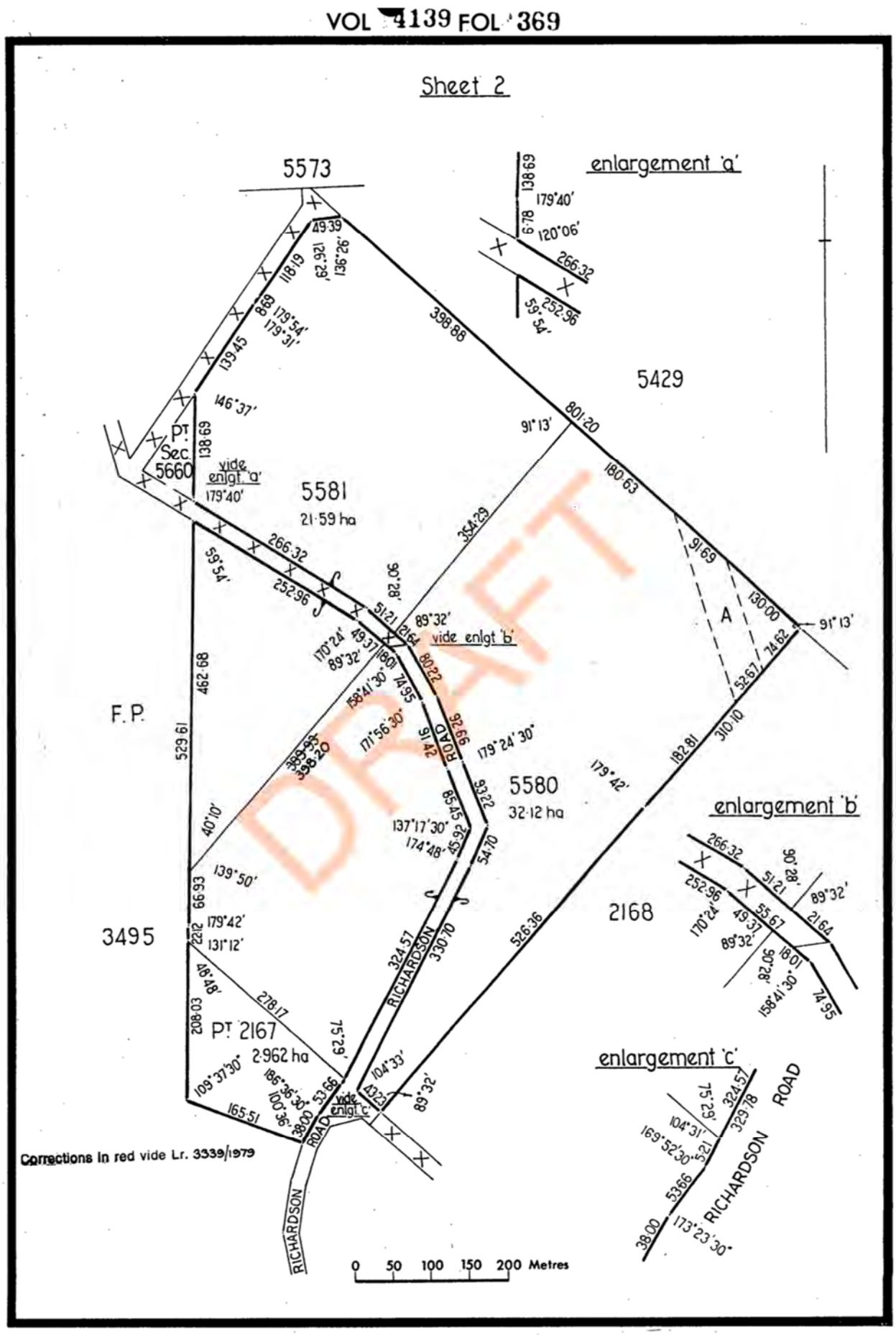
CANCELLED as regards above land and new C.T. issued

Vol. 4299 Fol. 487

DRAFT

VOL 4139 FOL 369

DRAFT


VOL 4139 FOL 369
Sheet 2
5573
enlargement 'a'
5429
Pt Sec 5660
vide enlgt 'a'
5581
21·59 ha
vide enlgt 'b'
F.P.
5580
32·12 ha
3495
Pt 2167
2·962 ha
2168
enlargement 'b'
enlargement 'c'
RICHARDSON ROAD
DRAFT
Corrections in red vide Lr. 3339/1979
0 50 100 150 200 Metres

VOL 4139FOL 369

DRAFT

South Australia

CERTIFICATE OF TITLE

Register Book,
Vol. 3810 *Folio* 76

Balance Certificate of Title from Vol.2730 Folio 123

ALLAN JAMES STRACHAN of Golden Grove 5125 Grazier

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land containing together two hundred and forty eight acres and twenty perches or thereabouts situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being PORTIONS OF SECTIONS 2169. 2177.2178 and 5575 more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green SUBJECT nevertheless to the rights of way and easements with conditions granted by Memoranda of Transfer Nod.2171901 and 3245764 to The Electricity Trust of South Australia in and over portions of the said land as delineated in the said plan and therein marked Easement A and Easement B respectively

Which said Section s are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this 8th day of December 1971

Signed the 8th day of December 1971, in the presence of Nguyen

R.S. Collins

Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

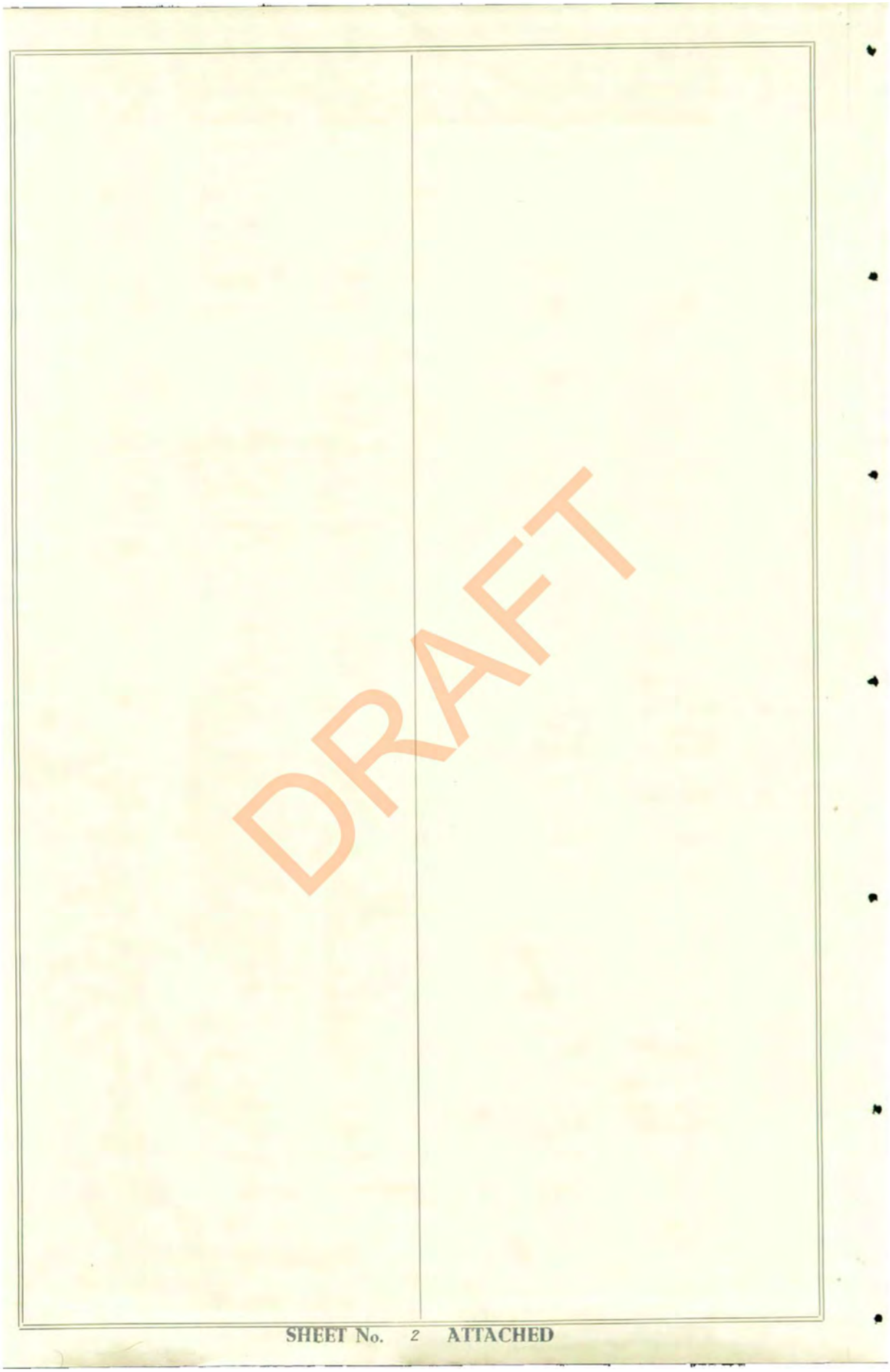
T3355425 M3355426

Survey vide X14832

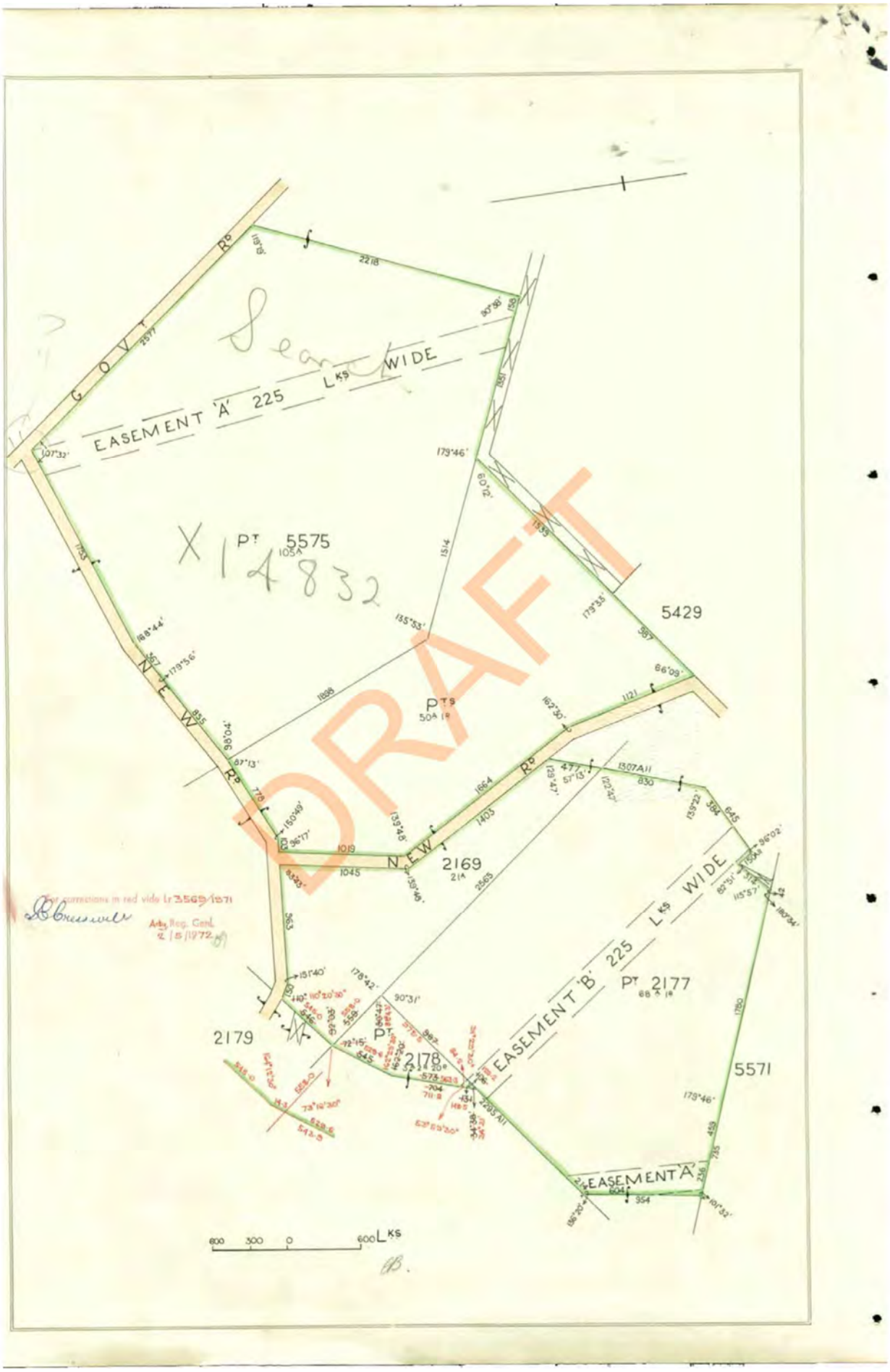
TRANSFER No. 3333763
to Minister of Works
OF THE WITHIN Part Sections 2169 2177 and 2178 and portion of the within
PRODUCED 30.6.1972 AT 3.15pm DEP. REG. GEN.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED
VOL 3875 FOL 191 Part Section 5525
K. London DEP. REG. GEN.

CANCELLED
AND Balance CERTIFICATE OF TITLE
ISSUED VIDE VOL 3875 FOL 192
K. London DEP. REG. GEN.

DRAFT


DRAFT
SHEET No. 2 ATTACHED


VOL 3810 FOL 76
SHEET No. 2
DRAFT


EASEMENT 'A' 225 LKS WIDE
PT 5575
105A
X 17832
5429
PTS
50A 1R
2169
21A
EASEMENT 'B' 225 LKS WIDE
PT 2177
68A 1R
2179
PT 2178
5571
EASEMENT 'A'
DRAFT
600 300 0 600 LKS

South Australia.

Certificate of Title under Road Order.

Register Book,

IN DUPLICATE. Vol. 1828 Folio 42

Registrar-General.

Pursuant to the Roads (Opening and Closing) Act, 1932-1936, and of an Order of the DISTRICT COUNCIL OF TEATREE GULLY made on the First day of November 1943 and in consideration of the sum of NINETY POUNDS paid by CLARENCE FREDERICK PITCHER of Golden Grove, Dairyman,

to the said COUNCIL. I REGINALD JOHN RUDALL,

Commissioner of Crown Lands of this State do hereby certify that the said CLARENCE FREDERICK PITCHER is now seized of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorandum indorsed hereon and except as hereinafter mentioned in that piece of land containing NINE ACRES be the same a little more or less and being a certain old road closed by above-mentioned order in the HUNDRED OF YATALA, COUNTY OF ADELAIDE, adjoining Sections 2167, 2168, 2169, 5575 and closed road

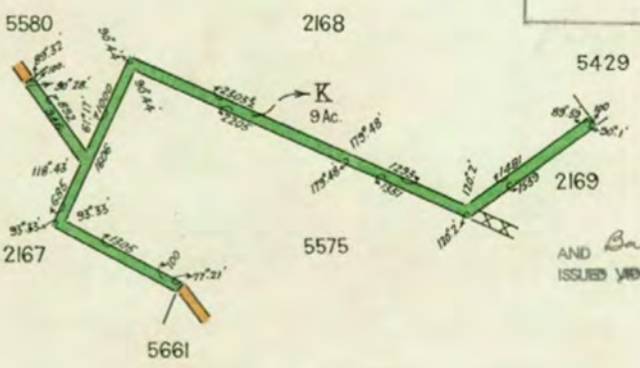
as the same is delineated on the public maps deposited in the Surveyor-General's Office at Adelaide and in the plan in the margin hereof and therein coloured green and marked K.

Dated this Second day of March 1944

R. J. Rudall
Commissioner of Crown Lands.

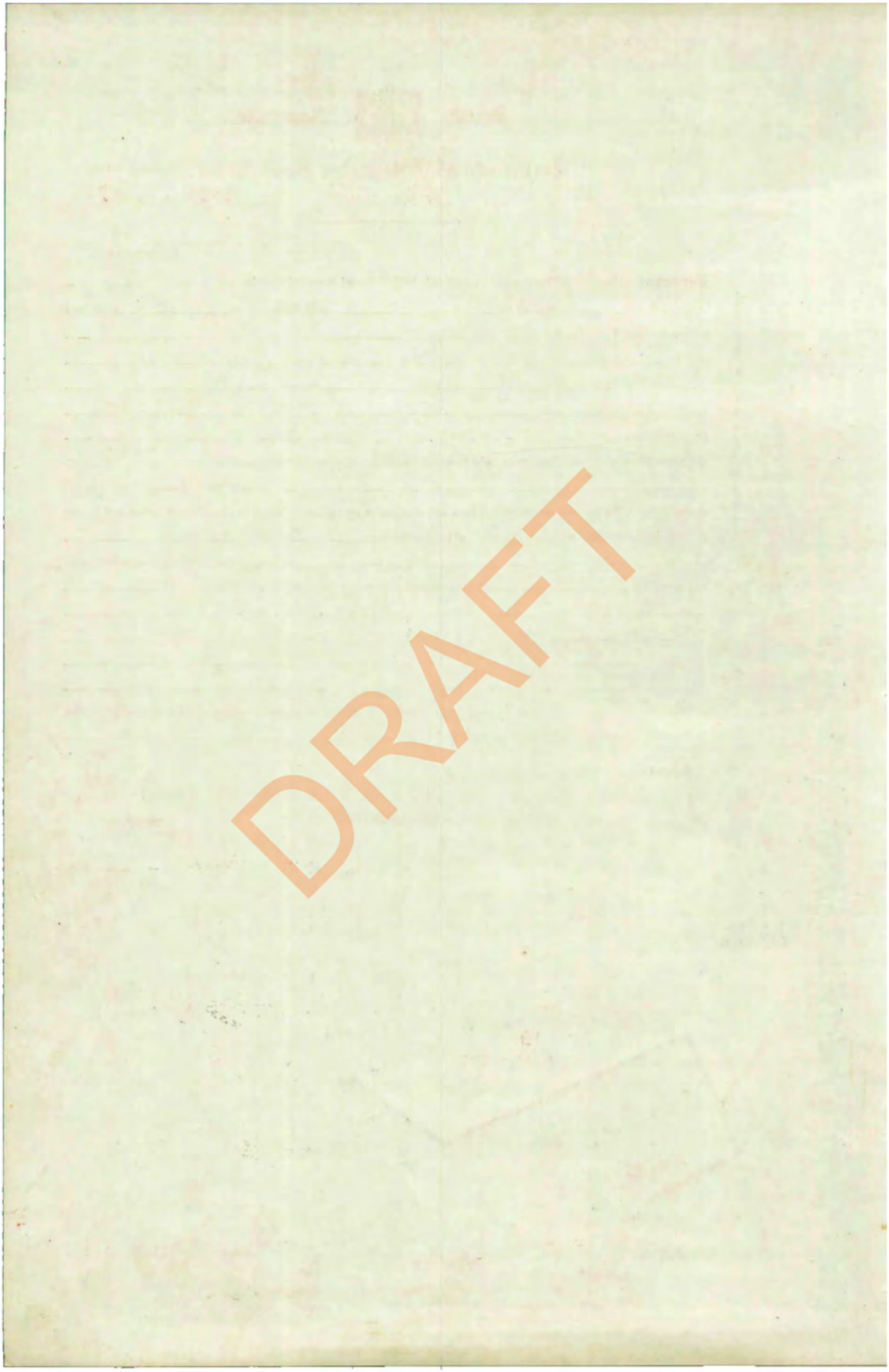
Certified correct
A. D. Smith Esq. Surveyor-General.

TRANSFER No. 214 5555 FROM Clarence Frederick Pitcher to The Electricity Trust of South Australia of a Right of Way and Easement over portion of the within Land
PRODUCED 14/8/39 57 AT 11.40 a.m.
DEP. REG. GEN.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL. 2914 FOL. 110
DEP. REG. GEN.



CANCELLED
AND Balance ISSUED VIDE CERTIFICATE OF TITLE VOL. 2690 FOL. 168
DEP. REG. GEN.

DRAFT


DRAFT

South Australia.

(CERTIFICATE OF TITLE.)

Register Book,

Vol. 1843 *Folio* 34

Pursuant to Application No. 28546

CLARENCE FREDERICK PITCHER of Golden Grove Primary Producer is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being SECTION 2168 containing ninety four acres and two roods or thereabouts and PORTION OF SECTION 5575 containing thirty nine acres one rood and fifteen perches or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green

Which said Section 3 are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this eleventh day of December 1944

Signed the 11th day of December 1944, in the presence of M. I. June

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

Mortgage from Clarence Frederick Pitcher to The Commercial Bank of Australia Limited Registered in the General Registry Office No. 20 Book 512

Reg. Genl.

P/H of No 1180690

DISCHARGE OF THE within MORTGAGE No. 20 Book 512 (P.T.O. of No. 1423749) BY ENDORSEMENT THEREON PRODUCED FOR REGISTRATION THE 5 DAY OF February 1945 AT 9.35 a.m.

DEP. REG. GENL.

MORTGAGE No. 1423750 FROM Clarence Frederick Pitcher to The Adelaide Starr-Bowkett Building Society of No 28 PRODUCED FOR REGISTRATION THE 5 DAY OF February 1945 AT 11.25 a.m.

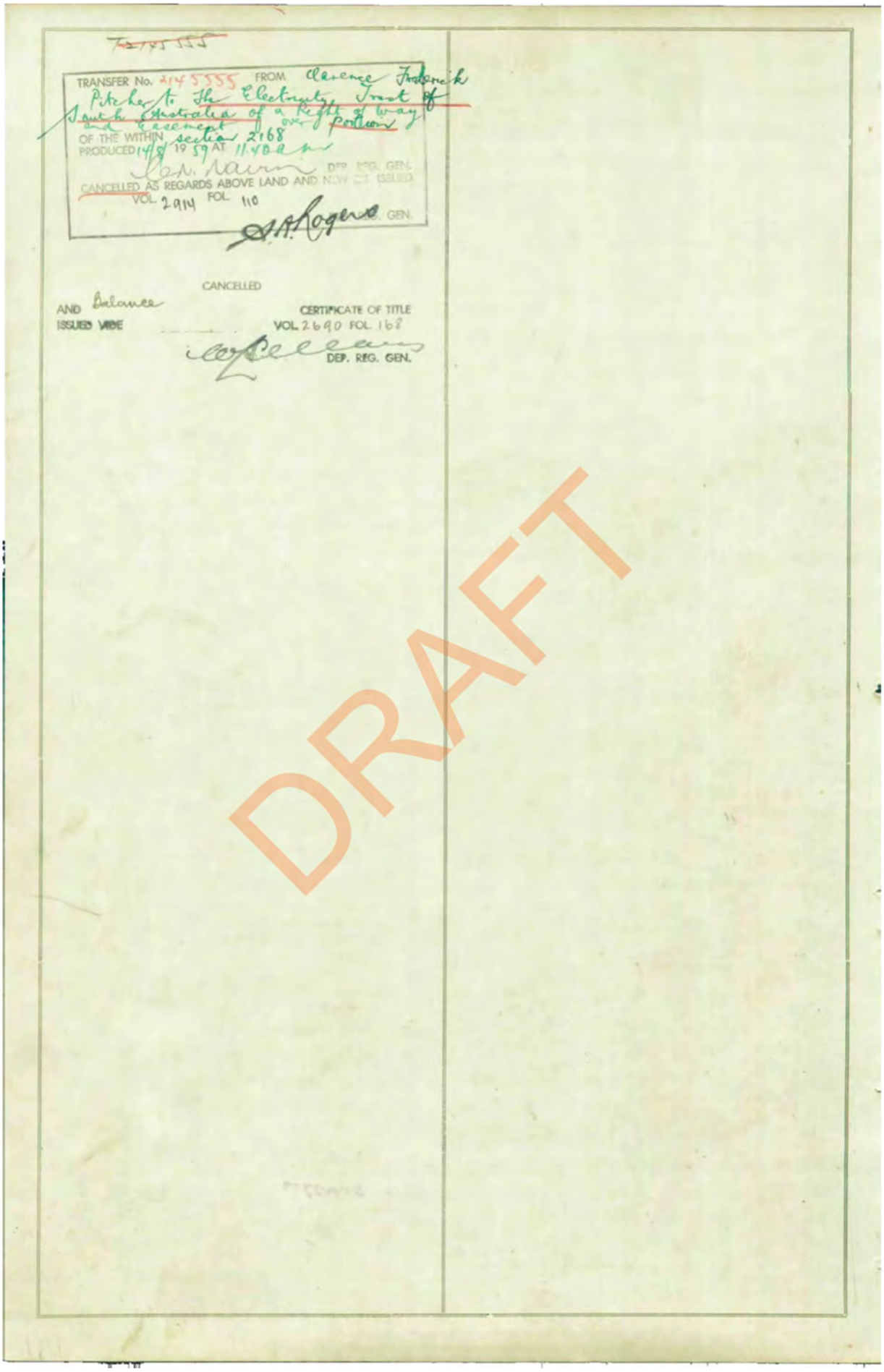
DEP. REG. GENL.

DISCHARGE OF THE within MORTGAGE No. 1423750 BY ENDORSEMENT THEREON PRODUCED FOR REGISTRATION THE 4 DAY OF June 1945 AT 2.10 p.m.

DEP. REG. GENL.



DRAFT



TRANSFER No. 214555 FROM Clarence Frederick Pitcher to The Electricity Trust of South Australia of a Right of Way and Easement over portion OF THE WITHIN section 2168 PRODUCED 14/8/1959 AT 11.48 a.m.

DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL. 2914 FOL. 110

DEP. REG. GEN.

CANCELLED

AND Balance ISSUED VIDE CERTIFICATE OF TITLE VOL. 2690 FOL. 168

DEP. REG. GEN.

DRAFT

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 2730 *Folio* 123

Balance Certificate of Title from Vol.1902 Folio 58

ALLAN JAMES STRACHAN of Golden Grove Grazier

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being PORTIONS OF SECTIONS 2169.2177 and 2178 containing together one hundred and thirty three acres two roods and thirteen perches or thereabouts PORTIONS OF SECTION 5575 containing together one hundred and three acres and two roods or thereabouts and CLOSED ROADS containing together eleven acres and thirty perches or thereabouts WHICH said pieces of land are more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green SUBJECT nevertheless to the right of way and easement with conditions granted by Memorandum of Transfer No.2171901 to The Electricity Trust of South Australia in and over portions of the said land as delineated in the said plan and therein marked Easement EXCEPT nevertheless as regards the Closed Roads marked A in the said plan the following reservation that is to say

EXCEPT AND RESERVED unto Her Majesty Her heirs and successors all gold silver copper tin and other metals ore minerals and other substances containing metals and all gems and precious stones coal and mineral oil in and upon such land and all incidental powers as provided for in The Crown Lands Act

Which said Sections are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this ninth day of February 1960

Signed the 9th day of February 1960, in the presence of H.R. Meldrum

EXCEPT MINERALS

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

R.G.S. X 3193311 (8.4.71)

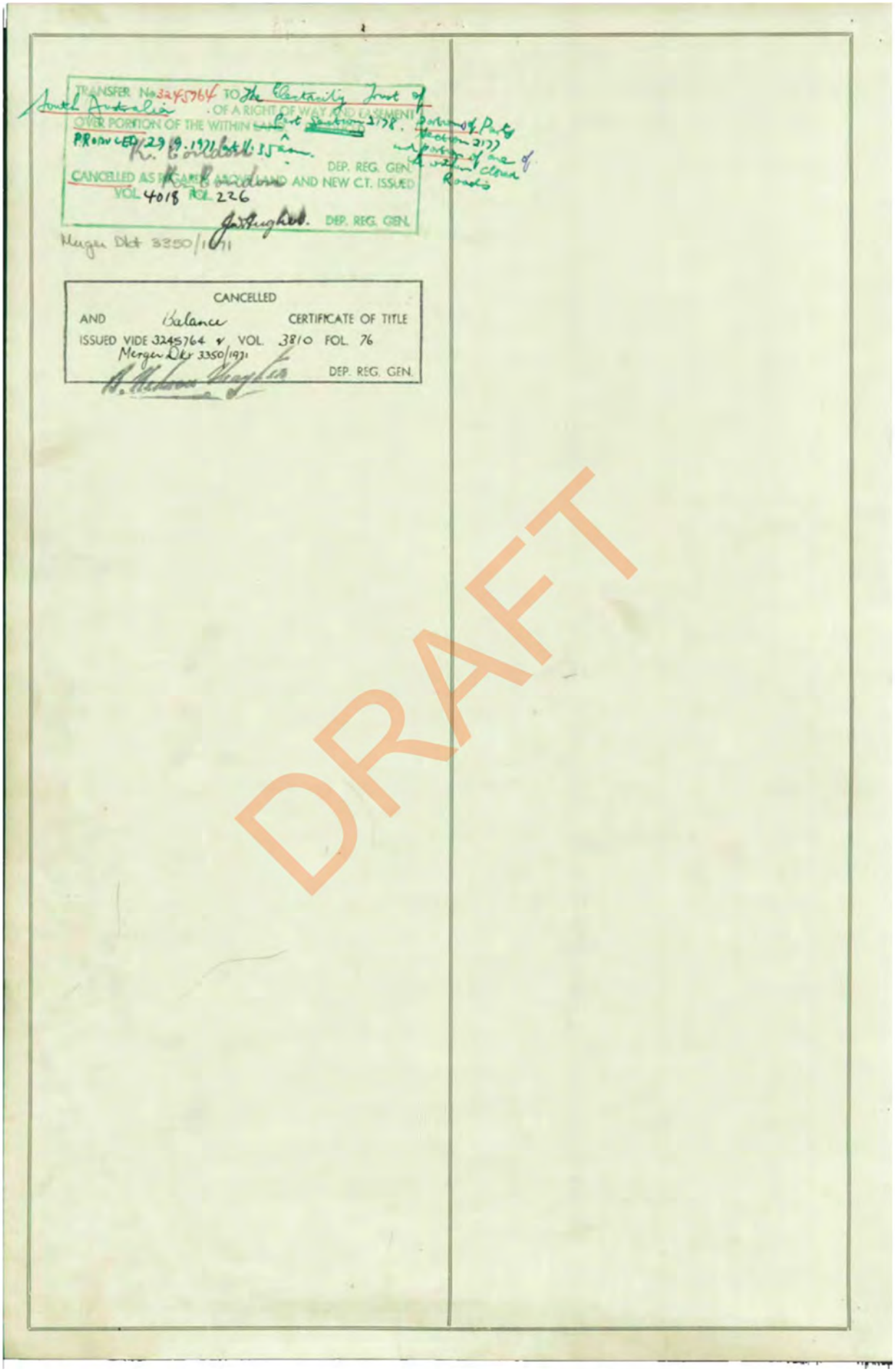
REGISTRAR-GENERAL'S CAVEAT No. 3193311 OVER THE WITHIN LAND ENTERED 9.4.1971 AT 12.55 B. Nelson Hoyles Reg. Gen.

T 3205/64 (Bd)

Caveat No. 3193311 is withdrawn this 30.9.1971 K. London Dep. Reg. Gen.

OVER

DRAFT



TRANSFER No 3245764 TO The Electricity Trust of South Australia OF A RIGHT OF WAY AND EASEMENT OVER PORTION OF THE WITHIN Part Section 378. Portions of Parts Hundred of Yatala shown as Parcels 2177 & 2178 on plan of Roads

PRODUCED 29.9.1971 at 11.35 a.m.

DEP. REG. GEN.

CANCELLED AS TO PARCEL 2178 AND NEW C.T. ISSUED VOL 4018 FOL 226

DEP. REG. GEN.

Merger Dkt 3350/1971

CANCELLED

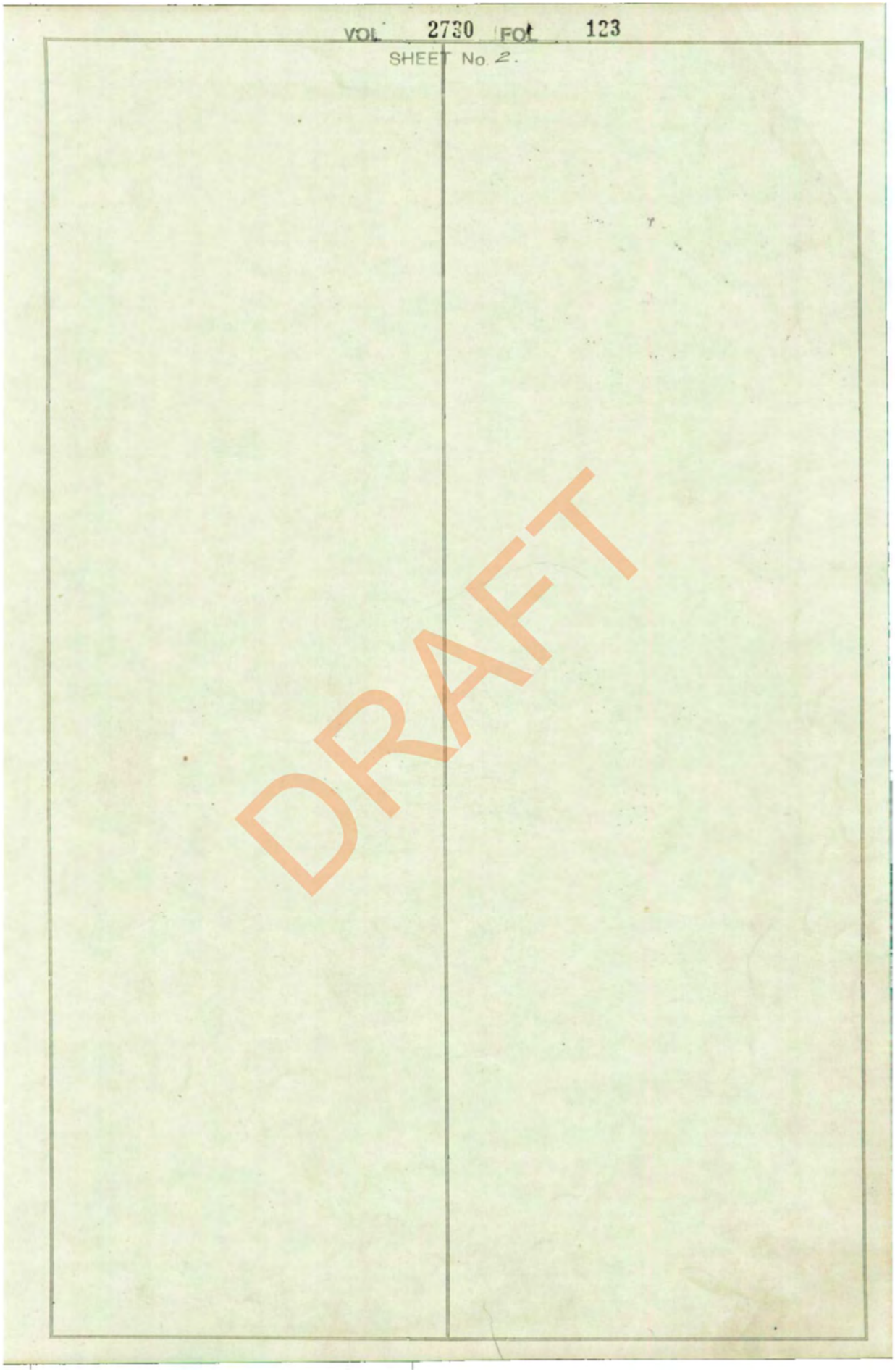
AND Balance CERTIFICATE OF TITLE

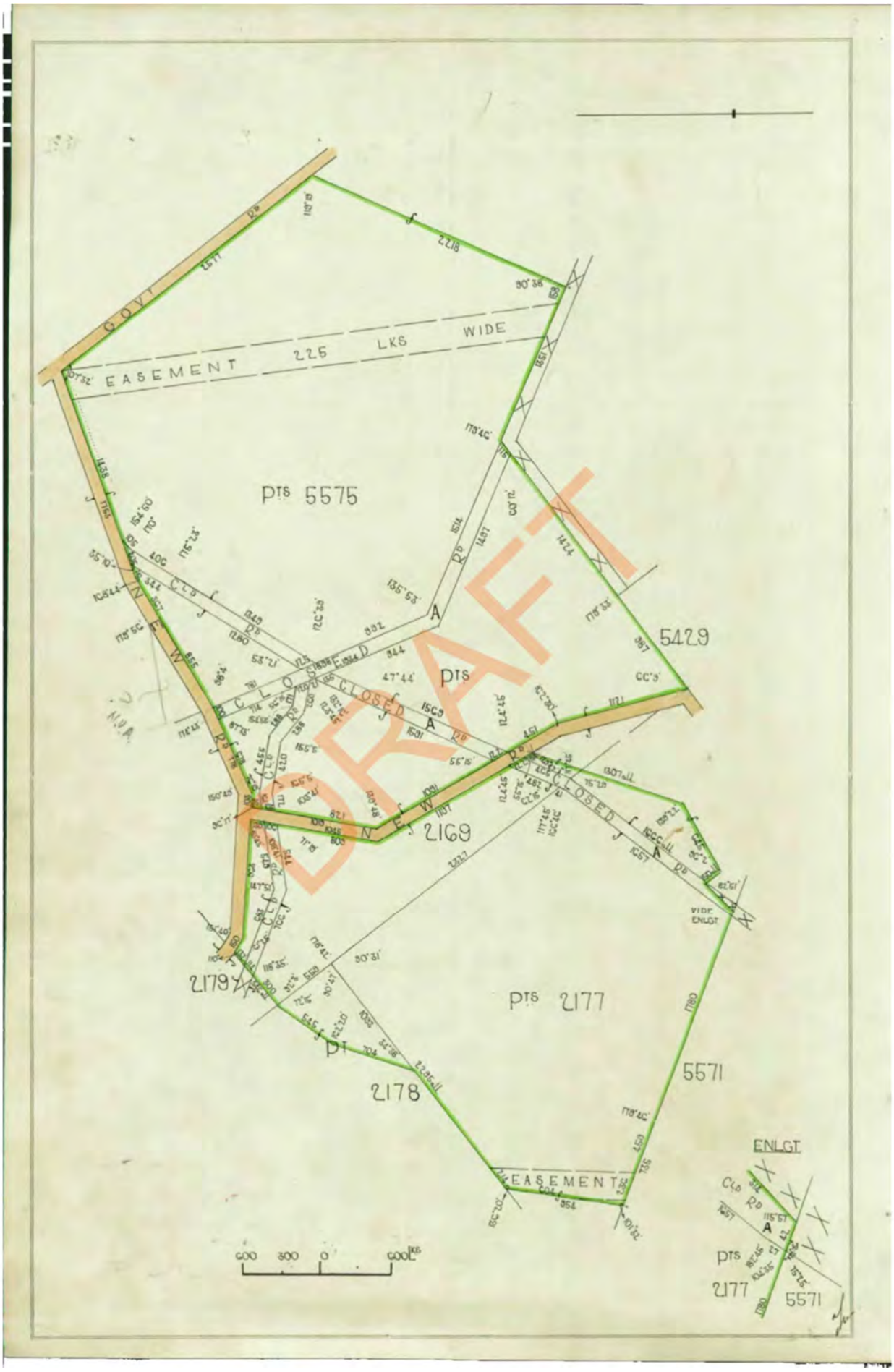
ISSUED VIDE 3245764 & VOL 3810 FOL 76

Merger Dkt 3350/1971

DEP. REG. GEN.

DRAFT


VOL 2730 FOL 123
SHEET No. 2.
DRAFT


EASEMENT 2.25 LKS WIDE
Pts 5575
5429
Pts
CLOSED
2169
2179
Pts 2177
2178
5571
EASEMENT
ENLGT
Pts
2177
5571
DRAFT

South Australia

CERTIFICATE OF TITLE

Register Book,
Vol. 3768 *Folio* 119

Balance Certificate of Title from Vol.1601 Folio 107

ALLAN JAMES STRACHAN of Golden Grove 5125 Grazier

is the proprietor of an estate in fee simple
subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in
THAT PIECE of land containing one acre one rood and twenty four perches or thereabouts situated
in the HUNDRED OF YATALA COUNTY OF ADELAIDE being a CLOSED ROAD more particularly delineated and
bounded as appears in the plan in the margin hereof and therein colored green

Which said ~~Section~~ Closed Road is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this 26th day of May 1971

Signed the 26th day of May
1971, in the presence of Mspears

Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT



TRANSFER No. 3333763
to Minister of Works
OF THE WITHIN LAND PRODUCED 30.6.1972 AT 2.15 pm.
DEP. REG. GEN.

CANCELLED
AND New CERTIFICATE OF TITLE
ISSUED VIDE L.T.O. Merger Dkt 3152/1979 VOL. 4139 FOL. 369



DRAFT

South Australia.

(CERTIFICATE OF TITLE.)

Register Book,
Vol. 1902 *Folio* 58

Pursuant to Memorandum of Transfer No.1467660 Registered on Vol.1831 Folio 90 and Balance Certificate of Title from Vol.1618 Folio 48

ALLAN JAMES STRACHAN of Golden Grove Grazier is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being PORTIONS OF SECTIONS 2169.2177 and 2178 containing together one hundred and thirty three acres two roods and thirteen perches or thereabouts PORTIONS OF SECTION 5575 containing together one hundred and three acres and two roods or thereabouts and CLOSED ROADS containing together eleven acres and thirty perches or thereabouts WHICH said pieces of land are more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green EXCEPT nevertheless as regards the Closed Roads marked A in the said plan the following reservation that is to say

EXCEPT AND RESERVED unto His Majesty His heirs and successors all gold silver copper tin and other metals ore minerals and other substances containing metals and all gems and precious stones coal and mineral oil in and upon such land and all incidental powers as provided for in "The Crown Lands Act 1929"

Which said Sections are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this thirteenth day of August 1946

Signed the 13th day of August 1946, in the presence of M. A. Sime

Registrar-General.

T 171901

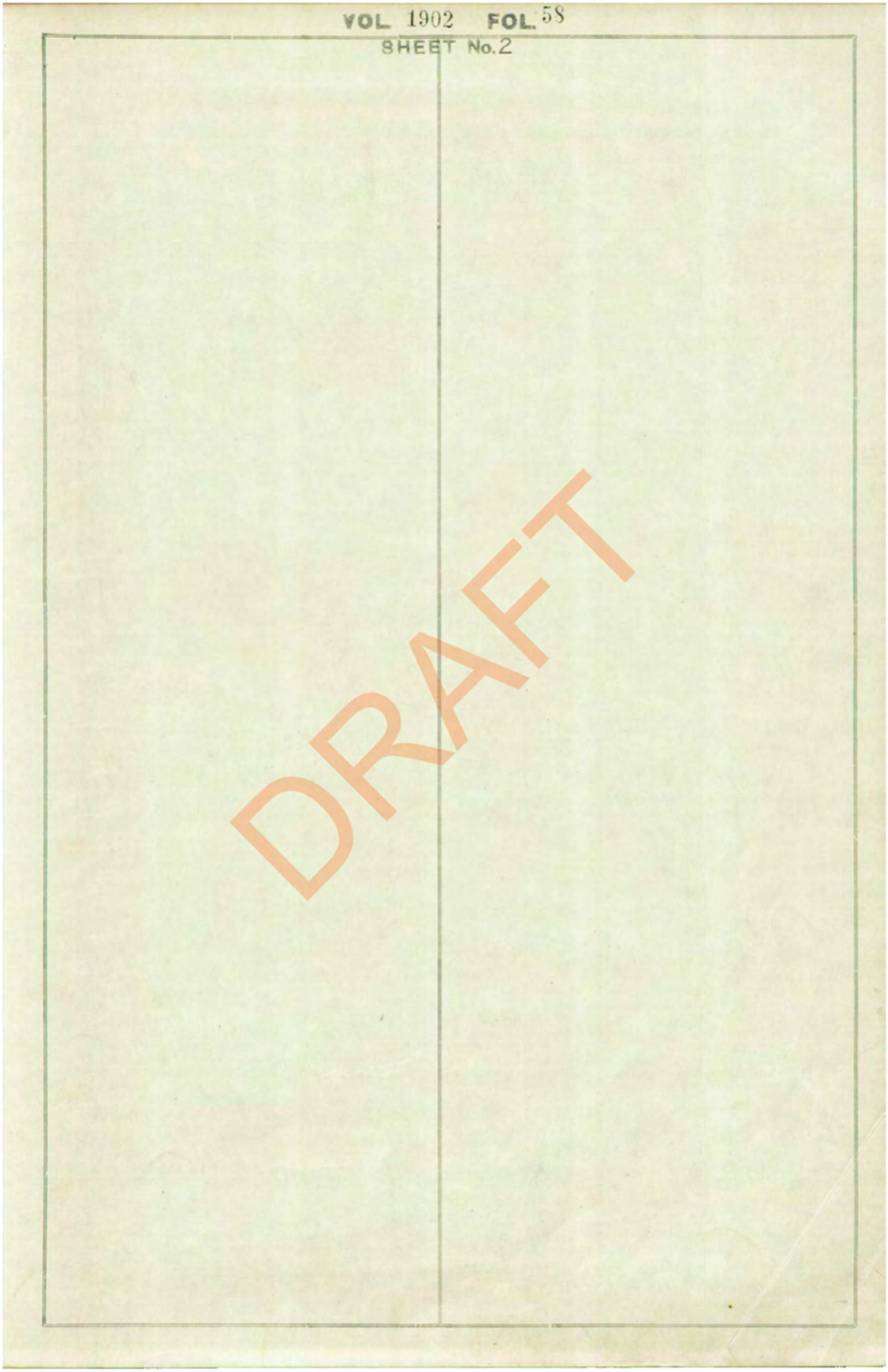
REGISTRAR-GENERAL SOUTH AUSTRALIA

TRANSFER No. 171901 FROM Allan James Strachan to The Electricity Trust of South Australia of a right of way + easement over portions 2177 + 5575
OF THE WITHIN PRODUCED 19 AT 2.30 p.m.
DEP. REG. GEN.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL. 2915 FOL. 38
DEP. REG. GEN.

CANCELLED
AND ISSUED VIDE Balance CERTIFICATE OF TITLE VOL. 2730 FOL. 123
DEP. REG. GEN.

DRAFT


DRAFT


VOL. 1902 FOL. 58
SHEET No. 2
DRAFT


EXCEPT MINERALS
as to Closed Rds marked A only
GOVT Rd
Pts 5575
5429
CLOSED Rd
A
Pts 2169
NEW TAYLOR ROAD
Taylor Road vide L.T. 2163/1556
Dep. Reg. Gen.
2179
Pts 2177
Enlargement
2178
5571
OLD Rd
Pts 2177
5571
DRAFT

South Australia.

(CERTIFICATE OF TITLE.)

Register Book,

Vol. 1831 *Folio* 90

Pursuant to Memorandum of Transfer No.1406814 Registered on Vol.460 Folio 50

STANLEY DARRELL CROUCH of Golden Grove Grazier

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being PORTIONS OF SECTION 2178 and CLOSED ROADS and bounded as appears in the plan in the margin hereof and therein colored green WHICH said pieces of land contain together seventy seven acres or thereabouts and are more particularly delineated in the said plan

Which said Section is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this fifteenth day of June 1944

Signed the 15th day of June 1944, in the presence of [illegible]

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE No. 1406815 FROM
Stanley Darrell Crouch
to George Wodsworth Bassett
PRODUCED FOR REGISTRATION THE 18 DAY OF
April 1944 AT 12.15 pm
DEP. REG. GENL.

D1406815

DISCHARGE OF THE WITHIN MORTGAGE
No. 1406815
BY ENDORSEMENT THEREON
PRODUCED FOR REGISTRATION THE 10 DAY OF
April 1946 AT 12.30 pm
DEP. REG. GENL.

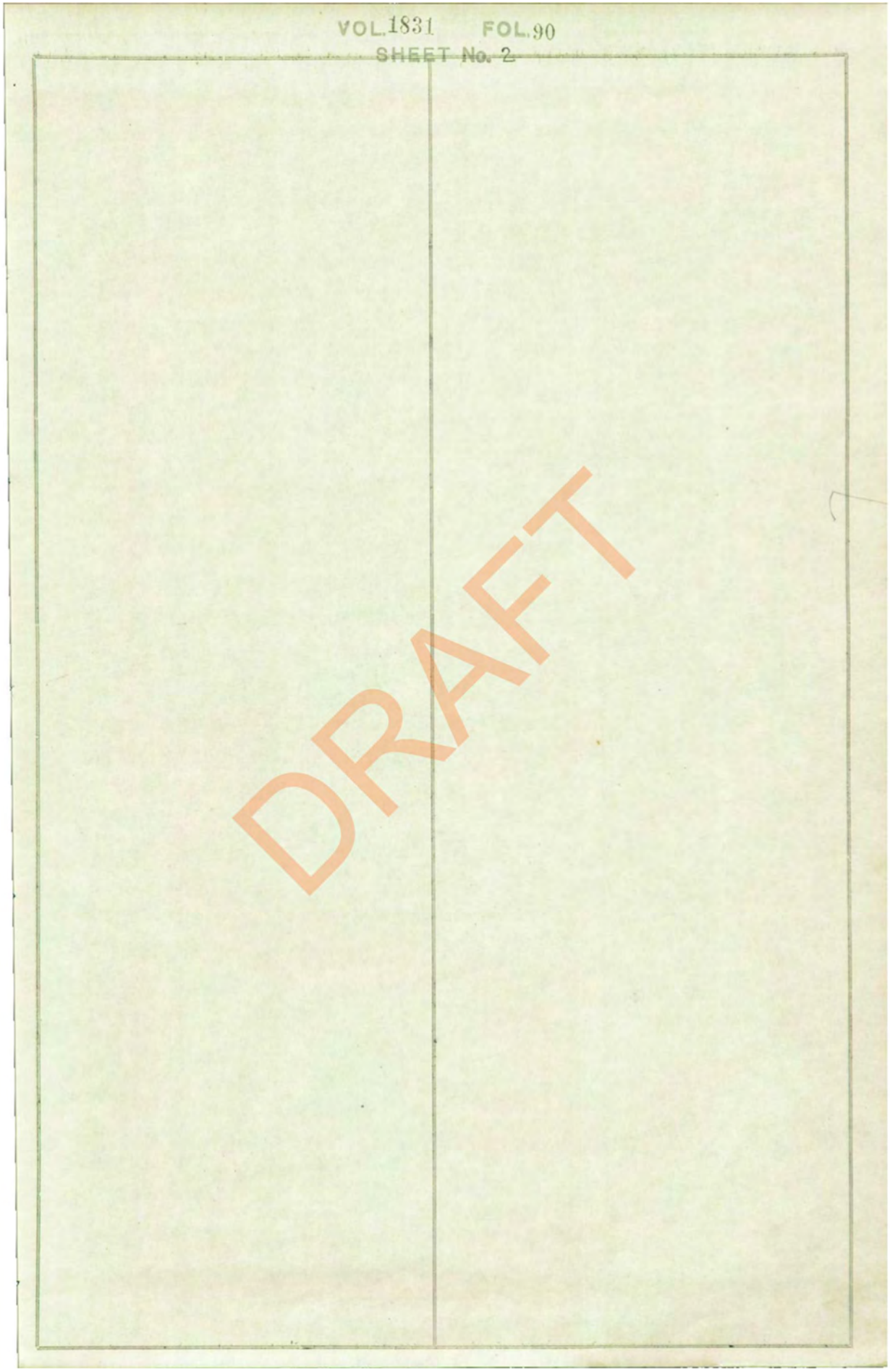
TRANSFER No. 1467660 FROM
Stanley Darrell Crouch
to Allan James Strachan
of portion
OF THE WITHIN parts Section 2178
PRODUCED FOR REGISTRATION THE 12 DAY OF
July 1946 AT 3 pm
DEP. REG. GENL.

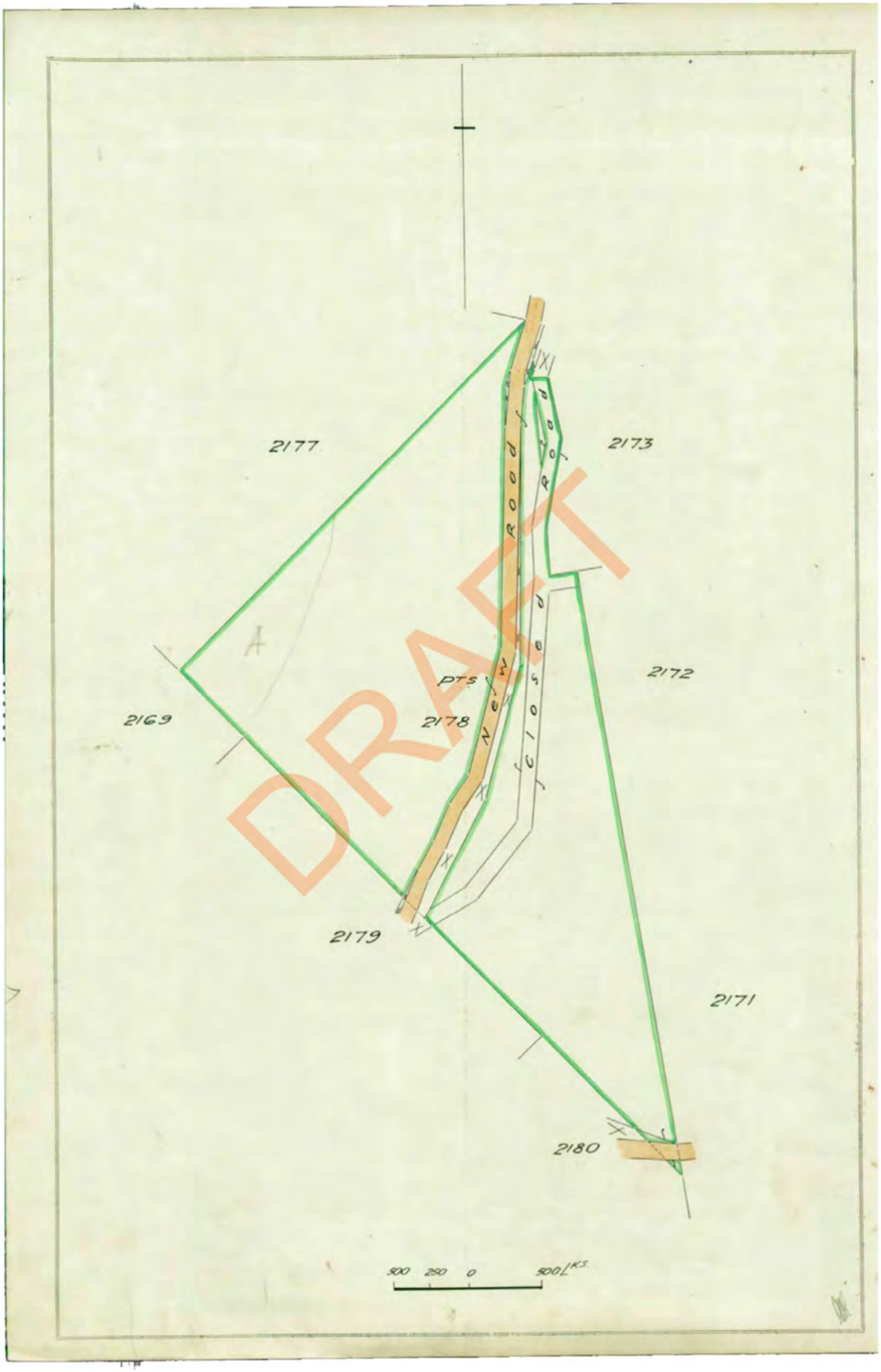
CANCELLED
AND Balance
CERTIFICATE OF TITLE ISSUED
VIDE
VOL. 1902 FOL. 57.
DEP. REG. GENL.

CANCELLED AS REGARDS LAND IN TRANSFER
No. 1467660 AND NEW CERTIFICATE
OF TITLE ISSUED VOL. 1982 FOLIO 58.
DEP. REG. GENL.

DRAFT


DRAFT


VOL. 1831 FOL. 90
SHEET No. 2
DRAFT


2177
2173
2172
2169
2178
2179
2171
2180
PTS
New Road
Closed Road
500 250 0 500 LKS
DRAFT

(C)

South Australia.

(CERTIFICATE OF TITLE.)

Register Book,

Vol. 1618 Folio 48

Pursuant to Application No.27891 and New Certificate of Title for the whole of the Land in Vol.1614 Folio 18 and Balance of the land in Vol.1587 Folio 62

WILFRED ATHELSTAN JOHNSON of the New Oxford and Cambridge Club 15 Stratton Street and of the Marlborough Club Pall Mall in the County of London in England Gentleman ARTHUR EDMUND BENDIXSON of 78 Regents Park Road in the County of London aforesaid Company Secretary HARALD IVAR SYLVESTER BENDIXSON of 5 Copthall Buildings in the City of London in England Stockbroker BERTRAM EVELYN BENDIXSON of 26 Queens Gardens in the County of London aforesaid Masseur and HELEN VALFRID GORDON CLARK the wife of Felix Francis Gordon Clark of 24 Hans Crescent in the County of London aforesaid Solicitor are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being PORTIONS OF SECTIONS 2169 and 2177 containing together one hundred and thirty three acres two roods and thirteen perches or thereabouts PORTIONS OF SECTION 5575 containing together one hundred and three acres and two roods or thereabouts and CLOSED ROADS containing together eleven acres and thirty perches or thereabouts WHICH said pieces of land are more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green EXCEPT nevertheless as regards those Closed Roads marked A in the said plan the following reservation that is to say EXCEPT AND RESERVED unto His Majesty His heirs and successors all gold silver copper tin and other metals ore minerals and other substances containing metals and all gems and precious stones coal and mineral oil in and upon such land and all incidental powers as provided for in "The Crown Lands Act 1929" WHICH said Sections are delineated in the Public Map of the said Hundred deposited in the Land Office at Adelaide

In witness whereof I have hereunto signed my name and affixed my seal this nineteenth day of August 1933

Signed the 19th day of August 1933, in the presence of [illegible]

EXCEPT MINERALS

as to Closed Rds marked A only

D. Dumas

Registrar-General.

T1459092 M1157093

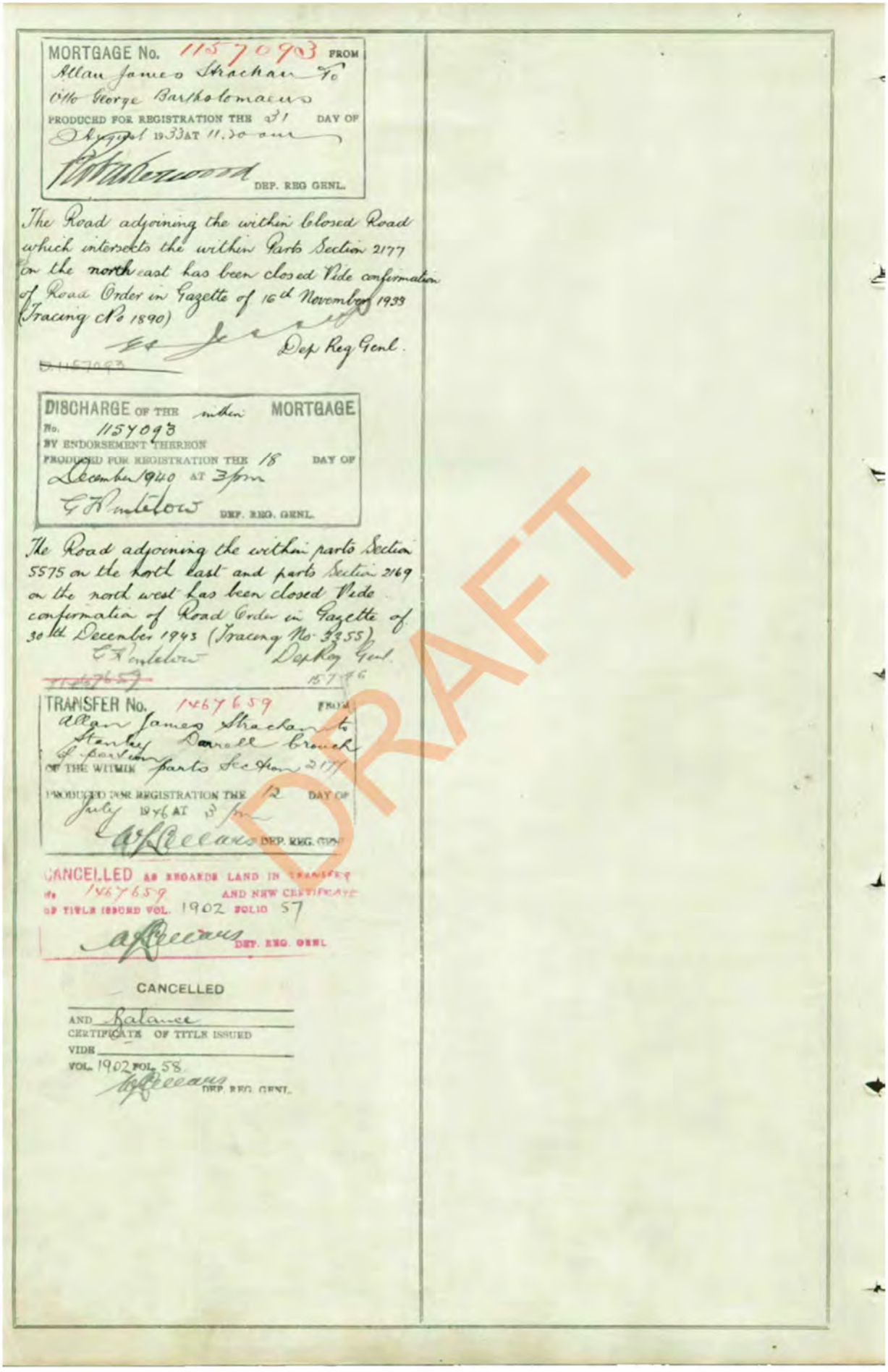
Transfer No M1157093 from Wilfred Athelstan Johnson Arthur Edmund Bendixon Harald Ivar Sylvester Bendixon Bertram Evelyn Bendixon and Helen Valfrid Gordon Clark to Allan James Strachan of Glen Grove Grazier Joint tenants to presume as to within land Produced for registration the 31 day of August 1933 at 11.20 am

[illegible]

Pgm No 1153603

Over

DRAFT



MORTGAGE No. 1157093 FROM
Allan James Strachan To
Otto George Bartholomaeus
PRODUCED FOR REGISTRATION THE 31 DAY OF
August 1933 AT 11.20 am
DEP. REG GENL.

The Road adjoining the within closed Road which intersects the within parts Section 2177 on the northeast has been closed Vide confirmation of Road Order in Gazette of 16th November 1933 (Tracing No 1890)
Dep Reg Genl.

DISCHARGE OF THE within MORTGAGE
No. 1157093
BY ENDORSEMENT THEREON
PRODUCED FOR REGISTRATION THE 18 DAY OF
December 1940 AT 3pm
DEP. REG. GENL.

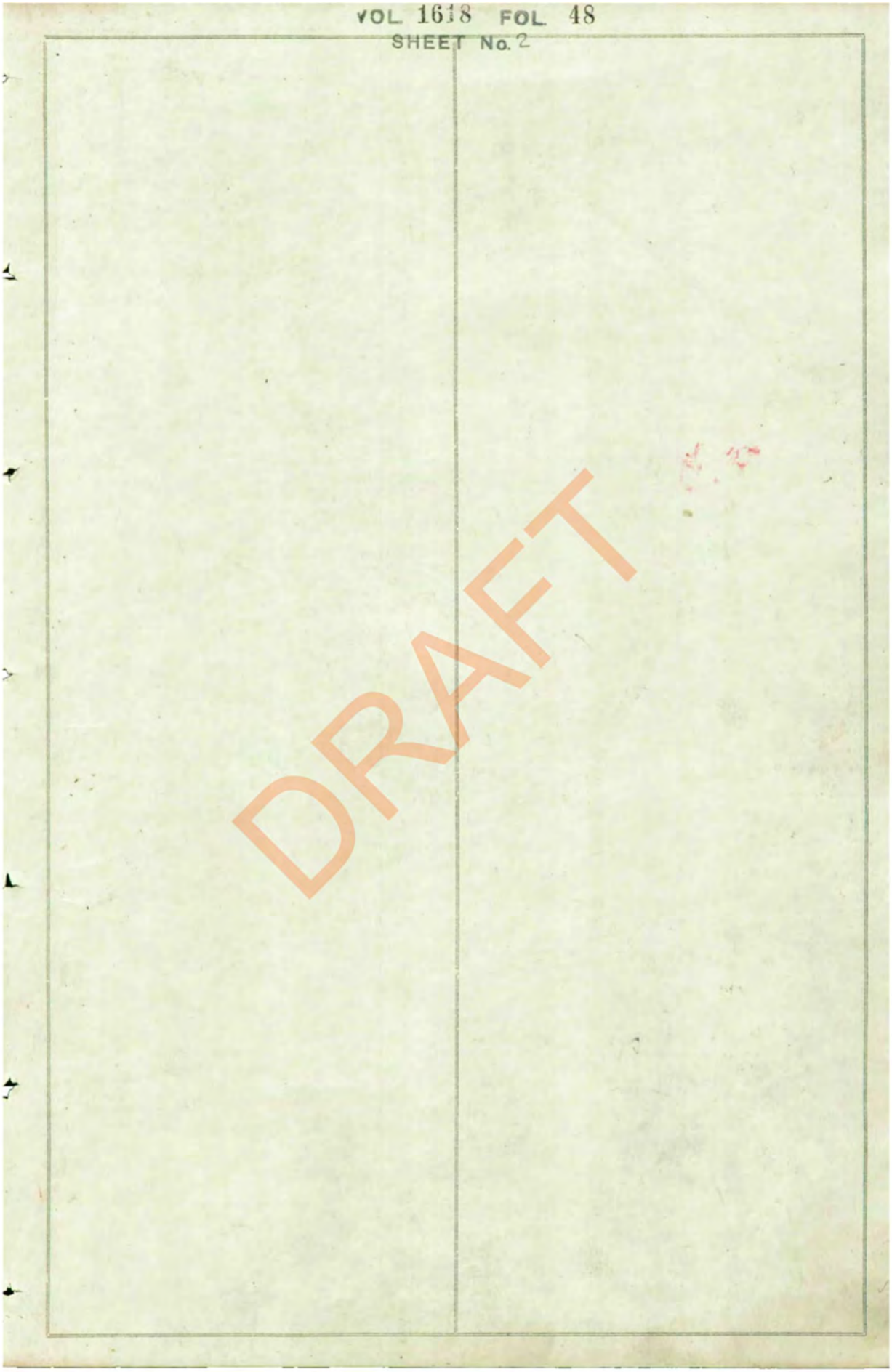
The Road adjoining the within parts Section 5575 on the North East and parts Section 2169 on the north west has been closed Vide confirmation of Road Order in Gazette of 30th December 1943 (Tracing No 3355)
Dep Reg Genl.
1157093

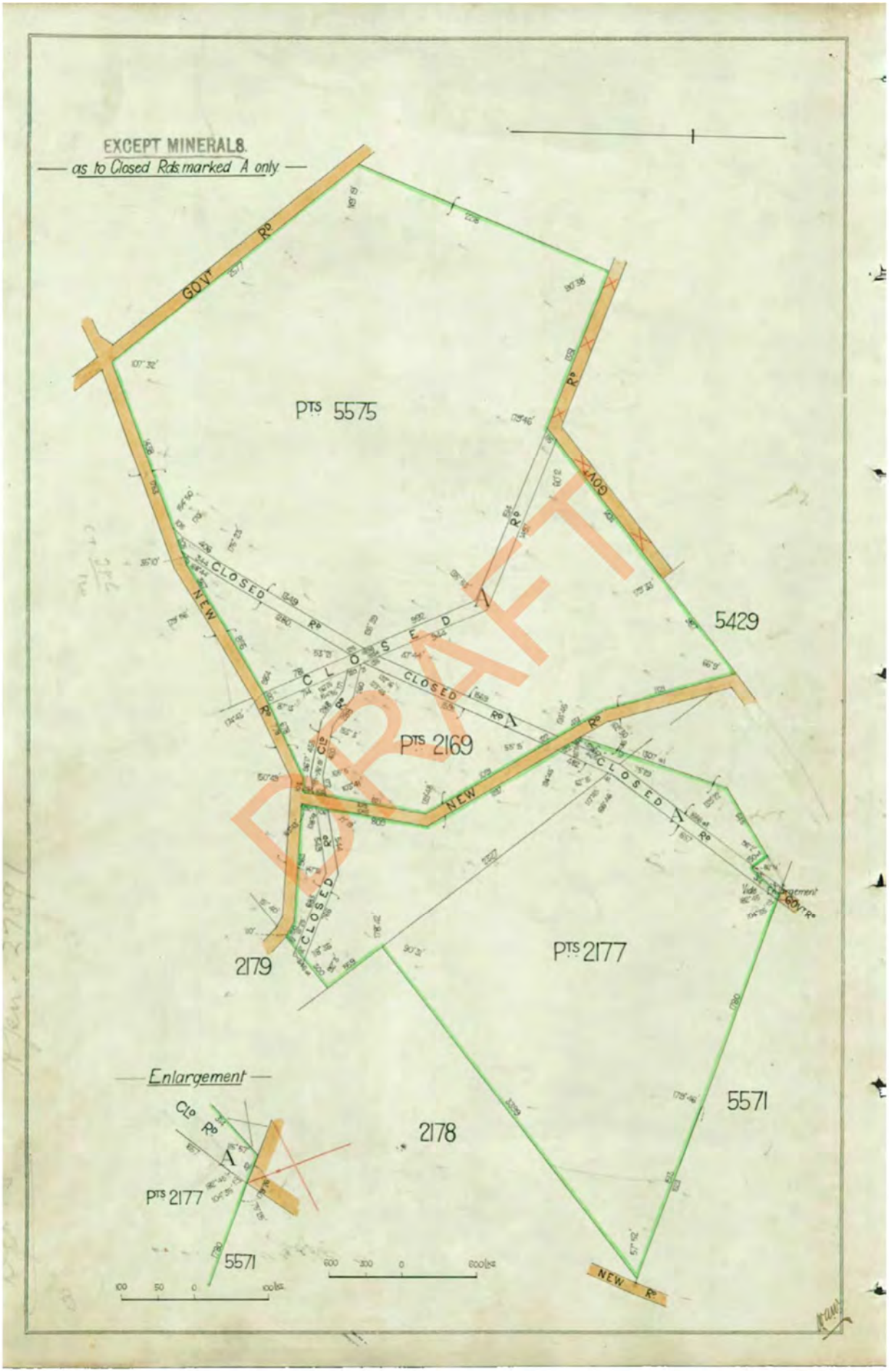
TRANSFER No. 1467659 FROM
Allan James Strachan to
Stanley Darrell Brunck
& portion
OF THE WITHIN parts Section 2177
PRODUCED FOR REGISTRATION THE 12 DAY OF
July 1946 AT 3 pm
DEP. REG. GENL.

CANCELLED AS REGARDS LAND IN TRANSFER
No 1467659 AND NEW CERTIFICATE
OF TITLE ISSUED VOL. 1902 FOLIO 57
DEP. ENG. GENL.

CANCELLED
AND Balance
CERTIFICATE OF TITLE ISSUED
VIDE
VOL. 1902 FOL. 58.
DEP. REG. GENL.

DRAFT


VOL. 1618 FOL. 48
SHEET No. 2
DRAFT


EXCEPT MINERALS
as to Closed Rds marked A only
GOVT Rd
PTS 5575
CLOSED
NEW
CLOSED
5429
PTS 2169
CLOSED
NEW
CLOSED
2179
PTS 2177
Enlargement
2178
PTS 2177
5571
5571
NEW Rd
DRAFT

South Australia. (CERTIFICATE OF TITLE.)

Register Book,

Vol. 1601 *Folio* 107

Pursuant to Memorandum of Transfer No.1131752 registered on Vol.234 Folio 107

ALLAN JAMES STRACHAN of Golden Grove Grazier is

the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being CLOSED ROADS containing together four acres and eight perches or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green

which said ~~Section~~ Closed Roads are delineated in the public map of the said Hundred deposited in the Lands and Survey Office at Adelaide.

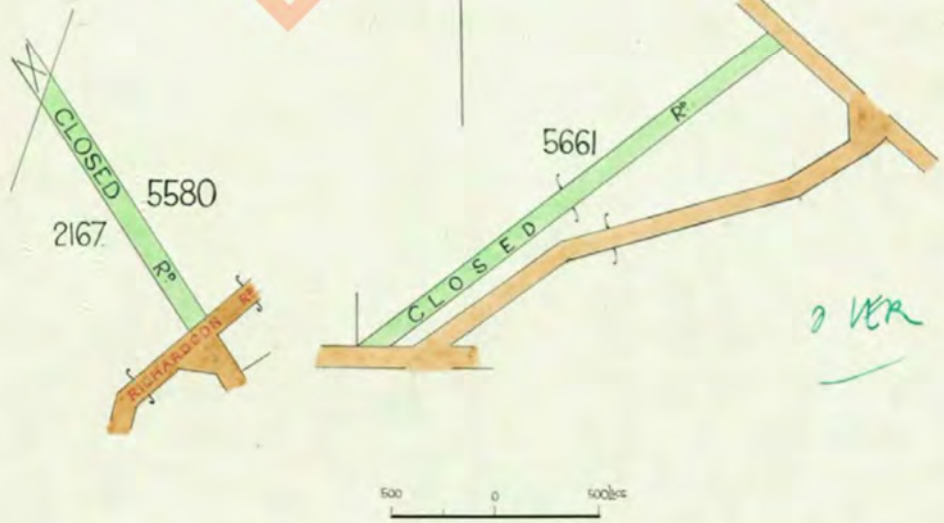
In witness whereof I have hereunto signed my name and affixed my seal this thirtieth day of March 1933

Signed the 30th day of March 1933, in the presence of Hog Hinze

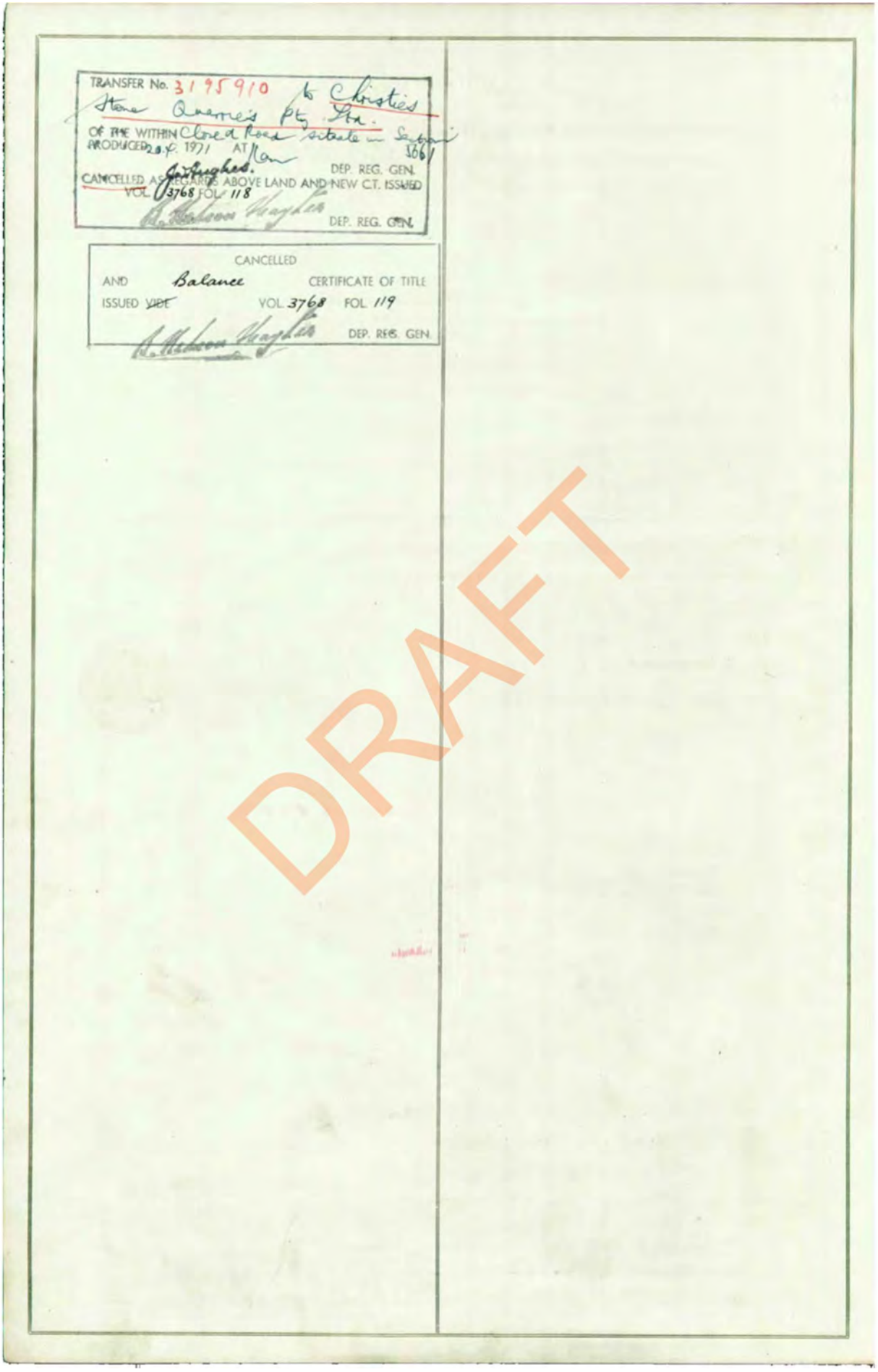
J Dumas
Registrar-General.

Richardson Rd vide Dkt 381/1965

Dep Reg Gen



DRAFT



TRANSFER No. 3195910 to Christies Stone Quarries Pty Ltd.

OF THE WITHIN Clover Road situate in Seymour 3661

PRODUCED 28.4.1971 AT 11am

DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED

VOL. 3768 FOL. 118

DEP. REG. GEN.

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED ~~VIDE~~ VOL. 3768 FOL. 119

DEP. REG. GEN.

DRAFT

(C) South Australia. (CERTIFICATE OF TITLE.)

Register Book. Vol. CCCCLX Folio 50

Pursuant to Application No 20,013.

Thomas Gibbons McPharlin of Golden Grove Farmer is now seized of an estate in fee Simple

subject nevertheless to such incumbrances, liens, and interests, as are notified by memorial underwritten or endorsed hereon in Those pieces of land situated in the Hundred of Yatala County of Adelaide being the Sections Nos 2178 containing ninety eight acres or thereabouts and 2179 containing eighty acres or thereabouts and the closed Government Road intersecting the same containing together seven acres or thereabouts and bounded as appears in the plan in the margin hereof Except nevertheless out of this Certificate of Title the New Roads intersecting the said Sections

which said Sections are delineated in the public map of the said Hundred deposited in the office of the Surveyor-General and were originally granted the said Section 2178 on the 3rd day of May 1849 under the hand and seal of Sir Henry Edward Fox Young Lieutenant Governor of the said province to William McPharlin and the said Section 2179 on the 19th day of November 1849 under the hand and seal of Frederick Holt Robe Esquire Lieutenant Governor of the said province to Thomas McPharlin and which said Grants were vested in the said Thomas Gibbons McPharlin by Certificate of Title Vol CCCC Folio 27

In witness whereof, I have hereunto signed my name and affixed my seal this eighteenth day of September one thousand eight hundred and eighty-four in presence of

R. Earl

W. T. Rudall

Registrar-General.



For New Roads & roads closed vide tracings Nos 361 & 432. 2197 LR

Portion of the within mentioned Land is taken for a New Road and portions of the adjoining road intersecting the said Land are closed vide Confirmation orders in Gazette of the 31st of March 1892 page 794 and the 15th of February 1894 page 434 and the plan in the margin hereof and therein marked "New Road" & "Closed" (Tracings Nos 361 and 432)

E. E. Peake Dep. Reg. Genl

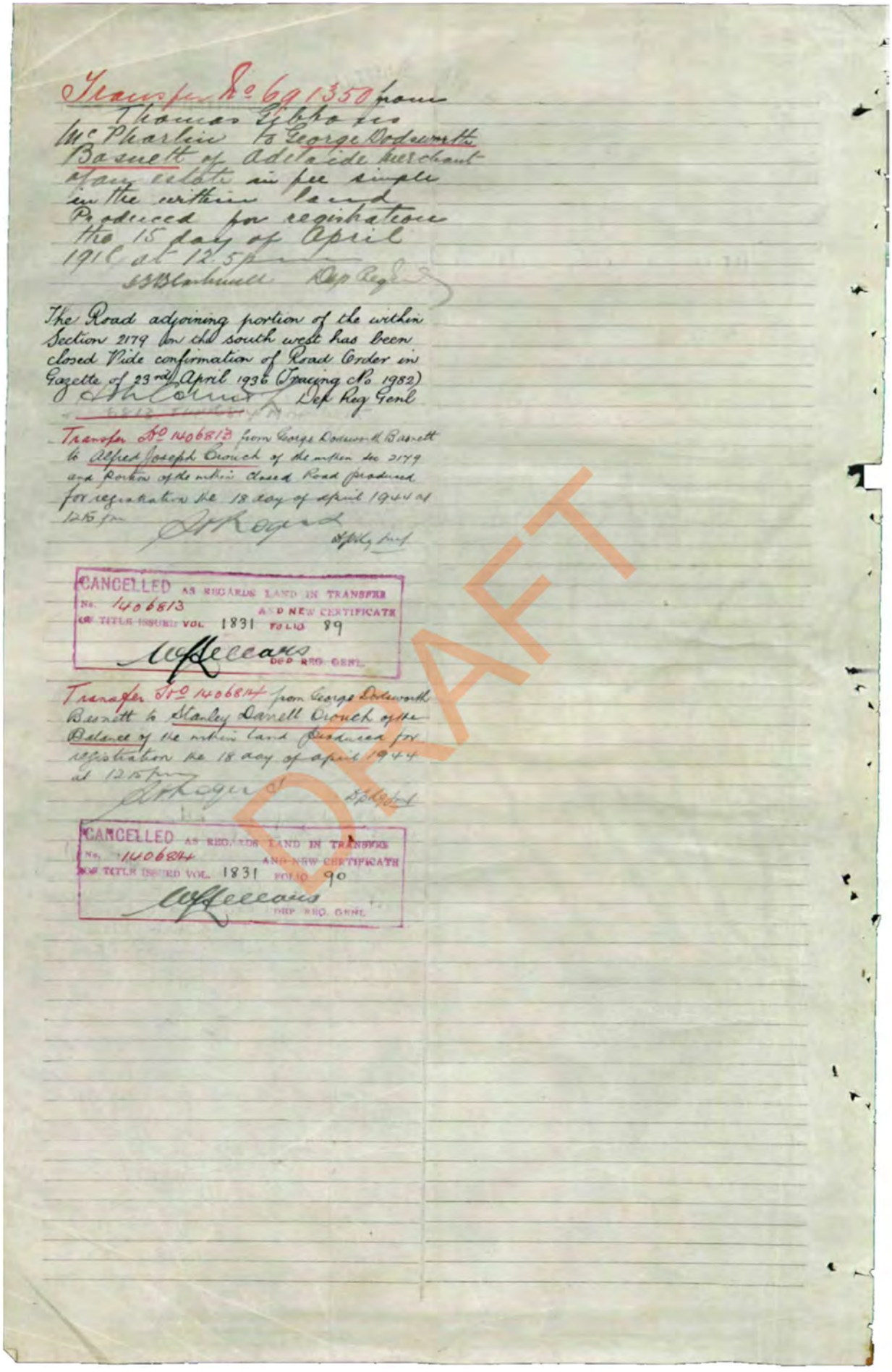
Lease No 420788 from Thomas Gibbons Mc Pharlin to John Richardson of the within Land Term Seven years from the first day of March 1905 Produced for registration the 16 day of March 1905 at 2.37 pm

G. Wilfred Anthony Dep. Reg. Genl

Lease No 635353 from Thomas Gibbons McPharlin to Thomas Joseph Goodhead of the within land Term five years and nine months from the first day of June 1912 Produced for registration the 19 day of April 1913 at 3 pm

M. H. Sutton Dep. Reg. Genl

DRAFT



Transfer No 69 1350 from Thomas Gibbons Mc Pharlin to George Dodsworth Bassett of Adelaide Merchant of my estate in fee simple in the within land Produced for registration the 15 day of April 1916 at 12.5 p.m.
J.S. Blackwell Dep Reg

The Road adjoining portion of the within Section 2179 on the south west has been closed vide confirmation of Road Order in Gazette of 23rd April 1936 (Tracing No 1982)
Dep Reg Genl

Transfer No 140613 from George Dodsworth Bassett to Alfred Joseph Crouch of the whole Sec 2179 and portion of the within closed Road produced for registration the 18 day of April 1944 at 12.5 p.m.
J.P. Rogers
Dep Reg Genl

CANCELLED AS REGARDS LAND IN TRANSFER No. 140613 AND NEW CERTIFICATE OF TITLE ISSUED VOL. 1831 FOLIO 89
J. Reeves DEP REG. GENL

Transfer No 140614 from George Dodsworth Bassett to Stanley Darrell Crouch of the Balance of the within Land Produced for registration the 18 day of April 1944 at 12.5 p.m.
J.P. Rogers

CANCELLED AS REGARDS LAND IN TRANSFER No. 140614 AND NEW CERTIFICATE OF TITLE ISSUED VOL. 1831 FOLIO 90
J. Reeves DEP REG. GENL

DRAFT

South Australia.

(Certificate of Title under Road Order)

Register Book Vol CCXXIV folio 107

In Duplicate

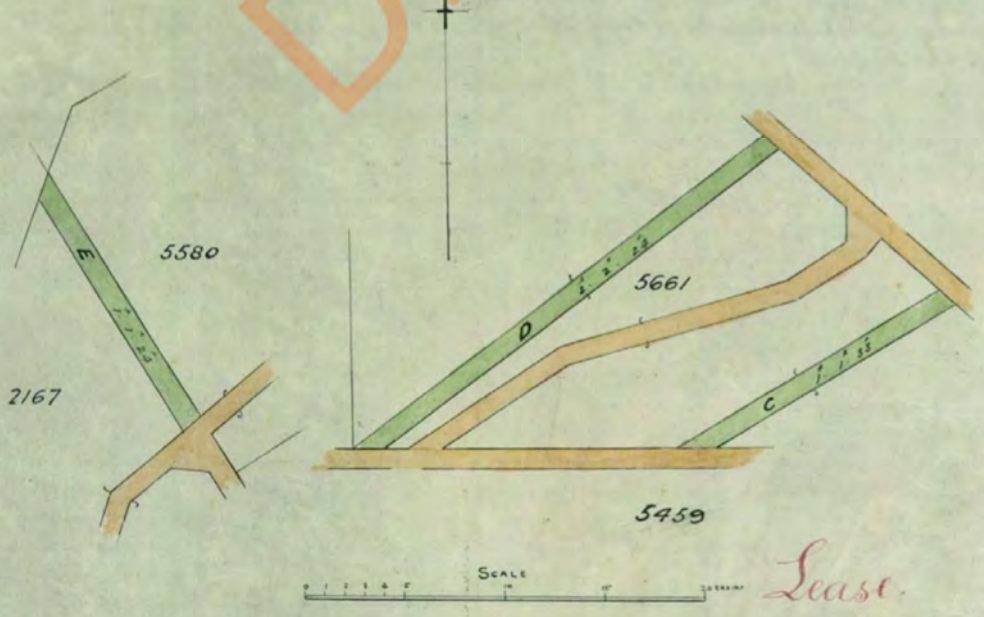
I John Carr Commissioner of Crown Lands of this Province Pursuant to the direction of His Excellency the Governor published in the Government Gazette of the thirteenth day of July 1876 in confirming a Road order made by the Commissioners of Roads for the District of Yea Tree Gully therein referred to dated the twelfth day of June 1876 Do hereby certify that John Robertson of Golden Grove Esquire is now seised of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorandum indorsed hereon in those pieces of land containing together Five acres two roods and one perch be the same a little more or less and being certain old roads closed by order herein referred to intersecting two portions of Section 5661 dividing the northern portion of Section 2167 from Section 5580 in the Hundred of Yatala County of Adelaide as the same are delineated in the Public Maps deposited in the Surveyor Generals Office at Adelaide and in the plan in the margin hereof and therein colored green and marked C.D.E

Certified correct ... Surveyor General.

Dated this sixth day of September 1876

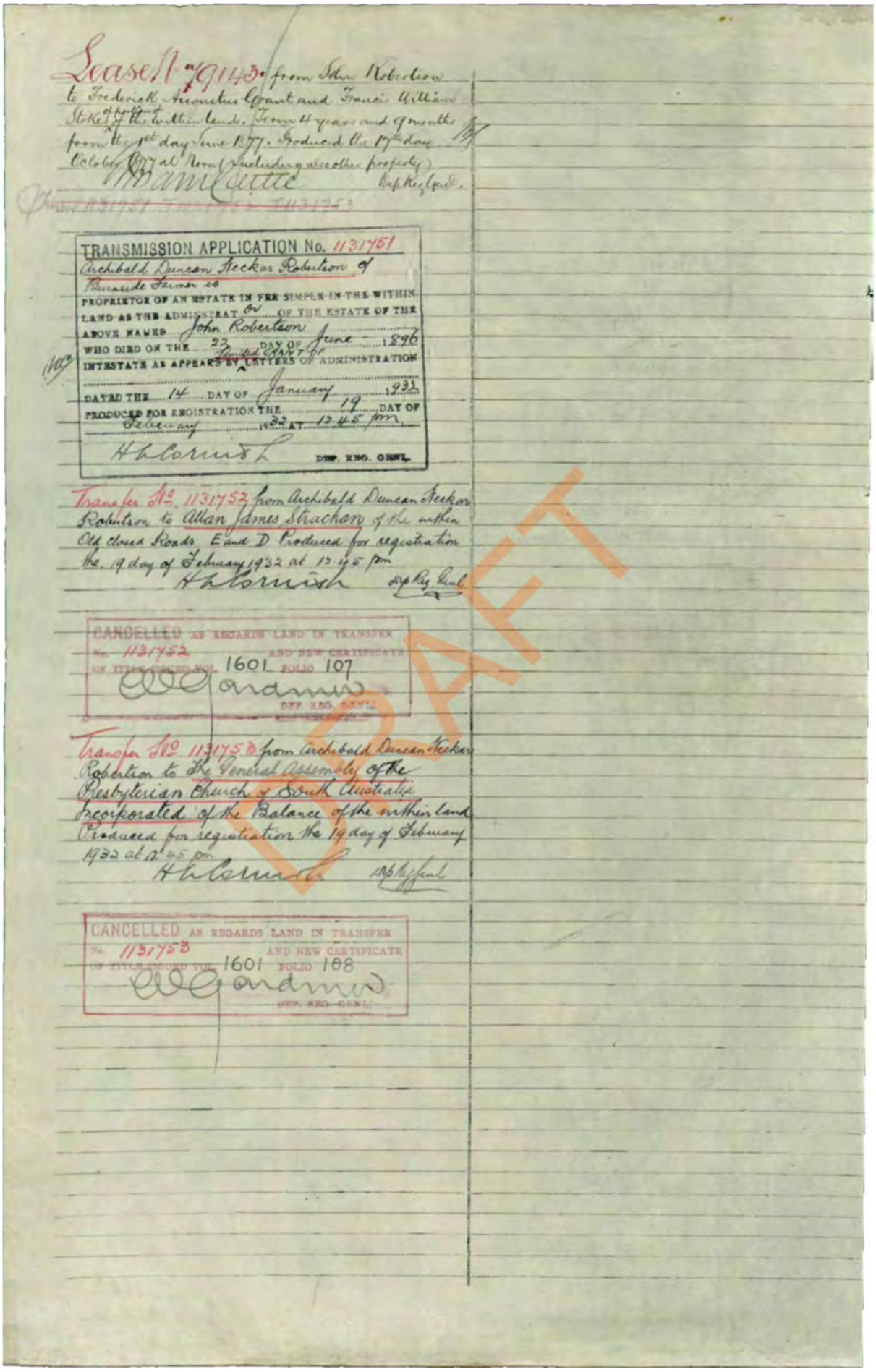
John Carr

Commissioner of Crown Lands.



Lease.

DRAFT



Lease No 79143 from John Robertson to Frederick Augustus Grant and Francis William Stokes of the within land. Term 4 years and 9 months from the 1st day June 1877. Produced the 19th day October 1877 at Noon (excluding all other property) Wm Castle Dep Keeper.

TRANSMISSION APPLICATION No. 1131751
Archibald Duncan Heckar Robertson of Pinnacle Farmer is PROPRIETOR OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND AS THE ADMINISTRATOR OF THE ESTATE OF THE ABOVE NAMED John Robertson WHO DIED ON THE 23 DAY OF June 1896 INTESTATE AS APPEARS BY LETTERS OF ADMINISTRATION GRANT OF
DATED THE 14 DAY OF January 1932
PRODUCED FOR REGISTRATION THE 19 DAY OF February 1932 AT 12.45 pm
H H Cornish DEP. REG. GENL.

Transfer No. 1131752 from Archibald Duncan Heckar Robertson to Allan James Strachan of the within Old closed Roads E and D Produced for registration the 19 day of February 1932 at 12.45 pm
H H Cornish Dep Reg Genl

CANCELLED AS REGARDS LAND IN TRANSFER No. 1131752 AND NEW CERTIFICATE OF TITLE ISSUED VOL. 1601 FOLIO 107
A G Grandmw DEP. REG. GENL.

Transfer No 1131753 from Archibald Duncan Heckar Robertson to The General Assembly of the Presbyterian Church of South Australia Incorporated of the Balance of the within land Produced for registration the 19 day of February 1932 at 12.45 pm
H H Cornish Dep Reg Genl

CANCELLED AS REGARDS LAND IN TRANSFER No. 1131753 AND NEW CERTIFICATE OF TITLE ISSUED VOL. 1601 FOLIO 108
A G Grandmw DEP. REG. GENL.

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4316 Folio 189

New Certificate for the balance of the Land in Vol.4269 Folio 727

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 6 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to the easements to The Electricity Trust of South Australia created by Transfers 2171901 and 6461394 in and over those portions marked C and E respectively hereon

In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

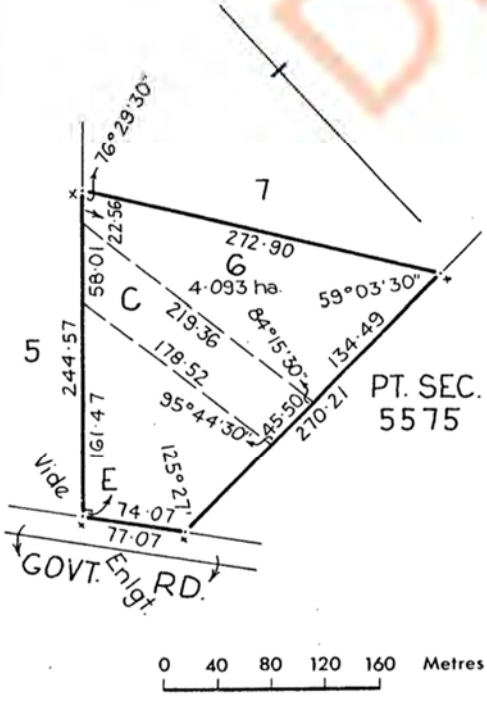
Signed the 30th day of May 1988, in the presence of

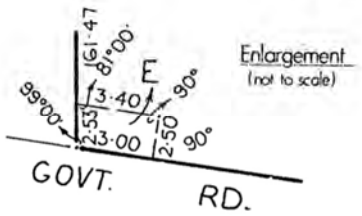
D. H. Taylor

Acting Deputy Registrar-General

G.R.O. PLAN G.P.246 of 1986
FOR LEASING PURPOSES DEPOSITED
OVER WHOLE OF THE WITHIN LAND

REGISTRAR-GENERAL SOUTH AUSTRALIA





Enlargement
(not to scale)

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER RLP.

DRAFT

VOL 4316 FOL 189

P/A 6223697
The within land is discharged from Mortgage 6030695 vide 6473137 Produced 21.1.1988 at 15:35

The within land is discharged from Encumbrance 6100320 vide 6473138 Produced 21.1.1988 at 15:35

TRANSFER 6473139 to PIETRO FEDERICO Director and MARIA CONCETTA IMMACOLATA FEDERICO Home Duties both of 39 Gollop Crescent Redwood Park 5097 of the within land Produced 21.1.1988 at 15:35

ENCUMBRANCE 6473140 to CITY OF TEA TREE GULLY Produced 21.1.1988 at 15:35
(Single Copy Only)

ENCUMBRANCE 6473141 to GOLDEN GROVE WATER CO.PTY. LTD. Produced 21.1.1988 at 15:35
(Single Copy Only)

MORTGAGE 6473142 to AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED Produced 21.1.1988 at 15:35

The within land is discharged from Mortgage 6473142 vide 7158079 Produced 20.8.1991 at 10:00

THE WITHIN NAME Pietro Federico is altered to PETER FEDERICO vide 7158080 Produced 20.8.1991 at 10:00

MORTGAGE 7158081 to AUSTRALIA & NEW ZEALAND BANKING GROUP LTD. Produced 20.8.1991 at 10:00

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4269 Folio 727

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 6 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement to The Electricity Trust of South Australia created by Transfer 2171901 in and over that portion marked C on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Barangal)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~DM 6217002~~

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

Caveat 6428608 has been withdrawn vide 6461391 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

DRAFT

VOL 4269 FOL 727

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

REGISTRAR-GENERAL SOUTH AUSTRALIA

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6468994 VOL. 4316 FOL. 189

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT

ORIGINAL

South Australia

CERTIFICATE OF TITLE

Register Book,
Volume 4174 Folio 468

(Comprising 2 Sheets)

Pursuant to Transfer 4588426 Registered on Vol.2690 Folio 168
Vol.3875 Folio 191 and Vol.4142 Folio 999

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA (L.T.R.O. FILED PLAN No.8177) and delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easements to The Electricity Trust of South Australia more particularly set forth in Transfers 2145555 and 2171901 in and over those portions marked B and C respectively hereon

In witness whereof I have signed my name and affixed my seal this 24 day of Oct 1981

Signed the 24 day of Oct)
1981 in the presence of)

G.R.O. PLAN No. 153 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

F.P. 21834
APPROVED

A.J. Sherman
Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~E 4588427~~ ~~M4588428~~

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single copy only)

MORTGAGE 4588428 to COMMONWEALTH TRADING BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m.

~~CAVEAT 5360254 Lodged 24.12.1984 at 12.20 p.m.~~

CAVEAT 5360254 lodged by ELDERS LENSWORTH FINANCE LIMITED over the within land Produced 24.12.1984 at 12.20 p.m.

WX 6030694 M6030695

Caveat 5360254 has been withdrawn vide 6030694 Produced 7.6.1985 at 11:05

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05

~~E 6100320~~
RT6113325 (DP 17477)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single copy only)

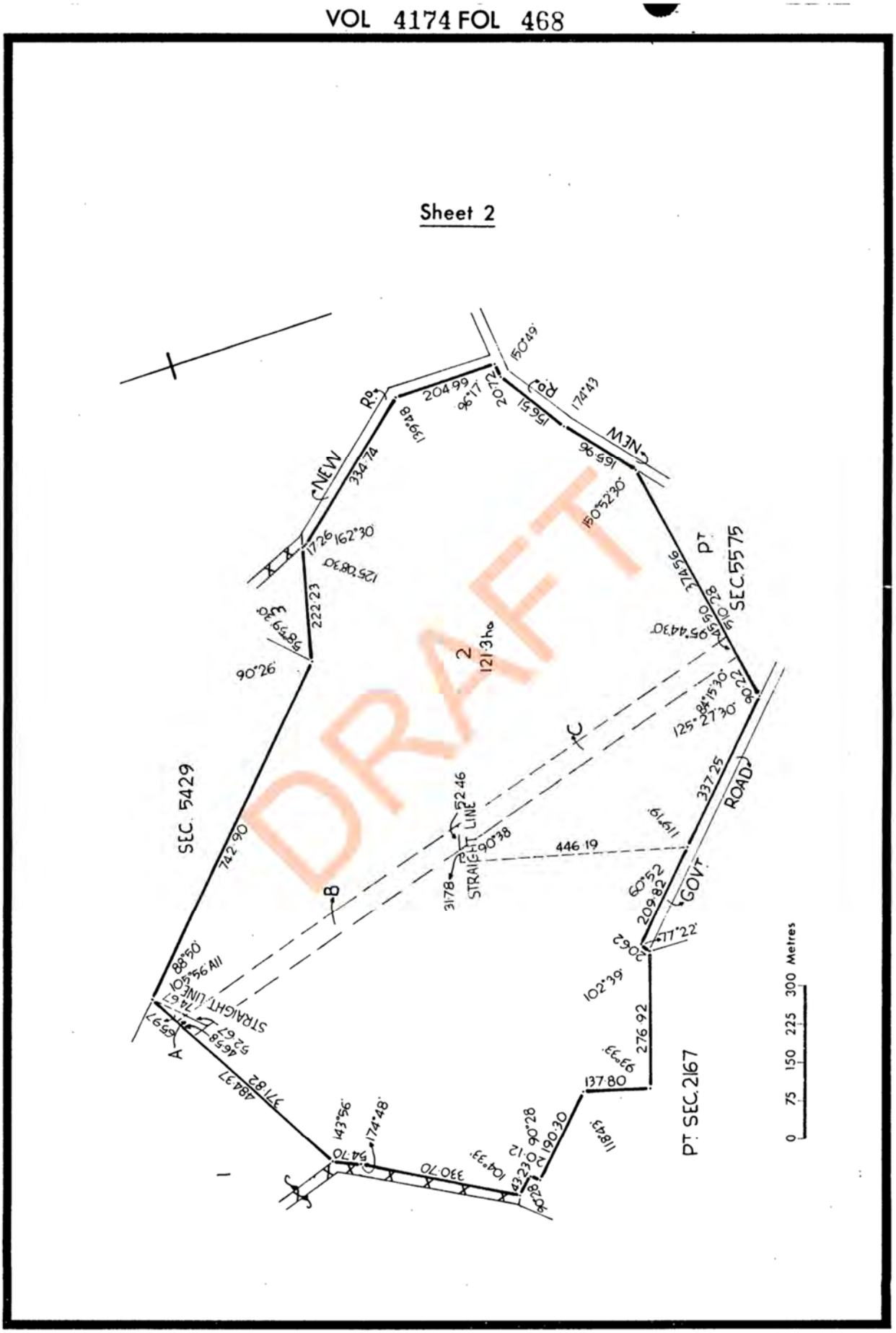
DRAFT

VOL 4174 FOL 468

Cancelled as regards ~~that portion of~~ the within land comprised in Deposited Plan 17477 and new Certificates issued (R.T. 6113324) Vol. 4269 Folio 722 to 734 incl.

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT


VOL 4174 FOL 468
Sheet 2
DRAFT
SEC. 5429
PT SEC. 5575
PT SEC. 2167
ROAD
GOVT
NEW
Rd
STRAIGHT LINE
2
121·3ha
A
B
C
742·90
337·25
446·19
276·92
137·80
190·30
330·70
222·23
334·74
204·99
156·51
165·96
174·43
150·49
0 75 150 225 300 Metres

VOL 4174 FOL 468

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book, Volume 4316 Folio 191

New Certificate for the balance of the Land in Vol.4269 Folio 730

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 9 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to an easement to The Electricity Trust of South Australia created by Transfer 6461394 in and over that portion marked E hereon

In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

Signed the 30th day of May 1988, in the presence of O'Mkeam

G.R.O. PLAN G.P. 246 of 1986 FOR LEASING PURPOSES DEPOSITED OVER WHOLE OF THE WITHIN LAND

Carry forward.

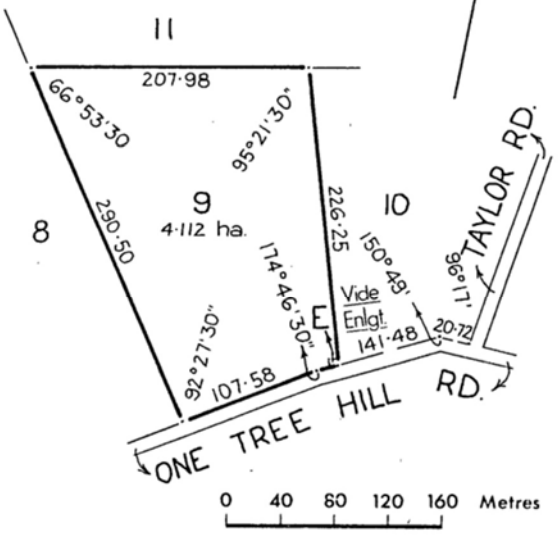
F.P. 23999 APPROVED

F.P.x carry forward as note to Rg C.

D. H. Taylor

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA



Enlargement (not to scale)



MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

REGISTRAR-GENERAL SOUTH AUSTRALIA

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

REGISTRAR-GENERAL SOUTH AUSTRALIA

OVER RLP

DRAFT

VOL 4316 FOL 191

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY.LTD. of certain rights over portion of the within land Term of ninety nine years Commencing on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00 (Including other land)

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

The within land is discharged from Mortgage 6030695 vide 6533978 Produced 19.5.1988 at 15:25

The within land is discharged from Encumbrance 6100320 vide 6533979 Produced 19.5.1988 at 15:25

TRANSFER 6533980 to AGOSTINO FRANZE Bus Driver and ROSARIA FRANZE Kitchen Hand both of 1054 Lower North East Road Highbury 5089 OF TWO UNDIVIDED SIXTH PARTS VINCENZO FRANZE Butcher and JOYCE MARIA FRANZE Home Duties both of 3 Harris Street Paradise 5075 OF TWO UNDIVIDED SIXTH PARTS PASQUALE FRANZE Butcher and MARIA CONCETTA FRANZE Home Duties both of 32 Deans Road Campbelltown 5074 OF TWO UNDIVIDED SIXTH PARTS in the within land Produced 19.5.1988 at 15:25

ENCUMBRANCE 6533981 to CITY OF TEA TREE GULLY Produced 19.5.1988 at 15:25 (Single Copy Only)

ENCUMBRANCE 6533982 to GOLDEN GROVE WATER CO. PTY.LTD. Produced 19.5.1988 at 15:25 (Single Copy Only)

TRANSFER 7096905 to SALVATORE RINALDI and PIETRONILLA GAGLIARDI both of 48 Collins Street Enfield 5085 of the within land Produced 2.5.1991 at 12:00

MORTGAGE 7096906 to WESTPAC BANKING CORPORATION Produced 2.5.1991 at 12:00

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 730

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 9 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477)

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Hanaraji)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/PORTION OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~DM 6217002~~

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

Caveat 6428608 has been withdrawn vide 6461391 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

DRAFT

VOL 4269 FOL 730

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

REGISTRAR-GENERAL SOUTH AUSTRALIA

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6461394 VOL. 4316 FOL. 191

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 3875 *Folio* 192

Balance Certificate of Title from Vol. 3810 Folio 76

ALLAN JAMES STRACHAN of Eden Valley 5235 Grazier

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THAT PIECE of land containing four point nought four hectares or thereabouts situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being PORTION OF SECTION 5575 more particularly delineated and bounded as appears in the plan in the margin hereof by bold black lines SUBJECT nevertheless to the right of way and easement with conditions granted by Memorandum of Transfer No. 2171901 to The Electricity Trust of South Australia in and over portion of the said land as delineated in the said plan and therein marked Easement

Which said Section is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this 27th day of September 1972

Signed the 27th day of September 1972, in the presence of Maurie

B. L. Nairn

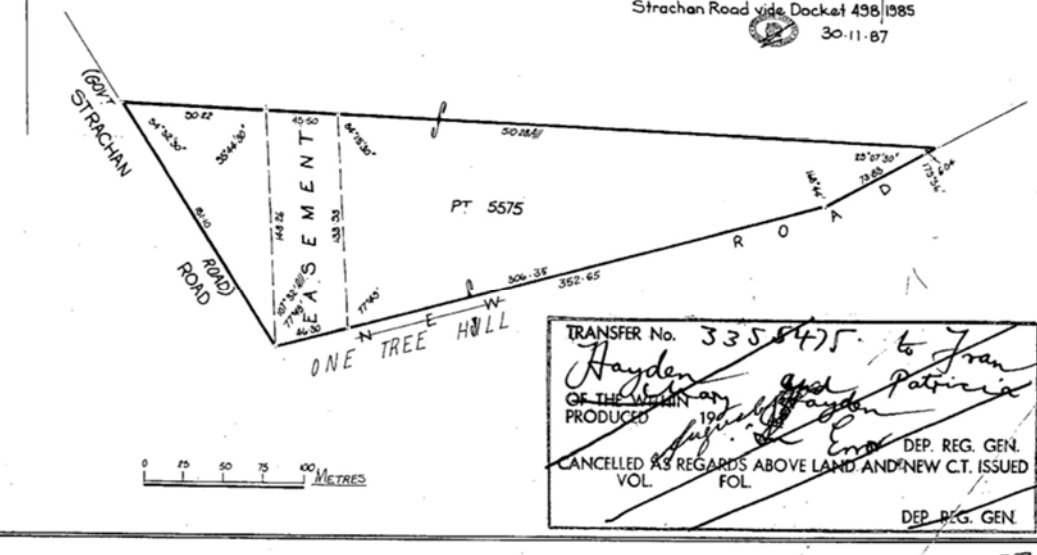
Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

ONE TREE HILL RD. WIDE PKT 3705/1977

Strachan Road vide Docket 498/1985

30-11-87



TRANSFER No. 3358475 to Frank Hayden and Patricia

OF THE WITHIN PRODUCED 19

DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED

VOL. FOL.

DEP. REG. GEN.

DRAFT

VOL. 3875 FOL. 192

TRANSFER No. 335 5475 to Frank R. Hayden Radio Trade Man Patricia Mary Hayden and Christina Hayden wife of the aforesaid Frank Hayden OF THE WITHIN LAND. PRODUCED 25.8.1972 AT 2.50 pm
DEP. REG. GEN.

MORTGAGE No. 335 5476 to Allan James Strachan PRODUCED 25-8-1972 AT 2.50 pm
DEP. REG. GEN.

~~D 335 5476 A11 365 3409 T 365 3410~~

DISCHARGE OF MORTGAGE No. 335 5476 BY ENDORSEMENT THEREON. PRODUCED 9/5/1974 AT 2 pm
DEP. REG. GEN.

MARRIAGE No. 365 3409
Christina Hayden was married to Daniel Patrick Flaherty of 11 Cremin Street Fairview Park SA 26 clerk on 24/2/1973 at Tea Tree Gully
Entered 14/5/1974 at 11am Produced 9/5/1974 at 2pm
Dep. Reg. Gen.

TRANSFER No. 365 3410 To the within named Frank Hayden of Post Office Box 11 Golden Grove 5125 and Patricia Mary Hayden wife of the said
OF THE WITHIN LAND PRODUCED 9/5/1974 AT 2 p.m.
DEP. REG. GEN.

~~A 367 6299~~

MORTGAGE No. 3676 299
TO THE STATE BANK OF SOUTH AUSTRALIA
PRODUCED 17/10/1974 AT 2.20 pm.
DEP. REG. GEN.

~~M 380 4220~~

MORTGAGE No. 3804220
TO THE SAVINGS BANK OF SOUTH AUSTRALIA
PRODUCED 9.10.1975 AT 11.20am

~~D 475 3115 01.~~

DUPLICATE C.T. REQUIRES AMENDMENT.

DISCHARGE OF MORTGAGE NO. 3804220 BY ENDORSEMENT THEREON VIDE NO. 4391501
PRODUCED 11-6-1979 AT 10.15am
Pro R.G. 17.1.1980 RB
Dup. C.T. not Prod

~~M 480 870~~

MORTGAGE No. 4490870 TO
CBFC LIMITED
PRODUCED 7.1.1980 AT 11 am

~~D 488 6900~~
P/A 411 5905
THE WITHIN LAND IS DISCHARGED FROM MORTGAGE No. 4490870 VIDE 4886900
PRODUCED 10.5.1982 AT 12.10pm
(DUP. C.T. NOT PROD)
10.12.1982 Pro R.G.

P/A 621 7579
THE WITHIN LAND IS DISCHARGED FROM MORTGAGE No. 3676299 VIDE 6446608
PRODUCED 26.11.1998 AT 10:00

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

5093

DRAFT

ORIGINAL

South Australia

CERTIFICATE OF TITLE

Register Book,
Volume 4174 Folio 468

(Comprising 2 Sheets)

Pursuant to Transfer 4588426 Registered on Vol.2690 Folio 168
Vol.3875 Folio 191 and Vol.4142 Folio 999

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA (L.T.R.O. FILED PLAN No.8177) and delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easements to The Electricity Trust of South Australia more particularly set forth in Transfers 2145555 and 2171901 in and over those portions marked B and C respectively hereon

In witness whereof I have signed my name and affixed my seal this 24 day of Oct 1981

Signed the 24 day of Oct)
1981, in the presence of)

G.R.O. PLAN No. 153 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

F.P. 21834
APPROVED

A.J. Sherman
Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~E 4588427~~ ~~M4588428~~

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single copy only)

MORTGAGE 4588428 to COMMONWEALTH TRADING BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m.

~~CAVEAT 5360254 Lodged 24.12.1984 at 12.20 p.m.~~

CAVEAT 5360254 lodged by ELDERS LENSWORTH FINANCE LIMITED over the within land Produced 24.12.1984 at 12.20 p.m.

WX 6030694 M6030695

Caveat 5360254 has been withdrawn vide 6030694 Produced 7.6.1985 at 11:05

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05

~~E 6100320~~
RT6113325 (DP 17477)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single copy only)

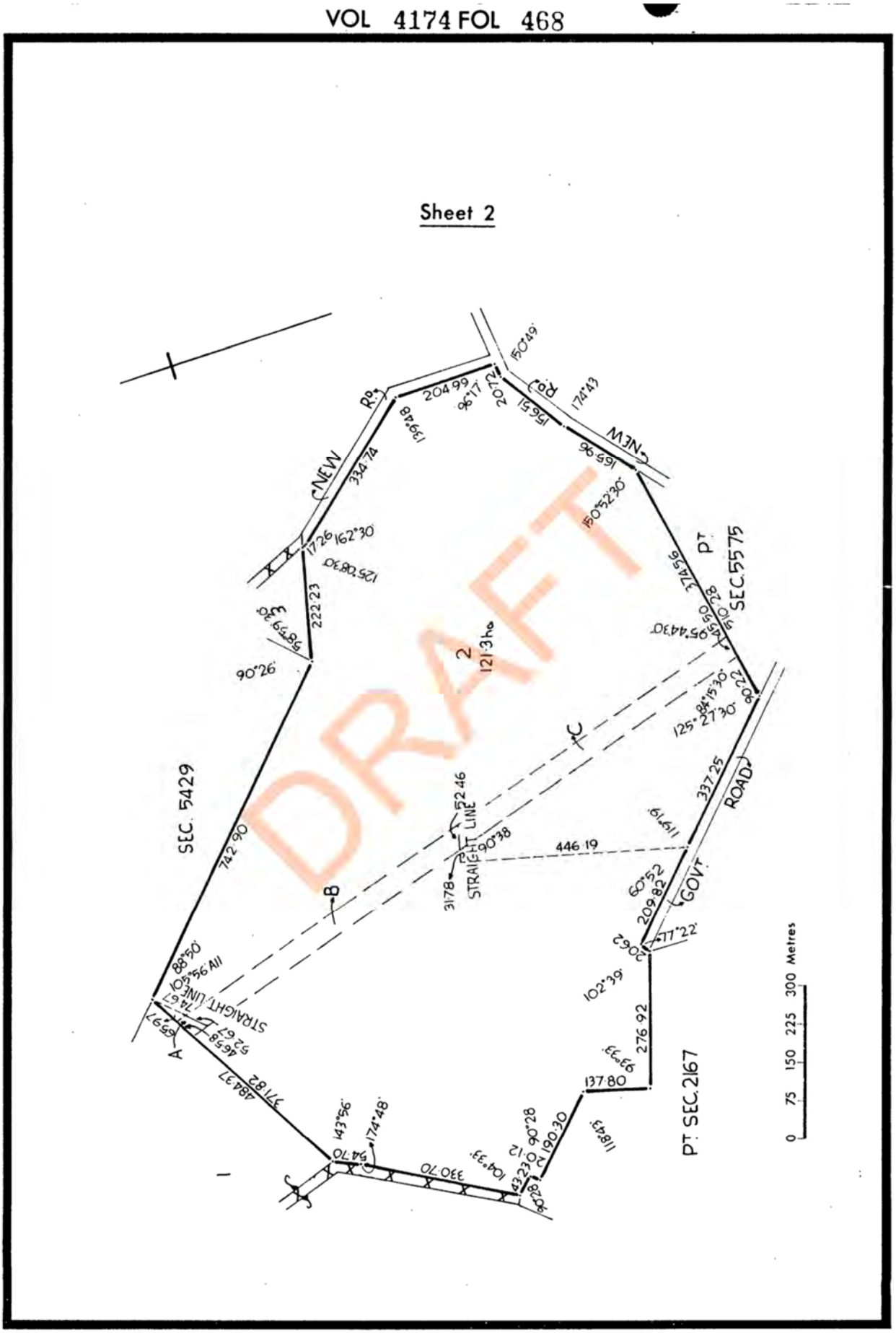
DRAFT

VOL 4174 FOL 468

Cancelled as regards ~~that portion of~~ the within land comprised in Deposited Plan 17477 and new Certificates issued (R.T. 6113324)
Vol. 4269 Folio 722 to 734 incl.

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT


VOL 4174 FOL 468
Sheet 2
DRAFT
SEC. 5429
PT SEC. 5575
PT SEC. 2167
ROAD
GOVT
NEW
Rd
STRAIGHT LINE
2
121·3ha
742·90
337·25
446·19
276·92
137·80
190·30
330·70
209·82
204·99
174·43
156·51
165·96
150·49
334·74
222·23
139·48
96·17
20·72
0 75 150 225 300 Metres

VOL 4174 FOL 468

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book, Volume 4316 Folio 190

New Certificate for the balance of the Land in Vol.4269 Folio 729

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 8 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over that portion marked D hereon SUBJECT ALSO to an easement to The Electricity Trust of South Australia created by Transfer 6461394 in and over that portion marked E hereon

In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

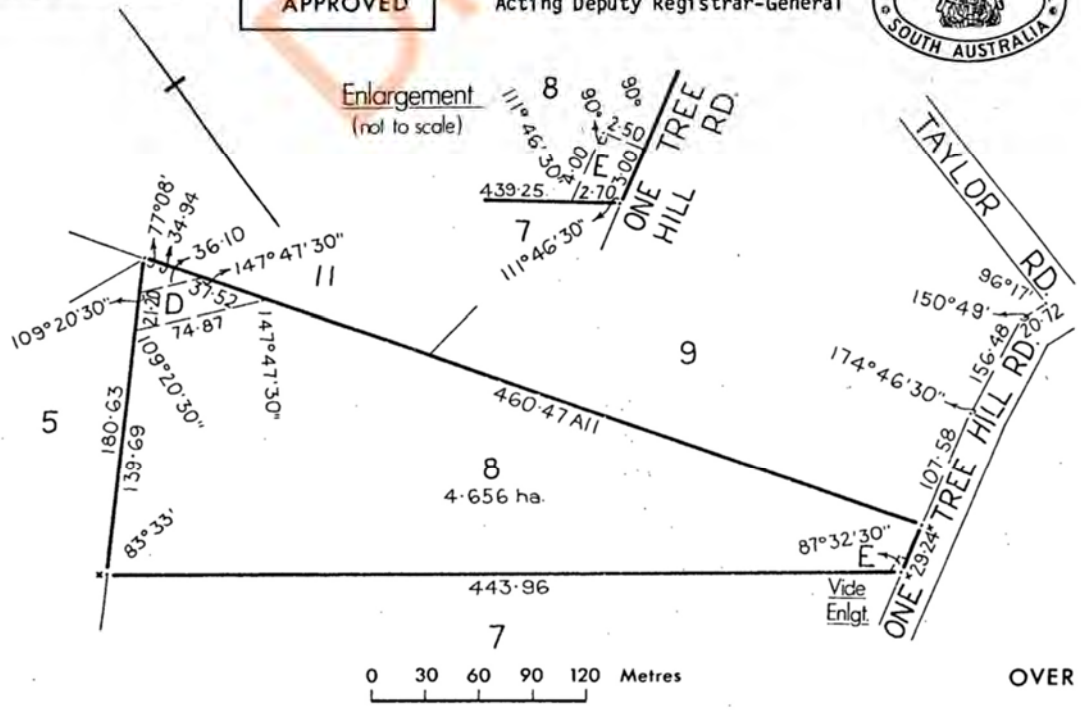
Signed the 30th day of May 1988, in the presence of

G.R.O. PLAN G.P. 246 of 1986 FOR LEASING PURPOSES DEPOSITED OVER WHOLE OF THE WITHIN LAND

F.P. 23999 APPROVED

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA



OVER

RLP

VOL 4316 FOL 190

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05
(Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only)
(Including other land)

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY.LTD. of certain rights over portion of the within land Term of ninety nine years Commencing on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00
(Including other land)

P.A. 6561805
The within land is discharged from Mortgage 6030695 vide 6586771 Produced 18.8.1988 at 11:50

The within land is discharged from Encumbrance 6100320 vide 6586772 Produced 18.8.1988 at 11:50

TRANSFER 6586773 to EMILIO BERNARDI Manager and ITALINA DORA BERNARDI Secretary both of 8 Omnia Court Salisbury Heights 5109 of the within land Produced 18.8.1988 at 11:50

ENCUMBRANCE 6586774 to CITY OF TEA TREE GULLY Produced 18.8.1988 at 11:50
(Single Copy Only)

ENCUMBRANCE 6586775 to GOLDEN GROVE WATER CO. PTY. LTD. Produced 18.8.1988 at 11:50
(Single Copy Only)

DISCHARGE of Encumbrance 6586774 vide 6954081 Produced 24.7.1990 at 12:10

DISCHARGE of Encumbrance 6586775 vide 6954082 Produced 24.7.1990 at 12:10

TRANSFER 6954083 to ANTONIO RICCI and CATERINA RICCI both of 34 Kennington Road Hope Valley 5090 of the within land Produced 24.7.1990 at 12:10

ENCUMBRANCE 6954084 to CITY OF TEA TREE GULLY Produced 24.7.1990 at 12:10 (Single Copy Only)

ENCUMBRANCE 6954085 to GOLDEN GROVE WATER CO. PTY.LTD. Produced 24.7.1990 at 12:10

MORTGAGE 7046148 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.1.1991 at 10:00

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 729

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 8 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement for drainage purposes provided for by Section 223 ln (2) of the Real Property Act 1886 in and over that portion marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Basanagi)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED
OVER WHOLE/PORTION OF THE
WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

Caveat 6428608 has been withdrawn vide 6461391 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

DRAFT

VOL 4269 FOL 729

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 196

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6461394 VOL. 4316 FOL. 190

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4316 Folio 188

Comprising 2 sheets

New Certificate for the balance of the Land in Vol.4269 Folio 724

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 3 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to the easements to The Electricity Trust of South Australia created by Transfers 2171901,6461394 and 6461395 in and over those portions marked C.E and F respectively hereon SUBJECT ALSO to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over those portions marked D hereon

In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

Signed the 30th day of May 1988, in the presence of

G.R.O. PLAN G.P. 246 of 1986 FOR LEASING PURPOSES DEPOSITED OVER WHOLE OF THE WITHIN LAND

F.P. 23999 APPROVED

J. H. Taylor
Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY.LTD. of certain rights over portions of the within land Term of ninety nine years Commencing on 30.9.1987 and expiring at midnight on 30.9.2086 Produced 21.12.1987 at 16:00 (Including other land)

PA 6223697
The within land is discharged from Mortgage 6030695 vide 6461397 Produced 21.12.1987 at 16:00

The within land is discharged from Encumbrance 6100320 vide 6461403 Produced 21.12.1987 at 16:00

TRANSFER 6461404 to ALDO FRANCO Sales Representative OF THREE UNDIVIDED SIXTH PARTS ELIO FRANCO Engineer OF ONE UNDIVIDED SIXTH PART GIUSEPPE FRANCO Student OF TWO UNDIVIDED SIXTH PARTS in the within land all of C/- 4 Pope Crescent Hope Valley 5090 Produced 21.12.1987 at 16:00

OVER

RLP

VOL 4316 FOL 188

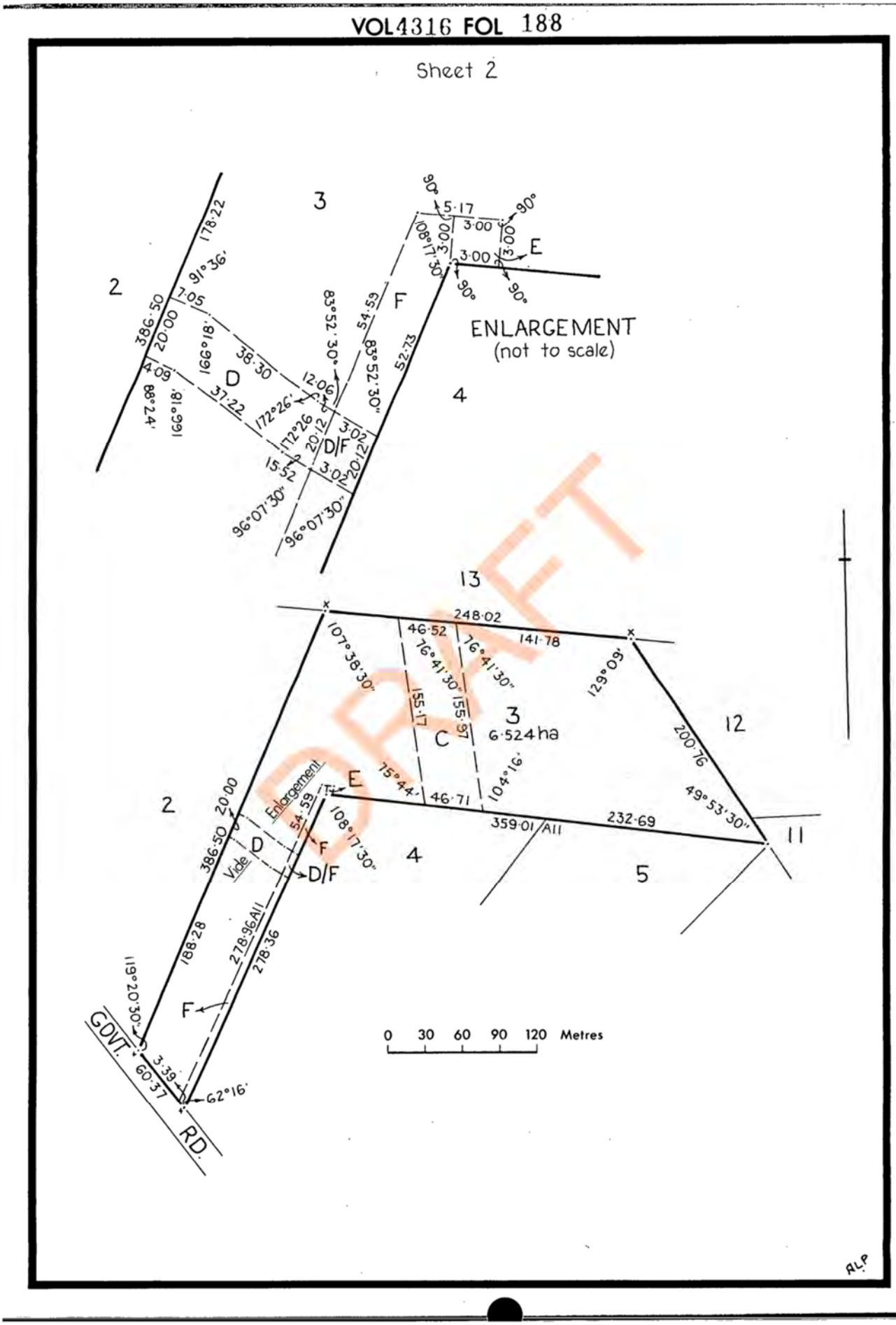
ENCUMBRANCE 6461405 to CITY OF TEA TREE GULLY
Produced 21.12.1987 at 16:00
(Single Copy Only)

ENCUMBRANCE 6461406 to GOLDEN GROVE WATER CO.PTY. LTD. Produced 21.12.1987 at 16:00
(Single Copy Only)

CANCELLED

CONVERTED TO A COMPUTERISED TITLE

DRAFT


VOL 4316 FOL 188
Sheet 2
ENLARGEMENT
(not to scale)
DRAFT
0 30 60 90 120 Metres
GOVT. RD.
ALP

VOL 4316 FOL 188

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4269 Folio 724

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 3 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement to The Electricity Trust of South Australia created by Transfer 2171901 in and over that portion marked C on the said Deposited Plan SUBJECT ALSO to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over that portion marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Hasanagas)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

~~DM 6217002~~

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

OVER

DRAFT

VOL 4269 FOL 724

Caveat 6428608 has been withdrawn vide 6461391
Produced 21.12.1987 at 16:00

DISCHARGE of Encumbrance 4588427 vide 6461392
Produced 21.12.1987 at 16:00

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

TRANSFER 6461395 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6461395 VOL 4316 FOL 188

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4269 Folio 728

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 7 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477)

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Hasanagas)

Acting Deputy Registrar-General

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

B

DRAFT

VOL4269 FOL 728

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY.LTD. of certain rights over portion of the within land Term of ninety nine years Commencing on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00 (Including other land)

P/A 6223697
The within land is discharged from Mortgage 6030695 vide 6461397 Produced 21.12.1987 at 16:00

The within land is discharged from Encumbrance 6100320 vide 6461415 Produced 21.12.1987 at 16:00

TRANSFER 6461416 to FRANCO ANTHONY PEDRON of 7 Launer Avenue Rostrevor 5073 Cement Contractor and MELVA PEDRON his wife of the within land Produced 21.12.1987 at 16:00

ENCUMBRANCE 6461417 to CITY OF TEA TREE GULLY Produced 21.12.1987 at 16:00 (Single Copy Only)

ENCUMBRANCE 6461418 to GOLDEN GROVE WATER CO.PTY. LTD. Produced 21.12.1987 at 16:00 (Single Copy Only)

MORTGAGE 6709832 to WESTPAC BANKING CORPORATION Produced 31.3.1989 at 10:00

CANCELLED

CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4316 Folio 192

Comprising 2 sheets

New Certificate for the balance of the Land in Vol.4269 Folio 731

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 10 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over that portion marked D hereon SUBJECT ALSO to an easement to The Electricity Trust of South Australia created by Transfer 6461394 in and over those portions marked E hereon

In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

Signed the 30th day of May 1988, in the presence of O'Keair

J. H. Taylor

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

P/A 6561805

2/ The within land is discharged from Mortgage 6030695 vide 6652116 Produced 12.12.1988 at 12:35

3/ The within land is discharged from Encumbrance 6100320 vide 6652117 Produced 12.12.1988 at 12:35

4/ TRANSFER 6652118 to FRANCIS ANTHONY HAYDEN of C/- Post Office Box 11 Golden Grove 5125 Auditor Manager of the within land Produced 12.12.1988 at 12:35

5/ ENCUMBRANCE 6652119 to CITY OF TEA TREE GULLY Produced 12.12.1988 at 12:35 (Single Copy Only)

OVER

DRAFT

VOL 4316 FOL 192

6/ ENCUMBRANCE 6652120 to GOLDEN GROVE WATER CO. PTY. LTD. Produced 12.12.1988 at 12:35 (Single Copy Only)

7/ MORTGAGE 6652121 to STATE BANK OF SOUTH AUSTRALIA Produced 12.12.1988 at 12:35

1/ CHANGE OF NAME 6628848 The Name of the within Company is changed from Elders Eensworth Finance Limited to ELDERS FINANCE LIMITED of 39 Currie Street Adelaide 5000 Produced 1.11.1988 at 12:15

The within land is discharged from Mortgage 6652121 vide 6972131 Produced 28.8.1990 at 12:20

TRANSFER 6972132 to ILIJA CIRJAK and RITA MARY CIRJAK both of lot 10 One Tree Hill Road Golden Grove 5125 of the within land Produced 28.8.1990 at 12:20

MORTGAGE 6972133 to COMMONWEALTH SAVINGS BANK OF AUSTRALIA Produced 28.8.1990 at 12:20

The within land is discharged from Mortgage 6972133 vide 7170373 Produced 12.9.1991 at 14:20

MORTGAGE 7170374 to S.A. PUBLIC SERVICE SAVINGS AND LOANS SOCIETY LTD. Produced 12.9.1991 at 14:20

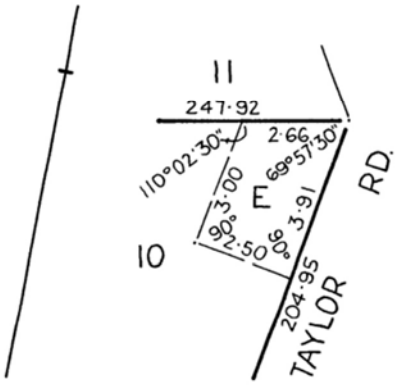
CANCELLED

CONVERTED TO A COMPUTERISED TITLE

DRAFT

VOL 4316 FOL 192

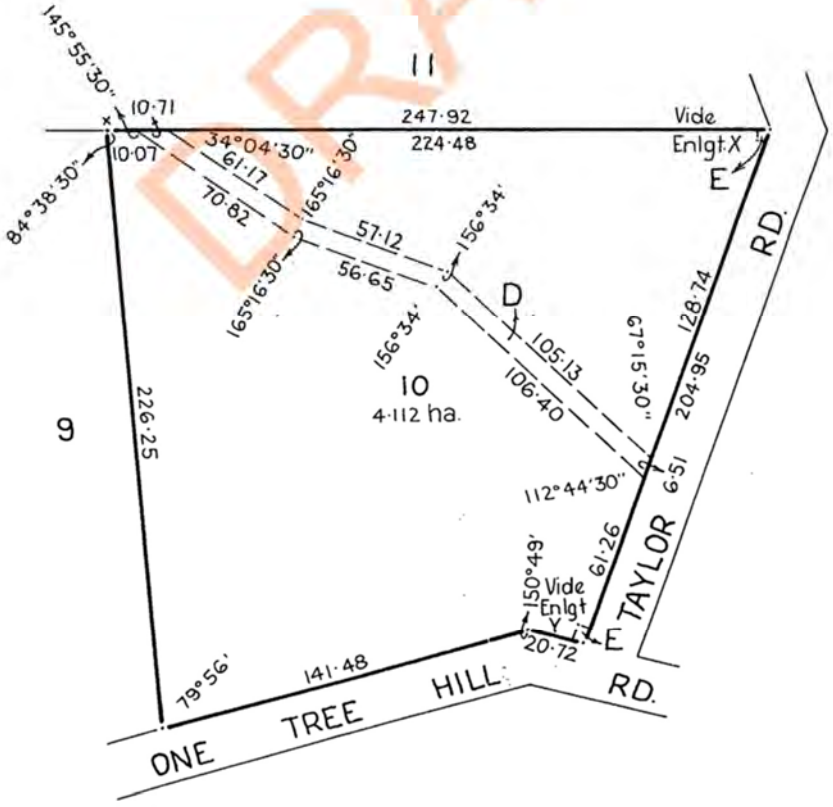
Sheet 2



ENLARGEMENT X
(not to scale)



ENLARGEMENT Y
(not to scale)



DRAFT

VOL 4316 FOL 192

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4269 Folio 731

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 10 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement for drainage purposes provided for by Section 223 ln (2) of the Real Property Act 1886 in and over that portion marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Barangan)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/PORTION OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

Caveat 6428608 has been withdrawn vide 6461391 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

DRAFT

VOL 4269 FOL 731

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTIONS of the within land Produced 21.12.1987 at 16:00

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6461394 VOL. 4316 FOL. 192

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 725

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 4 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement to The Electricity Trust of South Australia created by Transfer 2171901 in and over those portions marked C on the said Deposited Plan SUBJECT ALSO to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over those portions marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Hasanagas)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

~~DM 6217002X~~

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

OVER

DRAFT

VOL4269 FOL 725

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY. LTD. of portion of the within land (being Marked Q in G.R.O.Plan 246/1986) together with certain rights Term of ninety nine years Commencing on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00 (Including other land)

PA 6223697
The within land is discharged from Mortgage 6030695 vide 6461397 Produced 21.12.1987 at 16:00

The within land is discharged from Encumbrance 6100320 vide 6461407 Produced 21.12.1987 at 16:00

TRANSFER 6461408 to FRANCESCO DI GIROLAMO of 11 Launer Avenue Rostrevor 5073 Cement Contractor and MADALYN DI GIROLAMO his wife of the within land Produced 21.12.1987 at 16:00

ENCUMBRANCE 6461409 to CITY OF TEA TREE GULLY Produced 21.12.1987 at 16:00 (Single Copy Only)

ENCUMBRANCE 6461410 to GOLDEN GROVE WATER CO.PTY. LTD. Produced 21.12.1987 at 16:00 (Single Copy Only)

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4269 Folio 722

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 1 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement for drainage purposes provided for by Section 223 ln (2) of the Real Property Act 1886 in and over that portion marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April 1986, in the presence of K. Dasanga

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

F.P. 23999
APPROVED

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

The within land is discharged from Mortgage 6030695 vide 6461397 Produced 21.12.1987 at 16:00

OVER

DRAFT

VOL 4269 FOL 722

The within land is discharged from Encumbrance 6100320 vide 6461419 Produced 21.12.1987 at 16:00

TRANSFER 6461420 to ILARIO NESCI of 57 Cookes Road Windsor Gardens 5087 Shop Proprietor and MARIA LAURA NESCI his wife OF TWO UNDIVIDED FOURTH PARTS ANTONIO AUDINO and GIUSEPPE RUGARI both Crash Repairers both of 22 Katrina Avenue Windsor Gardens 5087 AS TENANTS IN COMMON IN ONE UNDIVIDED FOURTH PART and MARIO DEGUISA of 7 Caddy Court Seaton 5023 Welder and GIUSEPPINA PALMINA DEGUISA his wife of ONE UNDIVIDED FOURTH PART in the within land Produced 21.12.1987 at 16:00

ENCUMBRANCE 6461421 to CITY OF TEA TREE GULLY
Produced 21.12.1987 at 16:00
(Single Copy Only)

ENCUMBRANCE6461422 to GOLDEN GROVE WATER CO.PTY.LTD.
Produced 21.12.1987 at 16:00
(Single Copy Only)

TRANSFER 6928993 from Antonio Audino and Giuseppe Rugari to THE WITHIN NAMED ILARIO NESCI and MARIA LAURA NESCI of ONE UNDIVIDED FOURTH PART in the within land Produced 8.6.1990 at 11:00

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 726

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 5 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement to The Electricity Trust of South Australia created by Transfer 2171901 in and over those portions marked C on the said Deposited Plan SUBJECT ALSO to an easement for drainage purposes provided for by Section 223 ln (2) of the Real Property Act 1886 in and over those portions marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Devanaga)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

~~DA 6217002~~

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

OVER

DRAFT

VOL4269 FOL 726

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

2 The within land is discharged from Encumbrance 6100320 vide 6461411 Produced 21.12.1987 at 16:00

3 TRANSFER 6461412 to GIOVANNI PARLETTA Bus Driver CARMELA PARLETTA his wife CHARLES SALVATORE PARLETTA Company Director and DIODORO PARLETTA Salesman all of C/- 8 Henry Street Hectorville 5073 of the within land Produced 21.12.1987 at 16:00

4 ENCUMBRANCE 6461413 to CITY OF TEA TREE GULLY Produced 21.12.1987 at 16:00 (Single copy only)

5 ENCUMBRANCE 6461414 to GOLDEN GROVE WATER CO. PTY. LTD. Produced 21.12.1987 at 16:00 (Single copy only)

P/A 6223697

1 The within land is discharged from Mortgage 6030695 vide 6461397 Produced 21.12.1987 at 16:00

CANCELLED

CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL

South Australia

CERTIFICATE OF TITLE

Register Book,
Volume 4174 Folio 468

(Comprising 2 Sheets)

Pursuant to Transfer 4588426 Registered on Vol.2690 Folio 168
Vol.3875 Folio 191 and Vol.4142 Folio 999

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA (L.T.R.O. FILED PLAN No.8177) and delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easements to The Electricity Trust of South Australia more particularly set forth in Transfers 2145555 and 2171901 in and over those portions marked B and C respectively hereon

In witness whereof I have signed my name and affixed my seal this 24 day of Oct 1981

Signed the 24 day of Oct)
1981, in the presence of)

G.R.O. PLAN No. 153 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

F.P. 21834
APPROVED

A.J. Sherman
Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~E 4588427~~ ~~M4588428~~

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single copy only)

MORTGAGE 4588428 to COMMONWEALTH TRADING BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m.

~~CAVEAT 5360254 Lodged 24.12.1984 at 12.20 p.m.~~

CAVEAT 5360254 lodged by ELDERS LENSWORTH FINANCE LIMITED over the within land Produced 24.12.1984 at 12.20 p.m.

WX 6030694 M6030695

Caveat 5360254 has been withdrawn vide 6030694 Produced 7.6.1985 at 11:05

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05

~~E 6100320~~
RT6113325 (DP 17477)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single copy only)

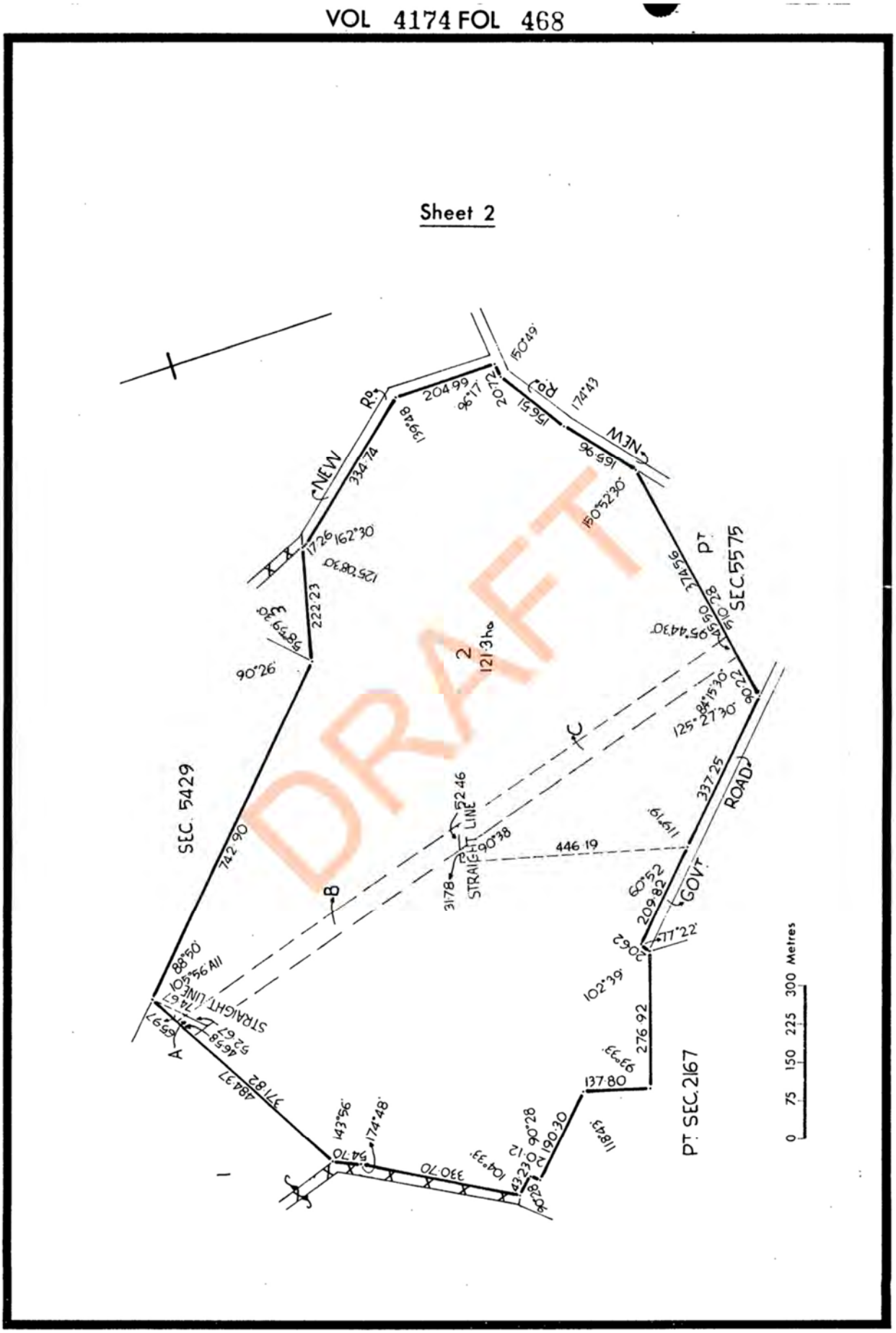
DRAFT

VOL 4174 FOL 468

Cancelled as regards ~~that portion of~~ the within land comprised in Deposited Plan 17477 and new Certificates issued (R.T. 6113324)
Vol. 4269 Folio 722 to 734 incl.

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT


VOL 4174 FOL 468
Sheet 2
DRAFT
SEC. 5429
PT SEC. 5575
PT SEC. 2167
ROAD
GOVT
STRAIGHT LINE
2
121·3ha
742·90
337·25
446·19
276·92
137·80
190·30
330·70
204·99
334·74
222·23
165·96
156·51
174·43
150·49
207·21
96·17
139·48
162·30
125·08·30
58·79·30
90·26
88·50
90·38
52·46
31·78
209·82
60·52
77·22
102·39
92·33
118·43
104·33
90·28
43·23
143·56
174·48
94·70
484·37
46·58
52·62
74·67
65·97
0 75 150 225 300 Metres

VOL 4174 FOL 468

DRAFT

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 2690 *Folio* 168

Balance Certificate of Title from Vol.1828 Folio 42 and Vol.1843 Folio 34

CLARENCE FREDERICK PITCHER of Golden Grove Primary Producer

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THAT PIECE of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being the SECTION 2168 containing ninety four acres and two roods or thereabouts PORTION OF SECTION 5575 containing thirty nine acres one rood and fifteen perches or thereabouts and a CLOSED ROAD containing nine acres or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green SUBJECT nevertheless to the right of way and easement with conditions granted by Memorandum of Transfer No.2145555 to The Electricity Trust of South Australia in and over portion of the said land as delineated in the said plan and therein marked Easement

Which said Section s are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this Twenty eighth day of August 1959

Signed the 28th day of August 1959, in the presence of

B. Nelson Waghorn

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 8177 APPROVED



APPLICATION No. 3049902 THE WITHIN land IS TRANSMITTED TO Public Trustee

AS THE EXECUTOR NAMED IN THE WILL DATED 25.5.1951 OF Clarence Frederick Pitcher WHO DIED 5.7.1969 VIDE PROBATE DATED 26.9.1969 PRODUCED 3.11.1969 at 12.20 pm.

J. Hughes. DEP. REG. GEN.

T 5744/43

OVER

DRAFT



TRANSFER No. 3134243 To
James Frederick Pitcher of Box 22 P.O. Golden Grove 5125 Wool Classer, Janet Laurel Weller of 16 Hammersmith Avenue Edwardstown SO 39 Married Woman and Ivan Kenneth Pitcher of 4 Turner Avenue Clearview 5085 Apprentice Instructor.
OF THE WITHIN LAND. PRODUCED 9-9-1970 AT 11.10a.m.
DEP. REG. GEN.
T 3312243

TRANSFER No. 3312893 To
Minister of Works
OF THE WITHIN LAND PRODUCED 2/5/1972 AT 2.15 p.m.
DEP. REG. GEN.

~~I458426~~ E 458427 M 458428

TRANSFER No. 458426 To
Ilario Lamberto and Giuseppe Emanuele
OF THE WITHIN land as tenants in common
PRODUCED 22-7-1980 AT 2.30p.m.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED
VOL. 4174 FOL. 468

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4142 Folio 999

(Comprising 2 Sheets)

New Certificate for the balance of the Land in Vol.4139 Folio 369

MINISTER OF WORKS is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in SECTIONS 5580 and 5581 and PORTION OF SECTION 2167 HUNDRED OF YATALA delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easement to The Electricity Trust of South Australia more particularly set forth in Transfer 4325244 in and over those portions marked B hereon

In witness whereof I have signed my name and affixed my seal this 20th day of June 1979

Signed the 20th day of June

1979, in the presence of R. Davis } R.J. Sharman

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 8177 APPROVED

F.P. 10517 APPROVED

T4588426 E4588427 M4588428

ROAD PLAN 7639 AFFECTS THIS C T ENQUIRIES ON 4TH FLOOR (S.G.O. ROAD SECTION) COLONEL LIGHT CENTRE

V4527583

TRANSFER 4588426 to ILARIO LAMBERTO and GIUSEPPE EMANUELE of PORTION of the within Section 5580 AS TENANTS IN COMMON Produced 22.7.1980 at 2.30 p.m.

CANCELLED as regards above Land and New C.T. issued

Vol. 4174 Fol. 468

RT5007472 (DP12037).

T6012355 T6012356

The within Easement A has been extinguished vide G.R.O. Memorial No.156 Book 540 Registered in the General Registry Office

Entered: 27·5·1993

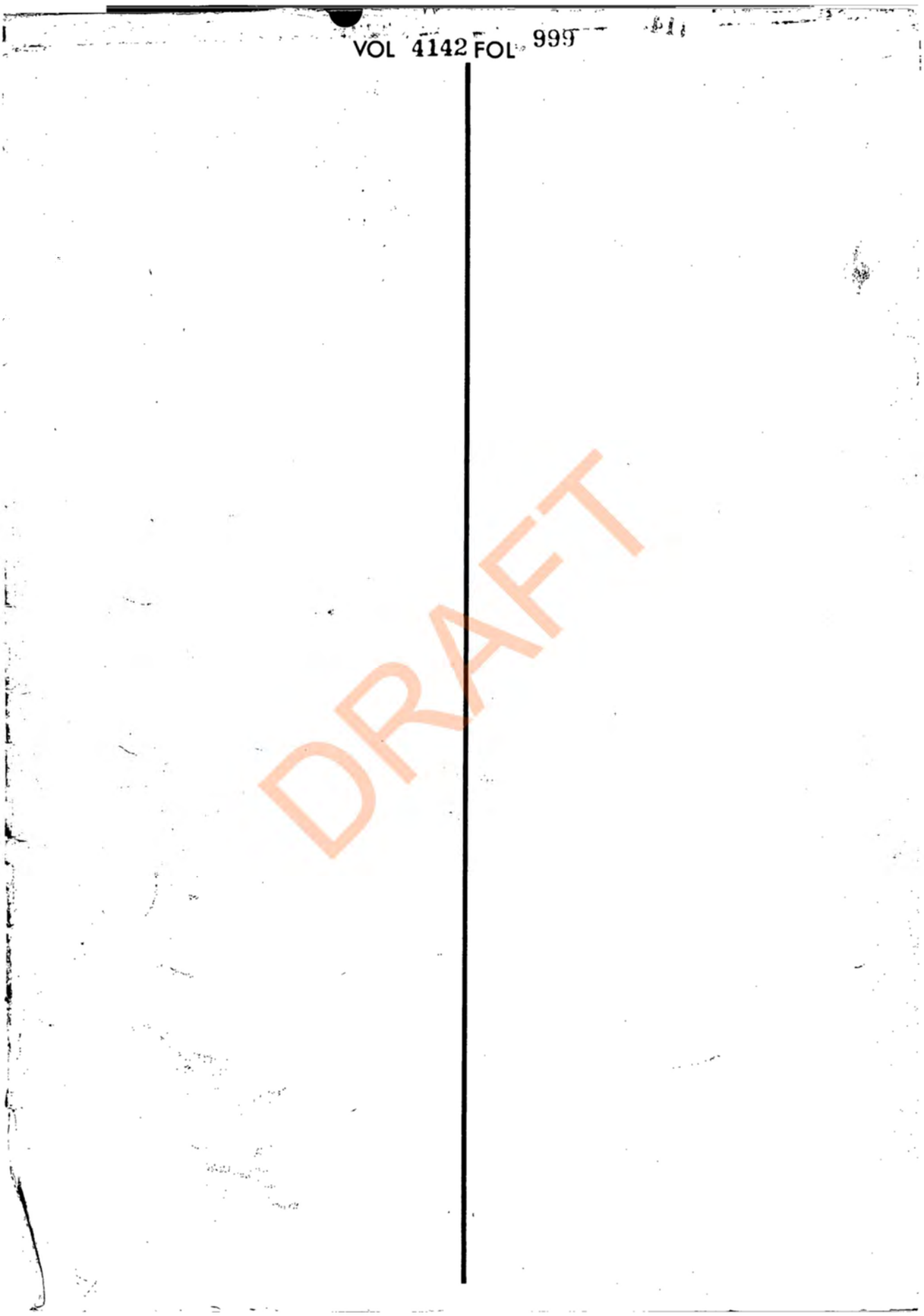
CANCELLED

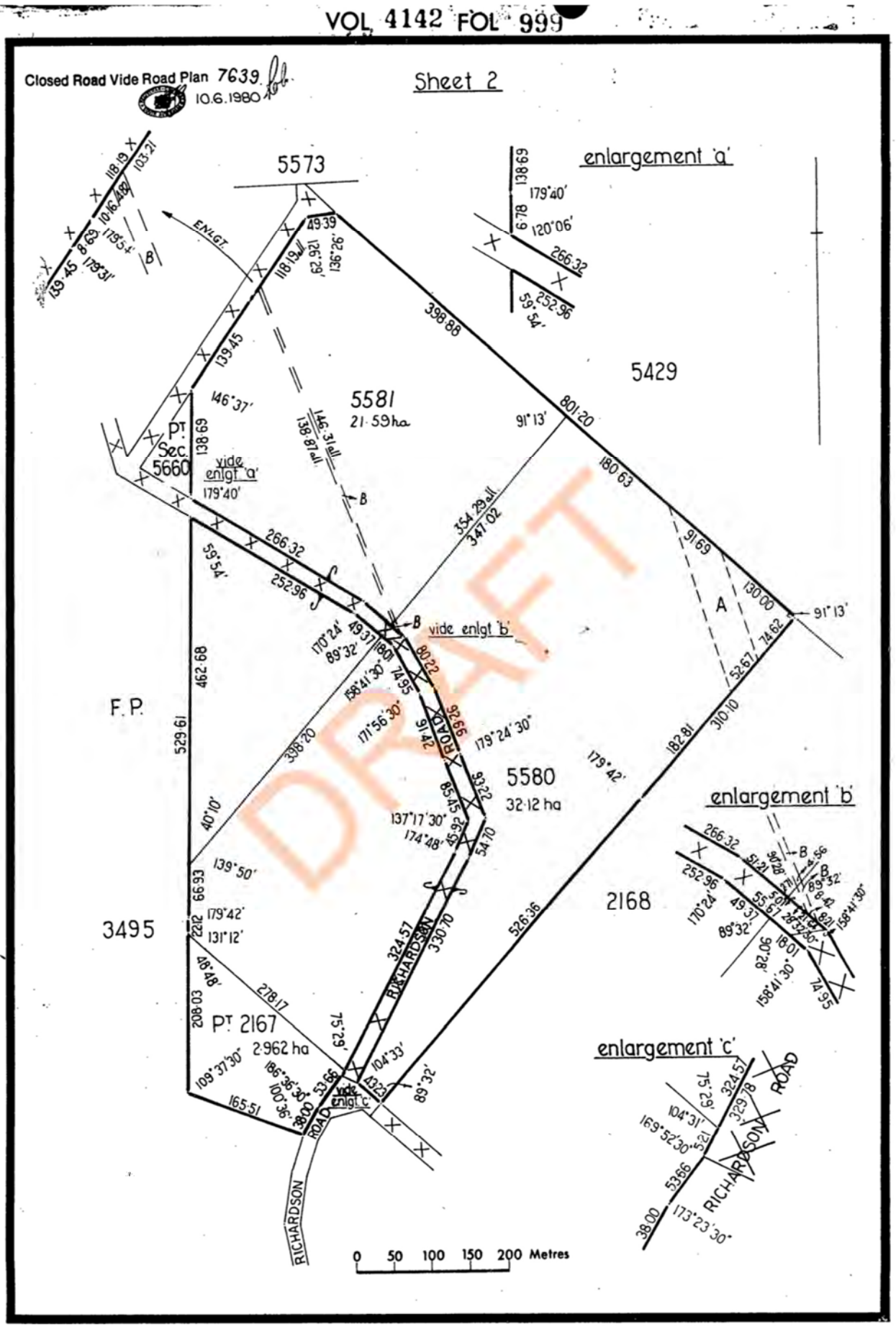
AND Balance CERTIFICATE OF TITLE

ISSUED VIDE VOL 4400 FOL 805

T4589377

DRAFT


VOL 4142 FOL 999
DRAFT


VOL 4142 FOL 999
Closed Road Vide Road Plan 7639
10.6.1980
Sheet 2
5573
enlargement 'a'
5581
21·59ha
5429
PT Sec. 5660
vide enlgt 'a'
179°40'
vide enlgt 'b'
5580
32·12 ha
F.P.
3495
PT 2167
2·962 ha
2168
RICHARDSON ROAD
vide enlgt 'c'
enlargement 'b'
enlargement 'c'
0 50 100 150 200 Metres
DRAFT

VOL 4142 FOL 99

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 732

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 11 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement for drainage purposes provided for by Section 223 In (2) of the Real Property Act 1886 in and over that portion marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April 1986, in the presence of K. Hasanagas

G.R.O. PLAN No. 246 of 1986
FOR PURPOSES DEPOS
OVE ~~PORTION~~ OF THE
WITH LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~DT 6217002~~

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

DRAFT

VOL 4269 FOL 732

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY.LTD. of certainrights over portions of the within land Term of ninety nine years Commencing on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00
(Including other land)

P.A. 6561805
The within land is discharged from Mortgage 6030695 vide 6605147 Produced 20.9.1988 at 11:40

The within land is discharged from Encumbrance 6100320 vide 6605148 Produced 20.9.1988 at 11:40

TRANSFER 6605149 to TREVOR WILLIAM RICKMAN of 8 Jansz Court Fairview Park 5126 Veterinary Surgeon and MARGARET ANNE RICKMAN his wife of the within land Produced 20.9.1988 at 11:40

ENCUMBRANCE 6605150 to CITY OF TEA TREE GULLY Produced 20.9.1988 at 11:40
(Single Copy Only)

ENCUMBRANCE 6605151 to GOLDEN GROVE WATER CO. PTY. LTD. Produced 20.9.1988 at 11:40
(Single Copy Only)

MORTGAGE 6605152 to STATE BANK OF SOUTH AUSTRALIA Produced 20.9.1988 at 11:40

MORTGAGE 6605153 to STATE BANK OF SOUTH AUSTRALIA Produced 20.9.1988 at 11:40

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4356 Folio 895

(Comprising 2 Sheets)

Pursuant to Transfer 6840467 Registered on Vol.4336 Folio 310 and
New Certificate for the whole of the Land in Vol.4316 Folio 193

JOSEPH PAUL GRECH of care of Post Office Box 107 Golden Grove 5125 Electrical Contractor and MARIA ANNA GRECH his wife are the proprietors of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 102 of portion of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.26280) and delineated on the diagram hereon

SUBJECT to the easement over the land marked V to The Electricity Trust of South Australia (T 6461394)

SUBJECT to a free and unrestricted right of way over the land marked X

V Gudithis
Deputy Registrar-General

Dated 2 April 1990

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

ENCUMBRANCE 6840469 to CITY OF TEA TREE GULLY Produced 11.12.1989 at 15:45 (Single copy only)

ENCUMBRANCE 6840471 to GOLDEN GROVE WATER CO. PTY. LTD. Produced 11.12.1989 at 15:45 (Single copy only)

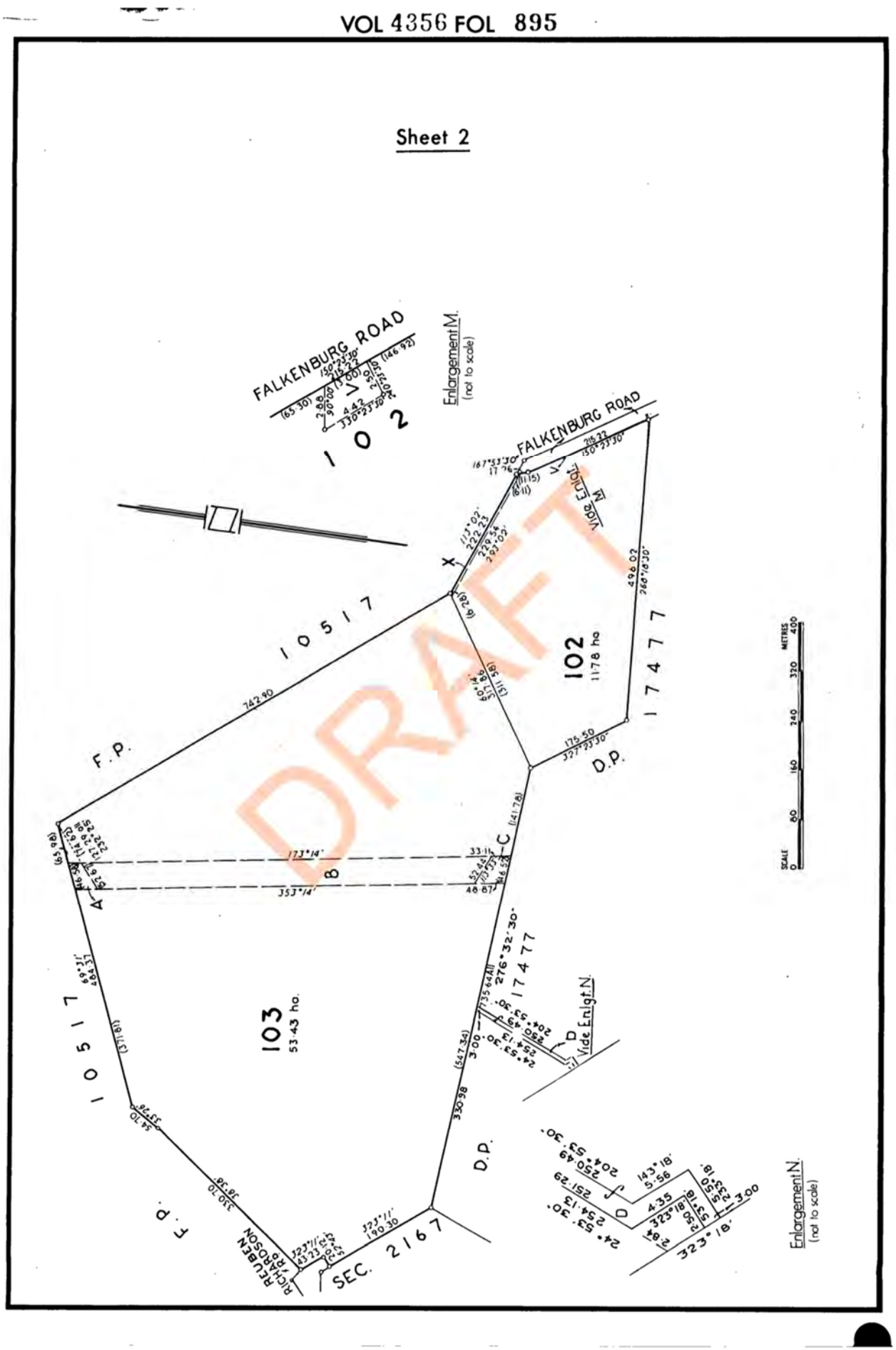
MORTGAGE 6840474 to WESTPAC SAVINGS BANK LTD. Produced 11.12.1989 at 15:45

MORTGAGE 7189796 to WESTPAC BANKING CORPORATION Produced 23.10.1991 at 10:00

DRAFT

VOL FOL

DRAFT


VOL 4356 FOL 895
Sheet 2
FALKENBURG ROAD
102
Enlargement M.
(not to scale)
FALKENBURG ROAD
Vide D
Vide E
10517
242.90
F.P.
102
11.78 ha
17477
D.P.
496.02
260°16'30"
175.50
327°23'30"
173°14'
353°14'
A
B
C
103
53.43 ha
276°32'30"
Vide Enlgt.N.
D
D.P.
SEC. 2167
RICHARDSON
FALKENBURG
Enlargement N.
(not to scale)
DRAFT

VOL 4356 FOL 895

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4336 Folio 310

(Comprising 2 Sheets)

New Certificate for the whole of the Land in Vol.4269 Folio 734 and the balance of the Land in Vol.4316 Folio 187

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 13 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon SUBJECT to an easement to The Electricity Trust of South Australia created by Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easements to The Electricity Trust of South Australia created by Transfers 2145555 and 2171901 in and over those portions marked B and C respectively hereon TOGETHER with an easement created by Transfer 6628850 in and over the land marked D hereon

V. Gudithis
Deputy Registrar-General

Dated 19 May 1989

REGISTRAR-GENERAL SOUTH AUSTRALIA

MORTGAGE 6030695 to ELDERS FINANCE LIMITED Produced 7.6.1985 at 11:05

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only)

P/A 6561805
PORTION of the within land is discharged from Mortgage 6030695 vide 6840460 Produced 11.12.1989 at 15:45

P/A 6561805
THE BALANCE of the within land (Lot 103 D.P. 26280) is discharged from Mortgage 6030695 vide 6840464 Produced 11.12.1989 at 15:45

DISCHARGE of Encumbrance 6100320 vide 6840465 Produced 11.12.1989 at 15:45

A Right of Way over PORTION of the within land is vested in THE WITHIN NAMED LUIGI PENNA and GIUSEPPE EMANUELE AS TENANTS IN COMMON Produced 11.12.1989 at 15:45 vide Application 6840466

OVER

DRAFT

VOL 4336 FOL 310

TRANSFER 6840467 to JOSEPH PAUL GRECH and MARIA ANNA GRECH of PORTION of the within land Expressly Excluding the within Easement Produced 11.12.1989 at 15:45

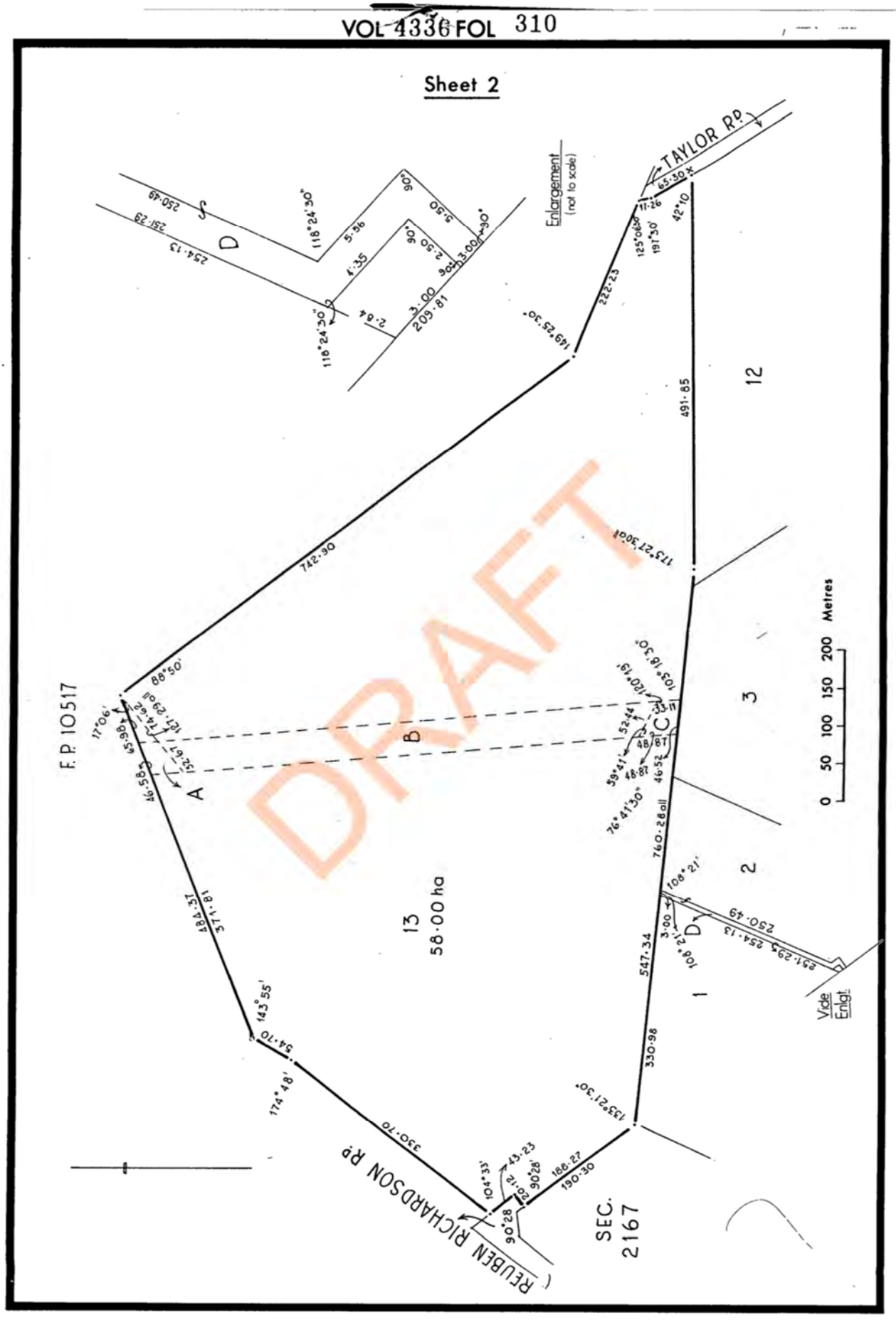
CANCELLED as regards above land and New C.T. issued

VOL. 4356 FOL. 895

Cancelled as regards ~~that portion of the within~~ the balance land comprised in Deposited Plan 26280 (RT6153884) and new Certificates issued

Vol 4356 Folio 896

DRAFT


VOL 4336 FOL 310
Sheet 2
TAYLOR RD.
Enlargement
(not to scale)
F.P. 10517
742·90
222·23
491·85
760·28
547·34
330·98
330·70
348·13
54·70
D
A
B
C
12
3
2
1
13
58·00 ha
SEC. 2167
REUBEN RICHARDSON RP
Vide Enlgt
0 50 100 150 200 Metres
DRAFT

VOL 4336 FOL 310

DRAFT

ORIGINAL CERTIFICATE OF TITLE

South Australia

Register Book, Volume 4316 Folio 193

New Certificate for the balance of the Land in Vol.4269 Folio 733

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 12 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to an easement to The Electricity Trust of South Australia created by Transfer 6461394 in and over that portion marked E hereon

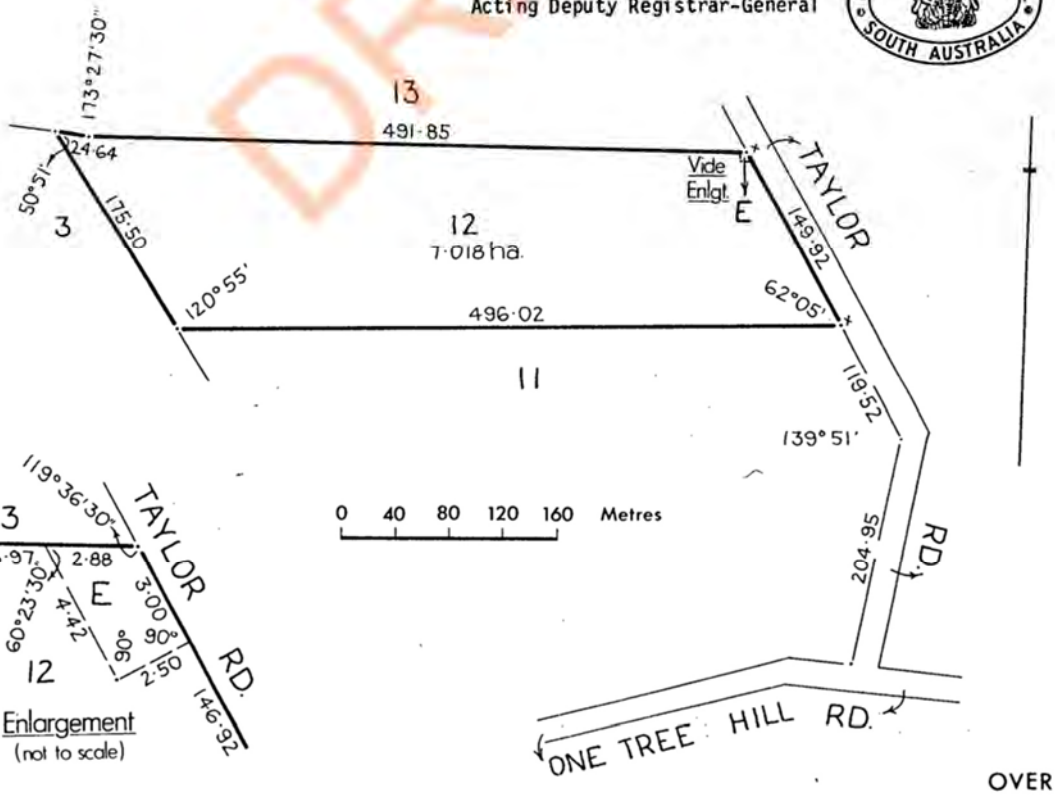
In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

Signed the 30th day of May 1988, in the presence of

J. K. Taylor

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA



OVER

VOL 4316 FOL 193

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

P/A 6223697.
The within land is discharged from Mortgage 6030695 vide 6461397 Produced 21.12.1987 at 16:00

The within land is discharged from Encumbrance 6100320 vide 6461398 Produced 21.12.1987 at 16:00

TRANSFER 6461399 to JOSEPH PAUL GRECH of 37 Noya Avenue Modbury Heights 5092 ~~Elec~~ Electrical Contractor and MARIA ANNA GRECH his wife of the within land Produced 21.12.1987 at 16:00

ENCUMBRANCE 6461400 to CITY OF TEA TREE GULLY Produced 21.12.1987 at 16:00 (Single Copy Only)

ENCUMBRANCE 6461401 to GOLDEN GROVE WATER CO.PTY.LTD. Produced 21.12.1987 at 16:00 (Single Copy Only)

MORTGAGE 6461402 to WESTPAC SAVINGS BANK LIMITED Produced 21.12.1987 at 16:00

~~CHANGE OF NAME 6628848 The Name of the within Company is changed from Elders Lensworth Finance Limited to ELDERS FINANCE LIMITED of 39 Currie Street Adelaide 5000 Produced 1.11.1988 at 12:15~~ IN ERROR. Lpro RG. 5.4.1989.

The within land is discharged from Mortgage 6461402 vide 6840461 Produced 11.12.1989 at 15:45

DISCHARGE of Encumbrance 6461400 vide 6840462 Produced 11.12.1989 at 15:45

DISCHARGE of Encumbrance 6461401 vide 6840463 Produced 11.12.1989 at 15:45

Cancelled as regards ~~that portion of~~ the within land comprised in Deposited Plan 26280 (RT 6153884) and new Certificates issued Vol 4316 Folio 895

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 734

New Certificate for the balance of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 13 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement to The Electricity Trust of South Australia created by Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A on the said Deposited Plan SUBJECT ALSO to the easement to The Electricity Trust of South Autralia created by Transfers 2145555 and 2171901 in and over those portions marked B and C respectively on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Hasanagas)

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED
OVER WHOLE/~~PORTION~~ OF THE
WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 23999
APPROVED

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

~~DA 6217002~~

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

OVER

DRAFT

VOL 4269 FOL 734

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

REGISTRAR-GENERAL SOUTH AUSTRALIA

CHANGE OF NAME 6628848 The Name of the within Company is changed from Elders Lensworth Finance Limited to ELDERS FINANCE LIMITED of 39 Currie Street Adelaide 5000 Produced 1.11.1988 at 12:15

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED

AND NEW CERTIFICATE OF TITLE

ISSUED VIDE 6628850 VOL. 4336 FOL. 310

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4316 Folio 187

Comprising 2 sheets

New Certificate for the balance of the Land in Vol.4269 Folio 723

LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Director as the EXECUTOR of the Will of Ilario Lamberto who died on the 25 day of March 1986 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 Company Director are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) and delineated on the plan hereon by bold black lines SUBJECT to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over that portion marked D hereon SUBJECT ALSO to an easement to The Electricity Trust of South Australia created by Transfer 6461394 in and over that portion marked E hereon

In witness whereof I have signed my name and affixed my seal this 30th day of May 1988

Signed the 30th day of May 1988, in the presence of

G.P.O. PLAN G.P. 246 of 1986 FOR LEASING PURPOSES DEPOSITED OVER WHOLE OF THE WITHIN LAND

F.P. 23999 APPROVED

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 26594 APPROVED

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

LEASE 6461396 to GOLDEN GROVE WATER CO.PTY.LTD. of certain rights over portion of the within land Term of ninety nine years Commening on 30.9.1987 and expiring at midnight on 29.9.2086 Produced 21.12.1987 at 16:00 (Including other land)

P/A 6561805 /Reserving an Easement
The within land/is discharged from Mortgage 6030695 vide 6628847 Produced 1.11.1988 at 12:15

/Reserving an Easement
The within land/is discharged from Encumbrance 6100320 vide 6628849 Produced 1.11.1988 at 12:15

TRANSFER 6628850 to ANTHONY JOSEPH KELLY and SUSAN PATRICIA KELLY of the within land Reserving an Easement Produced 1.11.1988 at 12:15

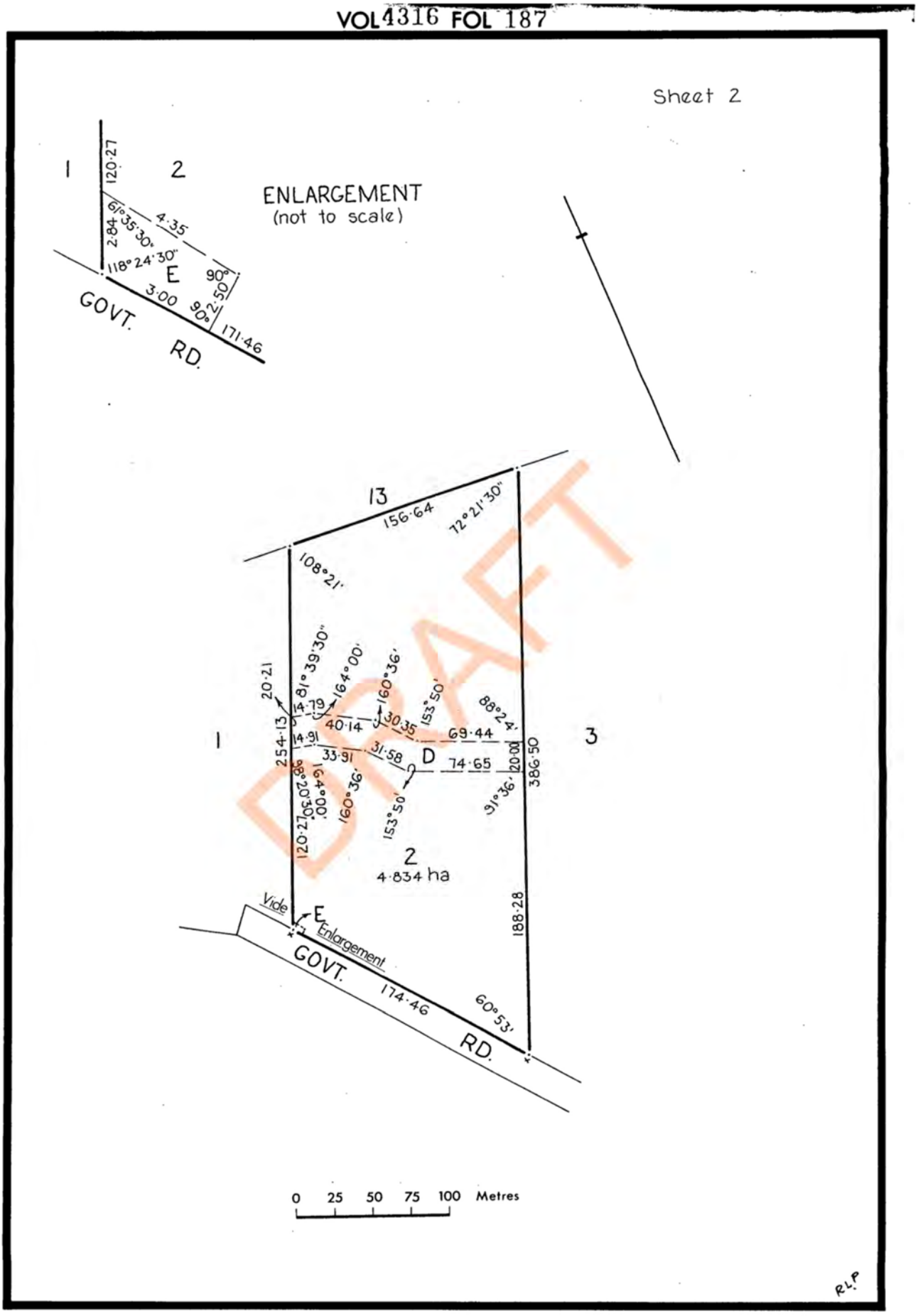
CANCELLED as regards above land and issued VOL. 4336 FOL. 309

OVER

VOL 4316 FOL 187

CANCELLED
AND BALANCE CERTIFICATE OF TITLE
ISSUED VIDE 662885 VOL. 4336 FOL. 316

DRAFT


VOL 4316 FOL 187
Sheet 2
ENLARGEMENT
(not to scale)
1
2
120·27
61°35'30"
4·35
2·84
118°24'30"
E
90°
3·00
90°
2·50
171·46
GOVT. RD.
13
156·64
72°21'30"
108°21'
1
3
20·21
81°39'30"
164°00'
160°36'
153°50'
88°24'
14·79
40·14
30·35
69·44
14·91
33·91
31·58
D
74·65
20·00
386·50
254·13
120·27
2
4·834 ha
91°36'
188·28
Vide
E Enlargement
GOVT. RD.
174·46
60°53'
0 25 50 75 100 Metres
DRAFT
RLP

VOL 4316 FOL 187

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 733

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 12 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477)

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Dasanaya)

L.T.R.O. PLAN No. 246 of 1986
RELEASING PURPOSES DEPOSIT
WHOLE/~~PORTION~~ OF THE WITHIN LAND

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~D47 6217002~~

F.P. 23999
APPROVED

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

Caveat 6428608 has been withdrawn vide 6461391 Produced 21.12.1987 at 16:00

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

OVER

DRAFT

VOL 4269 FOL 733

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

REGISTRAR-GENERAL SOUTH AUSTRALIA

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6461394 VOL. 4316 FOL. 193

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT

ORIGINAL

South Australia

CERTIFICATE OF TITLE

Register Book,
Volume 4174 Folio 468

(Comprising 2 Sheets)

Pursuant to Transfer 4588426 Registered on Vol.2690 Folio 168
Vol.3875 Folio 191 and Vol.4142 Folio 999

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA (L.T.R.O. FILED PLAN No.8177) and delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easements to The Electricity Trust of South Australia more particularly set forth in Transfers 2145555 and 2171901 in and over those portions marked B and C respectively hereon

In witness whereof I have signed my name and affixed my seal this 24 day of Oct 1981

Signed the 24 day of Oct)
1981, in the presence of)

G.R.O. PLAN No. 153 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

F.P. 21834
APPROVED

A.J. Sherman
Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

~~E 4588427~~ ~~M4588428~~

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single copy only)

MORTGAGE 4588428 to COMMONWEALTH TRADING BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m.

~~CAVEAT 5360254 Lodged 24.12.1984 at 12.20 p.m.~~

CAVEAT 5360254 lodged by ELDERS LENSWORTH FINANCE LIMITED over the within land Produced 24.12.1984 at 12.20 p.m.

WX 6030694 M6030695

Caveat 5360254 has been withdrawn vide 6030694 Produced 7.6.1985 at 11:05

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05

~~E 6100320~~
RT6113325 (DP 17477)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single copy only)

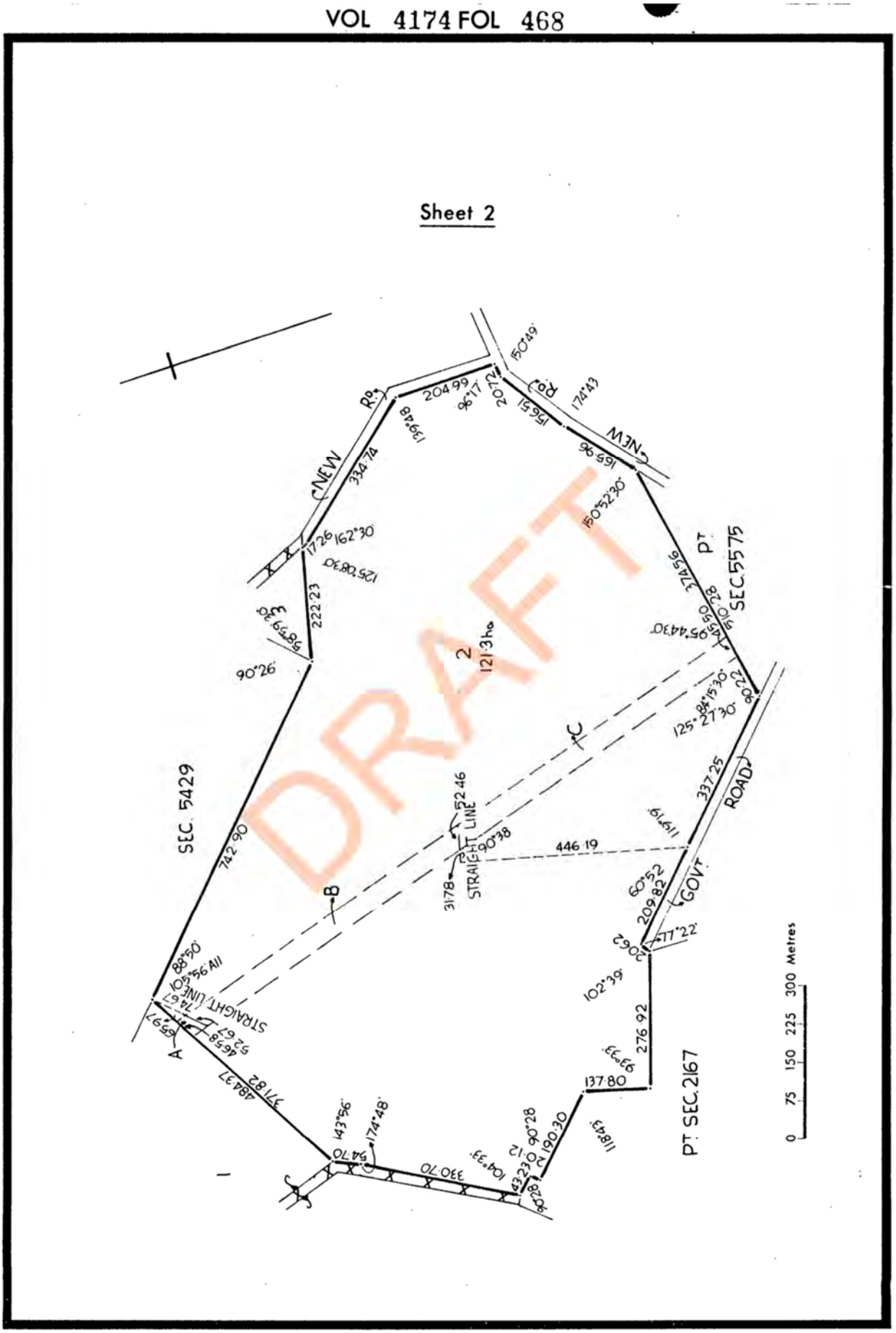
DRAFT

VOL 4174 FOL 468

Cancelled as regards ~~that portion of~~ the within land comprised in Deposited Plan 17477 and new Certificates issued (R.T. 6113324)
Vol. 4269 Folio 722 to 734 incl.

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT


VOL 4174 FOL 468
Sheet 2
DRAFT
SEC. 5429
PT SEC. 5575
PT SEC. 2167
ROAD
GOVT
NEW
Rd
STRAIGHT LINE
2
121·3ha
A
B
C
0 75 150 225 300 Metres

VOL 4174 FOL 468

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,
Volume 4269 Folio 723

New Certificate for portion of the Land in Vol.4174 Folio 468

ILARIO LAMBERTO of 11 Bayview Crescent Beaumont 5066 and GIUSEPPE EMANUELE of 27 Weemala Drive Mitcham 5062 both Company Directors are the proprietors of an estate in fee simple AS TENANTS IN COMMON subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in ALLOTMENT 2 of Section 2168 and other land HUNDRED OF YATALA in the area named GOLDEN GROVE (L.T.R.O. DEPOSITED PLAN No.17477) SUBJECT to an easement for drainage purposes provided for by Section 223 1n (2) of the Real Property Act 1886 in and over that portion marked D on the said Deposited Plan

In witness whereof I have signed my name and affixed my seal this 4th day of April 1986

Signed the 4th day of April)
1986, in the presence of K. Hannaga)

Acting Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

G.R.O. PLAN No. 246 of 1986
FOR LEASING PURPOSES DEPOSITED OVER WHOLE/~~PORTION~~ OF THE WITHIN LAND

F.P. 23999
APPROVED

ENCUMBRANCE 4588427 to MINISTER OF WATER RESOURCES Produced 22.7.1980 at 2.30 p.m. (Single Copy Only) (Including other land)

MORTGAGE 4588428 to COMMONWEALTH BANK OF AUSTRALIA Produced 22.7.1980 at 2.30 p.m. (Including other land)

MORTGAGE 6030695 to ELDERS LENSWORTH FINANCE LIMITED Produced 7.6.1985 at 11:05 (Including other land)

ENCUMBRANCE 6100320 to CITY OF TEA TREE GULLY Produced 18.10.1985 at 14:45 (Single Copy Only) (Including other land)

P/A 6037310
The within land is discharged from Mortgage 4588428 vide 6217002 Produced 8.7.1986 at 14:10

CAVEAT 6428608 lodged by THE ELECTRICITY TRUST OF SOUTH AUSTRALIA over the within land Produced 22.10.1987 at 10:35 (Including other land)

Caveat 6428608 has been withdrawn vide 6461391 Produced 21.12.1987 at 16:00

DISCHARGE of Encumbrance 4588427 vide 6461392 Produced 21.12.1987 at 16:00

OVER

DRAFT

VOL 4269 FOL 723

APPLICATION 6461393 ONE UNDIVIDED MOIETY in the within land is transmitted to LUIGI PENNA of 65 South Terrace Adelaide 5000 Company Manager as the SOLE Executor named in the will dated 9.8.1985 of Ilario Lamberto who died 25.3.1986 vide probate dated 3.6.1986 Produced 21.12.1987 at 16:00

TRANSFER 6461394 from Luigi Penna and Giuseppe Emanuele and Elders Lensworth Finance Limited AS MORTGAGEE and City of Tea Tree Gully AS ENCUMBRANCEE to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement over PORTION of the within land Produced 21.12.1987 at 16:00

CANCELLED as regards above land and new C.T. issued Vol. 4316 Fol. 186

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE 6461394 VOL 4316 FOL 187

DRAFT

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 2690 *Folio* 168

Balance Certificate of Title from Vol.1828 Folio 42 and Vol.1843 Folio 34

CLARENCE FREDERICK PITCHER of Golden Grove Primary Producer

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THAT PIECE of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being the SECTION 2168 containing ninety four acres and two roods or thereabouts PORTION OF SECTION 5575 containing thirty nine acres one rood and fifteen perches or thereabouts and a CLOSED ROAD containing nine acres or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green SUBJECT nevertheless to the right of way and easement with conditions granted by Memorandum of Transfer No.2145555 to The Electricity Trust of South Australia in and over portion of the said land as delineated in the said plan and therein marked Easement

Which said Section s are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this Twenty eighth day of August 1959

Signed the 28th day of August 1959, in the presence of

B. Nelson Waghorn

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 8177 APPROVED



APPLICATION No. 3049902 THE WITHIN land IS TRANSMITTED TO Public Trustee

AS THE EXECUTOR NAMED IN THE WILL DATED 25.5.1951 OF Clarence Frederick Pitcher WHO DIED 5.7.1969 VIDE PROBATE DATED 26.9.1969 PRODUCED 3.11.1969 at 12.20 p.m.

J. Hughes. DEP. REG. GEN.

T 5744/43

OVER

DRAFT



TRANSFER No. 3134243 To
James Frederick Pitcher of Box 22 P.O. Golden Grove 5125 Wool Classer, Janet Laurel Weller of 16 Hammersmith Avenue Edwardstown SO 39 Married Woman and Ivan Kenneth Pitcher of 4 Turner Avenue Clearview 5085 Apprentice Instructor.
OF THE WITHIN LAND. PRODUCED 9-9-1970 AT 11.10a.m.
DEP. REG. GEN.
T 3312243

TRANSFER No. 3312893 To
Minister of Works
OF THE WITHIN LAND PRODUCED 2/5/1972 AT 2.15 p.m.
DEP. REG. GEN.

~~I458426~~ E 4588427 M 458828

TRANSFER No. 4588426 To
Ilario Lamberto and Giuseppe Emanuele
OF THE WITHIN land as tenants in common
PRODUCED 22-7-1980 AT 2.30p.m.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED
VOL. 4174 FOL. 468

DRAFT

South Australia

(CERTIFICATE OF TITLE)

Register Book,

Vol. 2690 *Folio* 168

Balance Certificate of Title from Vol.1828 Folio 42 and Vol.1843 Folio 34

CLARENCE FREDERICK PITCHER of Golden Grove Primary Producer

is the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THAT PIECE of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being the SECTION 2168 containing ninety four acres and two roods or thereabouts PORTION OF SECTION 5575 containing thirty nine acres one rood and fifteen perches or thereabouts and a CLOSED ROAD containing nine acres or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green SUBJECT nevertheless to the right of way and easement with conditions granted by Memorandum of Transfer No.2145555 to The Electricity Trust of South Australia in and over portion of the said land as delineated in the said plan and therein marked Easement

Which said Section s are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this Twenty eighth day of August 1959

Signed the 28th day of August 1959, in the presence of

B. Nelson Waghorn

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 8177 APPROVED



APPLICATION No. 3049902 THE WITHIN land IS TRANSMITTED TO Public Trustee

AS THE EXECUTOR NAMED IN THE WILL DATED 25.5.1951 OF Clarence Frederick Pitcher WHO DIED 5.7.1969 VIDE PROBATE DATED 26.9.1969 PRODUCED 3.11.1969 at 12.20 p.m.

J. Hughes. DEP. REG. GEN.

T 5744/43

OVER

DRAFT



TRANSFER No. 3134243 To
James Frederick Pitcher of Box 22 P.O. Golden Grove 5125 Wool Classer, Janet Laurel Weller of 16 Hammersmith Avenue Edwardstown SO 39 Married Woman and Ivan Kenneth Pitcher of 4 Turner Avenue Clearview 5085 Apprentice Instructor.
OF THE WITHIN LAND. PRODUCED 9-9-1970 AT 11.10a.m.
DEP. REG. GEN.
T 3312243

TRANSFER No. 3312893 To
Minister of Works
OF THE WITHIN LAND PRODUCED 2/5/1972 AT 2.15 p.m.
DEP. REG. GEN.

~~I458426~~ E 458427 M 458428

TRANSFER No. 458426 To
Ilario Lamberto and Giuseppe Emanuele
OF THE WITHIN land as tenants in common
PRODUCED 22-7-1980 AT 2.30p.m.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED
VOL. 4174 FOL. 468

DRAFT

ORIGINAL

CERTIFICATE OF TITLE

South Australia

Register Book,

Volume 4142 Folio 999

(Comprising 2 Sheets)

New Certificate for the balance of the Land in Vol.4139 Folio 369

MINISTER OF WORKS is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in SECTIONS 5580 and 5581 and PORTION OF SECTION 2167 HUNDRED OF YATALA delineated on the plan hereon by bold black lines SUBJECT to the easement to The Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon SUBJECT ALSO to the easement to The Electricity Trust of South Australia more particularly set forth in Transfer 4325244 in and over those portions marked B hereon

In witness whereof I have signed my name and affixed my seal this 20th day of June 1979

Signed the 20th day of June

1979, in the presence of R. Davis } R.J. Sharman

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

F.P. 8177 APPROVED

F.P. 10517 APPROVED

T4588426 E4588427 M4588428

ROAD PLAN 7639 AFFECTS THIS C T ENQUIRIES ON 4TH FLOOR (S.G.O. ROAD SECTION) COLONEL LIGHT CENTRE

V4527583

TRANSFER 4588426 to ILARIO LAMBERTO and GIUSEPPE EMANUELE of PORTION of the within Section 5580 AS TENANTS IN COMMON Produced 22.7.1980 at 2.30 p.m.

CANCELLED as regards above Land and New C.T. issued

Vol. 4174 Fol. 468

RT5007472 (DP12037).

T6012355 T6012356

The within Easement A has been extinguished vide G.R.O. Memorial No.156 Book 540 Registered in the General Registry Office

Entered: 27·5·1993

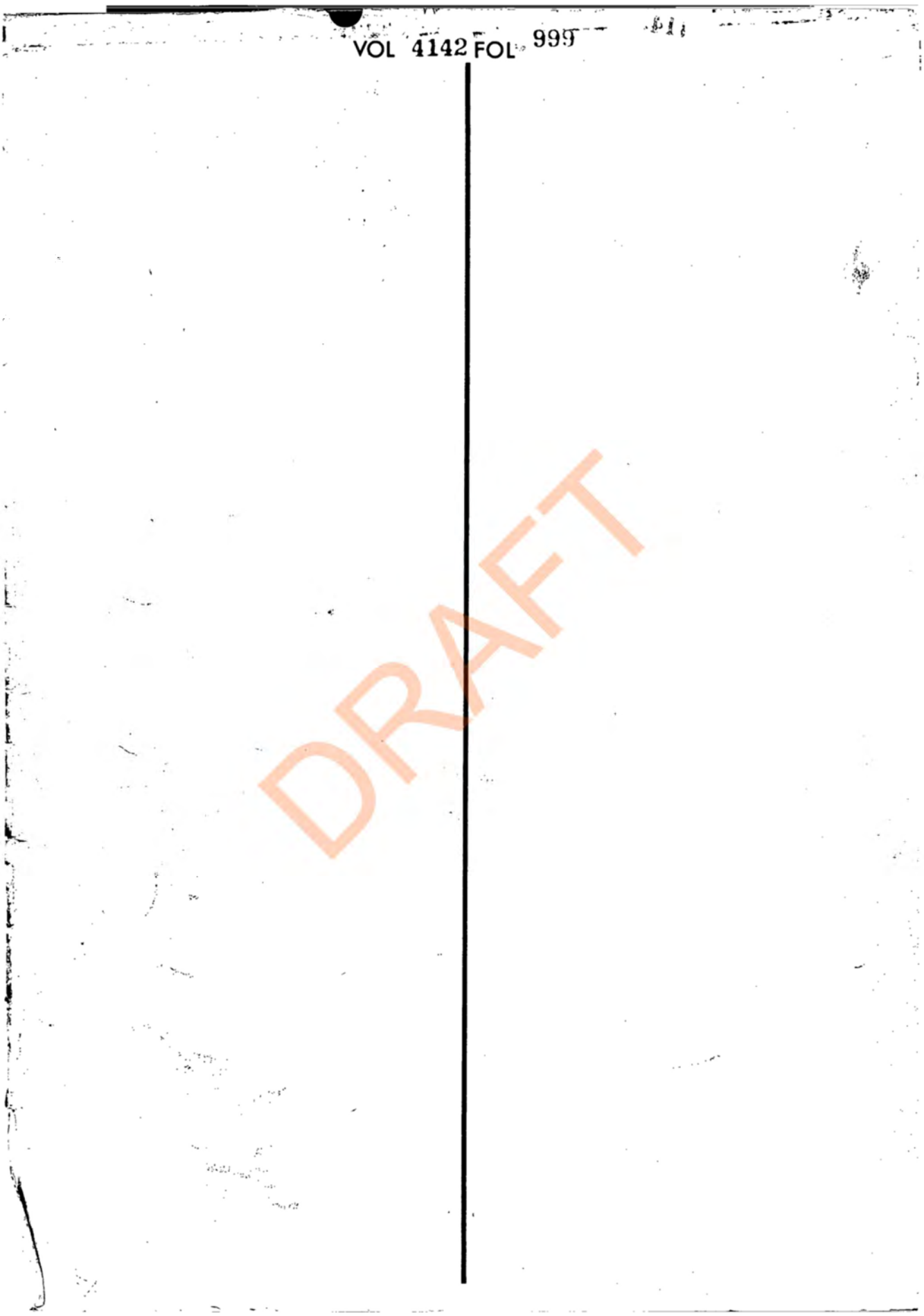
CANCELLED

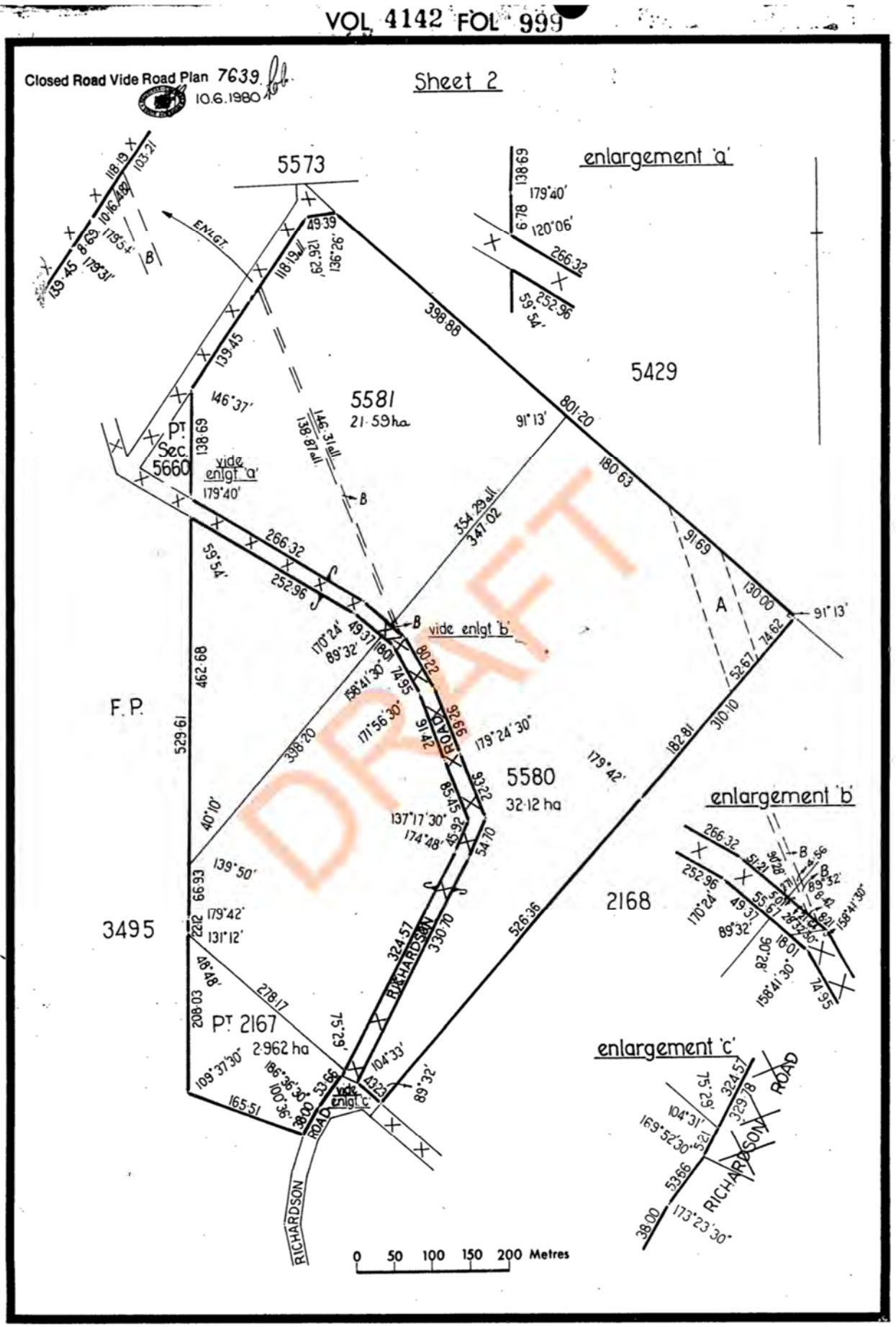
AND Balance CERTIFICATE OF TITLE

ISSUED VIDE VOL 4400 FOL 805

7489377

DRAFT


VOL 4142 FOL 999
DRAFT


VOL 4142 FOL 999
Closed Road Vide Road Plan 7639
10.6.1980
Sheet 2
5573
enlargement 'a'
5581
21·59ha
5429
PT Sec. 5660
vide enlgt 'a'
179°40'
vide enlgt 'b'
5580
32·12 ha
F.P.
3495
PT 2167
2·962 ha
2168
enlargement 'b'
enlargement 'c'
RICHARDSON ROAD
ROAD
DRAFT
0 50 100 150 200 Metres

VOL 4142 FOL 99

DRAFT

South Australia.

Certificate of Title under Road Order.

Register Book,

IN DUPLICATE. Vol. 1828 Folio 42

Registrar-General.

Pursuant to the Roads (Opening and Closing) Act, 1932-1936, and of an Order of the DISTRICT COUNCIL OF TEATREE GULLY made on the First day of November 1943 and in consideration of the sum of NINETY POUNDS paid by CLARENCE FREDERICK PITCHER of Golden Grove, Dairyman,

to the said COUNCIL. I REGINALD JOHN RUDALL,

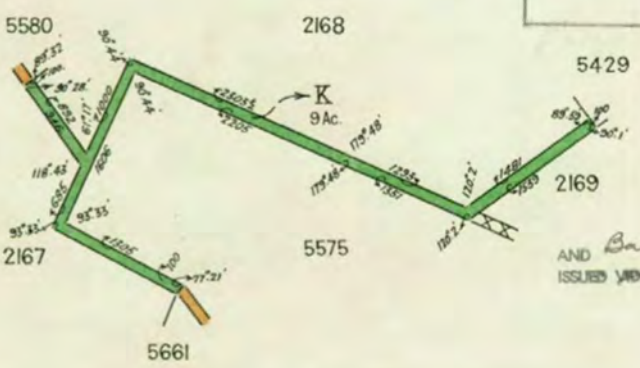
Commissioner of Crown Lands of this State do hereby certify that the said CLARENCE FREDERICK PITCHER is now seized of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorandum indorsed hereon and except as hereinafter mentioned in that piece of land containing NINE ACRES be the same a little more or less and being a certain old road closed by above-mentioned order in the HUNDRED OF YATALA, COUNTY OF ADELAIDE, adjoining Sections 2167, 2168, 2169, 5575 and closed road as the same is delineated on the public maps deposited in the Surveyor-General's Office at Adelaide and in the plan in the margin hereof and therein coloured green and marked K.

Dated this Second day of March 1944

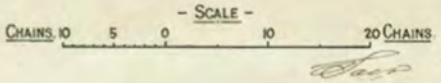
R. J. Rudall
Commissioner of Crown Lands.

Certified correct
A. D. Smith Esq. Surveyor-General.

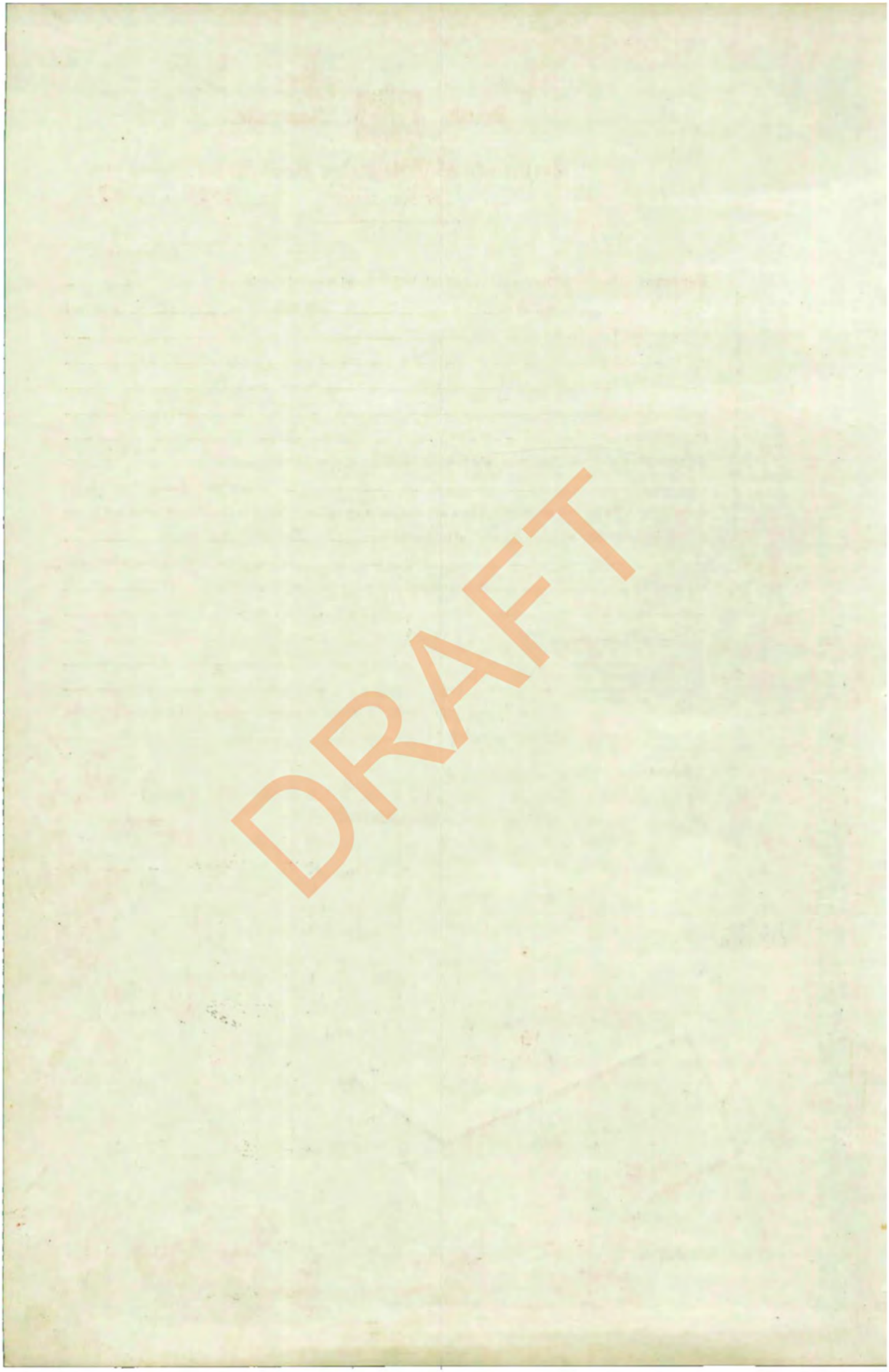
TRANSFER No. 214 5555 FROM Clarence Frederick Pitcher to The Electricity Trust of South Australia of a Right of Way and Easement over portion of the land within Certificate of Title PRODUCED 14/8/59 AT 11.40 a.m. DEP. REG. GEN.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED VOL. 2914 FOL. 110
DEP. REG. GEN.



CANCELLED
AND Balance ISSUED VIDE CERTIFICATE OF TITLE VOL. 2690 FOL. 168
DEP. REG. GEN.



DRAFT


DRAFT

South Australia.

(CERTIFICATE OF TITLE.)

Register Book,

Vol. 1843 *Folio* 34

Pursuant to Application No. 28546

CLARENCE FREDERICK PITCHER of Golden Grove Primary Producer is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being SECTION 2168 containing ninety four acres and two roods or thereabouts and PORTION OF SECTION 5575 containing thirty nine acres one rood and fifteen perches or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green

Which said Section 3 are delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this eleventh day of December 1944

Signed the 11th day of December 1944, in the presence of M. I. June

Registrar-General.

REGISTRAR-GENERAL SOUTH AUSTRALIA

Mortgage from Clarence Frederick Pitcher to The Commercial Bank of Australia Limited Registered in the General Registry Office No. 20 Book 512

Reg. Genl.

P/H of No 1180690

DISCHARGE OF THE within MORTGAGE No. 20 Book 512 (P.T.O. of No. 1423749) BY ENDORSEMENT THEREON PRODUCED FOR REGISTRATION THE 5 DAY OF February 1945 AT 9.35 a.m.

DEP. REG. GENL.

MORTGAGE No. 1423750 FROM Clarence Frederick Pitcher to The Adelaide Starr-Bowkett Building Society of No 28 PRODUCED FOR REGISTRATION THE 5 DAY OF February 1945 AT 11.25 a.m.

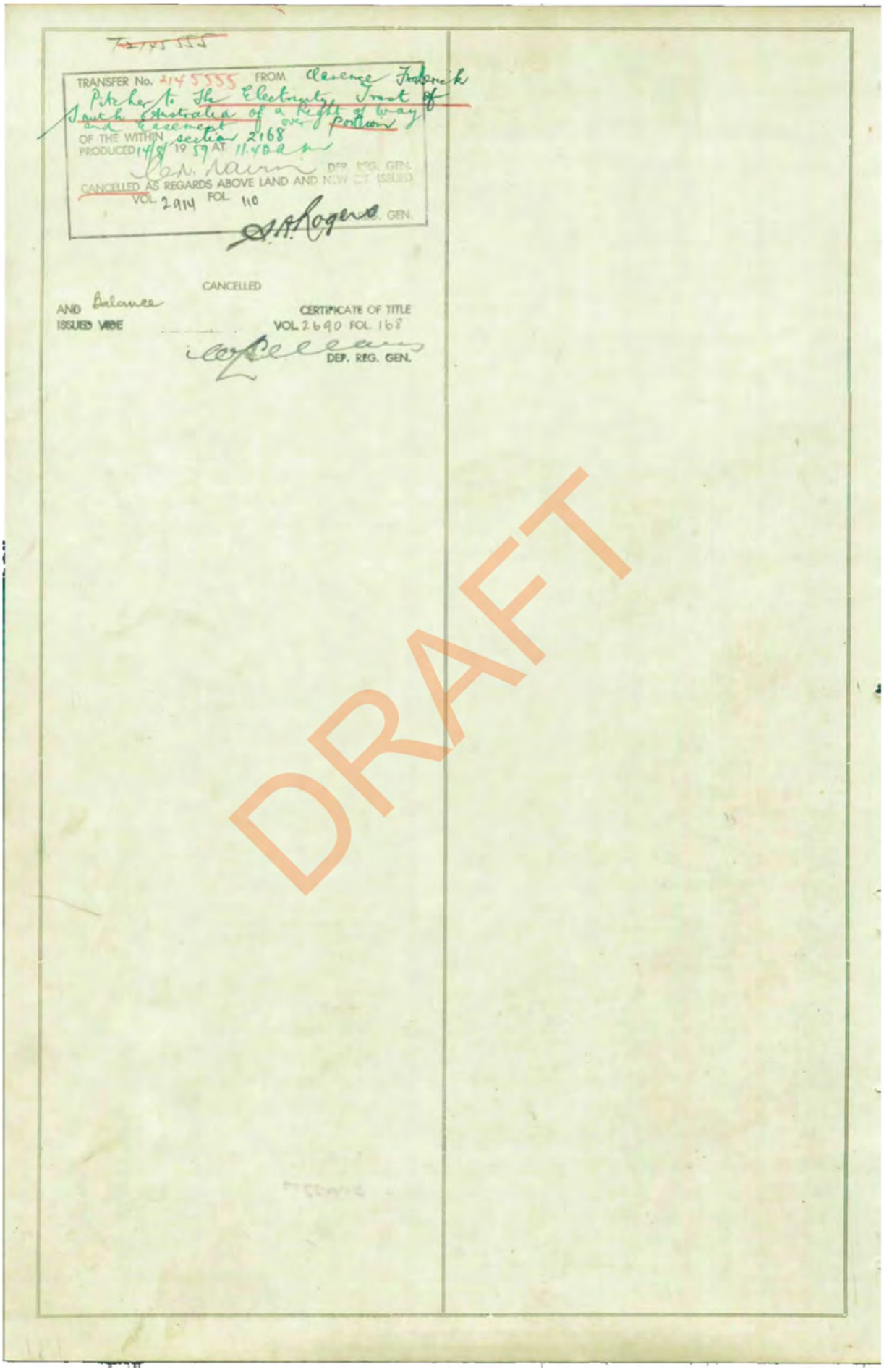
DEP. REG. GENL.

DISCHARGE OF THE within MORTGAGE No. 1423750 BY ENDORSEMENT THEREON PRODUCED FOR REGISTRATION THE 4 DAY OF June 1945 AT 2.10 p.m.

DEP. REG. GENL.



DRAFT



TRANSFER No. 214 5555 FROM Clarence Frederick Pitcher to The Electricity Trust of South Australia of a Right of Way and Easement over portion of Section 2168
OF THE WITHIN PRODUCED 14/8/1959 AT 11.48 a.m.
DEP. REG. GEN.
CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED
VOL. 2914 FOL. 110
DEP. REG. GEN.

CANCELLED
AND Balance
ISSUED VIDE CERTIFICATE OF TITLE
VOL. 2690 FOL. 168
DEP. REG. GEN.

DRAFT

ORIGINAL South Australia Register Book,

CERTIFICATE OF TITLE

Volume 4139 Folio 369

(Comprising 2 sheets)

Pursuant to Application 30091 and New Certificate for the whole of the Land in Vol.3768 Folio 119

MINISTER OF WORKS is the proprietor of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in SECTIONS 5580 and 5581 and PORTION OF SECTION 2167 HUNDRED OF YATALA delineated on the plan hereon by bold black lines SUBJECT to the easement to the Electricity Trust of South Australia more particularly set forth in Indenture registered in the General Registry Office No.196 Book 532 in and over that portion marked A hereon

In witness whereof I have signed my name and affixed my seal this 11th day of April 1979

Signed the 11th day of April 1979, in the presence of

J.A. Hughes.

Deputy Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED VIDE VOL 4142 FOL 999

T-~~4325244~~

TRANSFER 4325244 to THE ELECTRICITY TRUST OF SOUTH AUSTRALIA of an Easement OVER PORTION of the within Sections 5580 and 5581 Produced 26.1.1979 at 11.30 a.m.

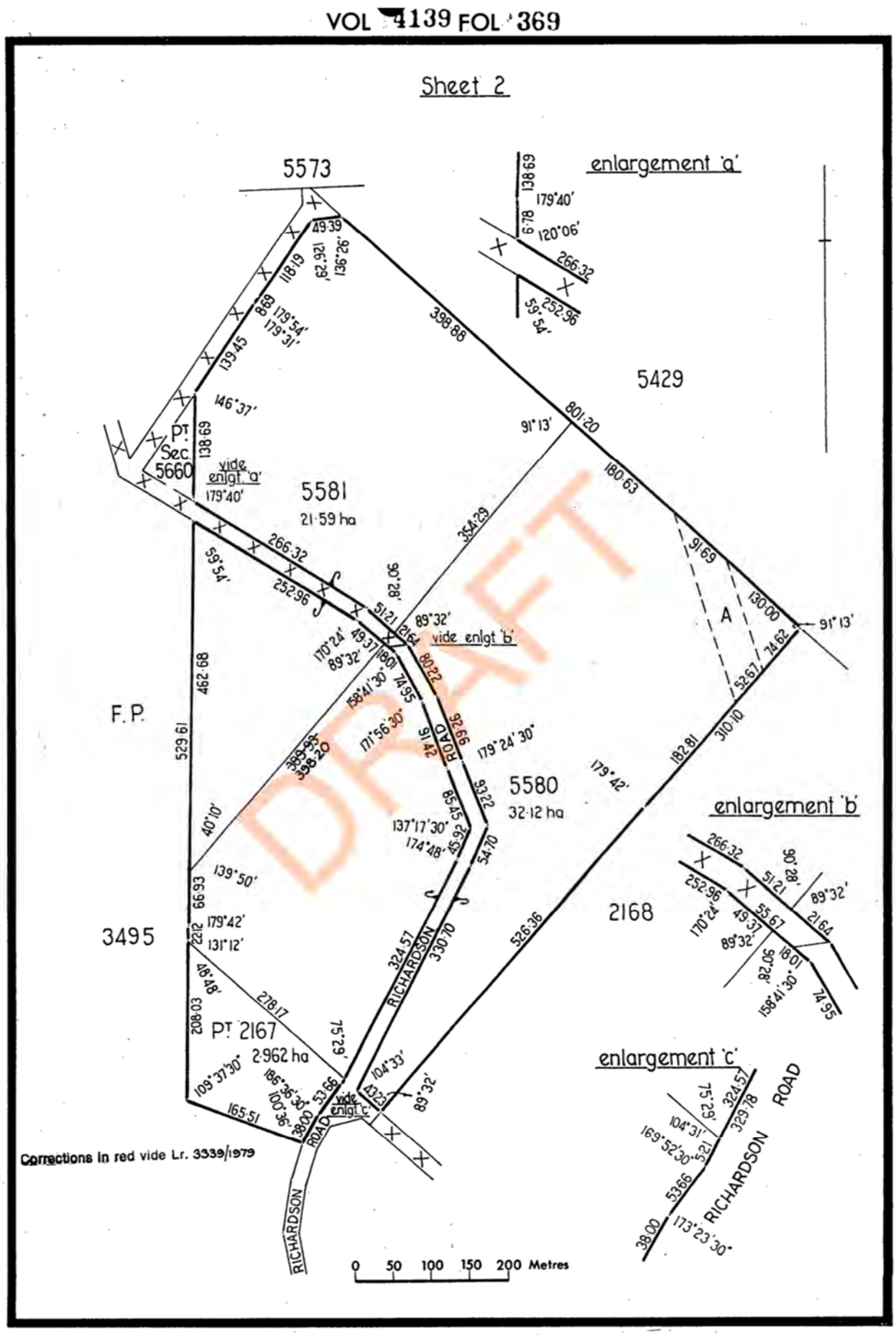
CANCELLED as regards above land and new C.T. issued

Vol. 4299 Fol. 487

DRAFT

VOL 4139 FOL 369

DRAFT


VOL 4139 FOL 369
Sheet 2
5573
5429
5581
21·59 ha
5580
32·12 ha
2168
3495
F.P.
Pt Sec 5660
Pt 2167
2·962 ha
enlargement 'a'
enlargement 'b'
enlargement 'c'
vide enlgt 'a'
vide enlgt 'b'
vide enlgt 'c'
RICHARDSON ROAD
Corrections in red vide Lr. 3339/1979
DRAFT
0 50 100 150 200 Metres

VOL 4139FOL 369

DRAFT

South Australia

CERTIFICATE OF TITLE

Register Book,
Vol. 3768 *Folio* 119

Balance Certificate of Title from Vol.1601 Folio 107

ALLAN JAMES STRACHAN of Golden Grove 5125 Grazier

is the proprietor of an estate in fee simple
subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in
THAT PIECE of land containing one acre one rood and twenty four perches or thereabouts situated
in the HUNDRED OF YATALA COUNTY OF ADELAIDE being a CLOSED ROAD more particularly delineated and
bounded as appears in the plan in the margin hereof and therein colored green

Which said ~~Section~~ Closed Road is delineated in the public map of the said Hundred deposited in the Land Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this 26th day of May 1971

Signed the 26th day of May
1971, in the presence of Mspears

Registrar-General

REGISTRAR-GENERAL SOUTH AUSTRALIA

DRAFT



TRANSFER No. 3333763
to Minister of Works
OF THE WITHIN LAND PRODUCED 30.6.1972 AT 2.15 pm.
DEP. REG. GEN.

CANCELLED
AND New CERTIFICATE OF TITLE
ISSUED VIDE V VOL. 4139 FOL. 369
L.T.O. Merger Dkt 3152/1979



DRAFT

South Australia. (CERTIFICATE OF TITLE.)

Register Book,

Vol. 1601 *Folio* 107

Pursuant to Memorandum of Transfer No.1131752 registered on Vol.234 Folio 107

ALLAN JAMES STRACHAN of Golden Grove Grazier is

the proprietor of an estate in fee simple

subject nevertheless to such encumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in THOSE PIECES of land situated in the HUNDRED OF YATALA COUNTY OF ADELAIDE being CLOSED ROADS containing together four acres and eight perches or thereabouts and more particularly delineated and bounded as appears in the plan in the margin hereof and therein colored green

which said ~~Section~~ Closed Roads are delineated in the public map of the said Hundred deposited in the Lands and Survey Office at Adelaide.

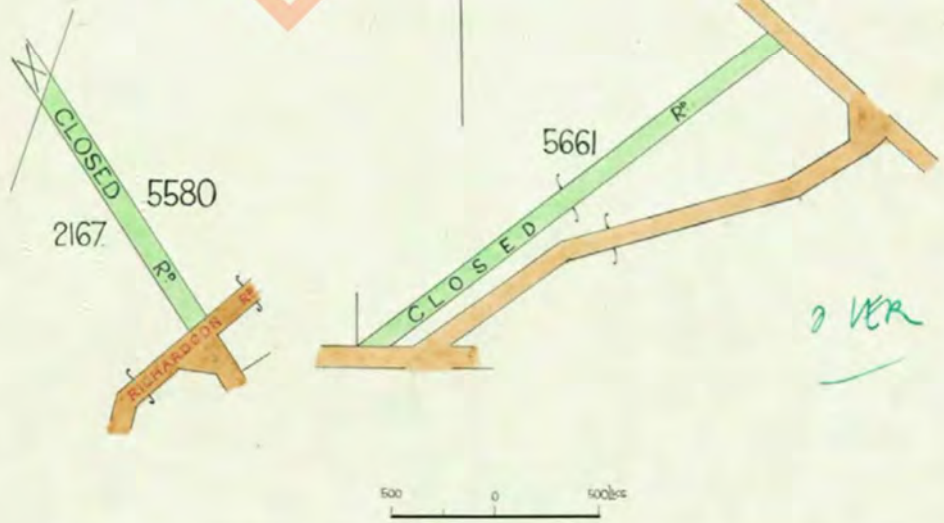
In witness whereof I have hereunto signed my name and affixed my seal this thirtieth day of March 1933

Signed the 30th day of March 1933, in the presence of Hog Hinze

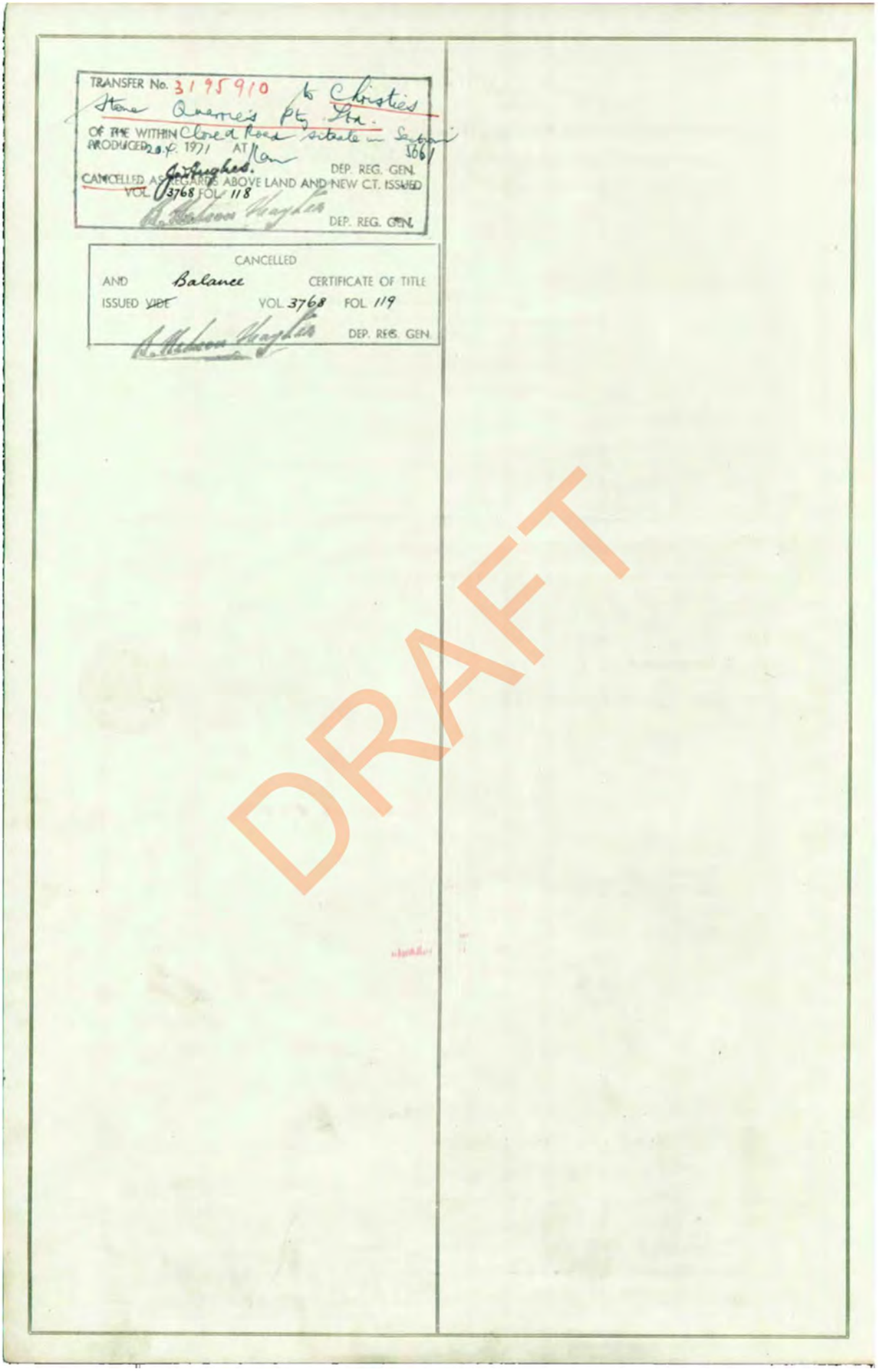
J Dumas
Registrar-General.

Richardson Rd vide Dkt 381/1965

Dep Reg Gen



DRAFT



TRANSFER No. 3195910 to Christies Stone Quarries Pty Ltd.

OF THE WITHIN Clover Road situate in Sorell 1961

PRODUCED 28.4.1971 AT 11am

J.A. Hughes. DEP. REG. GEN.

CANCELLED AS REGARDS ABOVE LAND AND NEW C.T. ISSUED

VOL. 3768 FOL. 118

A. Hudson Hughes DEP. REG. GEN.

CANCELLED

AND Balance CERTIFICATE OF TITLE

ISSUED ~~VIDE~~ VOL. 3768 FOL. 119

A. Hudson Hughes DEP. REG. GEN.

DRAFT

South Australia.

(Certificate of Title under Road Order)

Register Book Vol CCXXIV folio 107

In Duplicate

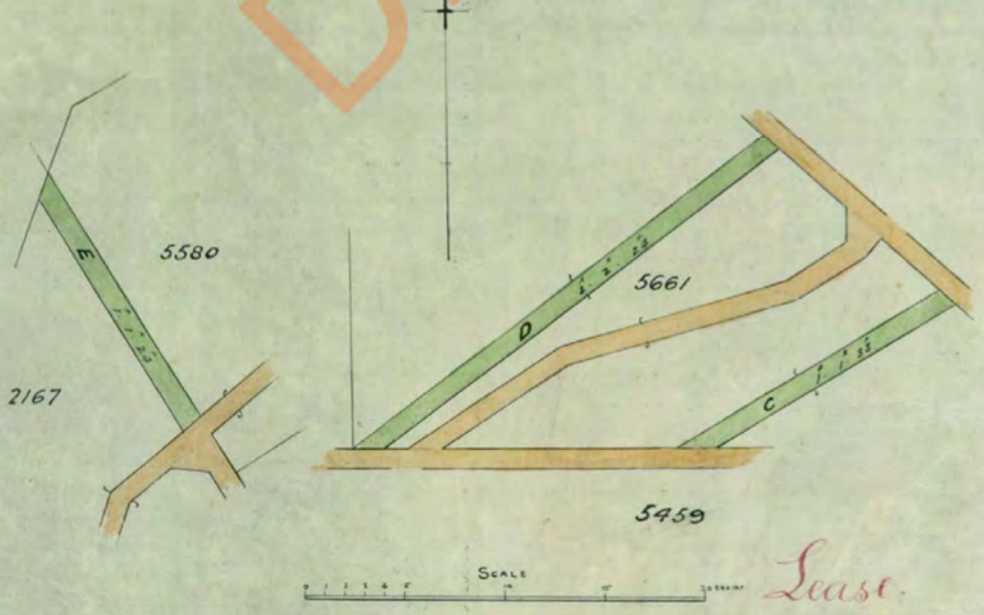
I John Carr Commissioner of Crown Lands of this Province Pursuant to the direction of His Excellency the Governor published in the Government Gazette of the thirteenth day of July 1876 in confirming a Road order made by the Commissioners of Roads for the District of Yea Tree Gully therein referred to dated the twelfth day of June 1876 Do hereby certify that John Robertson of Golden Grove Esquire is now seised of an estate in fee simple subject nevertheless to such encumbrances liens and interests as are notified by memorandum indorsed hereon in those pieces of land containing together Five acres two roods and one perch be the same a little more or less and being certain old roads closed by order herein referred to intersecting two portions of Section 5661 dividing the northern portion of Section 2167 from Section 5580 in the Hundred of Yatala County of Adelaide as the same are delineated in the Public Maps deposited in the Surveyor Generals Office at Adelaide and in the plan in the margin hereof and therein colored green and marked C.D.E

Certified correct A Sawkins Surveyor General.

Dated this sixth day of September 1876

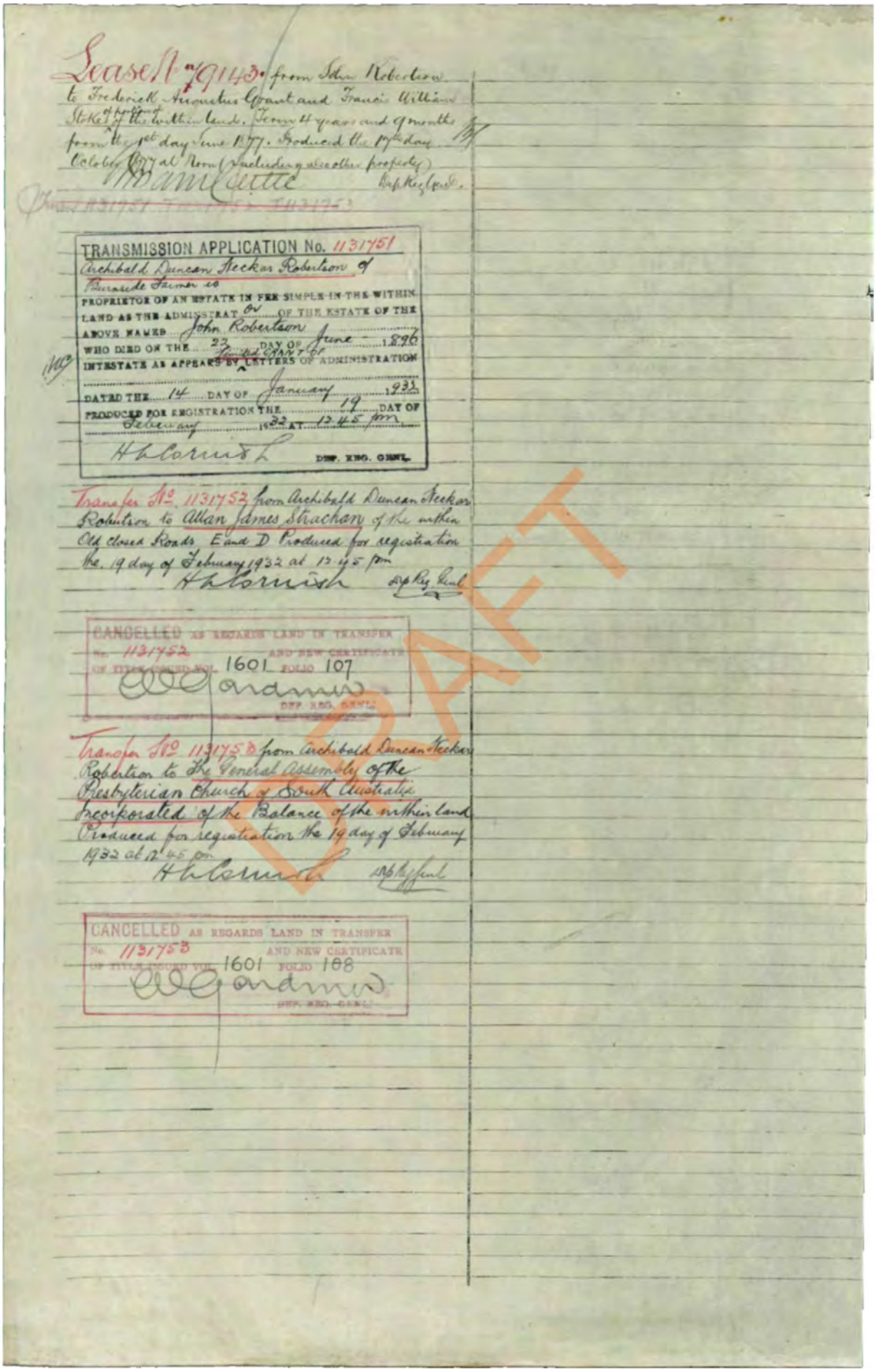
John Carr

Commissioner of Crown Lands.



Lease.

DRAFT



Lease No 79143 from John Robertson to Frederick Augustus Grant and Francis William Stokes of the within land. Term 4 years and 9 months from the 1st day June 1877. Produced the 19th day October 1877 at Noon (excluding all other property) Wm Castle Dep Keeper.

TRANSMISSION APPLICATION No. 1131751
Archibald Duncan Heckar Robertson of Pinnacle Farmer is PROPRIETOR OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND AS THE ADMINISTRATOR OF THE ESTATE OF THE ABOVE NAMED John Robertson WHO DIED ON THE 23 DAY OF June 1896 INTESTATE AS APPEARS BY LETTERS OF ADMINISTRATION GRANT OF
DATED THE 14 DAY OF January 1932
PRODUCED FOR REGISTRATION THE 19 DAY OF February 1932 AT 12.45 pm
H H Cornish DEP. REG. GENL.

Transfer No. 1131752 from Archibald Duncan Heckar Robertson to Allan James Strachan of the within Old closed Roads E and D Produced for registration the 19 day of February 1932 at 12.45 pm
H H Cornish Dep Reg Genl

CANCELLED AS REGARDS LAND IN TRANSFER No. 1131752 AND NEW CERTIFICATE OF TITLE ISSUED VOL. 1601 FOLIO 107
DEP. REG. GENL.

Transfer No 1131753 from Archibald Duncan Heckar Robertson to The General Assembly of the Presbyterian Church of South Australia Incorporated of the Balance of the within land Produced for registration the 19 day of February 1932 at 12.45 pm
H H Cornish Dep Reg Genl

CANCELLED AS REGARDS LAND IN TRANSFER No. 1131753 AND NEW CERTIFICATE OF TITLE ISSUED VOL. 1601 FOLIO 108
DEP. REG. GENL.

DRAFT

Appendix E SA EPA Section 7 Search Results Letter (Property 1 – 13)

DRAFT

©JBS&G Australia Pty Ltd | 58093 / 126,991 (RevA Draft)

Environment Protection Authority
GPO Box 2607 Adelaide SA 5001
211 Victoria Square Adelaide SA 5000
T (08) 8204 2004
Country areas 1800 623 445

JBS&G
100 Hutt Street
ADELAIDE SA 5000

Contact: Section 7
Telephone: (08) 8204 2026
Email: epasection7@sa.gov.au

Contact: Public Register
Telephone: (08) 8204 9128
Email: epa.publicregister@sa.gov.au

30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5774 Folio 558
Address	Allotment 1 (DP 17477), Strachan Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5093 Folio 561
Address	Allotment 2 (DP 17477), Strachan Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5291 Folio 680
Address	Allotment 3 (DP 17477), Strachan Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5596 Folio 686
Address	Allotment 4 (DP 17477), Strachan Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5774 Folio 559
Address	Allotment 5 (DP 17477), Strachan Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5158 Folio 162
Address	Allotment 6 (DP 17477), Strachan Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5171 Folio 541
Address	Allotment 3 (FP 100647), One Tree Hill Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5408 Folio 742
Address	Allotment 7 (DP 17477), 185 One Tree Hill Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5257 Folio 297
Address	Allotment 8 (DP 17477), 189 One Tree Hill Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5159 Folio 888
Address	Allotment 9 (DP 17477), 195 One Tree Hill Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5442 Folio 886
Address	Allotment 10 (DP 17477), 3 Falkenburg Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5776 Folio 344
Address	Allotment 11 (DP 17477), 33 Falkenburg Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

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30 December, 2019

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference	CT Volume 5998 Folio 401
Address	Allotment 20 (DP 67885), 51 Falkenburg Road, GOLDEN GROVE SA 5125

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

7. Environment Protection Act 1993

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

7.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
7.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
7.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
7.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
7.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
7.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
7.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

7.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
7.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
7.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
b)	details of a licence no longer in force issued under Part 6 of the *Environment Protection Act 1993* to conduct, at the land-	
i)	a waste or recycling depot (as referred to in clause 3(3) of Schedule 1 Part A of that Act); or[1]	NO
ii)	activities producing listed wastes (as referred to in clause 3(4) of Schedule 1 Part A of that Act); or[1]	NO
iii)	any other prescribed activity of environmental significance under Schedule 1 of that Act?	NO
c)	details of a current exemption issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the *Environment Protection Act 1993* from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed *Waste Management Act 1987* to operate a waste depot at the land?	NO

[1] Note Schedule 1 Part A of the Environment Protection Act 1993 changed on 1 June 2019. Land and Business (Sale and Conveyancing) Regulations 2010 references to a 'waste or recycling depot' under 'clause 3(3)' are out of date and are to be read instead as clause 3(1), 3(2), 3(3)(a), 3(3)(b), 3(5)(b) or 3(5)(c) or a combination of them from 1 June 2019. Similarly, references to 'activities producing listed wastes' under 'clause 3(4)' are out of date and are to be read instead as clause 3(5)(a) from 1 June 2019.

g)	details of a licence issued under the repealed *South Australian Waste Management Commission Act 1979* to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed *Waste Management Act 1987* to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the *Environment Protection Act 1993*)?	NO
b)	details of site contamination notified to the EPA under section 83A of the *Environment Protection Act 1993*?	NO
c)	a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register?	NO
d)	a copy of a site contamination audit report?	NO
e)	details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the *Environment Protection Act 1993* applies?	NO
f)	details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
g)	details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993?*	NO
h)	details of a notification under section 103Z(1) of the *Environment Protection Act 1993* relating to the commencement of a site contamination audit?	NO
i)	details of a notification under section 103Z(2) of the *Environment Protection Act 1993* relating to the termination before completion of a site contamination audit?	NO
j)	details of records, held by the former *South Australian Waste Management Commission* under the repealed *Waste Management Act 1987*, of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995?	NO

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

a)	a copy of a report known as a "Health Commission Report" prepared by or on behalf of the *South Australian Health Commission* (under the repealed *South Australian Health Commission Act 1976*)?	NO

b)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the *Environment Protection Act 1993?*	NO
c)	details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the *Environment Protection Act 1993*?	NO
d)	a copy of a pre-1 July 2009 site audit report?	NO
e)	details relating to the termination before completion of a pre-1 July 2009 site audit?	NO

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete and therefore the EPA cannot confirm the accuracy of the historical information provided.

DRAFT

Appendix F SafeWork SA Dangerous Goods Search Letter Response

DRAFT

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Government of South Australia
SafeWork SA

Education Team
Level 4 World Park A
33 Richmond Road
Keswick SA 5035
GPO Box 465
Adelaide SA 5001
DX 715 Adelaide

Phone 1300 365 255
Email licensing.safework@sa.gov.au
ABN 50-560-588-327
www.safework.sa.gov.au

4 February 2020

Ms Alma Cimirotic
JBS & G Australia Pty Ltd
100 Hutt Street
ADELAIDE SA 5000

Dear Ms Cimirotic

DANGEROUS SUBSTANCES LICENCE SEARCH

PROPERTY DETAILS: LOT 3, 147 ONE TREE HILL ROAD, GOLDEN GROVE SA 5125

Further to your application for a Dangerous Substance Search dated 31 January 2020 for the abovementioned site, SafeWork SA cannot exclude the site as having a historical Dangerous Goods Storage Licence.

Class	Quantity	Storage Type
2	420 KG	Gas Cylinder Above Ground External
2	4.5 KL	Gas Tank Above Ground External
3	10.6 KL	Liquid Tank Underground External

Yours sincerely

Team Leader
Licensing Unit
SAFEWORK SA

DRAFT

For general enquiries please call the SafeWork SA Help Centre on 1300 365 255

009/DSL

Government of South Australia
SafeWork SA

Education Team
Level 4 World Park A
33 Richmond Road
Keswick SA 5035
GPO Box 465
Adelaide SA 5001
DX 715 Adelaide

Phone 1300 365 255
Email licensing.safework@sa.gov.au
ABN 50-560-588-327
www.safework.sa.gov.au

4 February 2020

Ms Alma Cimirotic
JBS & G Australia Pty Ltd
100 Hutt Street
ADELAIDE SA 5000

Dear Ms Cimirotic

DANGEROUS SUBSTANCES LICENCE SEARCH

PROPERTY DETAILS: 185 ONE TREE HILL ROAD, GOLDEN GROVE SA 5125

Further to your application for a Dangerous Substance Search dated 31 January 2020 for the abovementioned site, SafeWork SA cannot exclude the site as having a historical Dangerous Goods Storage Licence.

Class	Quantity	Storage Type
2	420 KG	Gas Cylinder Above Ground External
2	4.5 KL	Gas Tank Above Ground External
3	10.6 KL	Liquid Tank Underground External

DRAFT

Yours sincerely

Team Leader
Licensing Unit
SAFEWORK SA

For general enquiries please call the SafeWork SA Help Centre on 1300 365 255

009/DSL

Appendix G Dial Before You Dig Search Results

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DIAL BEFORE YOU DIG www.1100.com.au

Job No 18921068

Phone: 1100
www.1100.com.au

Caller Details

Contact:	Mr Haydn Franklin	**Caller Id:**	1764031	**Phone:**	0884317113
Company:	JBS&G	**Mobile:**	0402437107	**Fax:**	Not Supplied
Address:	38 Dequetteville Terrace Kent Town SA 5067	**Email:**	hfranklin@jbsg.com.au		

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig 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.



User Reference: Golden Grove PSI
Working on Behalf of: Private

Enquiry Date:	Start Date:	End Date:
24/01/2020	02/03/2020	27/03/2020

Address:
Strachan Road
Golden Grove SA 5125

Job Purpose:	Onsite Activity:
Excavation	Vertical Boring
Location of Workplace:	**Location in Road:**
Private Property	Not Supplied

- Check the location of the dig site is correct. If not submit a new enquiry.
- If the scope of works change, or plan validity dates expire, resubmit your enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at **www.1100.com.au**
- **For more information on safe excavation practices, visit www.1100.com.au**

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.
** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.
# Asset owners highlighted with a hash require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
94147135	APA, Sa	0881154500	NOTIFIED
94147132	City of Tea Tree Gully	0883977255	NOTIFIED
94147137	NBN Co, SaNt	1800626329	NOTIFIED
94147133	SA Power Networks	0882920218	NOTIFIED
94147136	SA Water	0874241117	NOTIFIED
94147134	Telstra SANT	1800653935	NOTIFIED

END OF UTILITIES LIST

Lodge Your Free Enquiry Online – 24 Hours a Day, Seven Days a Week [SA]

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The Essential First Step

operated by apa

APA Group
PO Box 6014 Halifax Street
South Australia 5000

24/01/2020

Company: JBS&G
Mr Haydn Franklin
38 Dequetteville Terrace
Kent Town
SA 5067

hfranklin@jbsg.com.au

Dear Mr Haydn Franklin

Sequence Number: 94147135
Worksite Address: Strachan Road
Golden Grove
SA 5125

Thank you for your Dial Before You Dig enquiry regarding the location of Gas Assets, we can confirm that the APA Group's Network's Division has **Gas Assets** in the vicinity of the above location.

You are hereby notified that the attached Duty of Care requirements apply to any activity in the vicinity of Gas Assets operated by APA, please ensure you read and comply with all the relevant requirements.

Should you have any questions with **regards to the attached information** please contact our Dial Before You Dig officer - 1800 085 628.

Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury. For Gas Emergencies please call 1800 GAS LEAK (1800 427 532).

Please find enclosed the following information: -

- APA's Duty of Care, If you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in identifying the location of APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately

Please Note: For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

Please ensure you review all the information contained in this response carefully and please do not hesitate to contact us for further information by sending an email to DBYDNetworksAPA@apa.com.au or contacting us direct on 1800 085 628.

Yours Faithfully,

Dial Before You Dig Officer
APA Group
Email: DBYDNetworksAPA@apa.com.au

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Duty of Care - Working Around Gas Assets

General Conditions

- This location enquiry is valid for 30 days from the date of this response
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Services pipelines (see below), **by hand** (Please Note: Do not use vacuum excavation systems as damage to Gas Assets may occur). Gas Asset depths may vary according to ground conditions
- Gas Service pipelines (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map
- Generally, a map of the inlet service connection installation can be found inside the gas meter box
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. **It is your responsibility** to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call 1800 427 532

DRAFT

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Site Address	Strachan Road Golden Grove 5125	**Sequence No**	94147135
Name	Mr Haydn Franklin		
Email	hfranklin@jbsg.com.au		



Scale 1: 10500	NORTH	Enquiry Area Map Key Area

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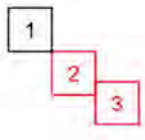
operated by apa

Site Address	Strachan Road Golden Grove 5125	**Sequence No**	94147135
Email	hfranklin@jbsg.com.au	**Map Reference**	UbdAde 73G3,73G4,73H3,73H4,73H5,73J3,73J4,73J5,73J6,73K3,73I



ITEM	SYMBOL	TERMS	ITEM	SYMBOL
LOW PRESSURE 1.2 - 1.7kPa		B = BOUNDARY	DIAL BEFORE YOU DIG REQUESTED AREA	
MEDIUM PRESSURE 35 - 100kPa		D = DEPTH	PRIORITY MAIN COVERAGE	
HIGH PRESSURE 70 - 350kPa		Bok = BACK OF KERB		
TRANSMISSION PRESSURE 900 - 15000kPa		Fok = FRONT OF KERB		
PROPOSED MAIN (COLOUR BY PRESSURE)				
ABANDONED MAIN				

Map Key



Scale 1:1000

0 0.01km

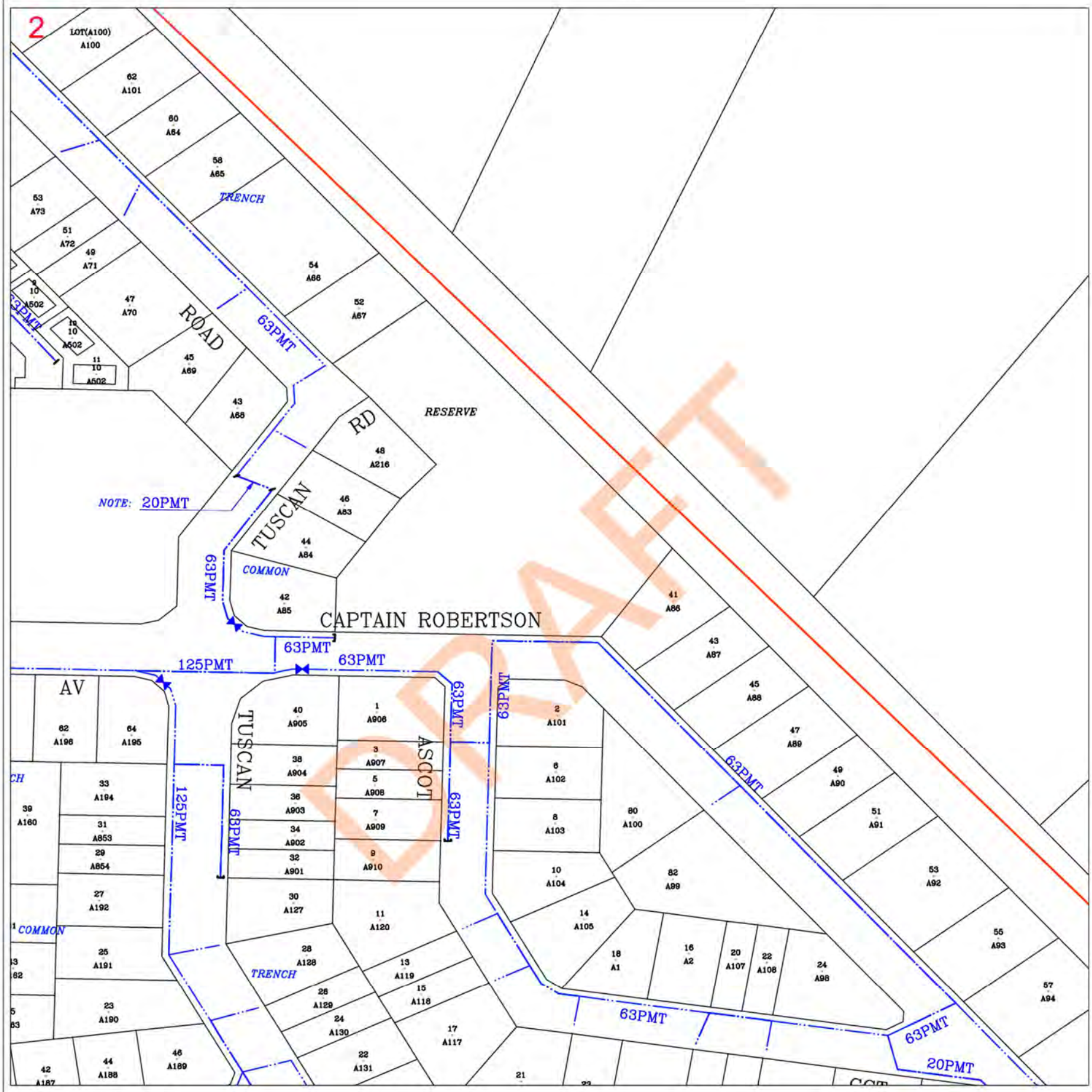
NORTH

DRAFT

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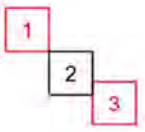
operated by apa

Site Address	Strachan Road Golden Grove 5125	**Sequence No**	94147135
Email	hfranklin@jbsg.com.au	**Map Reference**	UbdAde 73G3,73G4,73H3,73H4,73H5,73J3,73J4,73J5,73J6,73K3,73I



ITEM	SYMBOL	TERMS	ITEM	SYMBOL
LOW PRESSURE 1.2 - 1.7kPa		B = BOUNDARY	DIAL BEFORE YOU DIG REQUESTED AREA	
MEDIUM PRESSURE 35 - 100kPa		D = DEPTH	PRIORITY MAIN COVERAGE	
HIGH PRESSURE 70 - 350kPa		Bok = BACK OF KERB		
TRANSMISSION PRESSURE 900 - 15000kPa		Fok = FRONT OF KERB		
PROPOSED MAIN (COLOUR BY PRESSURE)				
ABANDONED MAIN				

Map Key



Scale 1:1000

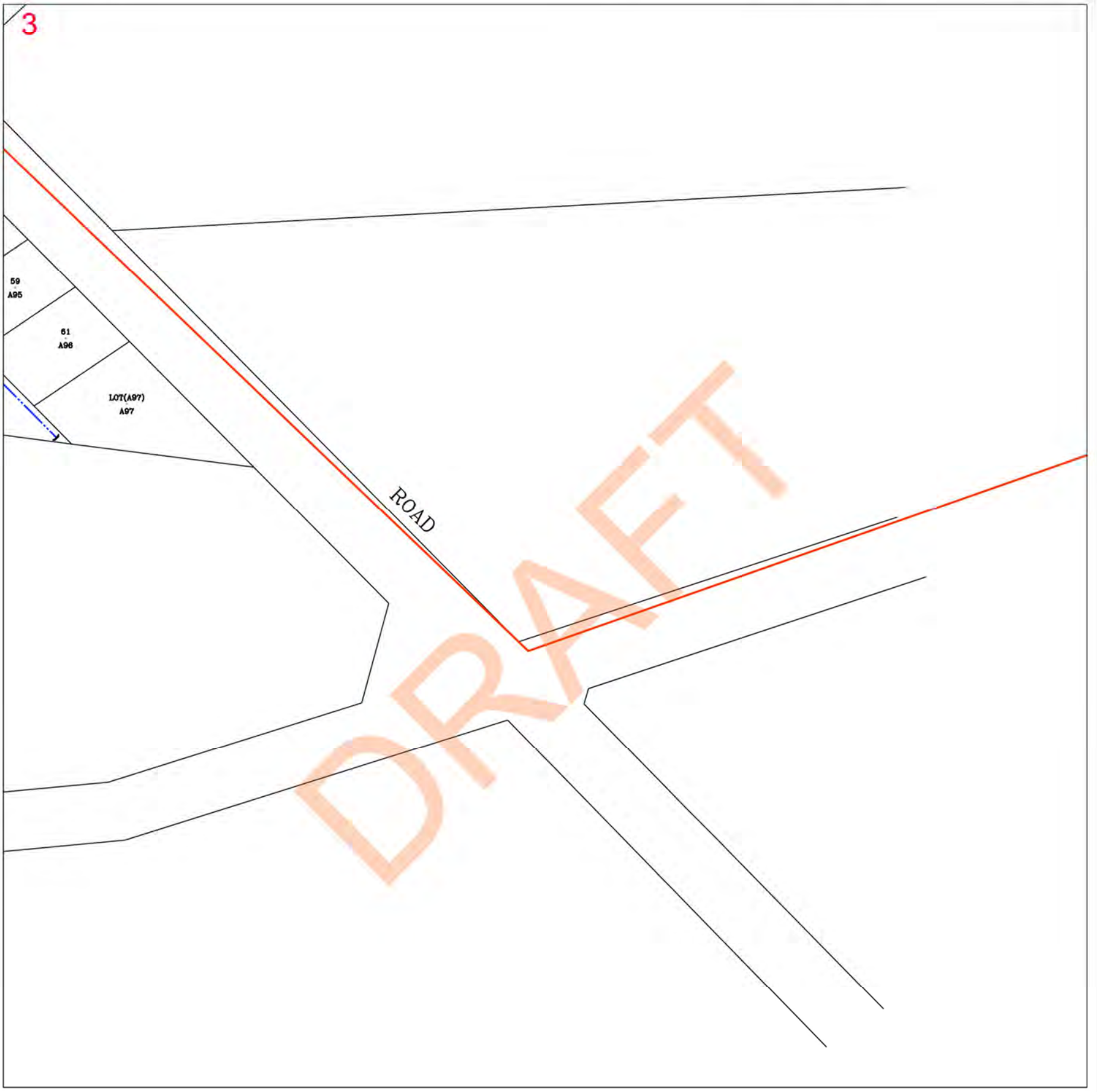
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NORTH

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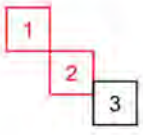
operated by apa

Site Address	Strachan Road Golden Grove 5125	**Sequence No**	94147135
Email	hfranklin@jbsg.com.au	**Map Reference**	UbdAde 73G3,73G4,73H3,73H4,73H5,73J3,73J4,73J5,73J6,73K3,73I



ITEM	SYMBOL	TERMS	ITEM	SYMBOL
LOW PRESSURE 1.2 - 1.7kPa		B = BOUNDARY	DIAL BEFORE YOU DIG REQUESTED AREA	
MEDIUM PRESSURE 35 - 100kPa		D = DEPTH	PRIORITY MAIN COVERAGE	
HIGH PRESSURE 70 - 350kPa		Bok = BACK OF KERB		
TRANSMISSION PRESSURE 900 - 15000kPa		Fok = FRONT OF KERB		
PROPOSED MAIN (COLOUR BY PRESSURE)				
ABANDONED MAIN				

Map Key



Scale 1:1000

0 0.01km

NORTH

Response Cover Letter

CITY OF TEA TREE GULLY
Naturally Better

City of Tea Tree Gully
Service Centre
1100 Golden Grove Road, Golden Grove 5125
PO Box 571, Modbury 5092

Date: 24/01/2020

To:
Mr Haydn Franklin
JBS&G
38 Dequetteville Terrace
Kent Town SA 5067

According to our records your enquiry with the following details impacts our infrastructure. Please review other documents included with this response for additional details:

Sequence No: 94147132

Job No: 18921068

Location: Strachan Road
Golden Grove SA 5125

If you require further information, please contact the Civil Assets Department on 08 8397 7444 or dbyd@cttg.sa.gov.au

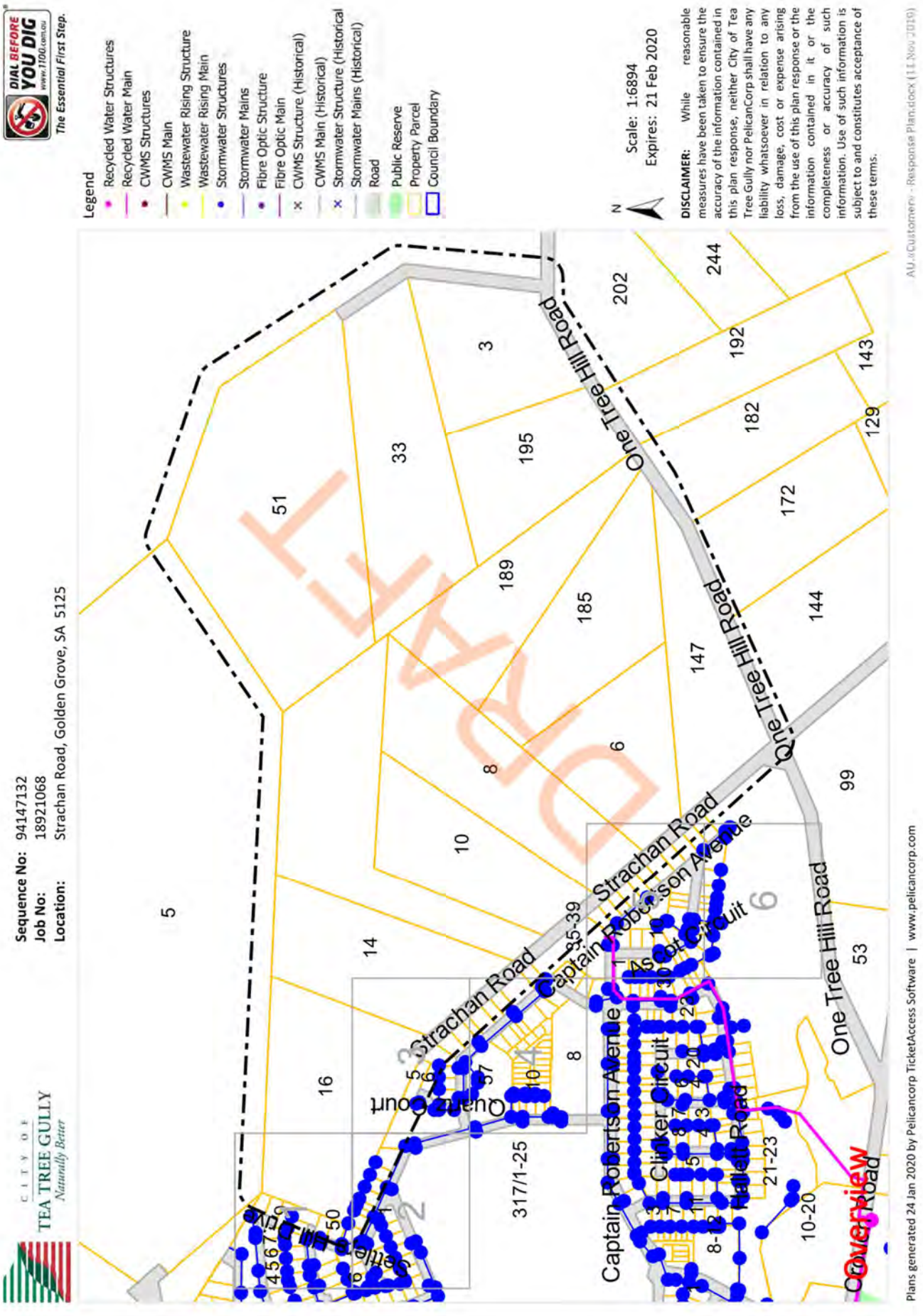
If your works involve altering a Public Road or Verge you are required to submit a permit application under Section 221 of the Local Government Act 1999. Please use our Online Form (Section 221) to submit your permit. Important Note: Major Utility providers are exempt from Section 221 of the Local Government Act 1999.

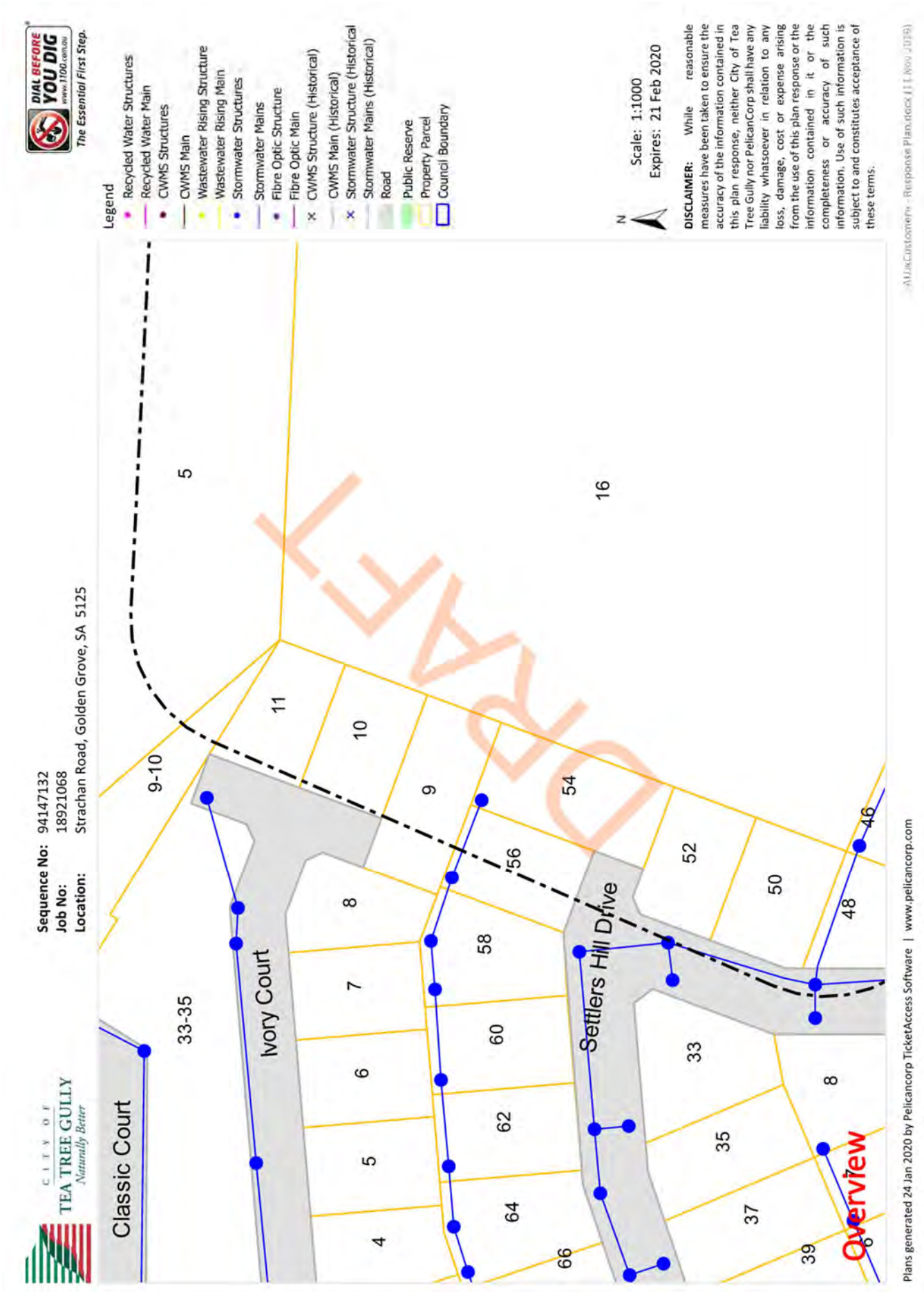
Important Notice: This enquiry response, including any associated documentation, has been assessed and compiled from the information detailed within the DBYD enquiry outlined above. Please ensure that the DBYD enquiry details and this response accurately reflect your proposed works.

This response is intended for use only by the addressee. If you have received the enquiry response in error, please let us know by telephone and delete all copies; you are advised that copying, distributing, disclosing or otherwise acting in reliance on the response is expressly prohibited.

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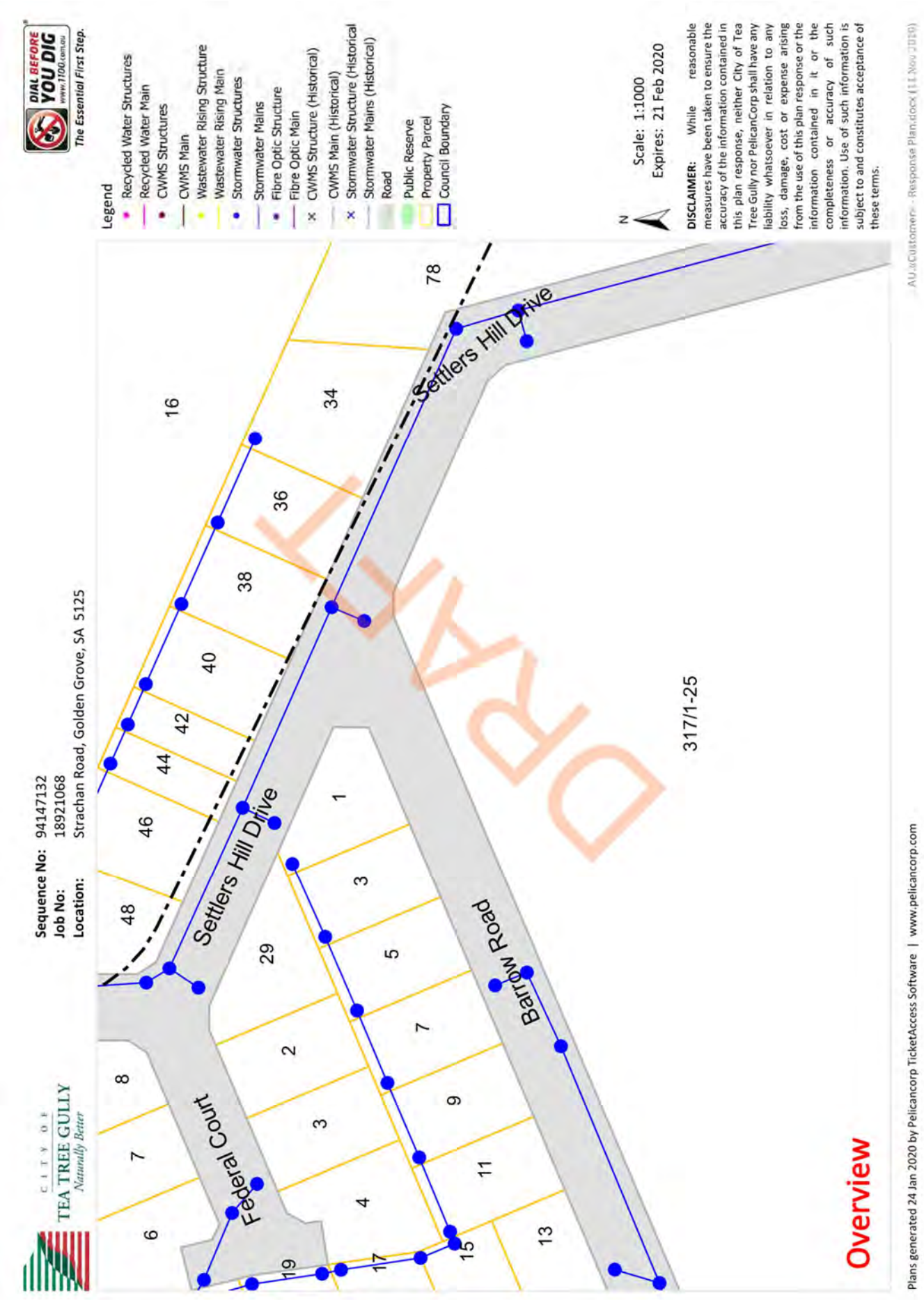
While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither City of Tea Tree Gully or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.


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www.1100.com.au
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Legend
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
N
Scale: 1:6894
Expires: 21 Feb 2020
DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither City of Tea Tree Gully nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.
Sequence No: 94147132
Job No: 18921068
Location: Strachan Road, Golden Grove, SA 5125
CITY OF TEA TREE GULLY
Naturally Better
One Tree Hill Road
Strachan Road
Captain Robertson Avenue
Clinker Circuit
Hallett Road
Overview
Plans generated 24 Jan 2020 by Pelicancorp TicketAccess Software | www.pelicancorp.com
AU.//Customers - Response Plan.docx (11 Nov 2016)



Item 13.1

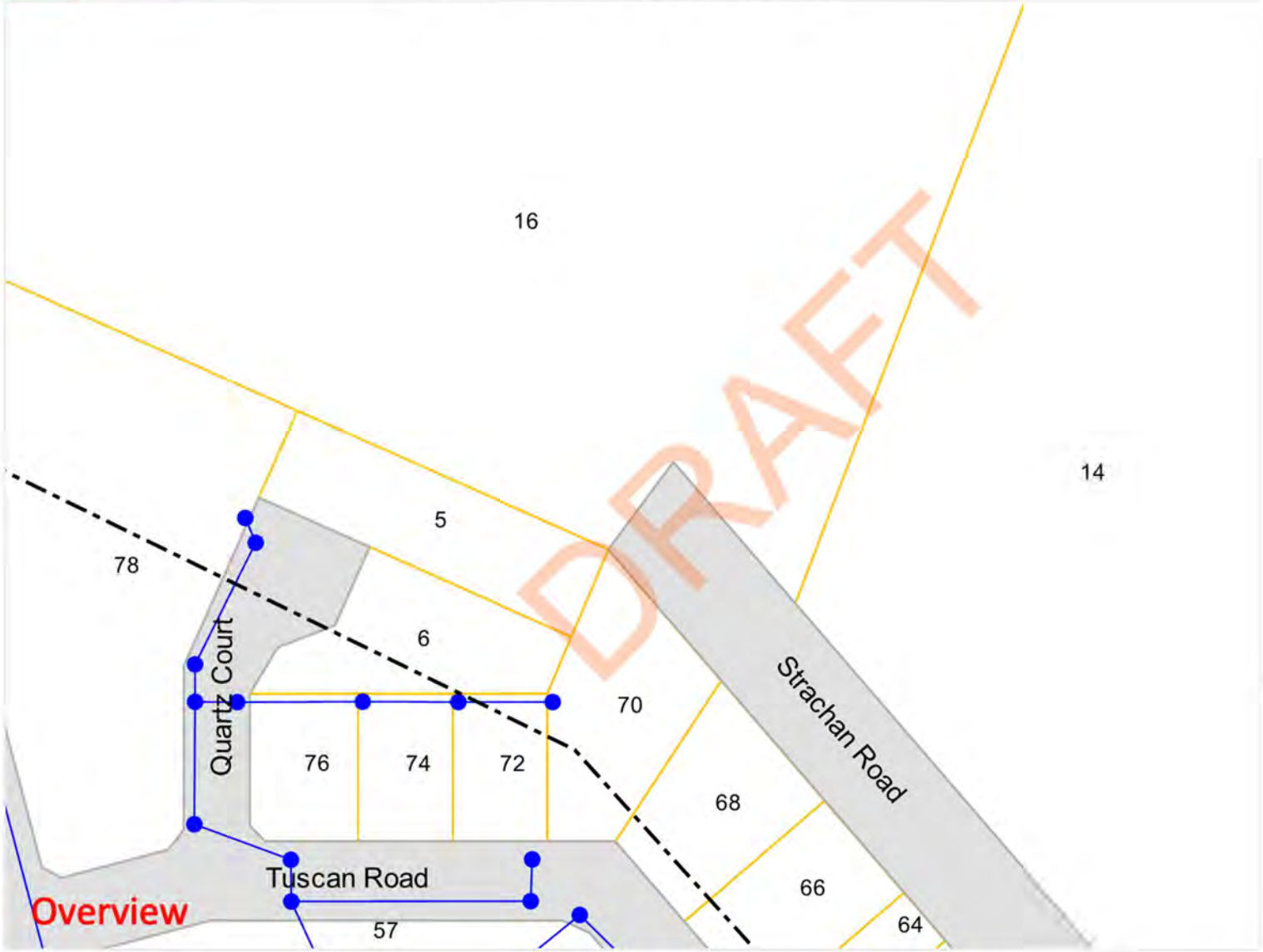
Attachment 6


DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step.
Legend
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
N
Scale: 1:1000
Expires: 21 Feb 2020
DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither City of Tea Tree Gully nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.
Sequence No: 94147132
Job No: 18921068
Location: Strachan Road, Golden Grove, SA 5125
Settlers Hill Drive
Federal Court
Barrow Road
317/1-25
DRAFT
Overview
CITY OF TEA TREE GULLY
Naturally Better
Plans generated 24 Jan 2020 by Pelicancorp TicketAccess Software | www.pelicancorp.com

CITY OF TEA TREE GULLY
Naturally Better

Sequence No: 94147132
Job No: 18921068
Location: Strachan Road, Golden Grove, SA 5125

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The Essential First Step.



Legend
- Recycled Water Structures
- Recycled Water Main
- CWMS Structures
- CWMS Main
- Wastewater Rising Structure
- Wastewater Rising Main
- Stormwater Structures
- Stormwater Mains
- Fibre Optic Structure
- Fibre Optic Main
- CWMS Structure (Historical)
- CWMS Main (Historical)
- Stormwater Structure (Historical
- Stormwater Mains (Historical)
- Road
- Public Reserve
- Property Parcel
- Council Boundary

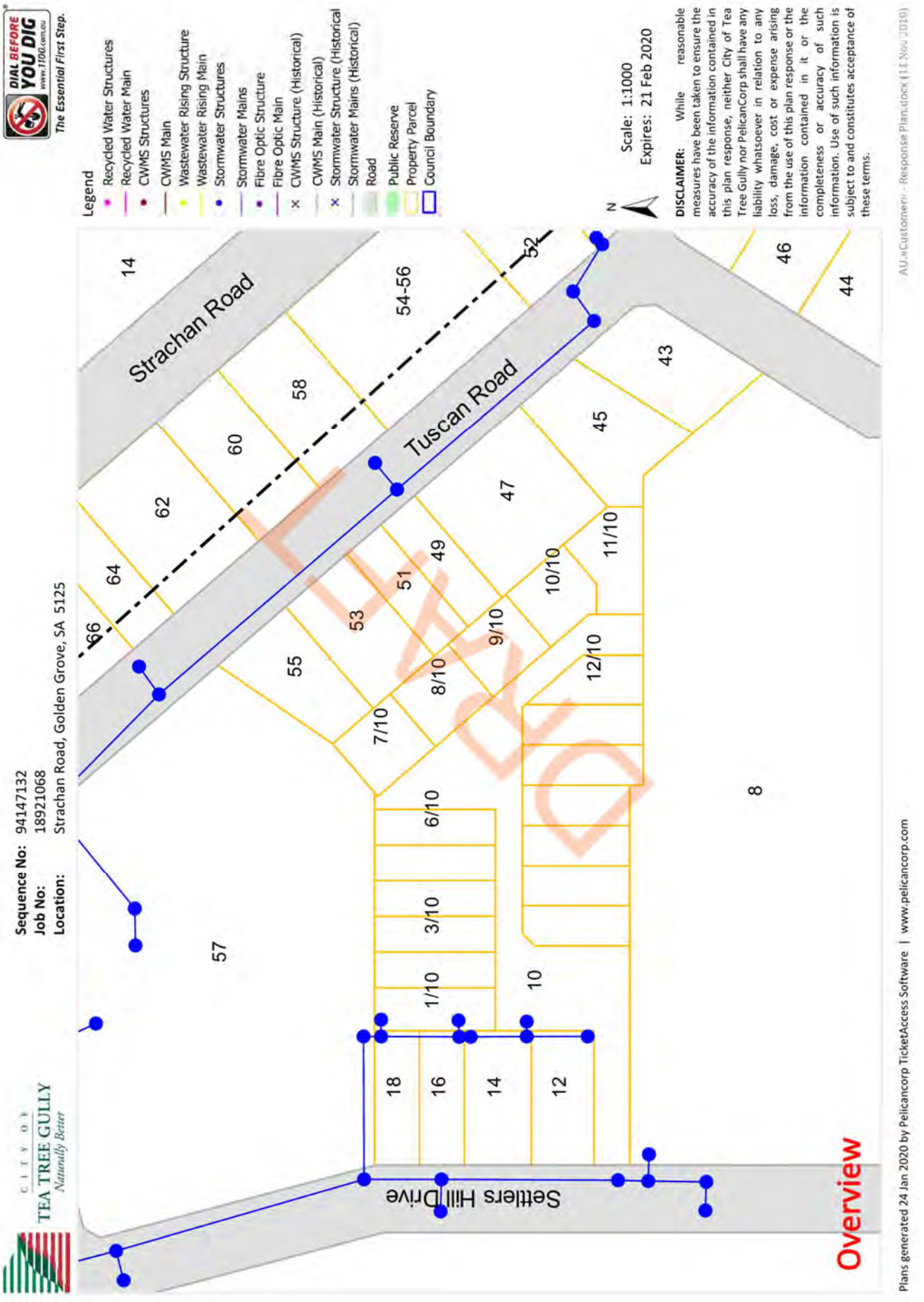
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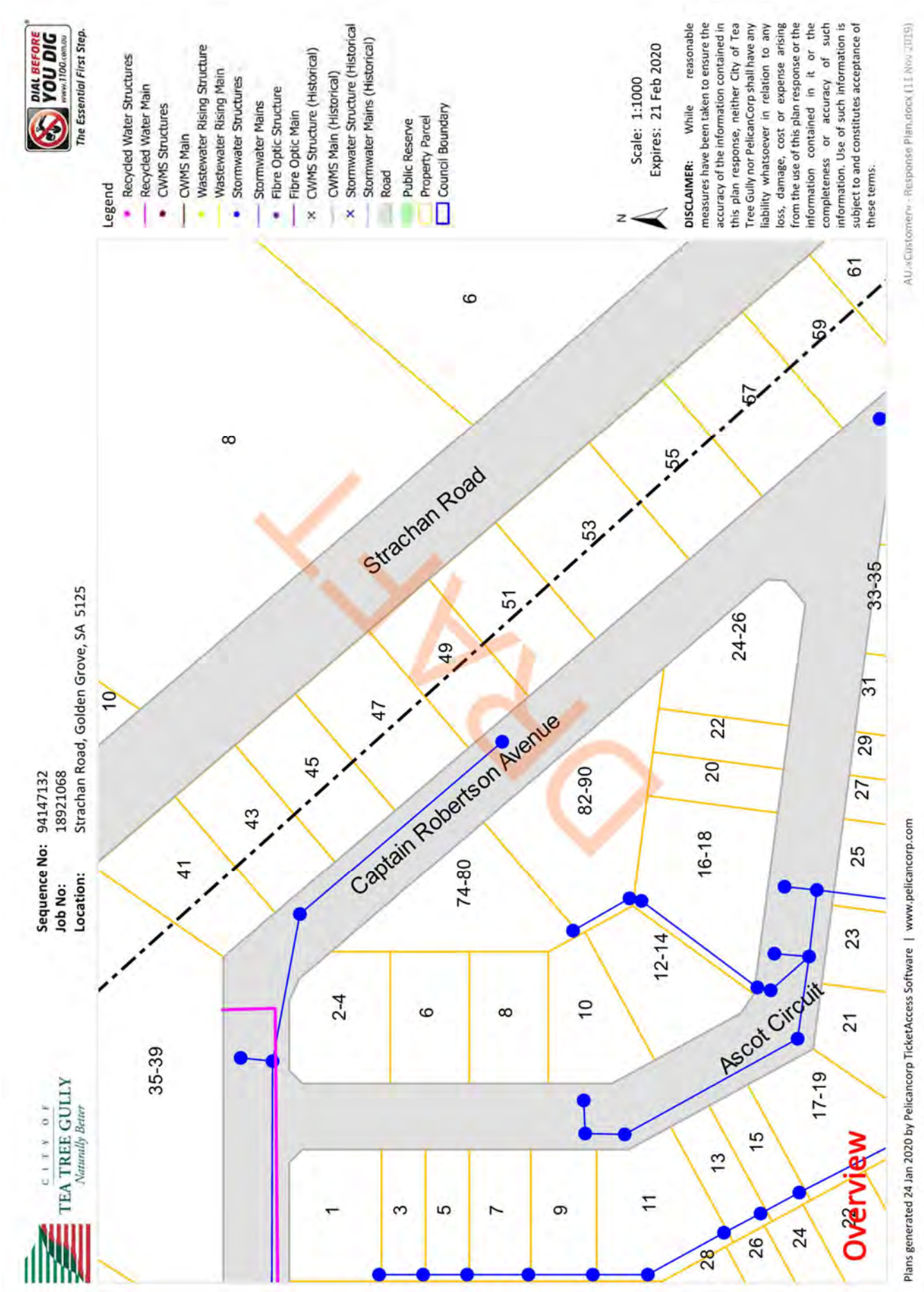
Scale: 1:1000
Expires: 21 Feb 2020

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither City of Tea Tree Gully nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

Plans generated 24 Jan 2020 by Pelicancorp TicketAccess Software | www.pelicancorp.com

AU_xCustomer - Response Plan.docx (11 Nov 2019)


DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step.
Legend
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
Scale: 1:1000
Expires: 21 Feb 2020
DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither City of Tea Tree Gully nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.
Sequence No: 94147132
Job No: 18921068
Location: Strachan Road, Golden Grove, SA 5125
Strachan Road
Tuscan Road
Settlers Hill Drive
CITY OF TEA TREE GULLY
Naturally Better
Overview
Plans generated 24 Jan 2020 by Pelicancorp TicketAccess Software | www.pelicancorp.com
AU.#Customers - Response Plan.docx (11 Nov 2016)


DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step.
Legend
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
N
Scale: 1:1000
Expires: 21 Feb 2020
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Sequence No: 94147132
Job No: 18921068
Location: Strachan Road, Golden Grove, SA 5125
CITY OF TEA TREE GULLY
Naturally Better
Strachan Road
Captain Robertson Avenue
Ascot Circuit
Overview
Plans generated 24 Jan 2020 by Pelicancorp TicketAccess Software | www.pelicancorp.com

CITY OF TEA TREE GULLY
Naturally Better

Sequence No: 94147132
Job No: 18921068
Location: Strachan Road, Golden Grove, SA 5125

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The Essential First Step.



Legend
- Recycled Water Structures
- Recycled Water Main
- CWMS Structures
- CWMS Main
- Wastewater Rising Structure
- Wastewater Rising Main
- Stormwater Structures
- Stormwater Mains
- Fibre Optic Structure
- Fibre Optic Main
- CWMS Structure (Historical)
- CWMS Main (Historical)
- Stormwater Structure (Historical
- Stormwater Mains (Historical)
- Road
- Public Reserve
- Property Parcel
- Council Boundary

N

Scale: 1:1000
Expires: 21 Feb 2020

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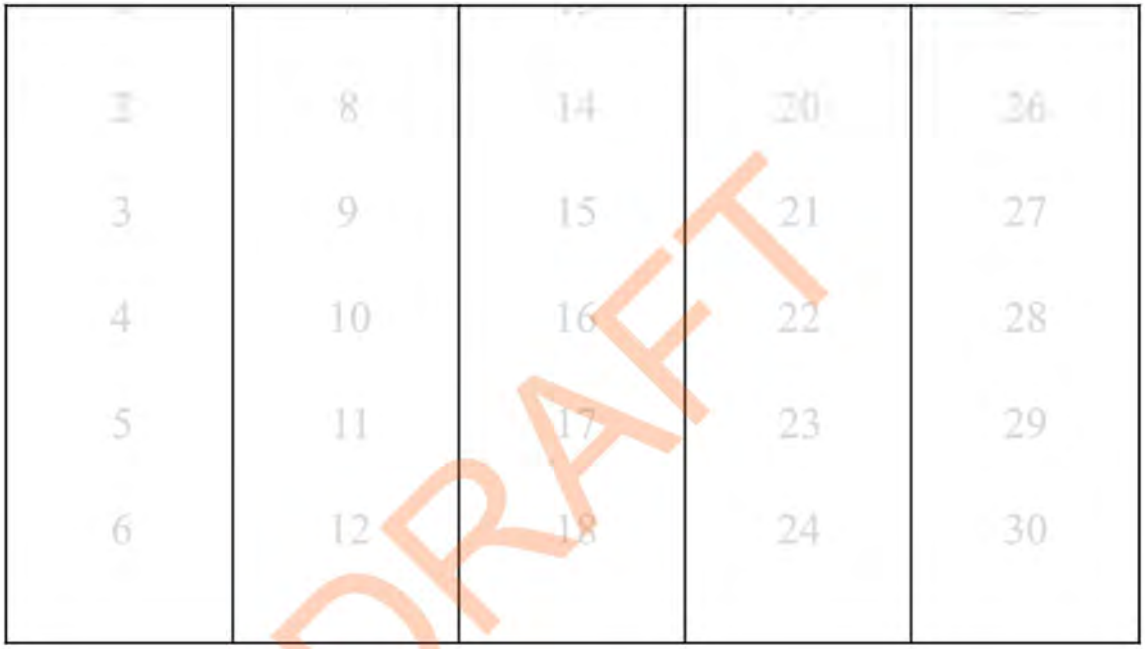
Plans generated 24 Jan 2020 by Pelicancorp TicketAccess Software | www.pelicancorp.com

AU.&Customer - Response Plan.docx (11 Nov 2019)

Indicative Plans

Issue Date:	24/01/2020
Location:	Strachan Road , Golden Grove , SA , 5125

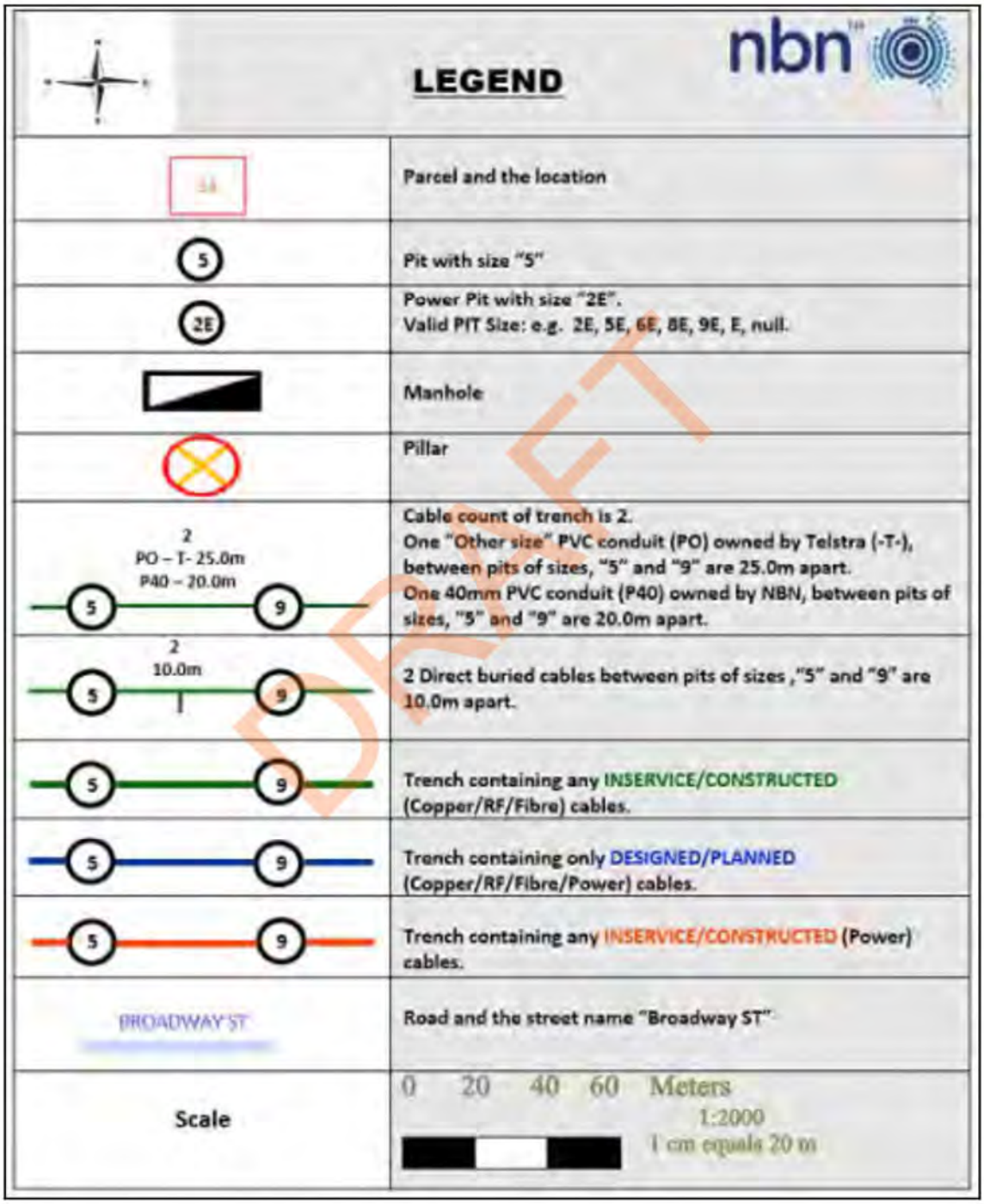
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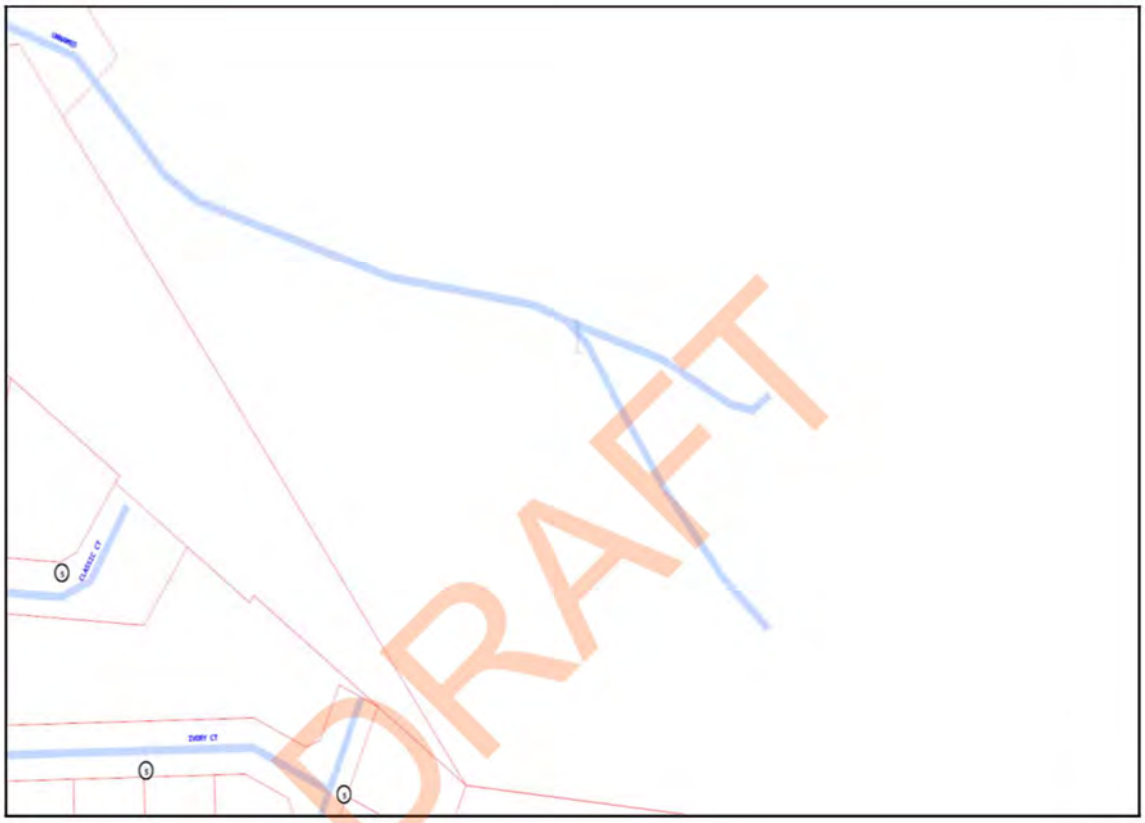
Attachment 6



LEGEND	
14	Parcel and the location
5	Pit with size "5"
2E	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
2 PO – T- 25.0m P40 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m

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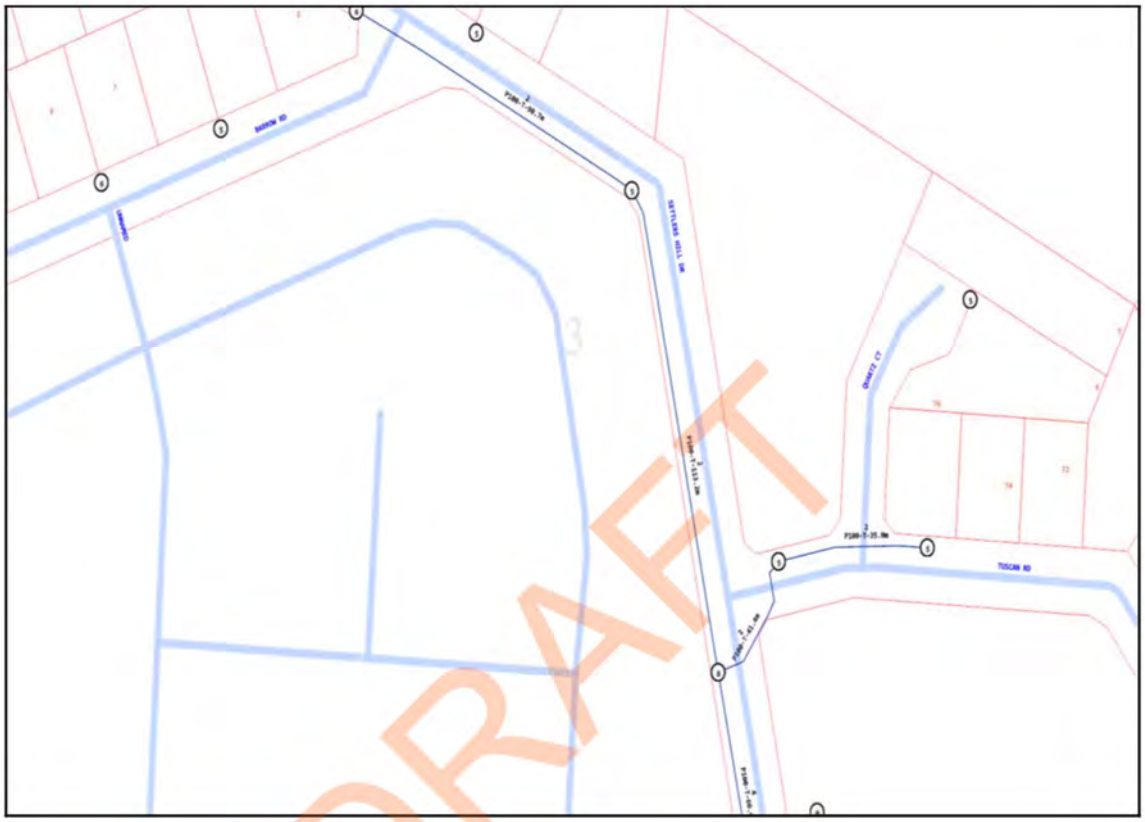


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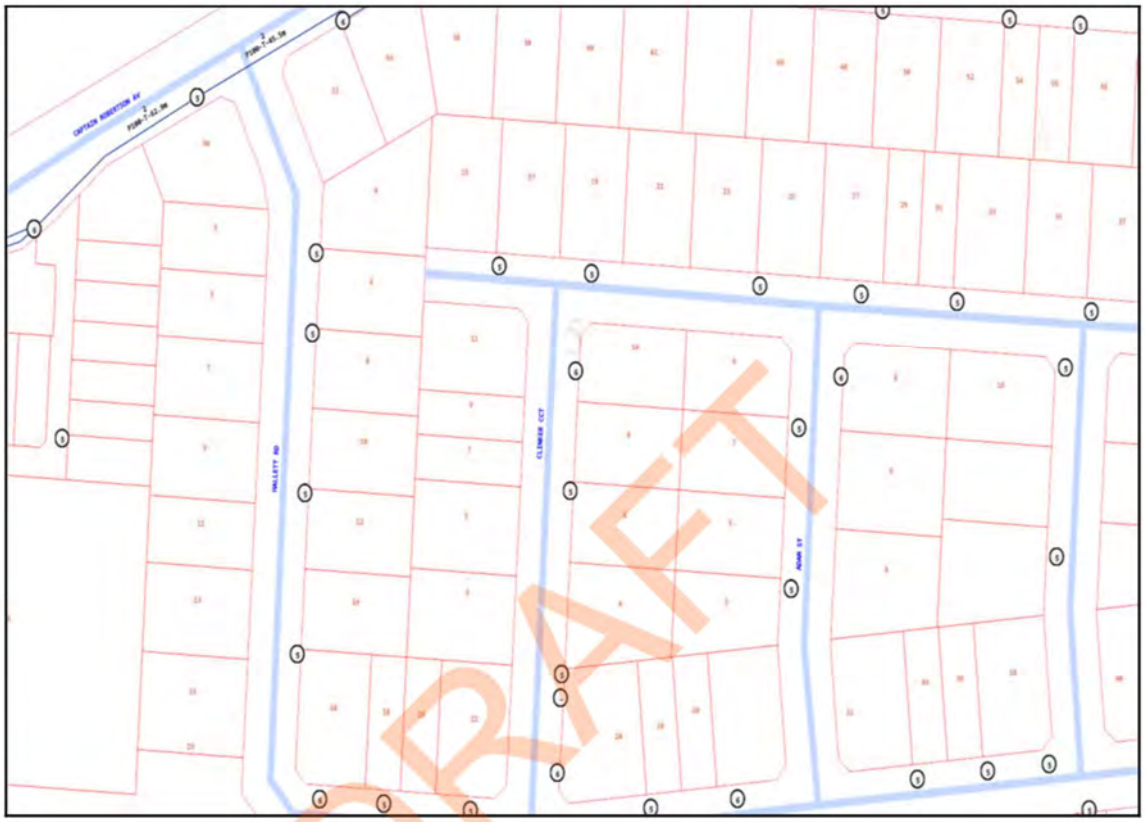
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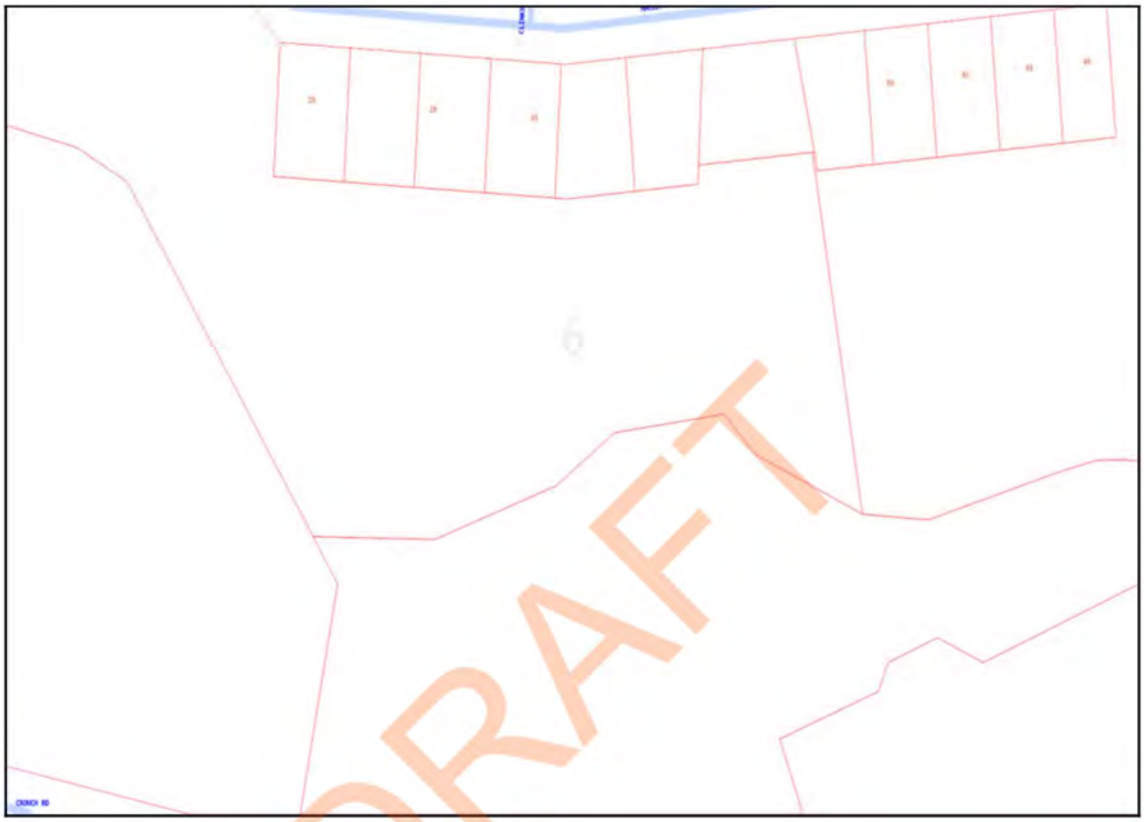
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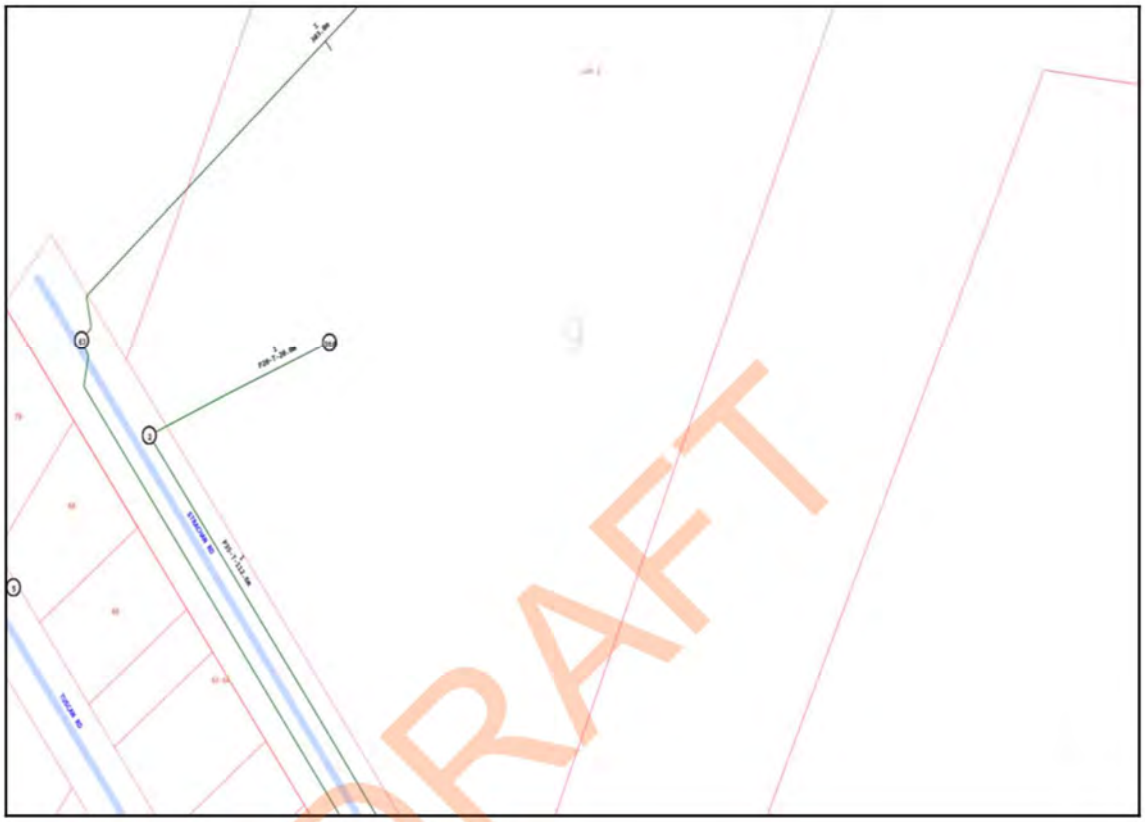


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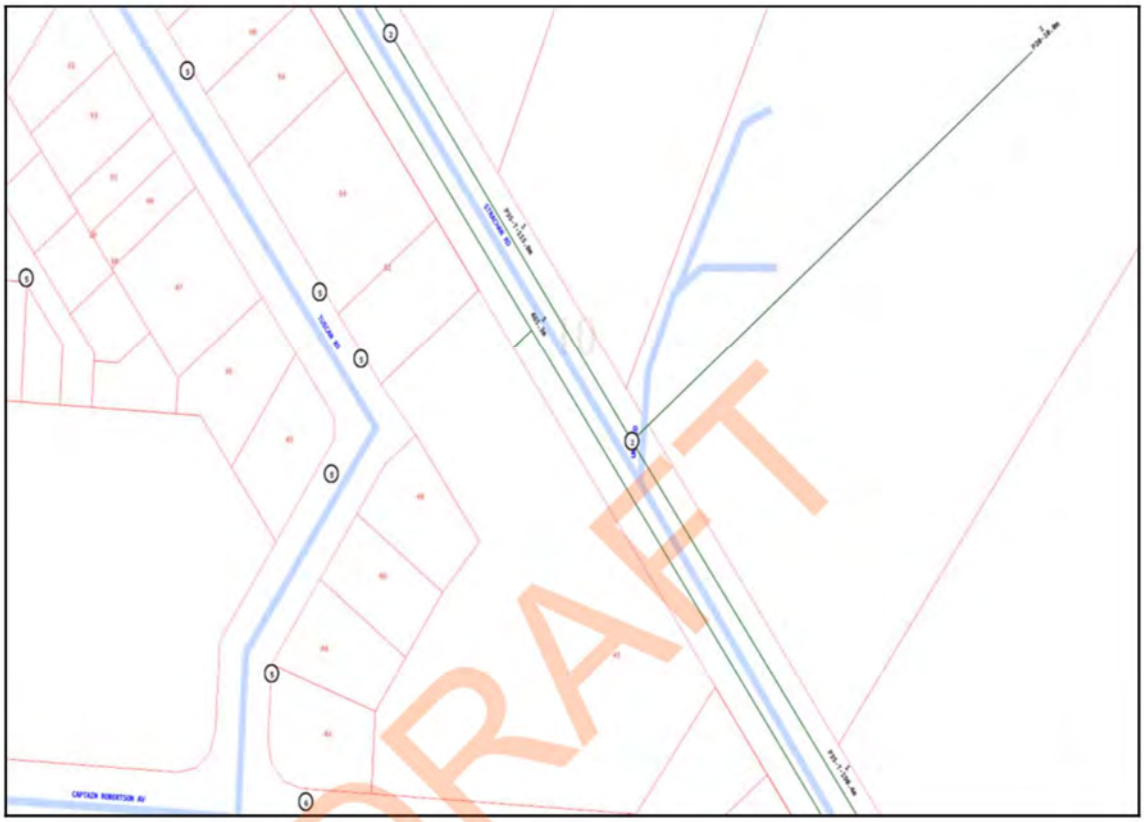


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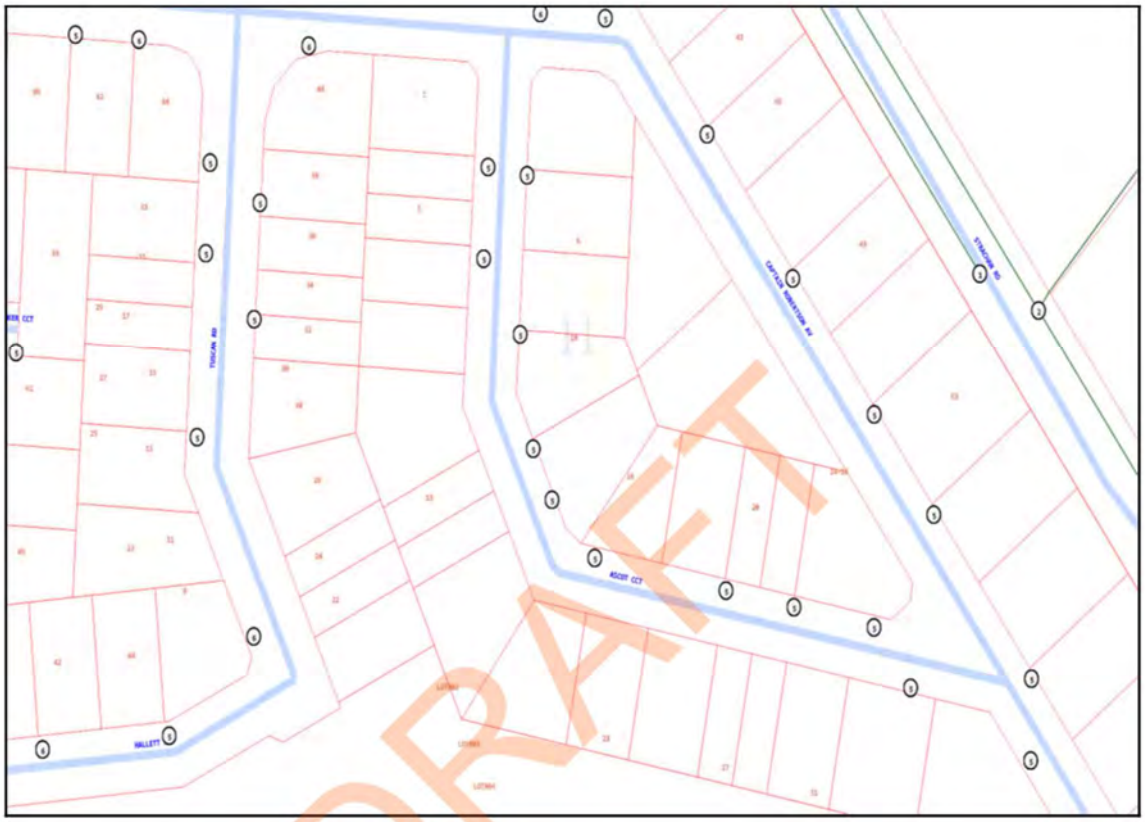
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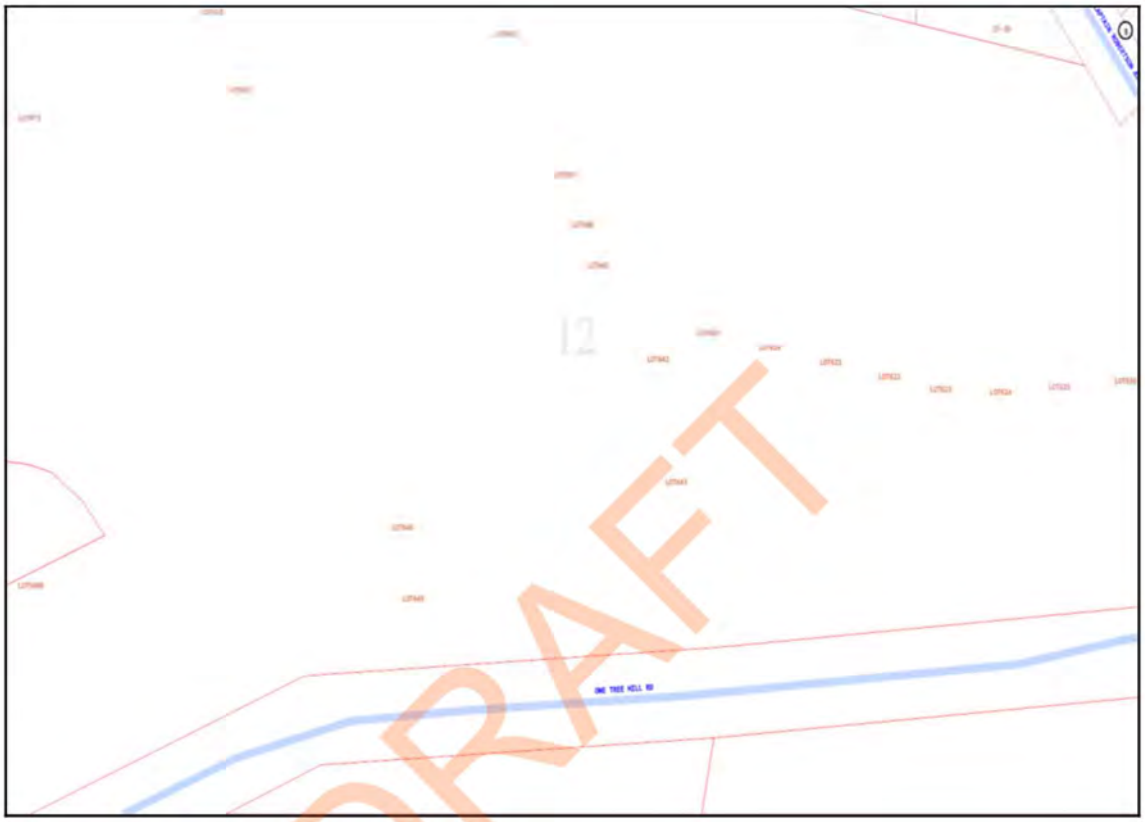
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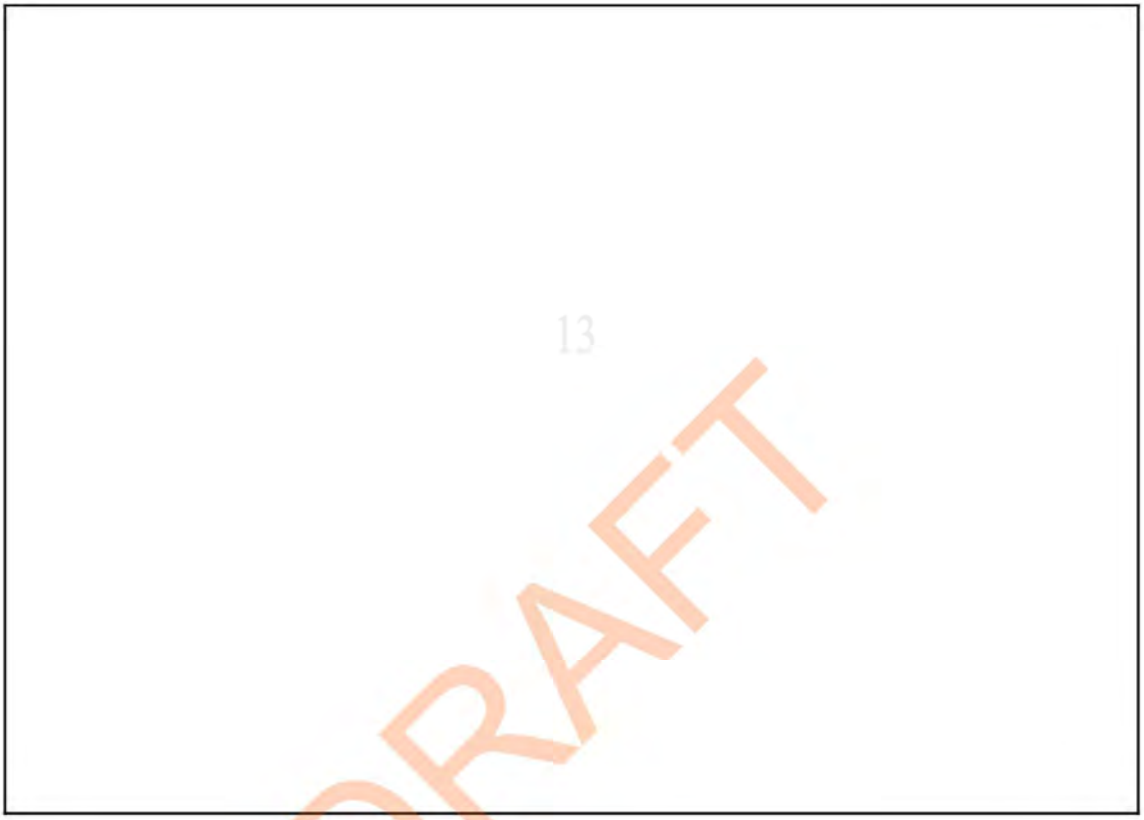
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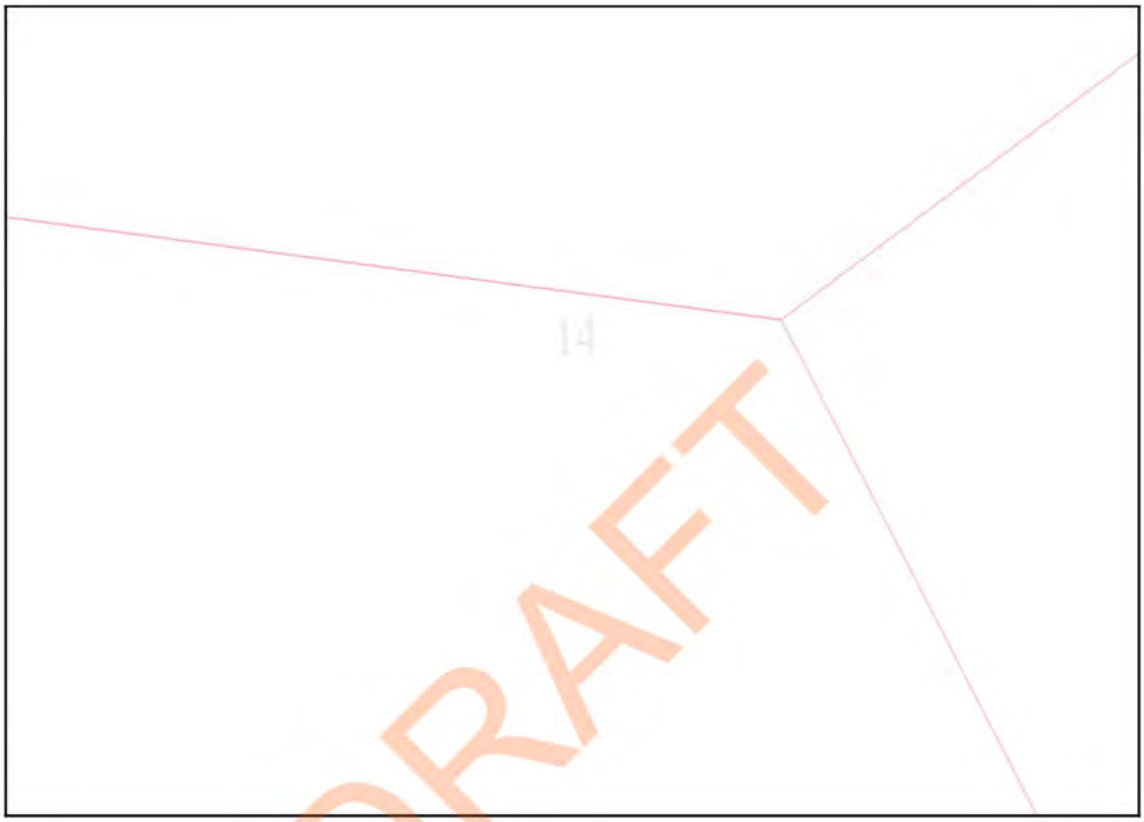
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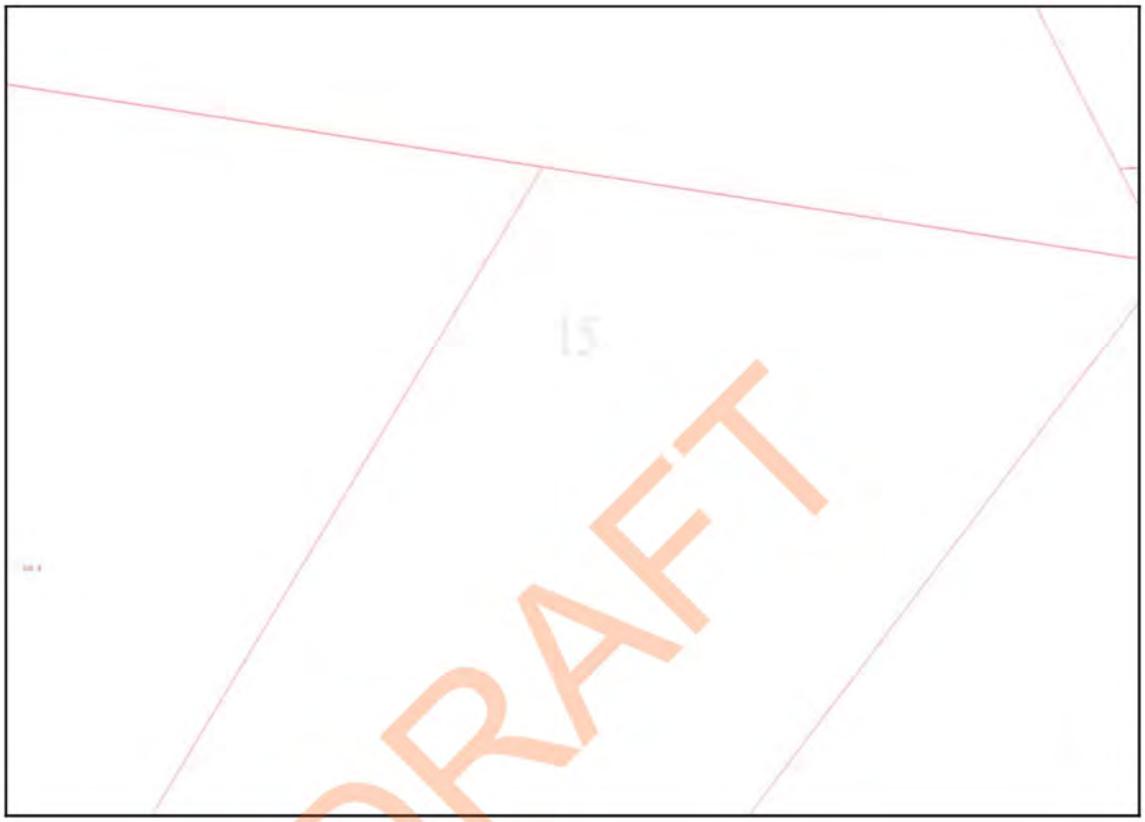
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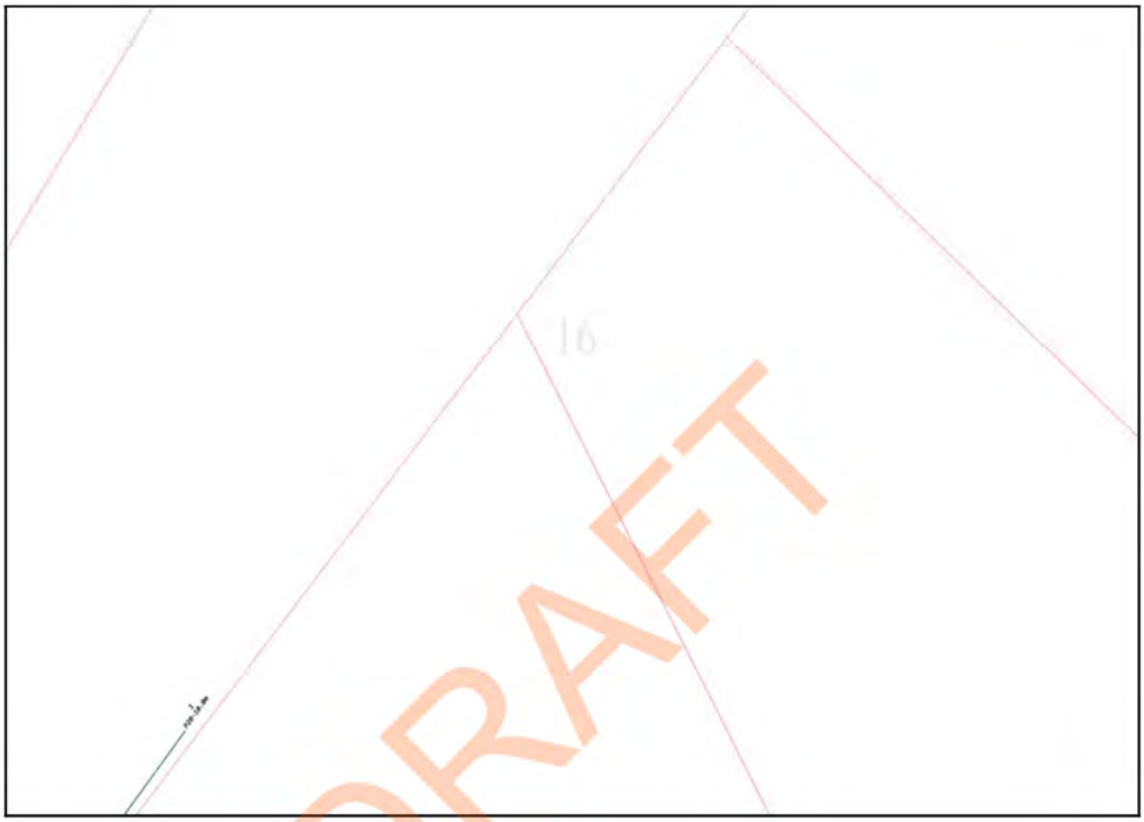
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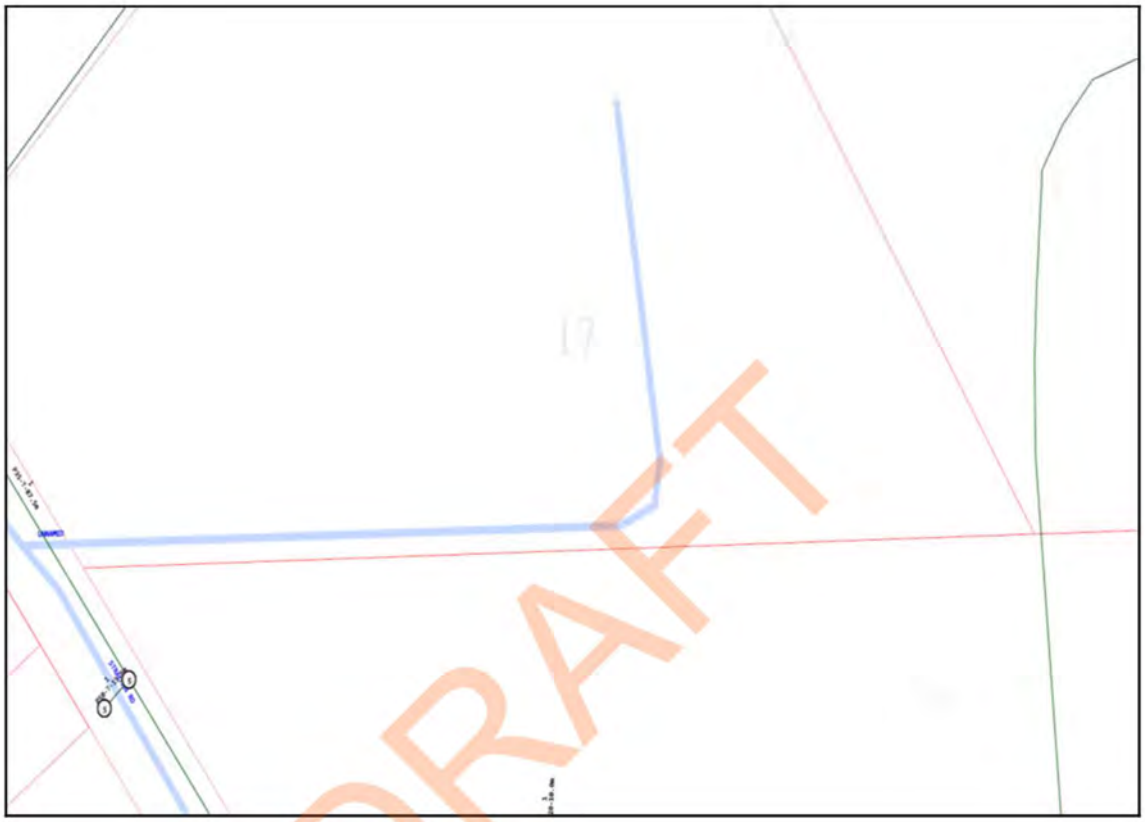
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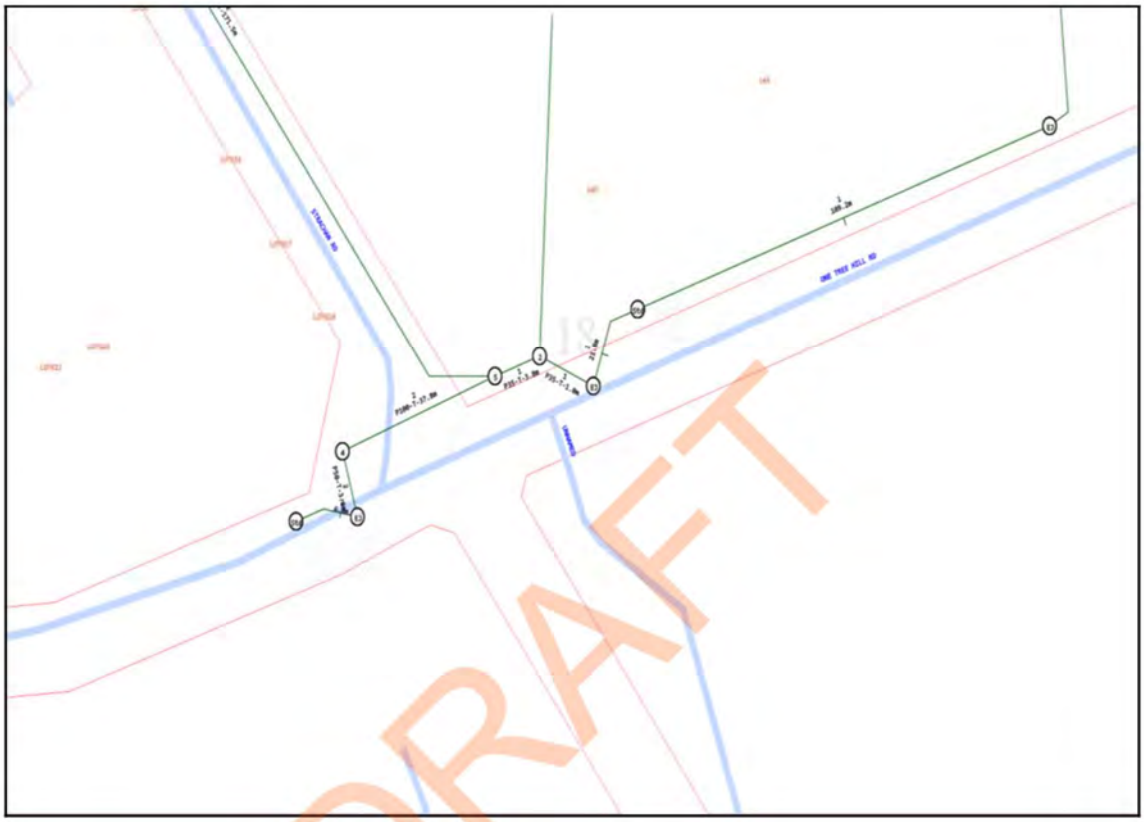
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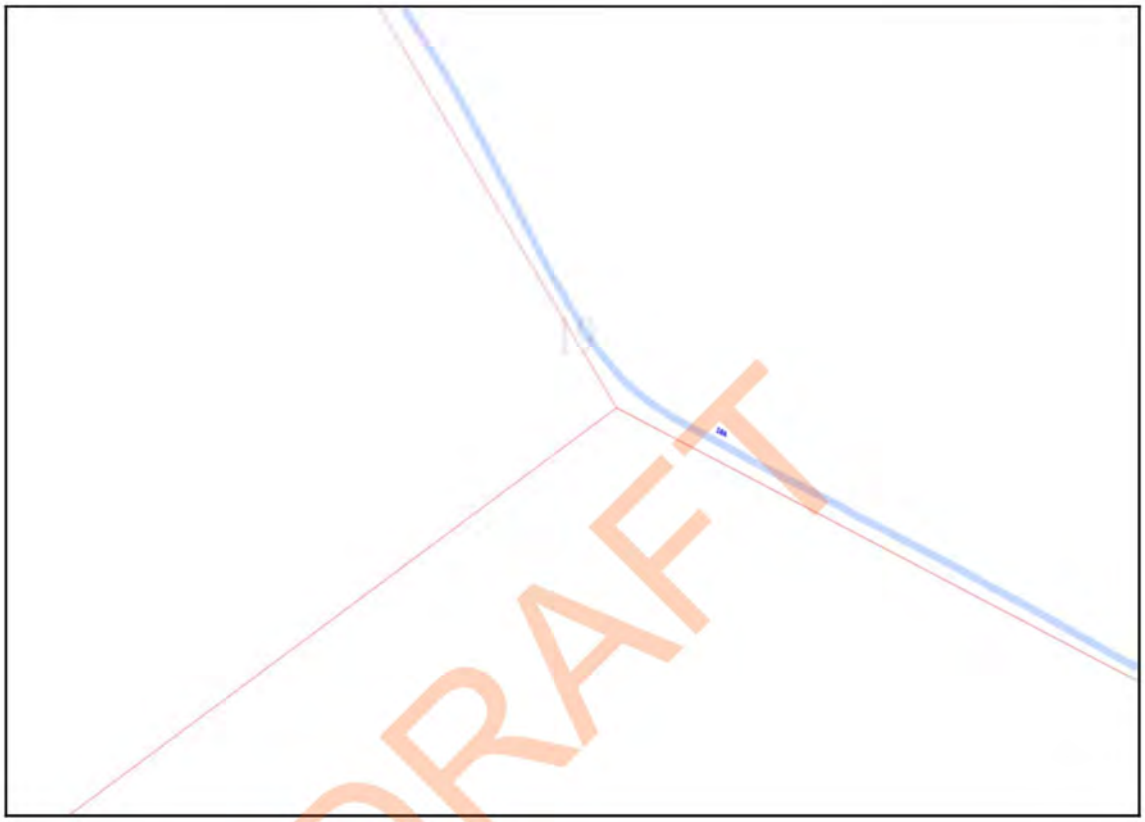
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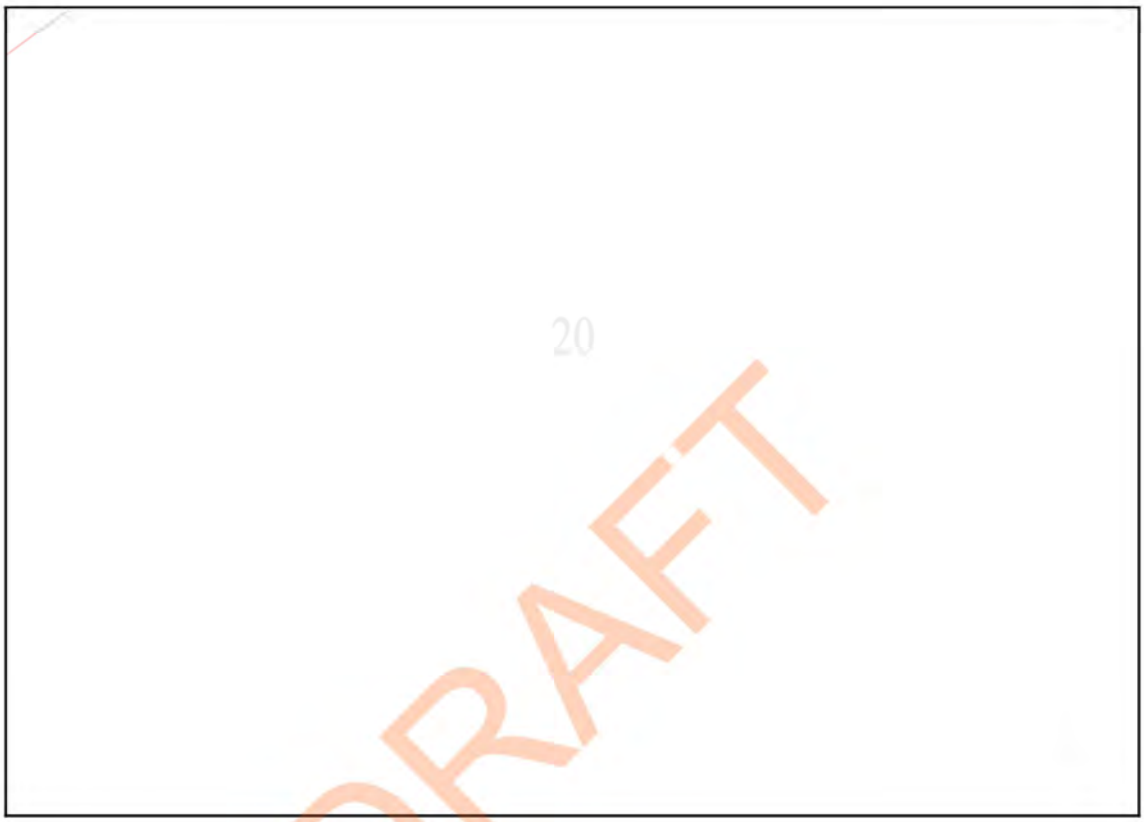
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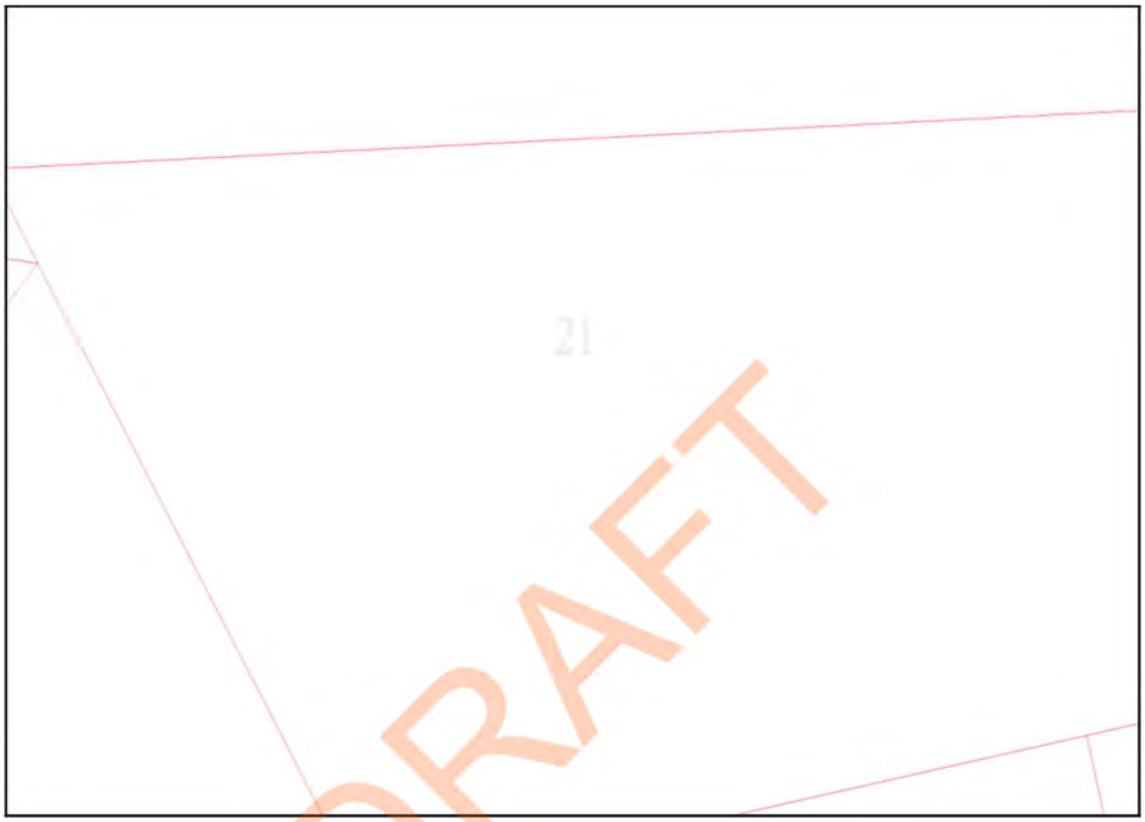
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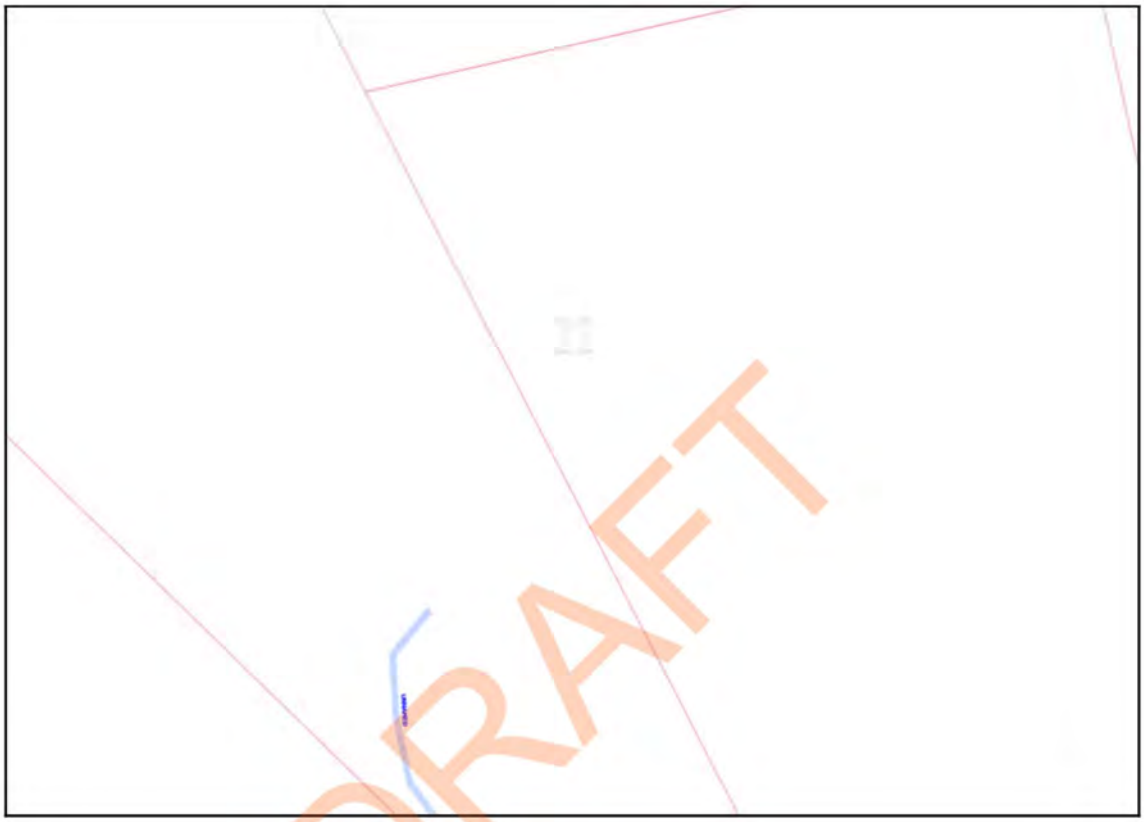
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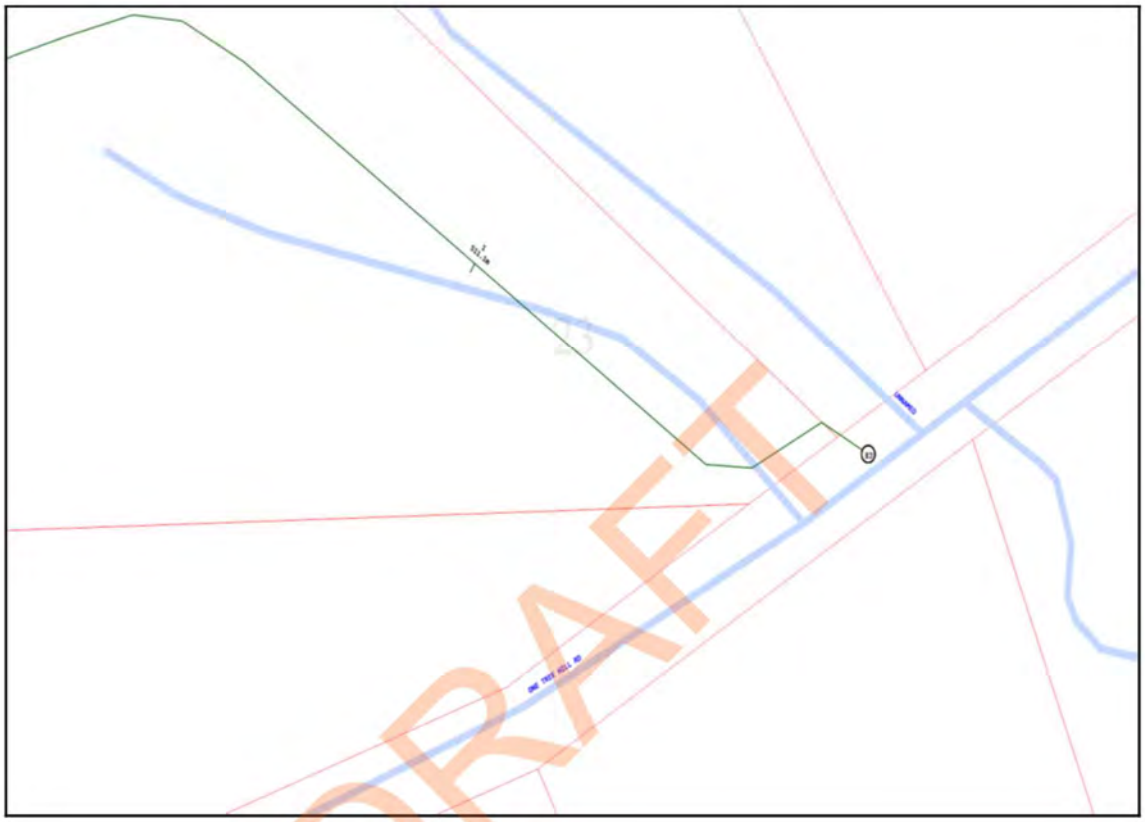
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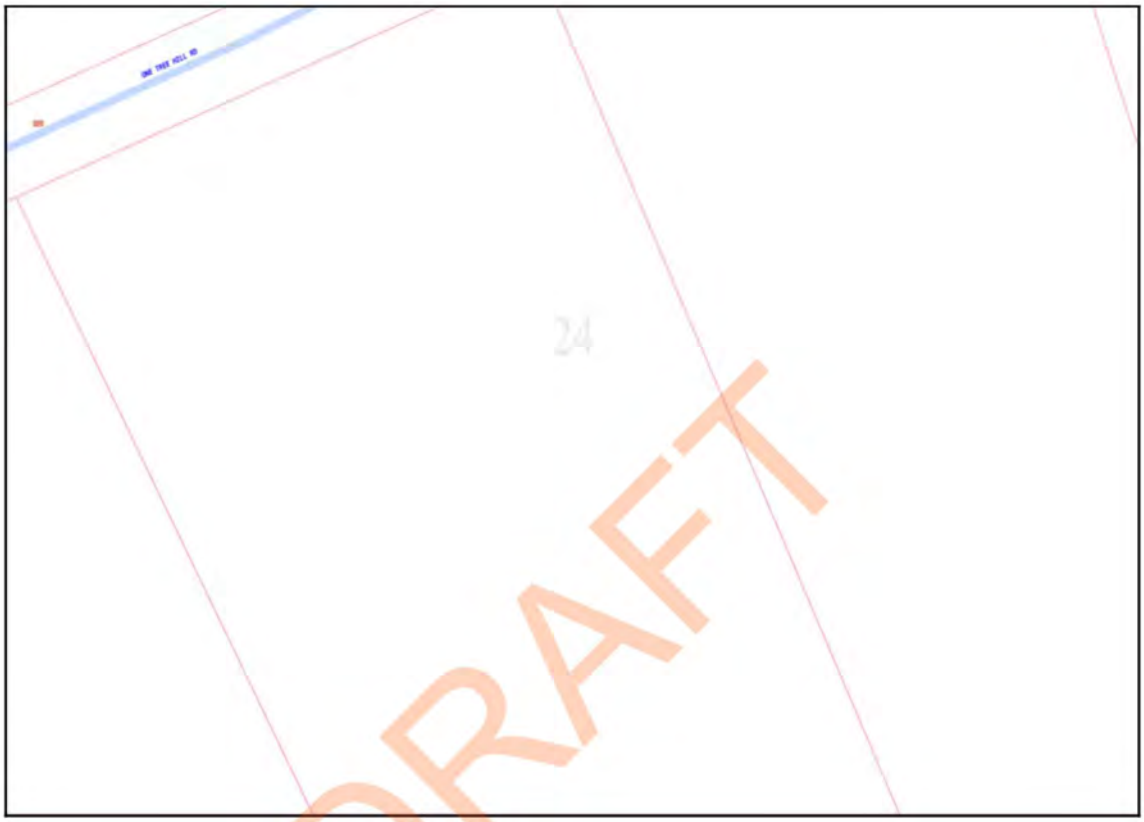
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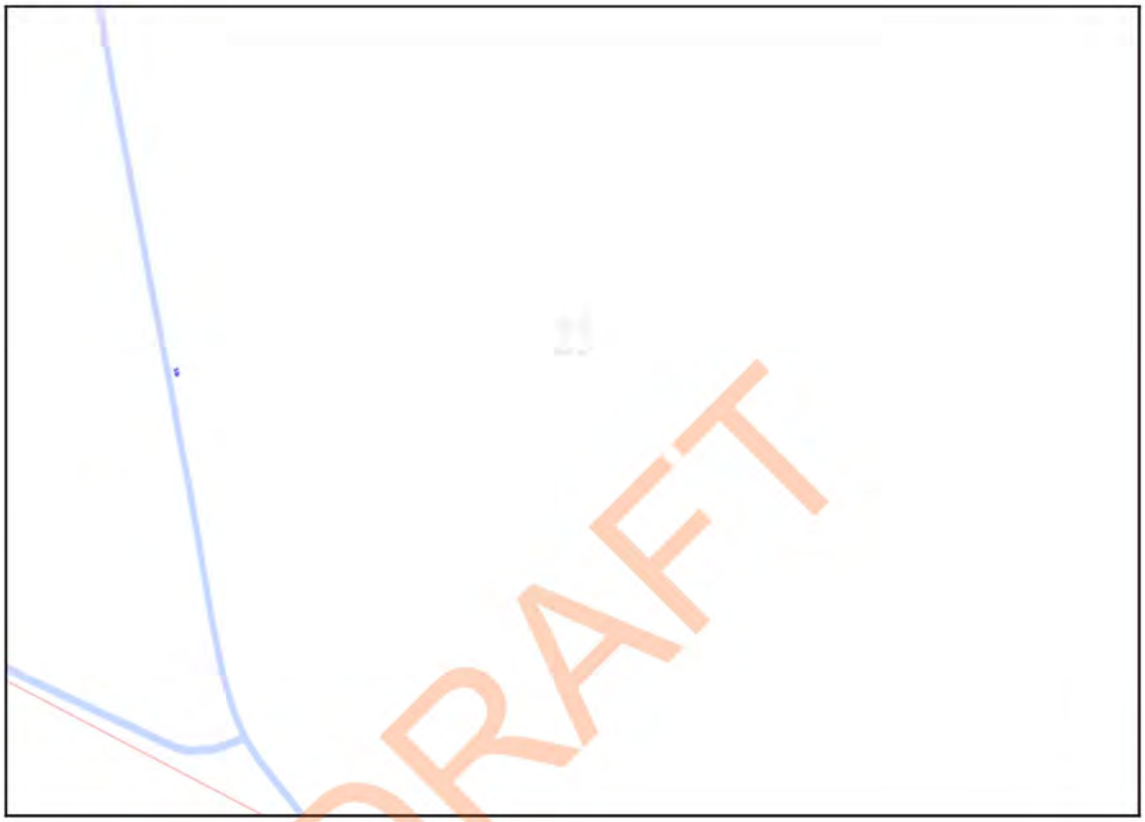
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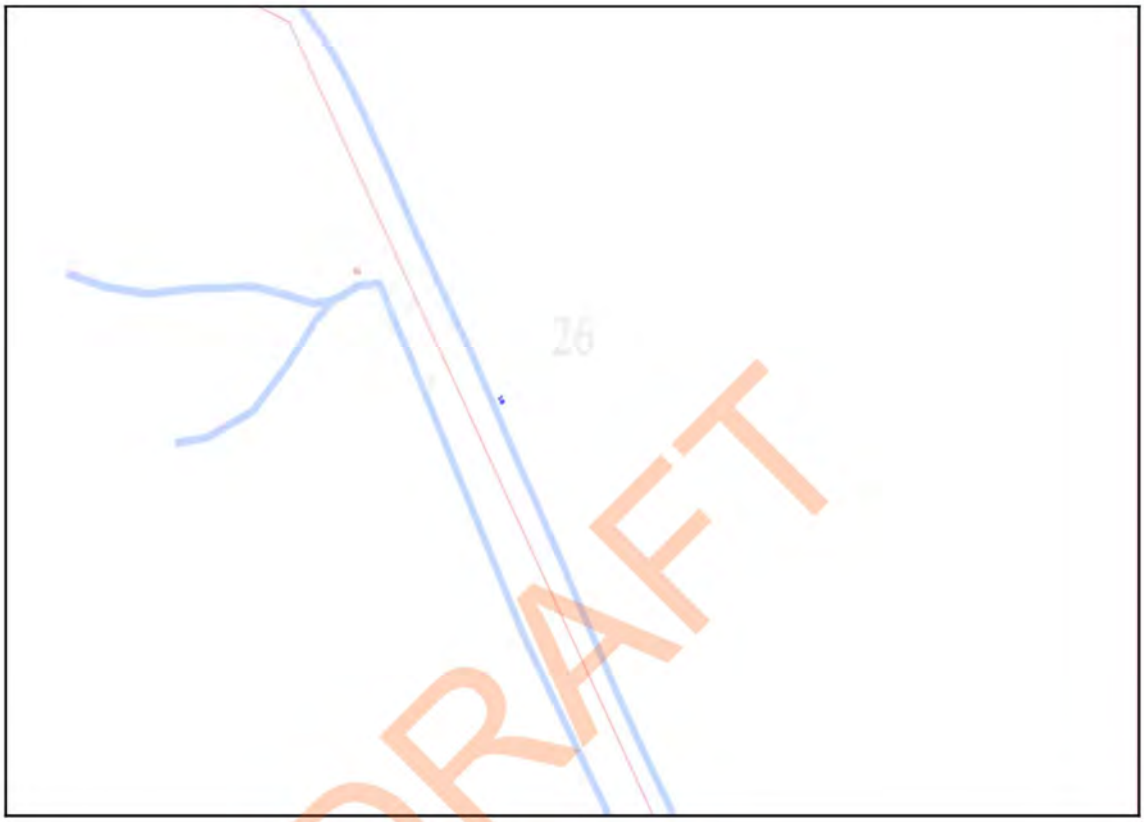
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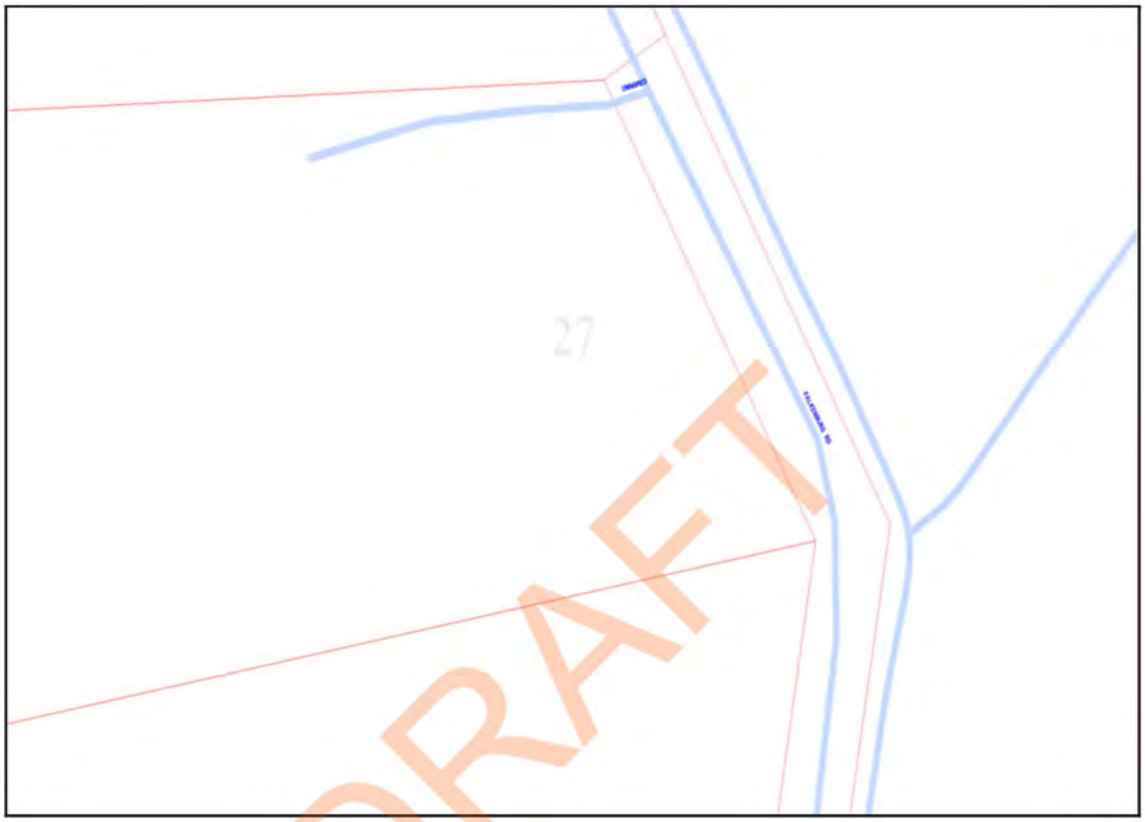
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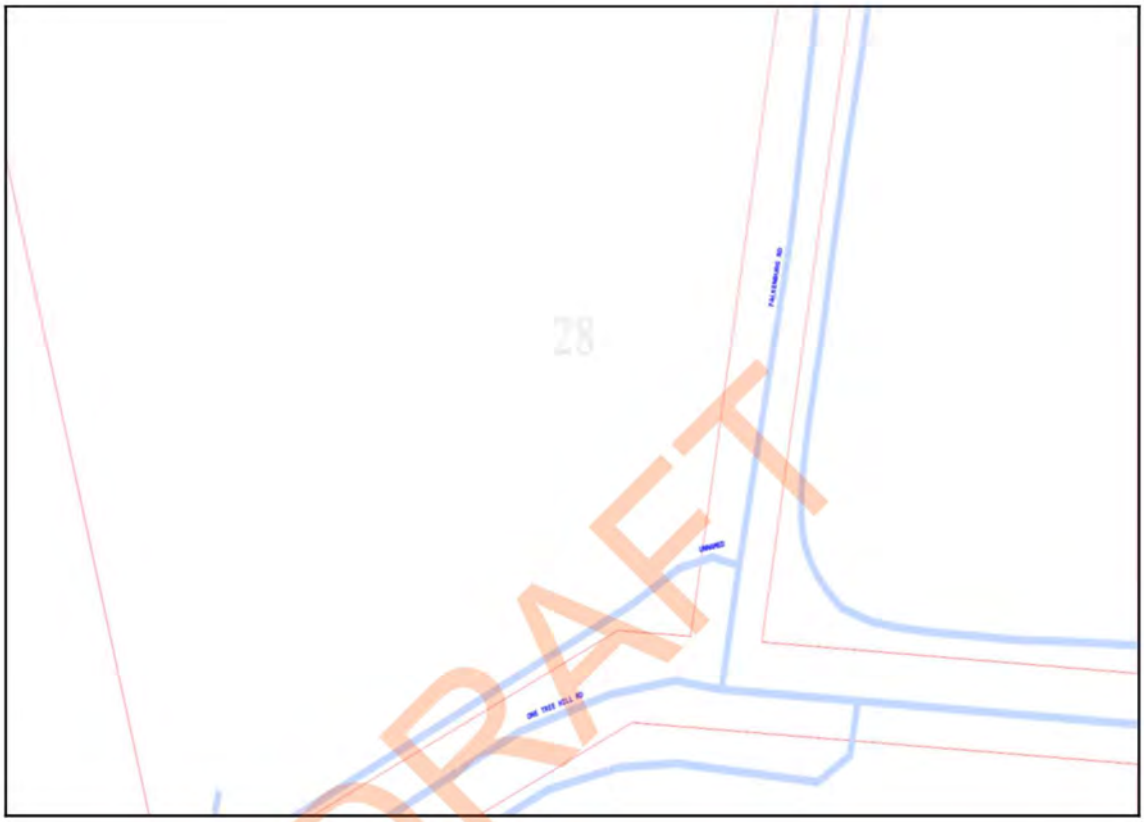
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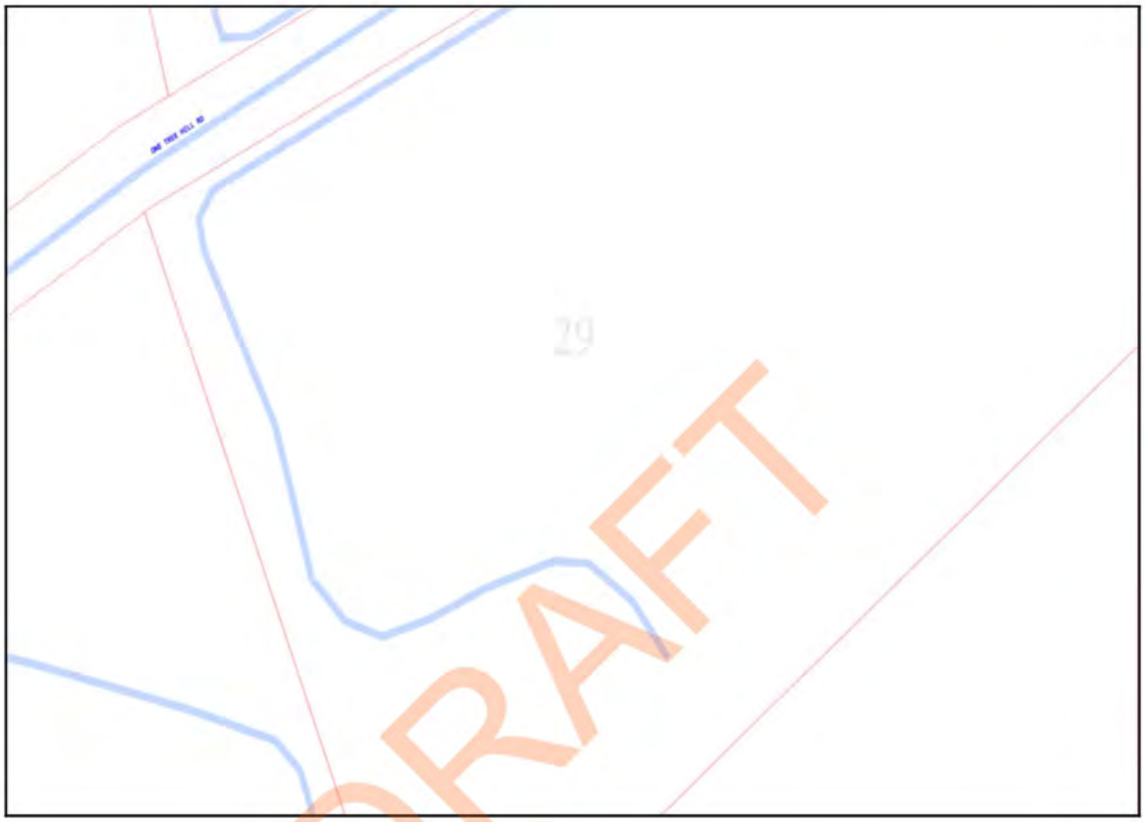
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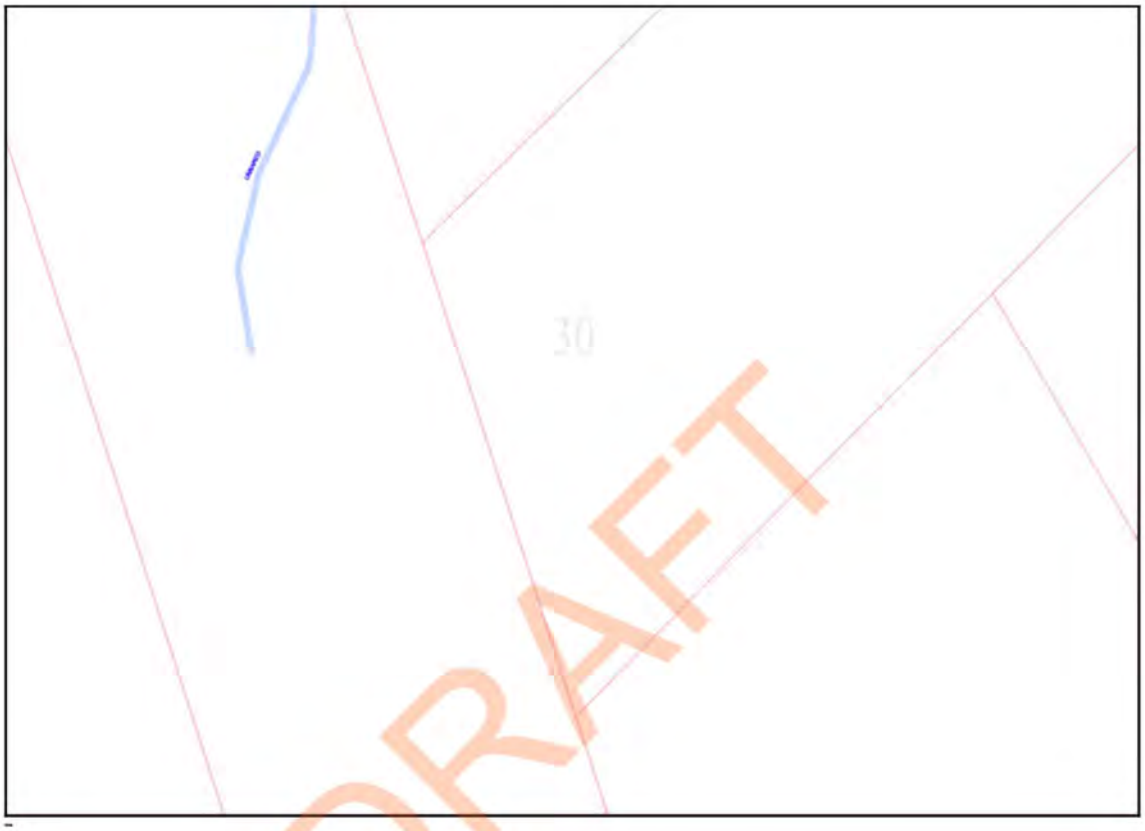
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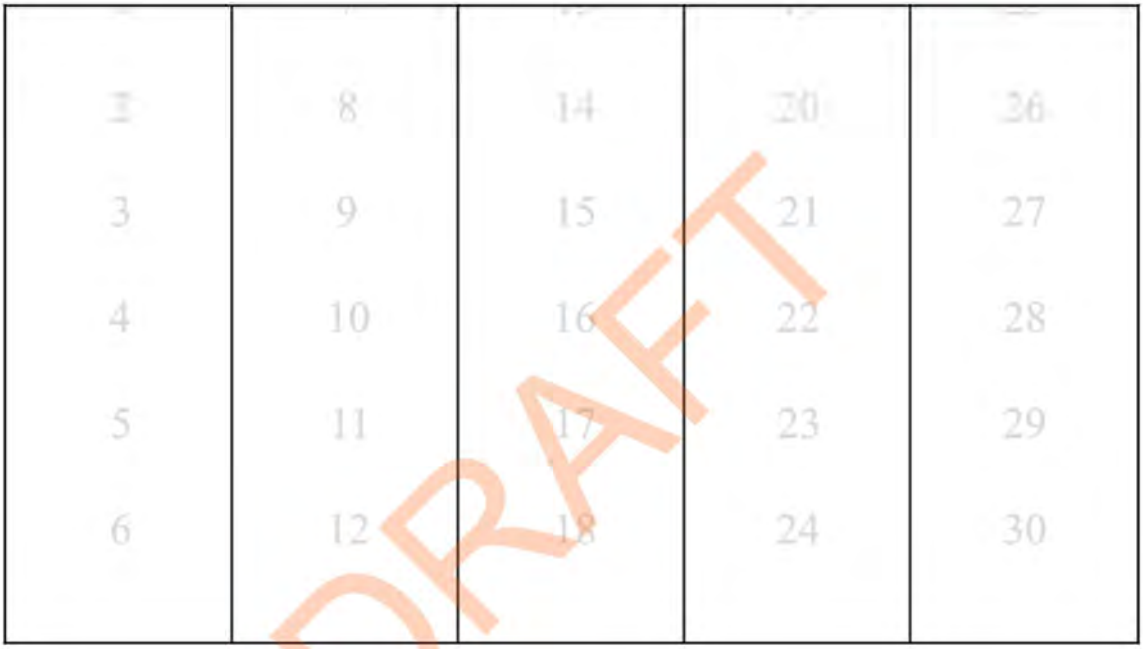
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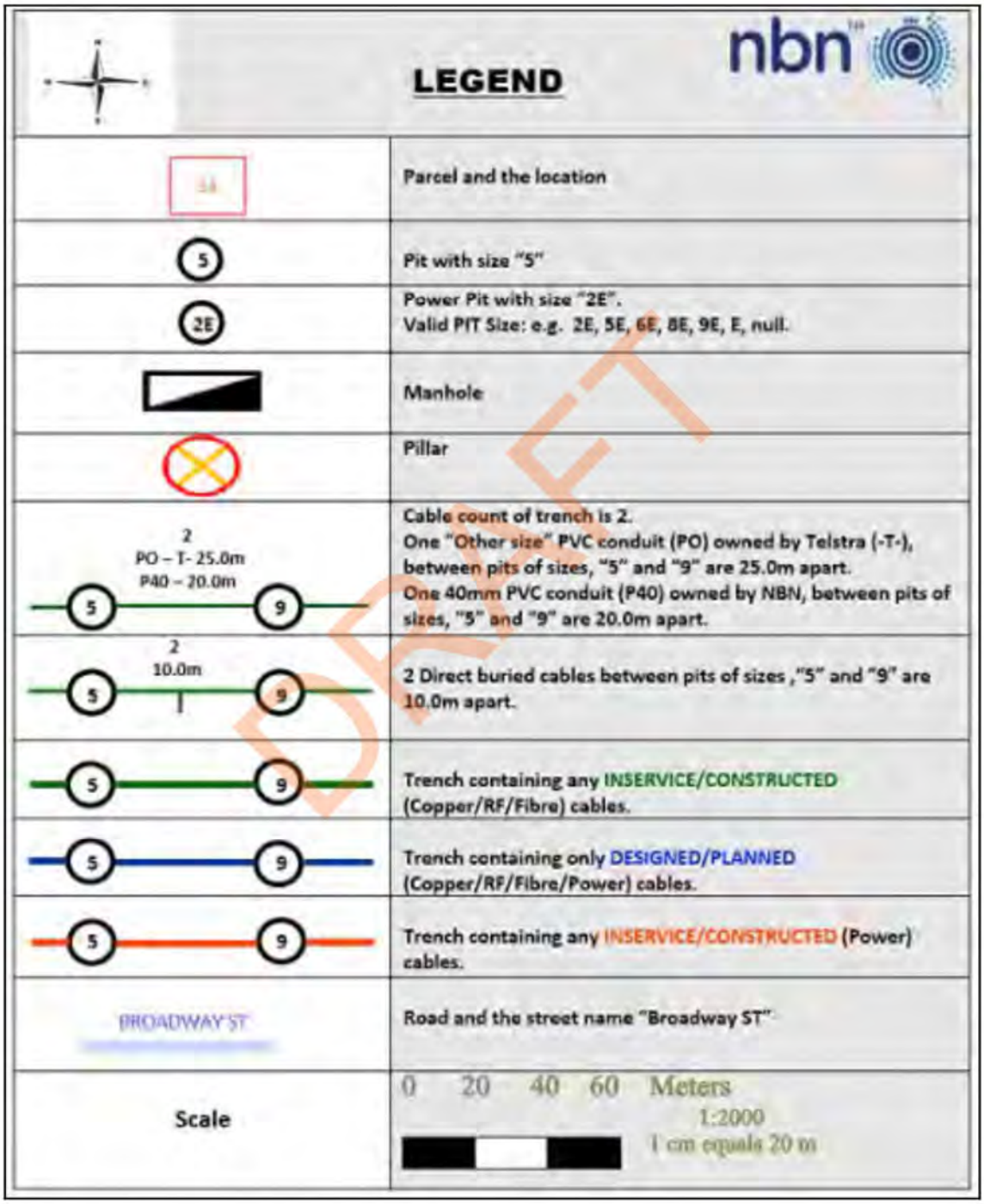
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Indicative Plans

Issue Date:	24/01/2020
Location:	Strachan Road , Golden Grove , SA , 5125



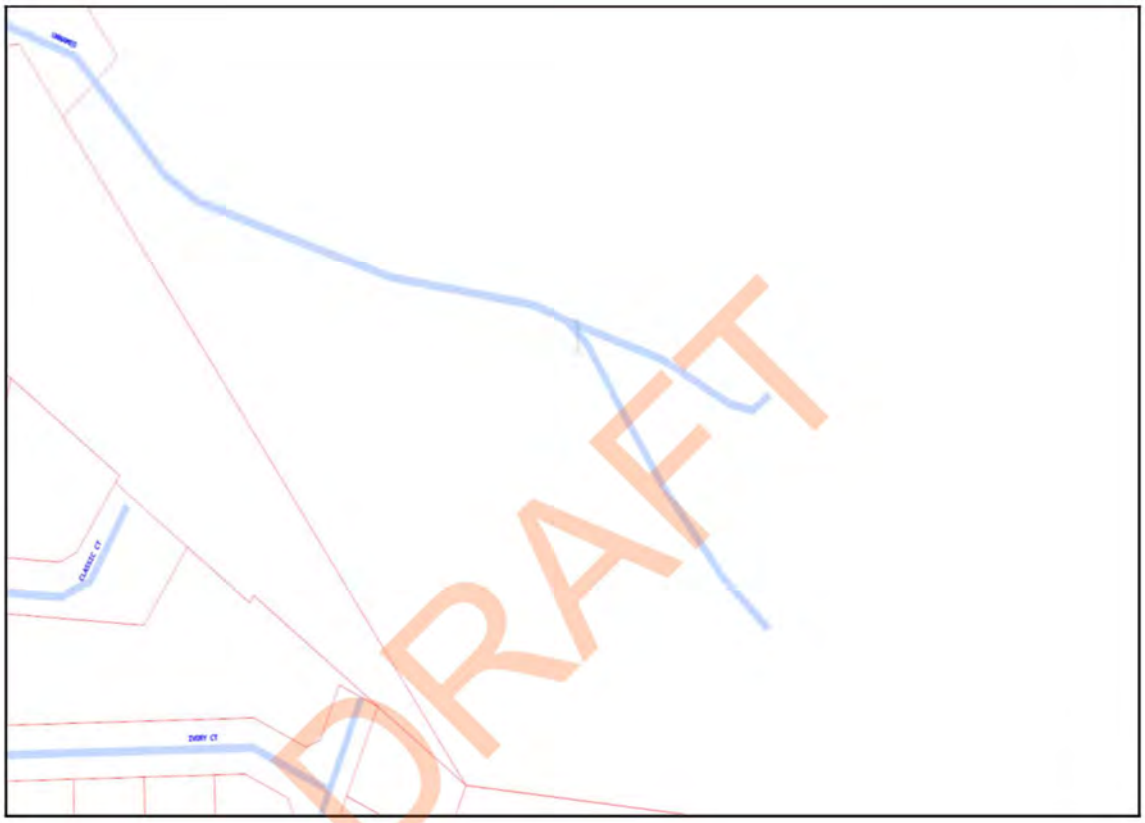
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LEGEND	
14	Parcel and the location
5	Pit with size "5"
2E	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
2 PO – T- 25.0m P40 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
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5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m

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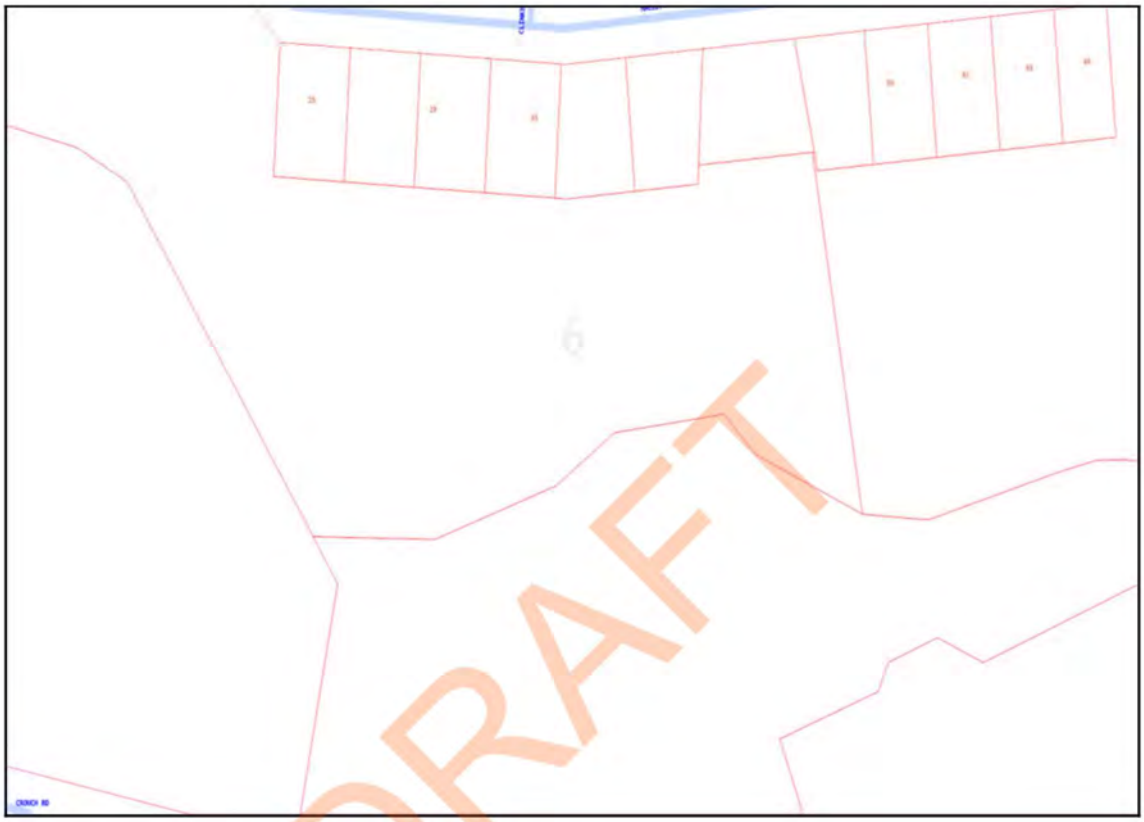
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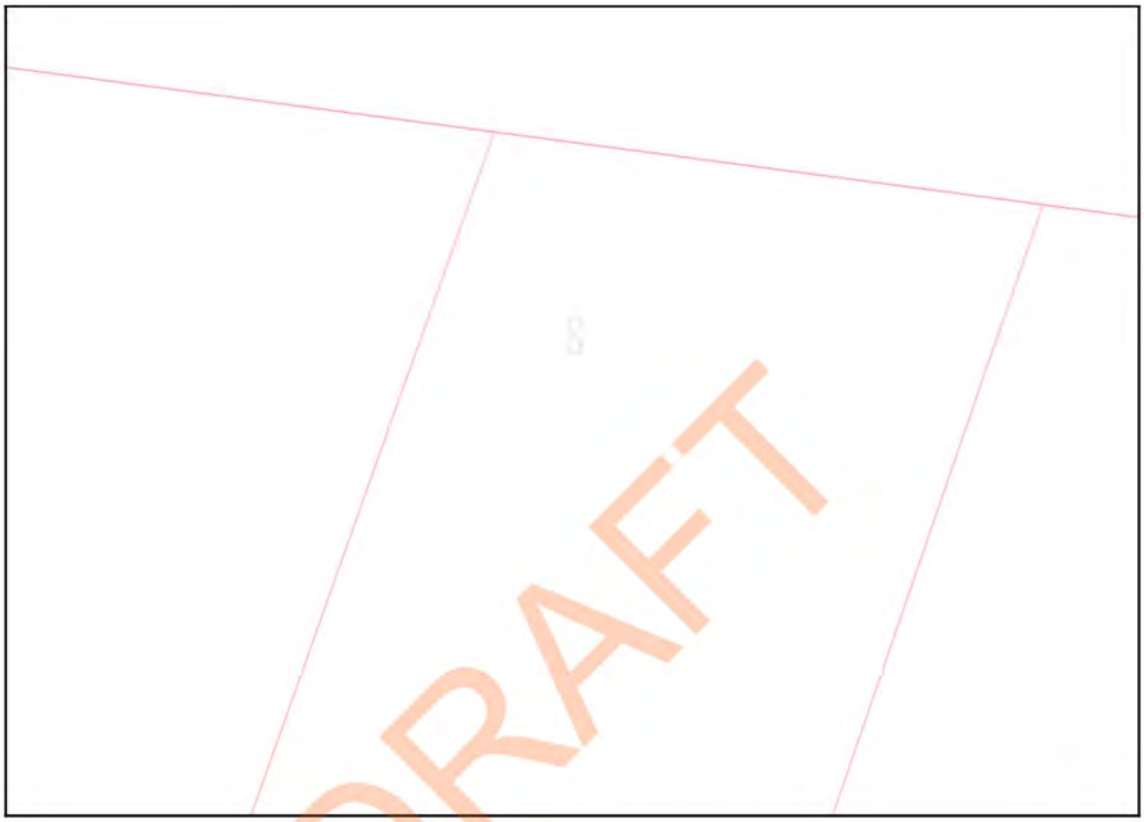
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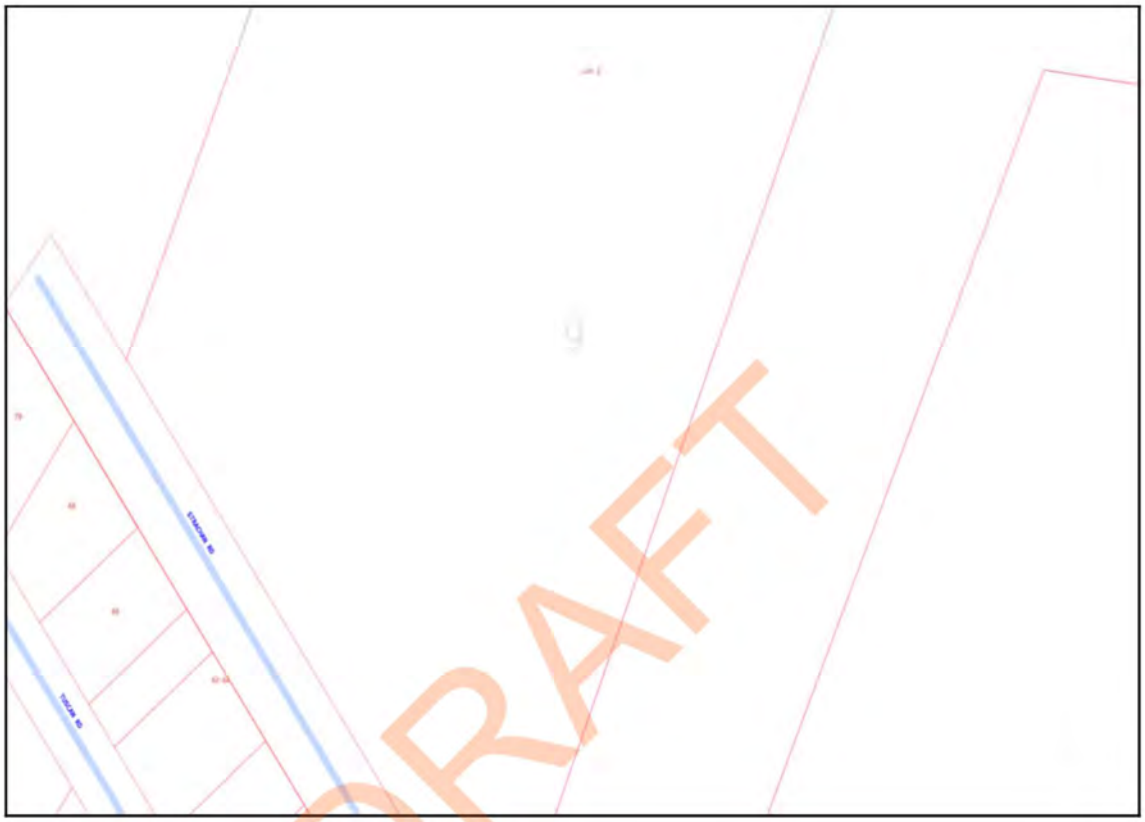
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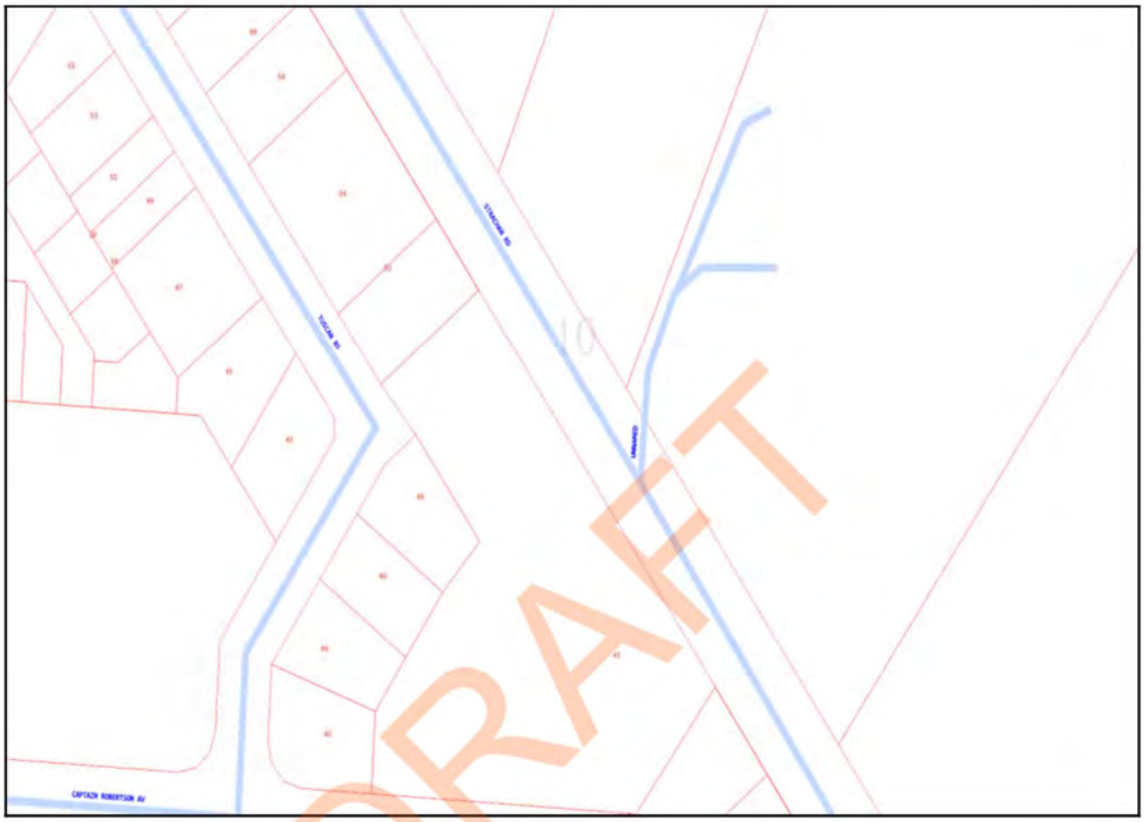
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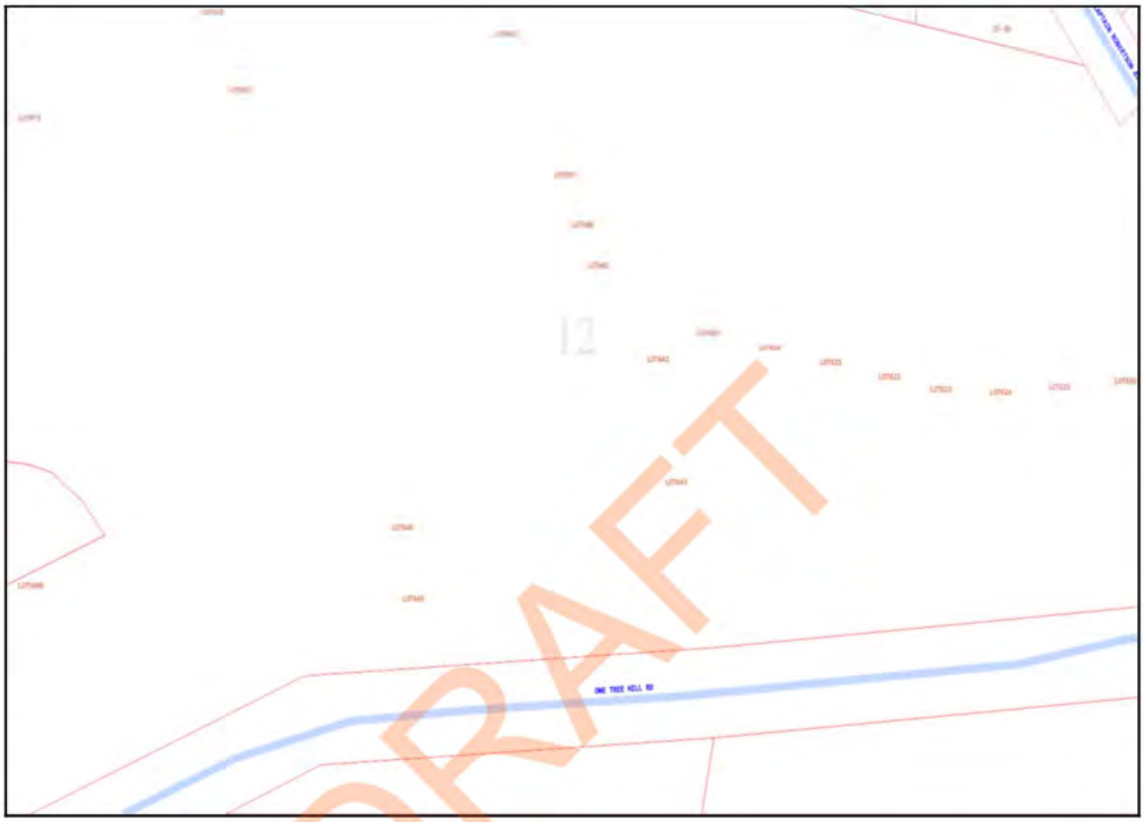
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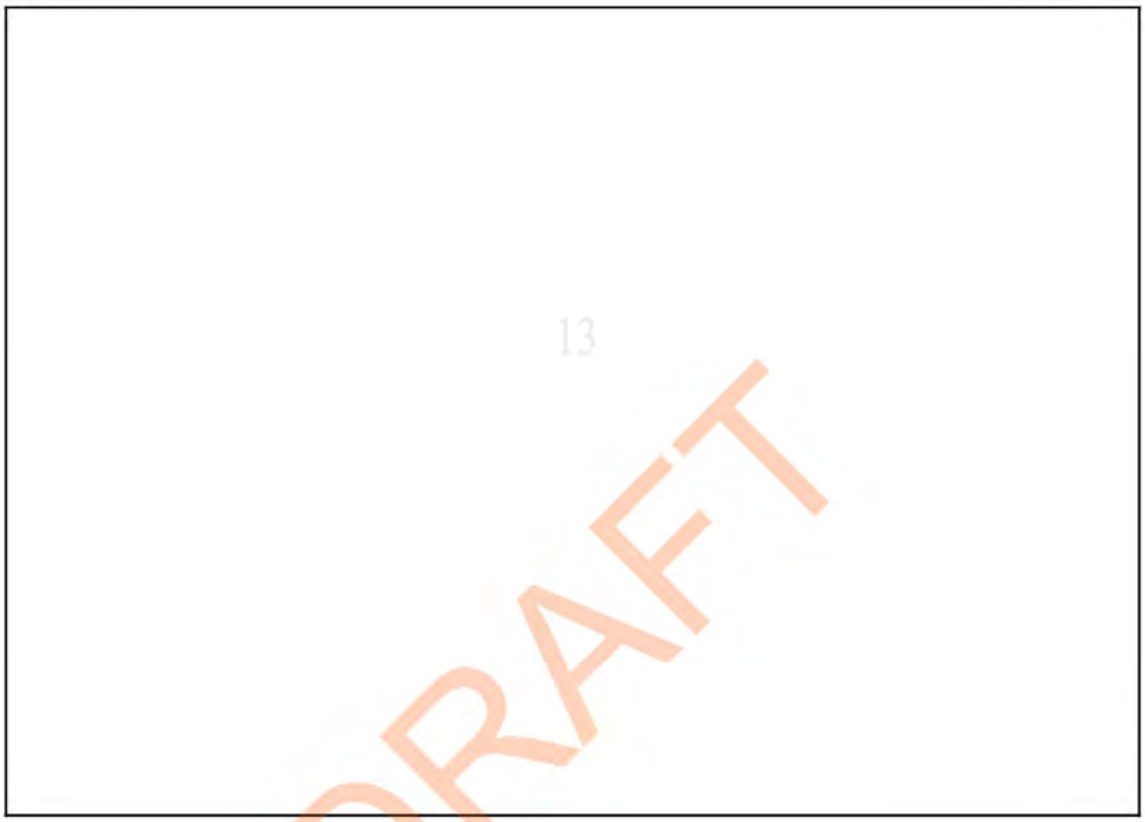
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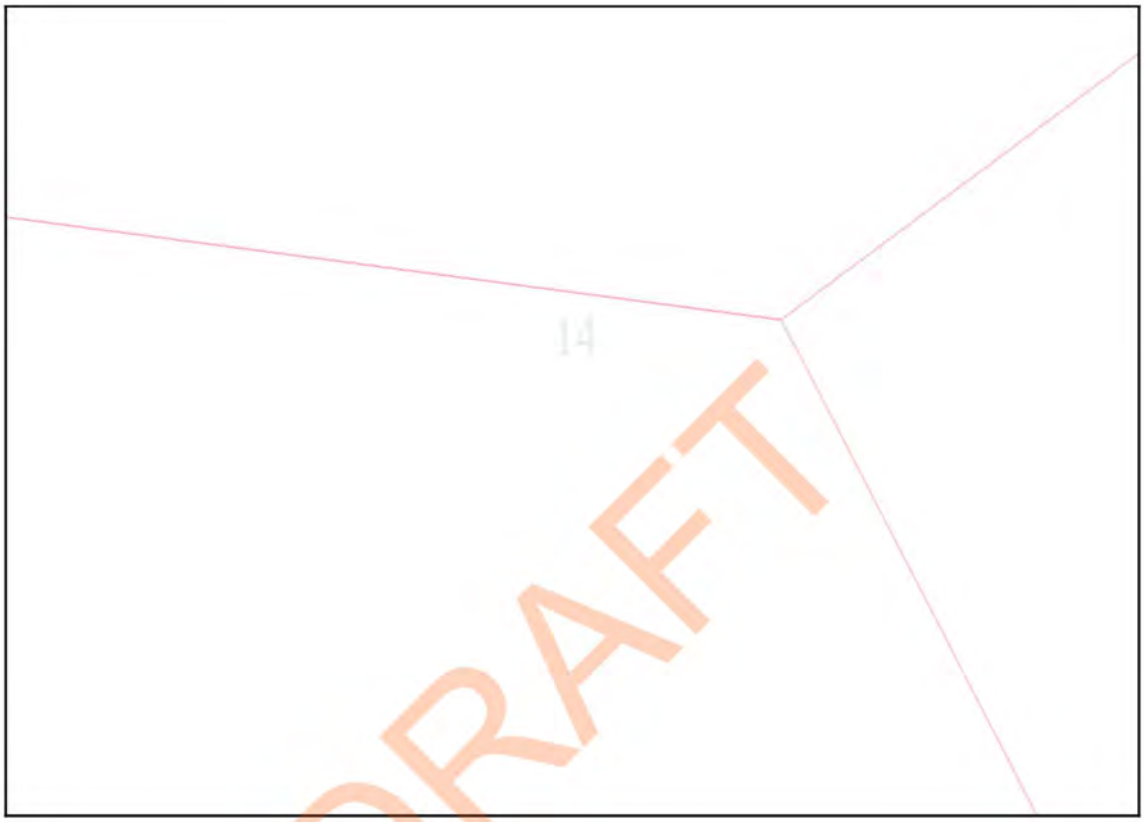
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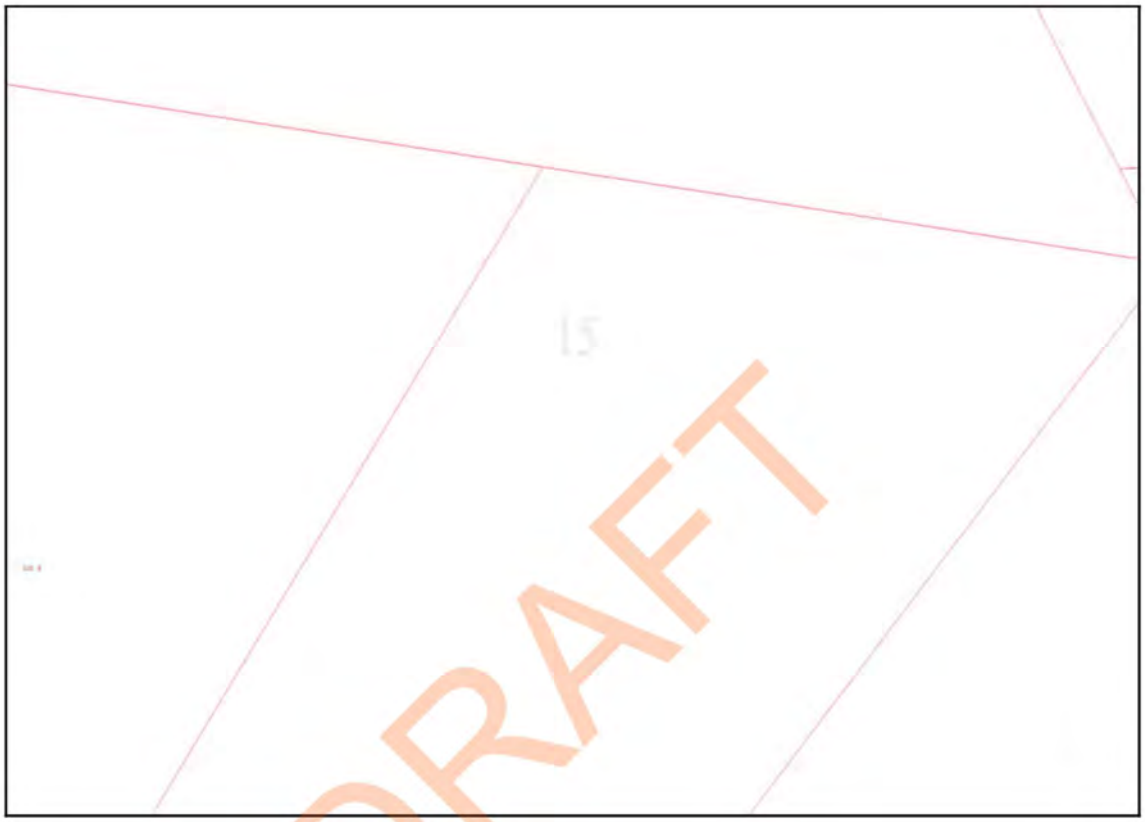
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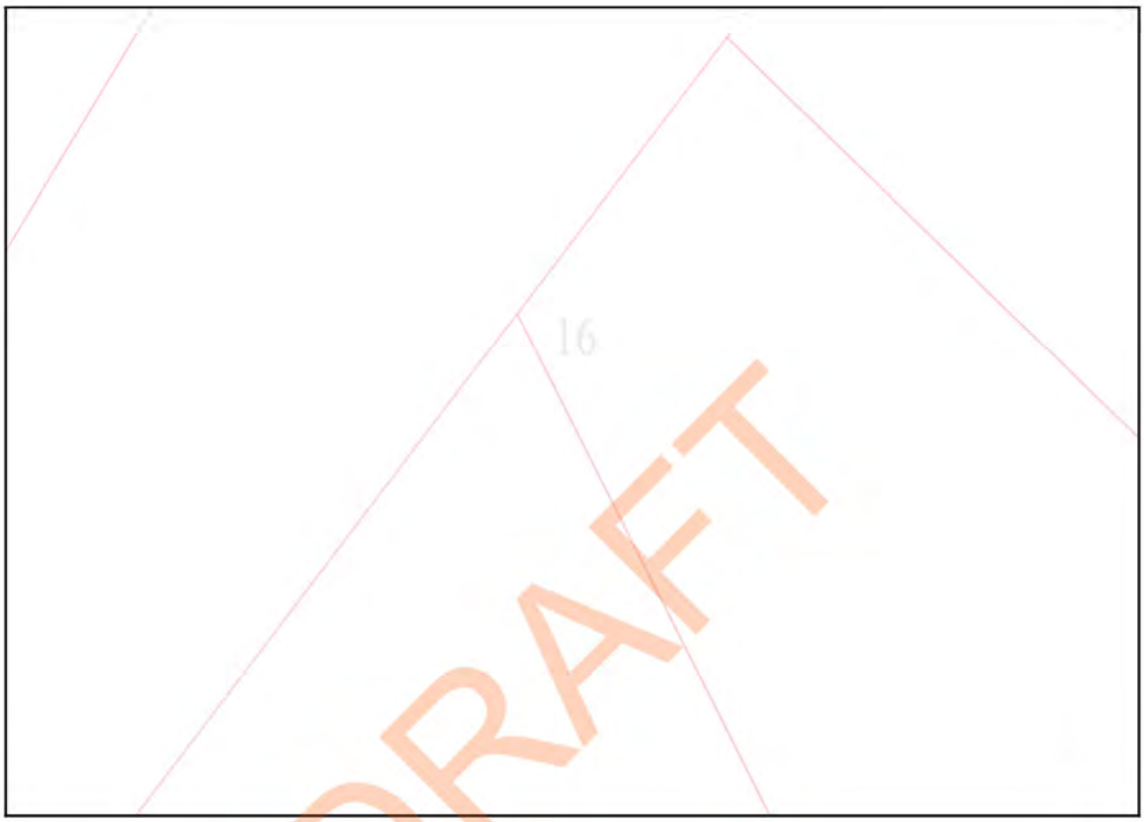


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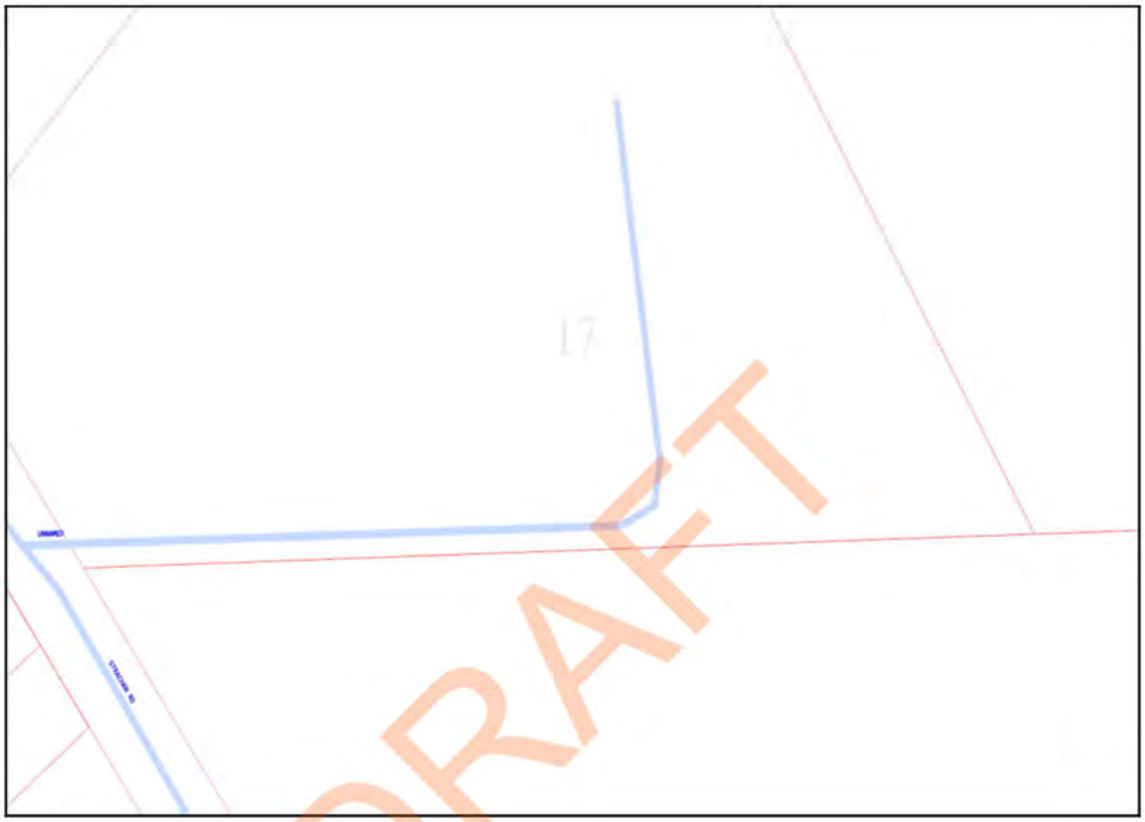


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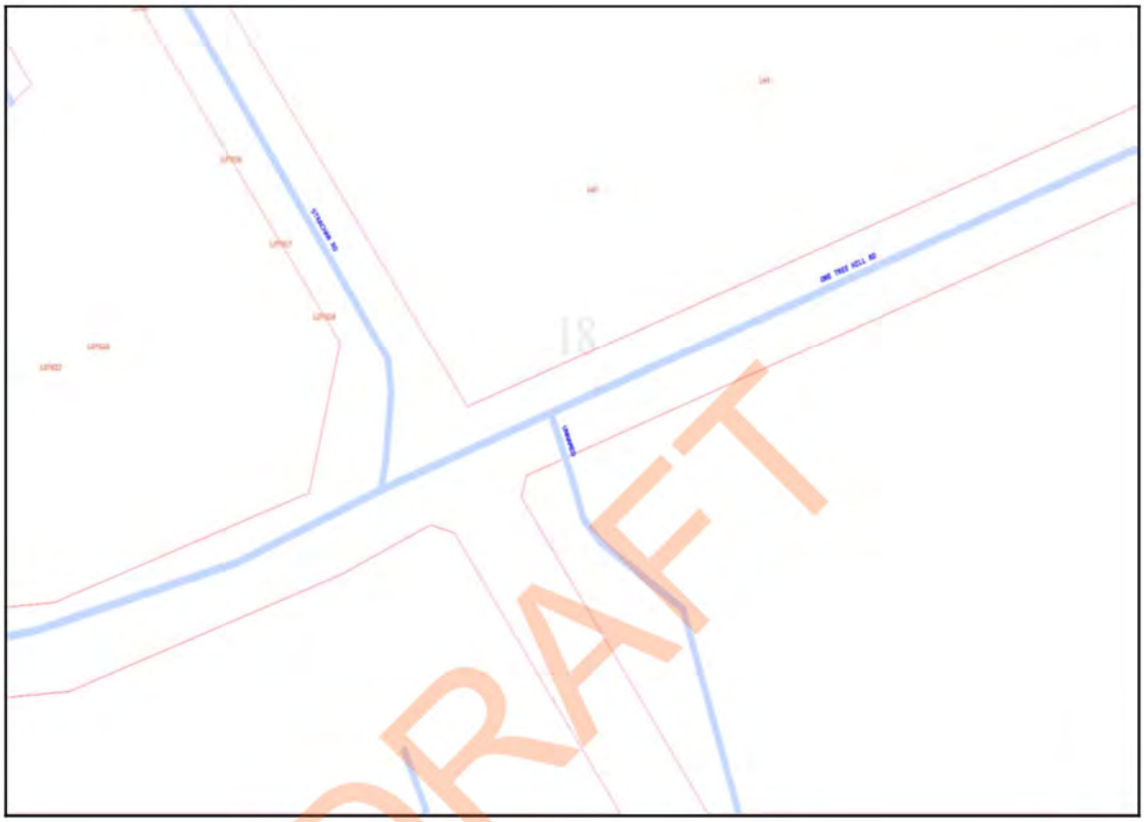
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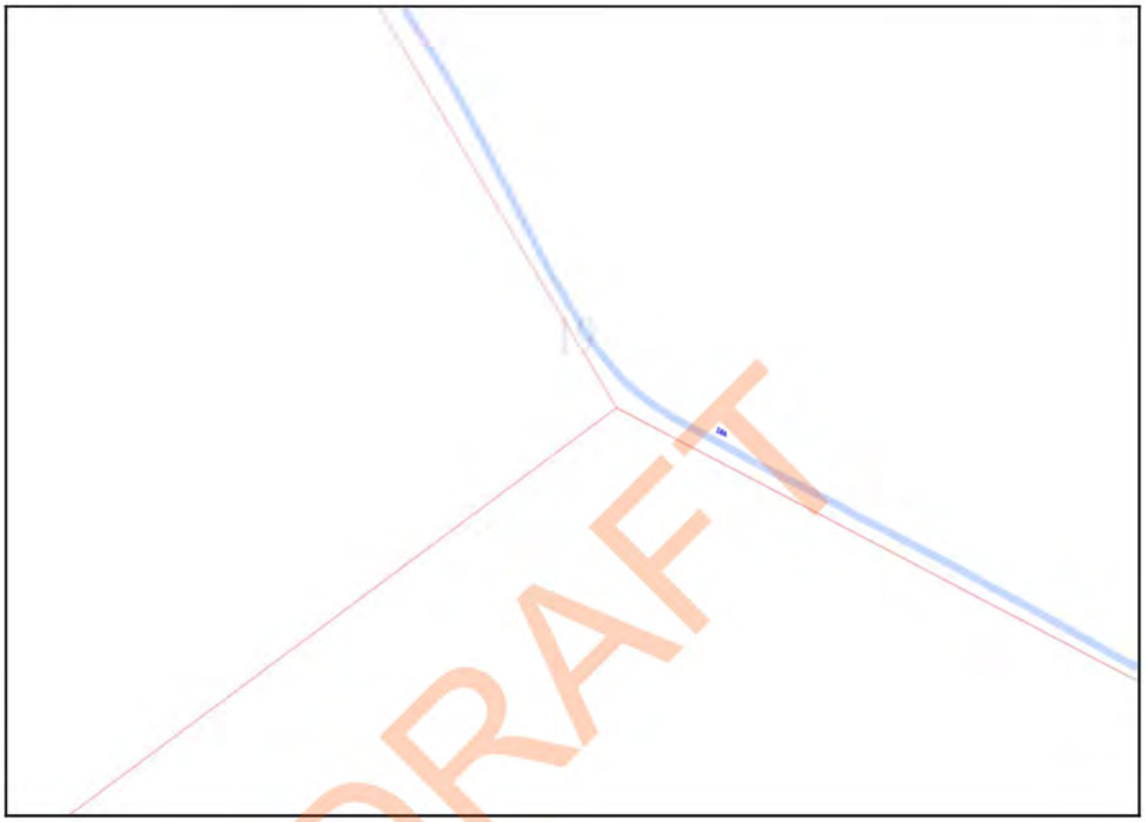
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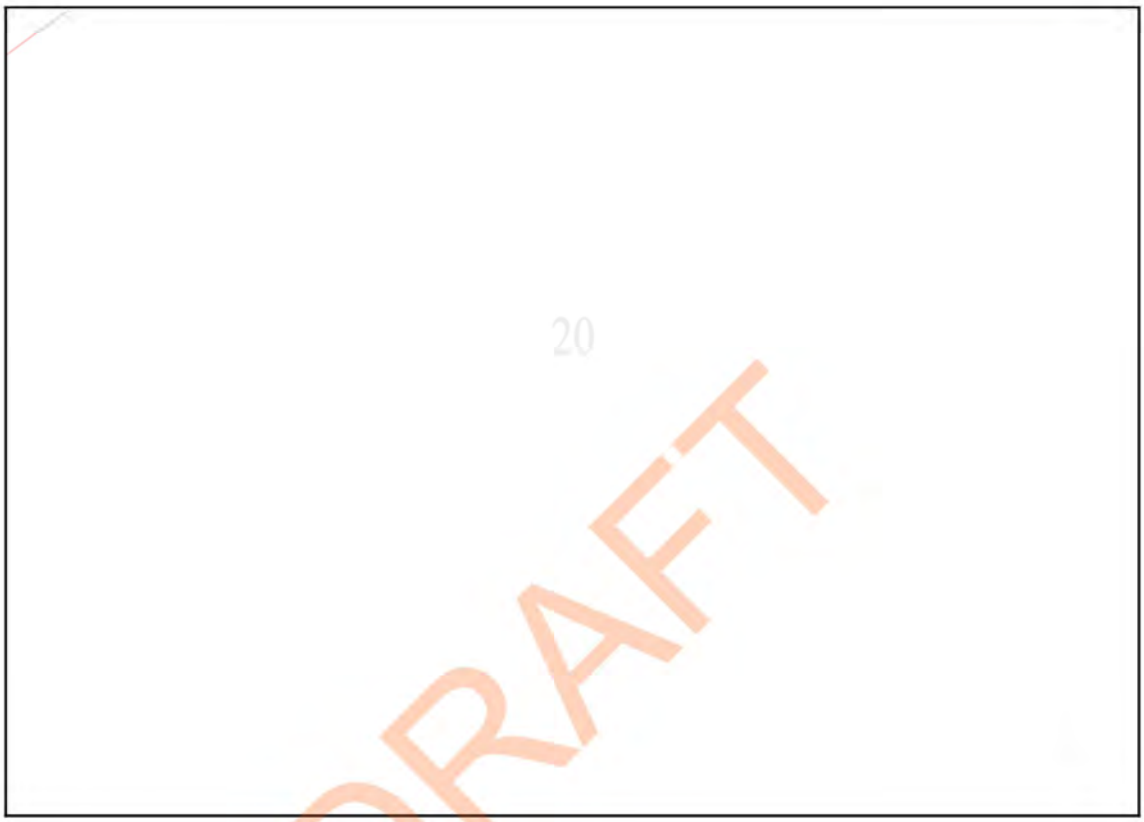
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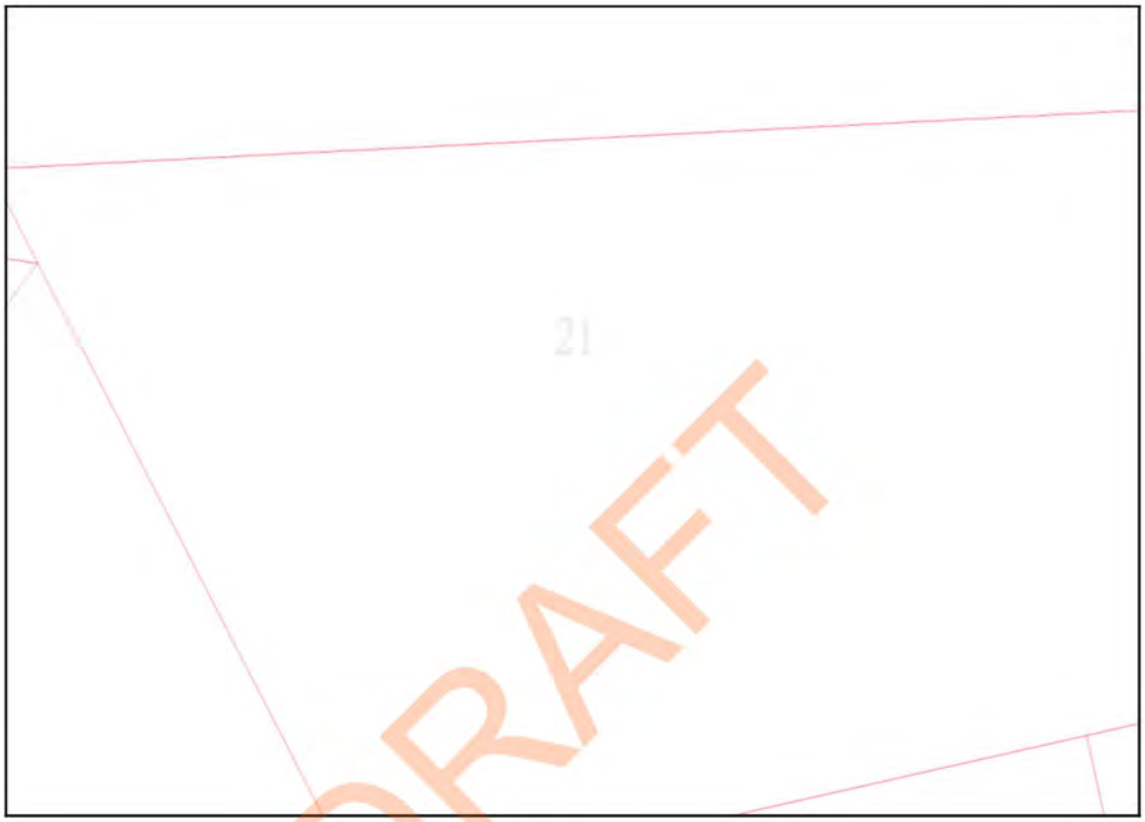
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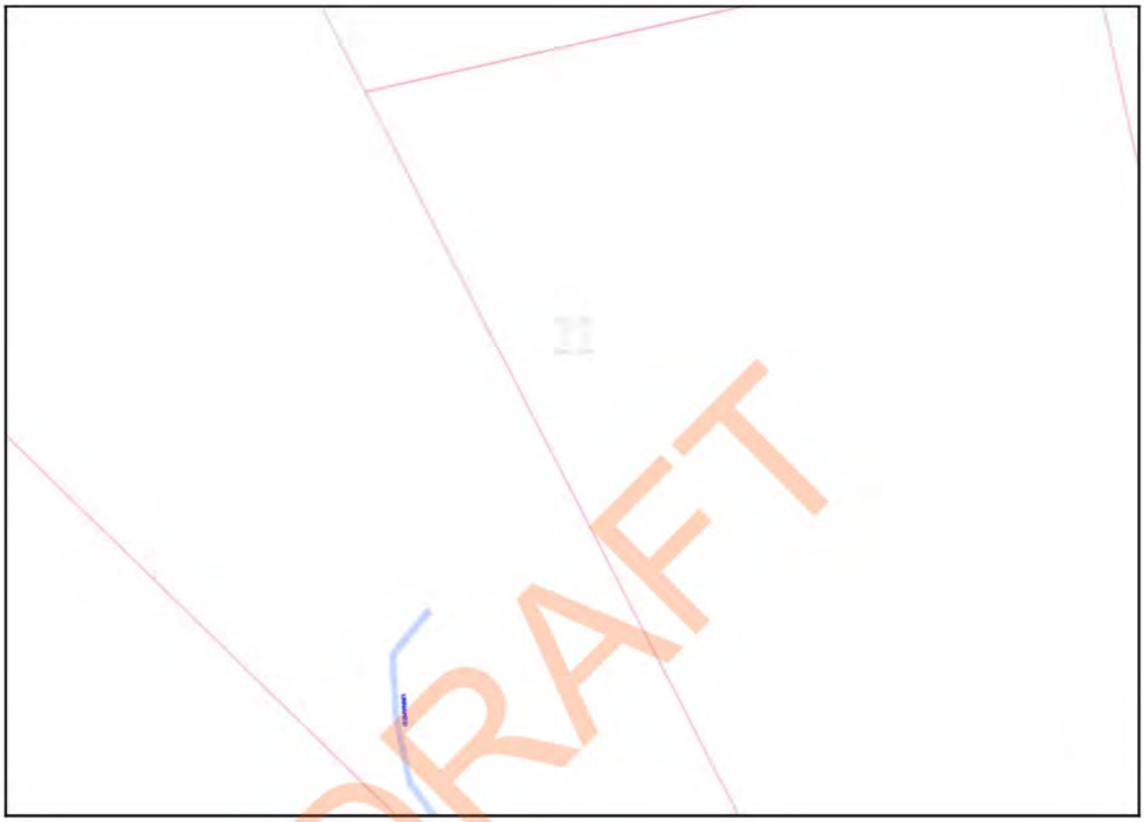
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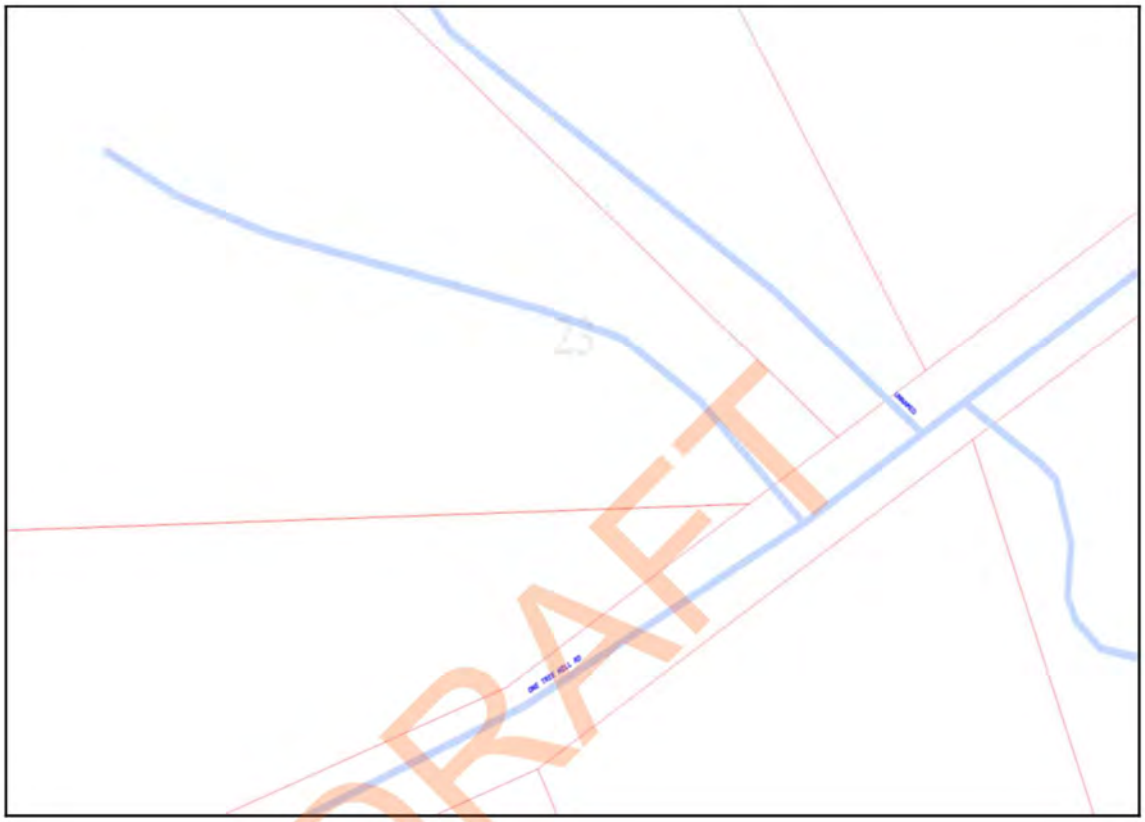
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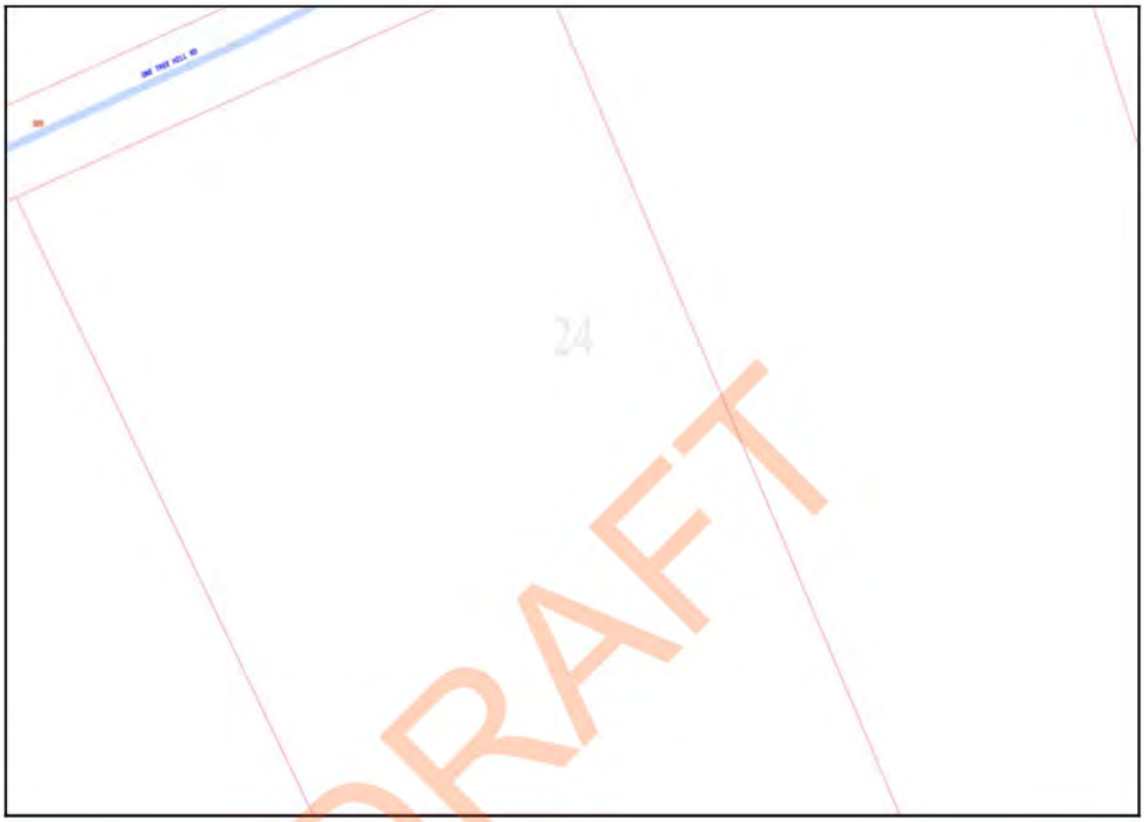
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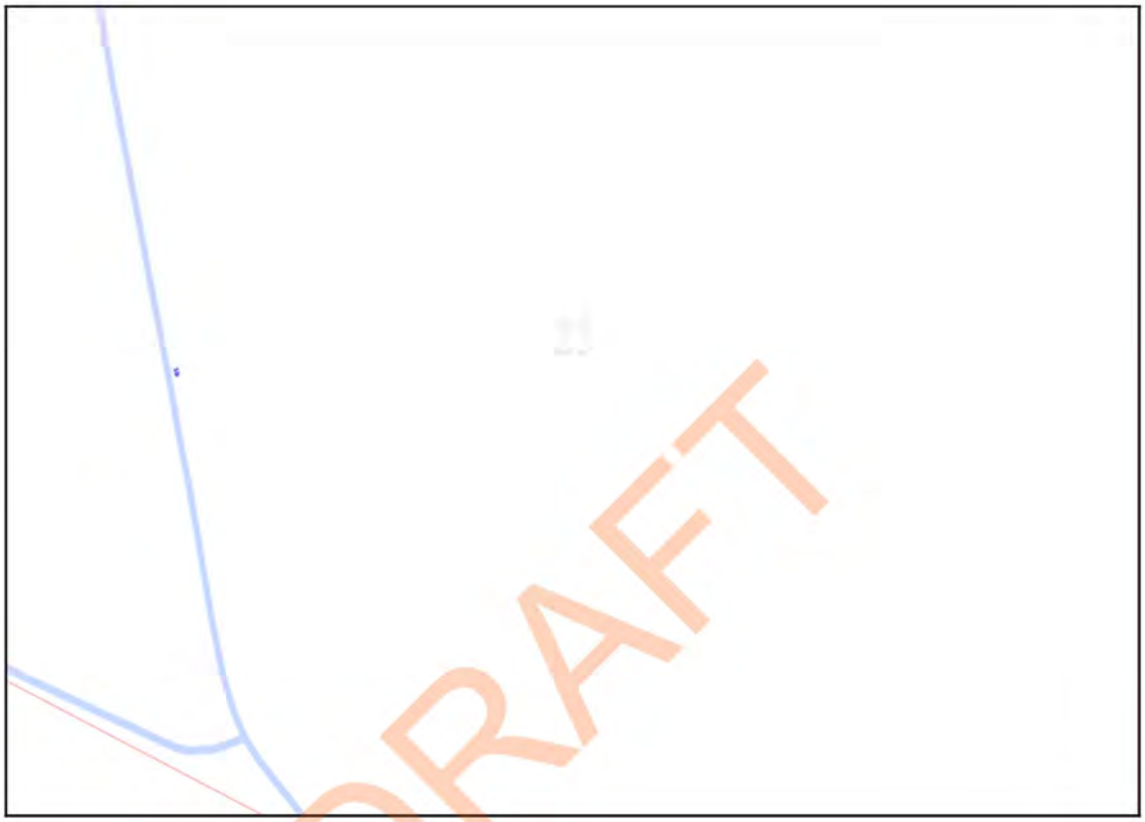
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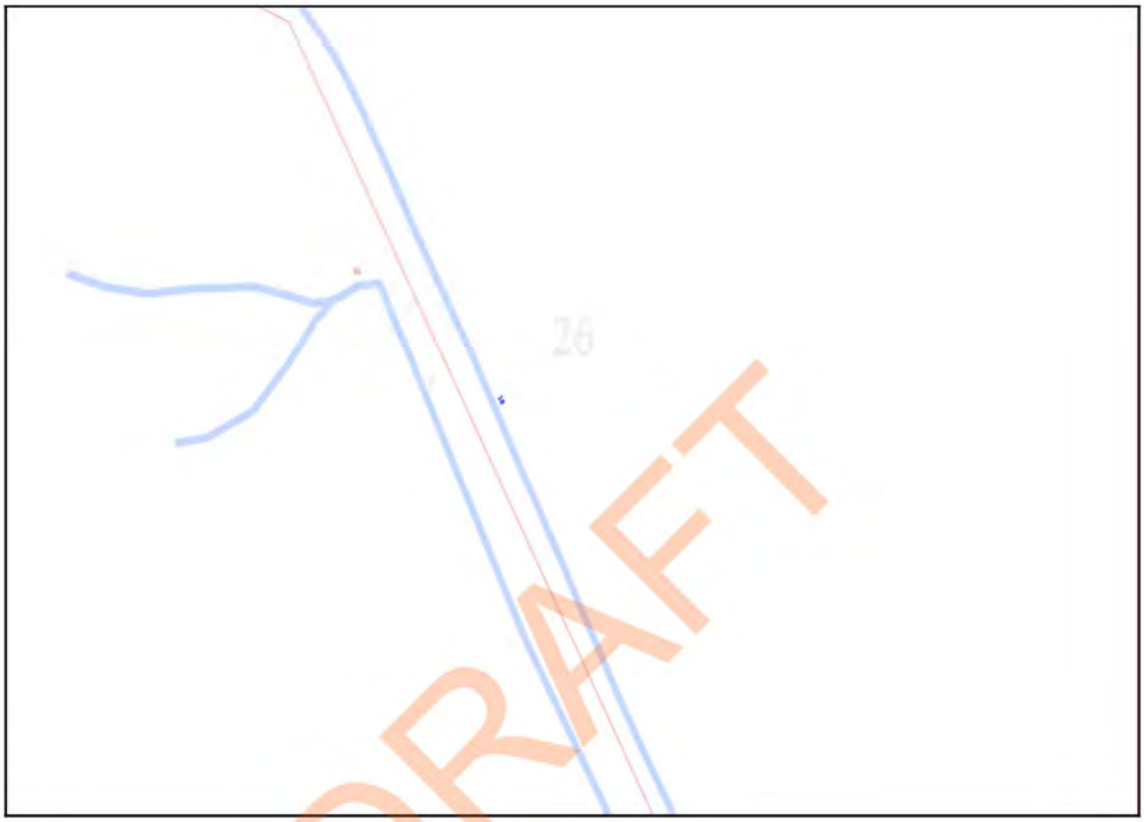
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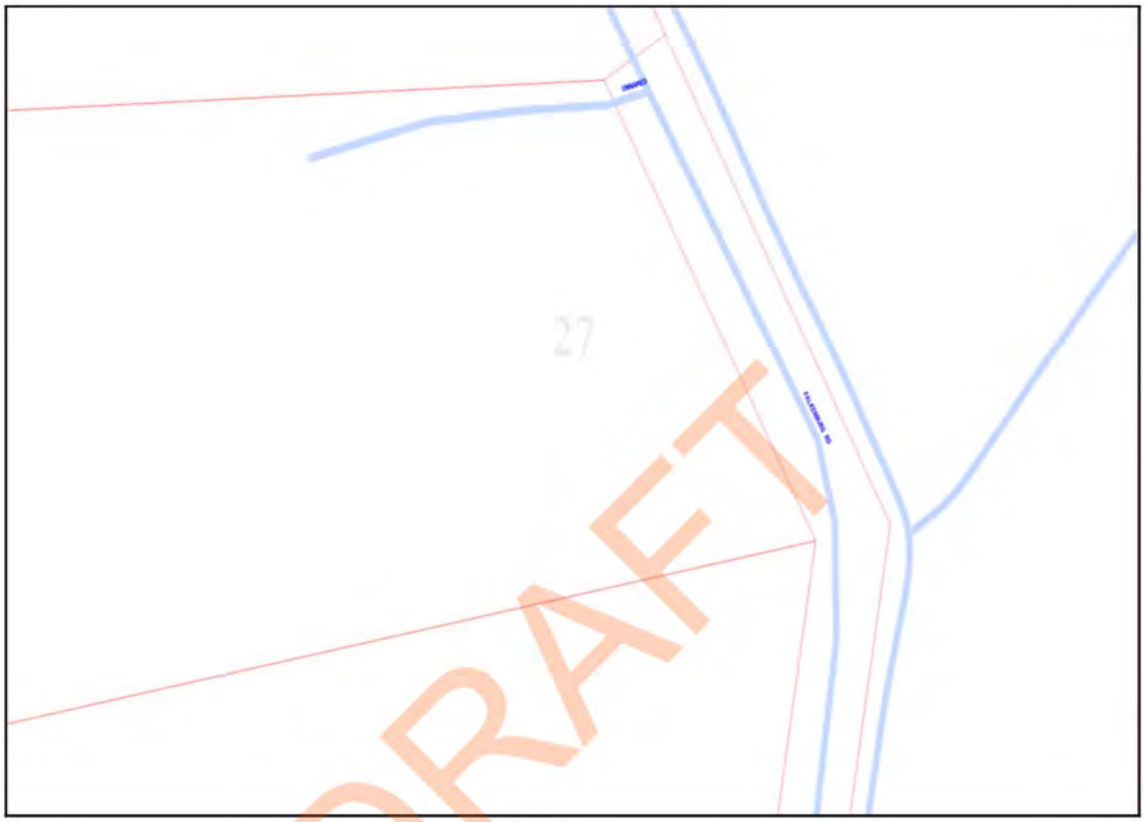
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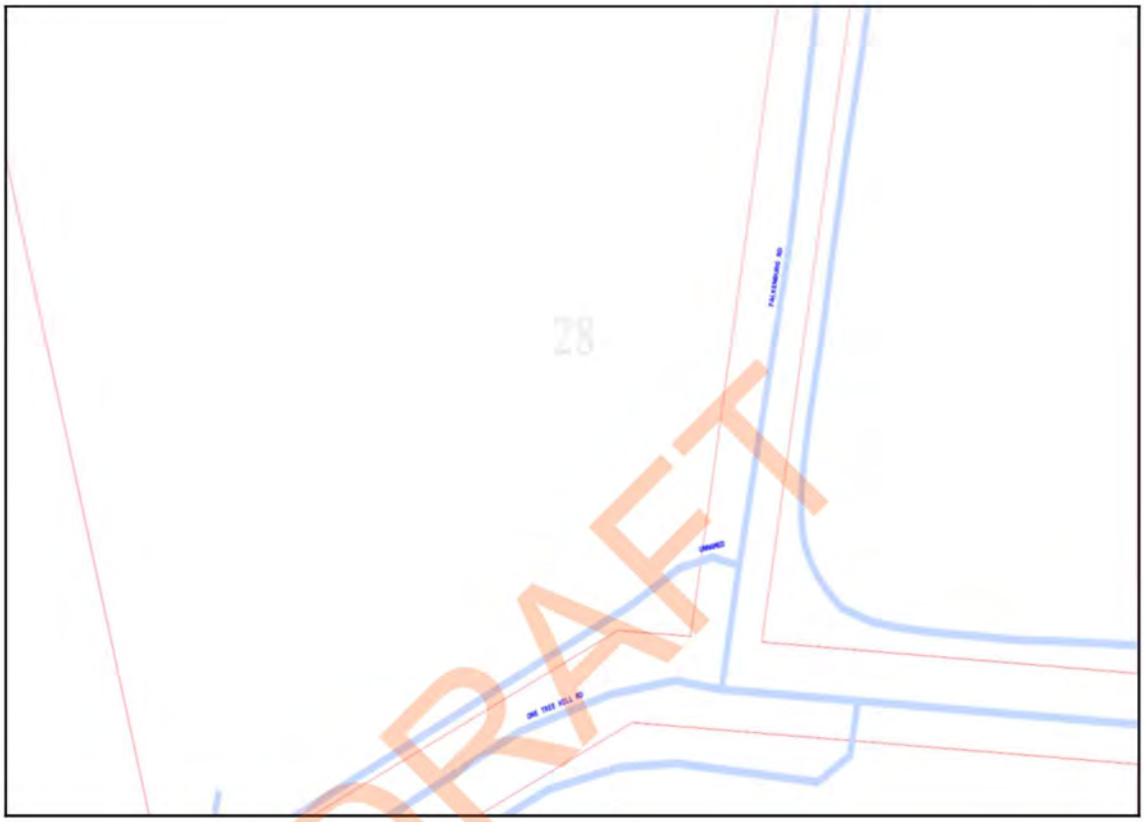
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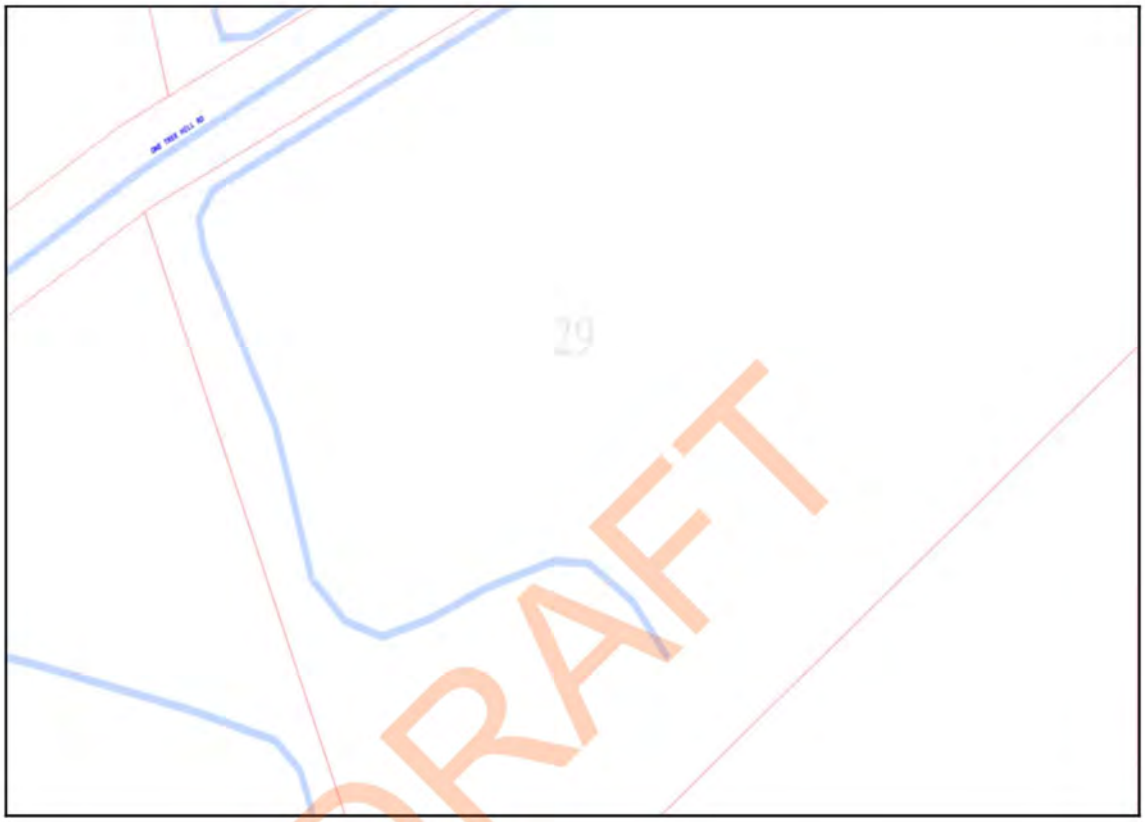
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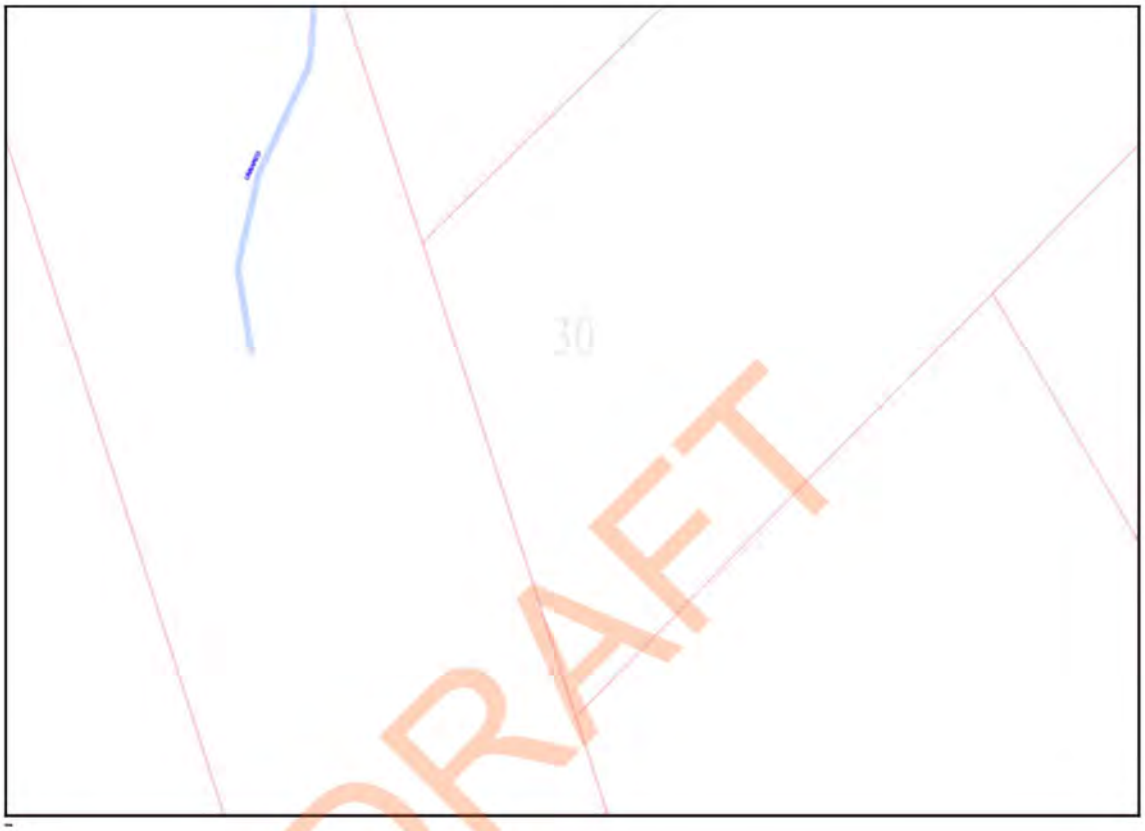
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Emergency Contacts

You must immediately report any damage to **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

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SA Power Networks

Dial Before You Dig (DBYD) Location Information

To:
JBS&G - Mr Haydn Franklin
38 Dequetteville Terrace
Kent Town SA 5067

Enquiry Details	
Utility ID	50800
Sequence Number	94147133
Enquiry Date	24/01/2020 18:11
Response	AFFECTED
Address	Strachan Road Golden Grove
Location in Road	Not Supplied
Activity	Vertical Boring

Enquirer Details			
Customer ID	1764031		
Contact	Mr Haydn Franklin		
Company	JBS&G		
Email	hfranklin@jbsg.com.au		
Phone	0884317113	Mobile	0402437107

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Underground cable locations
ASSETS FOUND

The process:

1. You made an enquiry with Dial Before You Dig (1100).
2. Dial Before You Dig referred your enquiry to SA Power Networks (South Australia's Distribution Network).
3. SA Power Networks has checked their records and have found underground assets in your request area.
4. Please review the attached Asset Map(s) in regard to your excavation, as there may be some restrictions that apply if your excavation is greater than 300mm below ground level and less than 3.0m from an SA Power Networks Asset. Further explanation of restricted and exclusion zones can be found at *http://www.sapowernetworks.com.au/public/download.jsp?id=1775* OR search sapowernetworks.com.au for NICC 404 and by referring to the figure on page 10, 11 or 12.
5. An on-site assessment and/or technical drawings may also be necessary to ascertain the exact cable/asset location. This service can be provided by SA Power Networks and may incur a cost.
6. Please contact your local SA Power Networks Location Officer to schedule work or make further enquiries regarding this request either by return email or the contact number supplied. Other general enquiries can be made on (08) 8292 0218.
7. If you have damaged SA Power Networks Assets immediately notify Faults & Emergencies on 131 366.

Please note: Underground services in the vicinity of any proposed earthworks must be located by hand digging (pot-holing) prior to the commencement of works. Persons conducting works will be held responsible for any resulting loss or damage to the services associated with infrastructure

Important information and conditions of use for users of underground services information supplied by SA Power Networks

Indicative information only

The accompanying information is intended only to indicate the presence of SA Power Networks' underground services and/or to convey general indicative information in respect of the location marked on the plans. The information does not necessarily provide current, comprehensive or accurate description or location of the underground services or associated infrastructure.

The information may also describe or indicate the presence of underground services or infrastructure not owned by SA Power Networks, for example, electrical services connected to an SA Power Networks' service point. SA Power Networks takes no responsibility for services or infrastructure that is not owned or operated by SA Power Networks or the accuracy or completeness of their description or location in the accompanying information.

Additional technical information may be requested from SA Power Networks for planning or engineering design (non-digging) purposes. Such requests are to be directed to SA Power Networks Builders and Contractors Electrical Service Line (1300 650 014).

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Identifying the location of underground services

Working near or around live electrical cables can be hazardous. An on-site assessment is strongly recommended prior to undertaking ANY works and is necessary to determine the location of the underground services. This can be undertaken by SA Power Networks or an alternative professional locating service provider. Enquiries can be made about SA Power Networks' cable location service by telephoning (08) 8292 0218.

Restrictions may apply in regard to your excavation particularly if your excavation is greater than 300mm below ground level and less than 3.0m from an SA Power Networks asset. Further explanation regarding restricted exclusion zones can be found at *http://www.sapowernetworks.com.au/public/download.jsp?id=1775* OR search sapowernetworks.com.au for NICC 404 and by referring to the figures on pages 10, 11 or 12.

Underground services in the vicinity of any proposed earthworks must be located by hand digging (pot-holing) prior to the commencement of the works. Persons conducting works will be held responsible for any resulting loss or damage to the services or associated infrastructure.

Working near high voltage 66kV underground cables

Persons intending to conduct earthworks in the vicinity of an SA Power Networks high voltage 66kV underground cable MUST first obtain a site-specific clearance by contacting the SA Power Networks Cable Management Technical Officer on 0403 582 174.

Basis of information supply

The accompanying information is supplied at the request of, and is only provided for use by, the requestor. The information is valid for 30 days from the date of issue.

SA Power Networks, its employees, agents and contractors shall accept no responsibility for any inaccuracy or incompleteness in the information provided or liability in respect of any personal injury, death, loss or damage to any real or personal property or otherwise that arises out of or in connection with, directly or indirectly, the provision of or reliance upon the information.

It is the requestor's responsibility to ensure that the information provided accords with the area depicted on the requestor's Dial Before You Dig request. The information provided should not be used in respect of any area outside of the area depicted on the Dial Before You Dig request. SA Power Networks does not warrant that the information is suitable for the requestor's intended purposes.

Any use of the accompanying information is subject to the requestor's agreement to the conditions contained in this document. Upon acceptance of these conditions, SA Power Networks grants the requestor permission to use the information. The information must be returned to SA Power Networks if the conditions are not accepted.

Important note: It is an offence under the Electricity Act 1996 (SA) to cause damage to or interfere with electrical infrastructure

Date: 24/01/2020

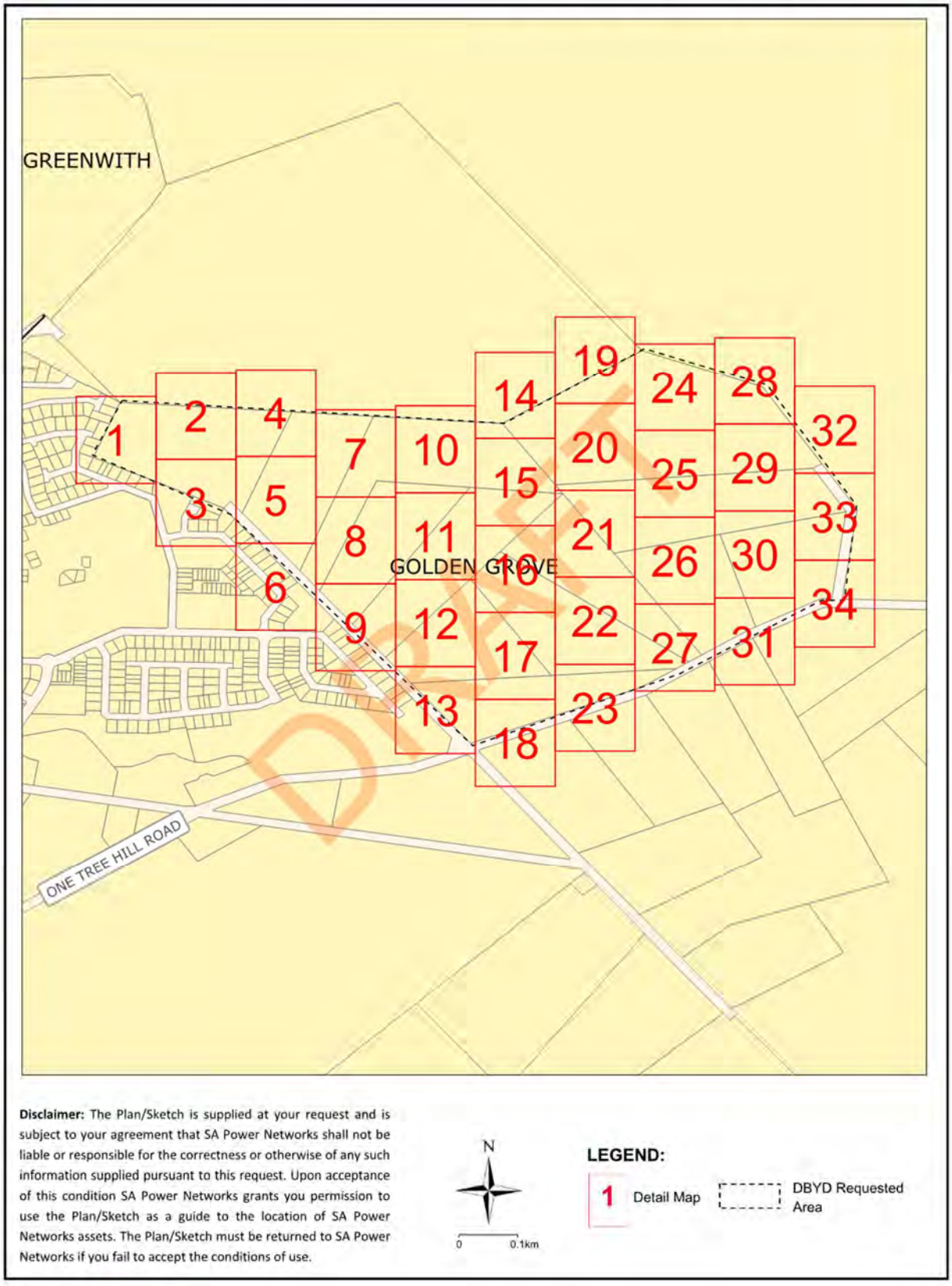
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SA Power Networks

Overview Map

Sequence No: 94147133

Strachan Road Golden Grove



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.

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0 0.1km

LEGEND:

1 Detail Map

DBYD Requested Area

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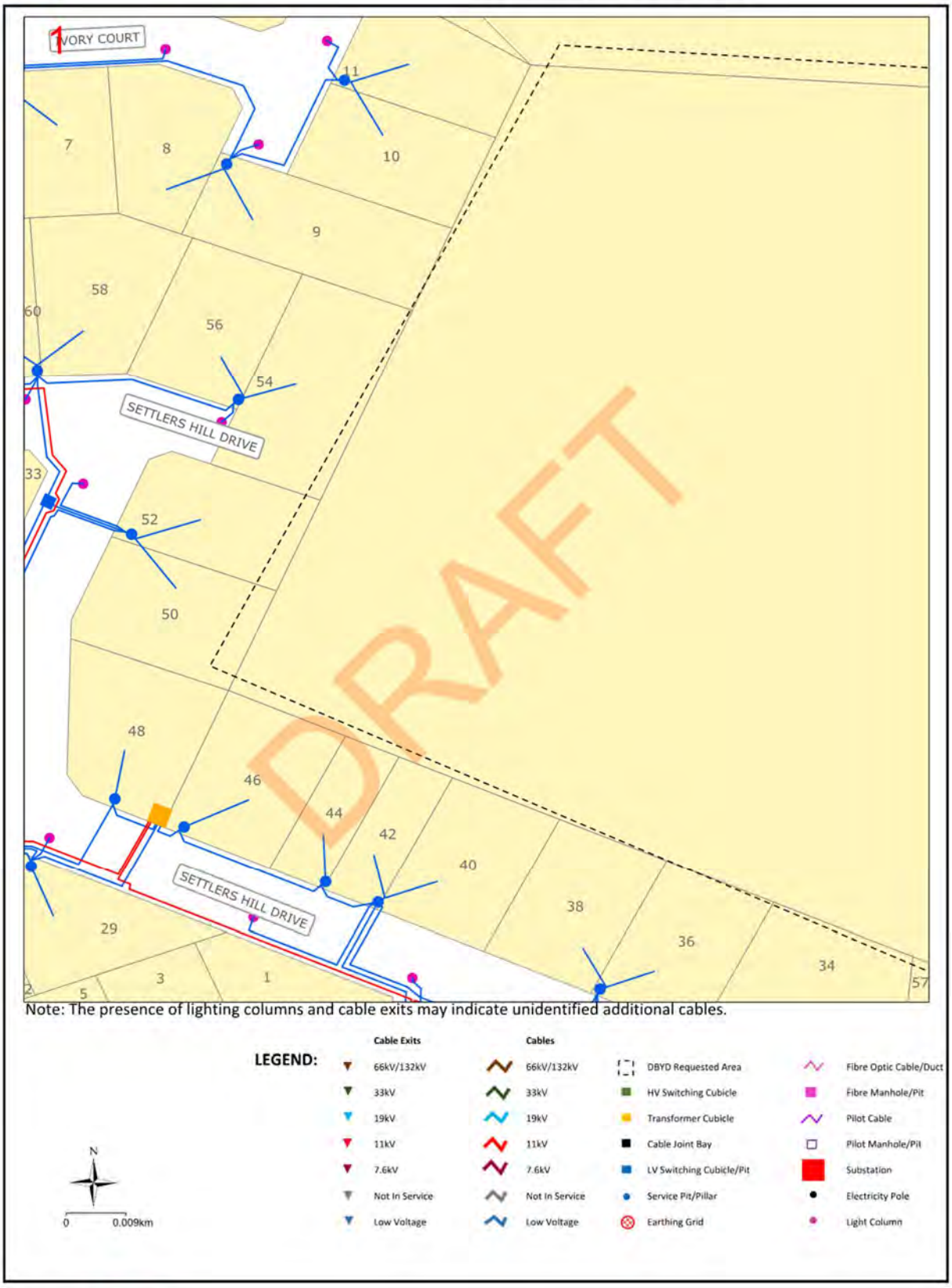
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SA Power Networks

Map 1

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

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Date: 24/01/2020

SA Power Networks

Map 2

Sequence No: 94147133

Strachan Road Golden Grove



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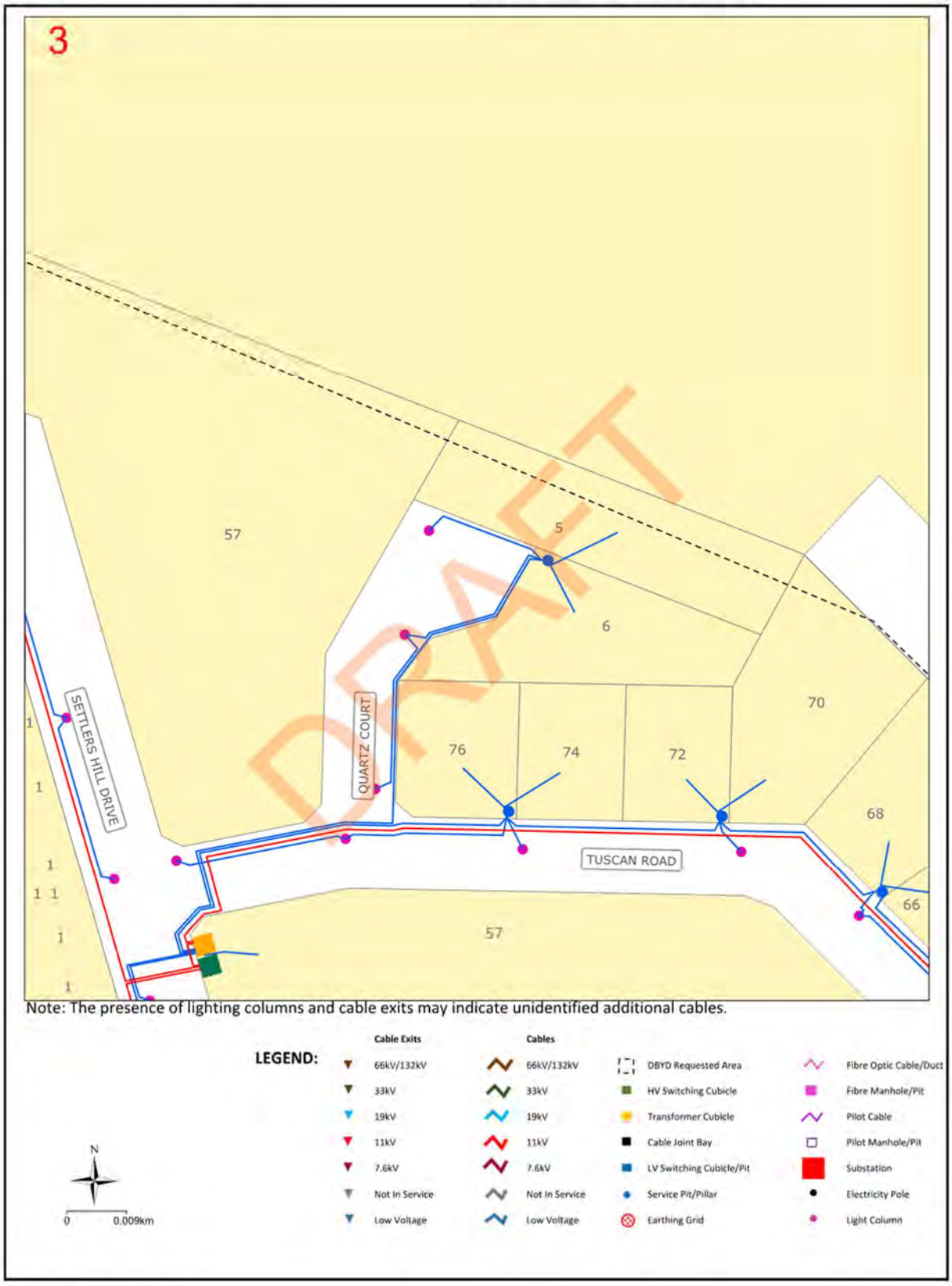
Date: 24/01/2020

SA Power Networks

Map 3

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

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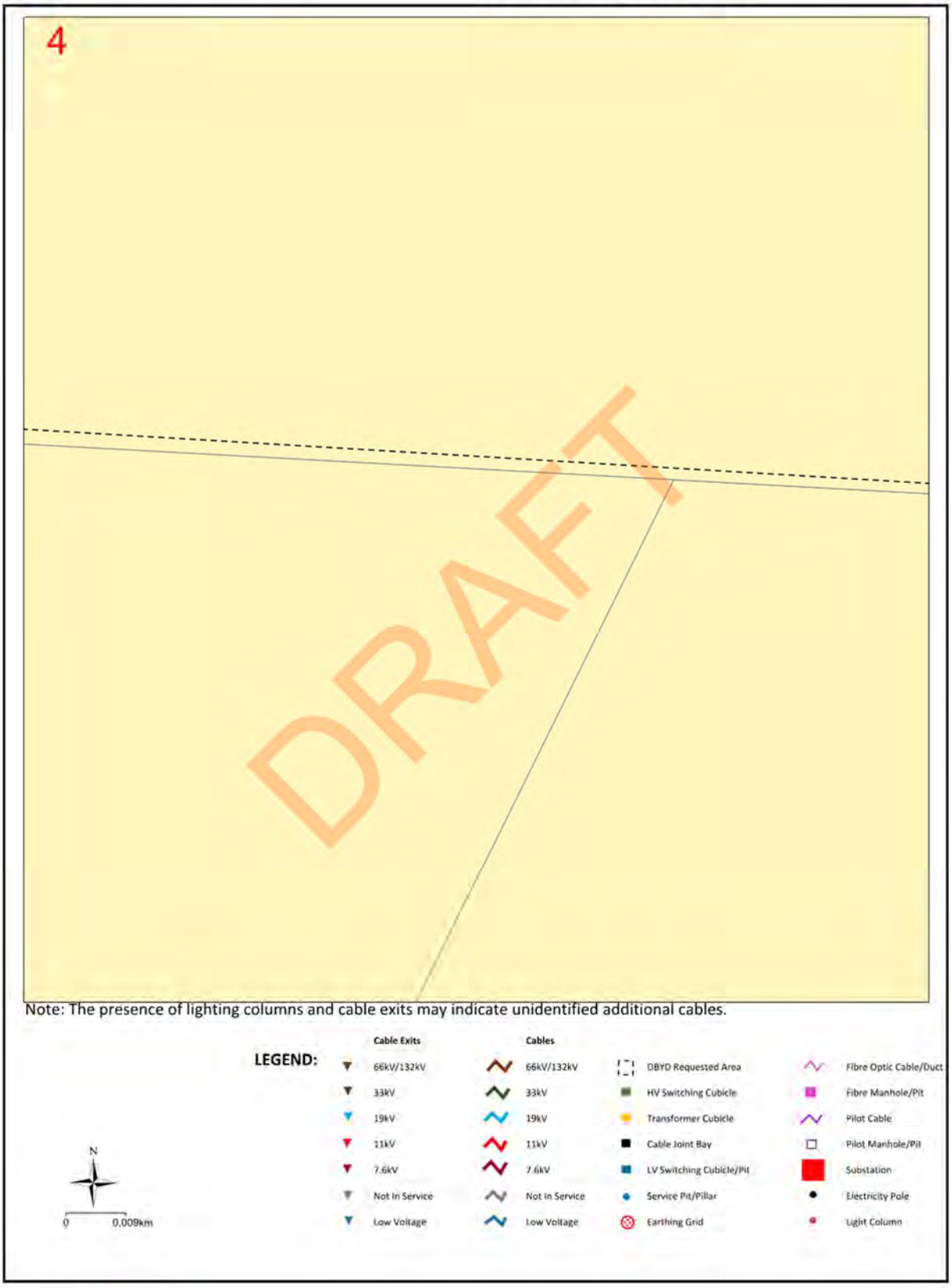
Date: 24/01/2020

SA Power Networks

Map 4

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 5

Sequence No: 94147133

Strachan Road Golden Grove



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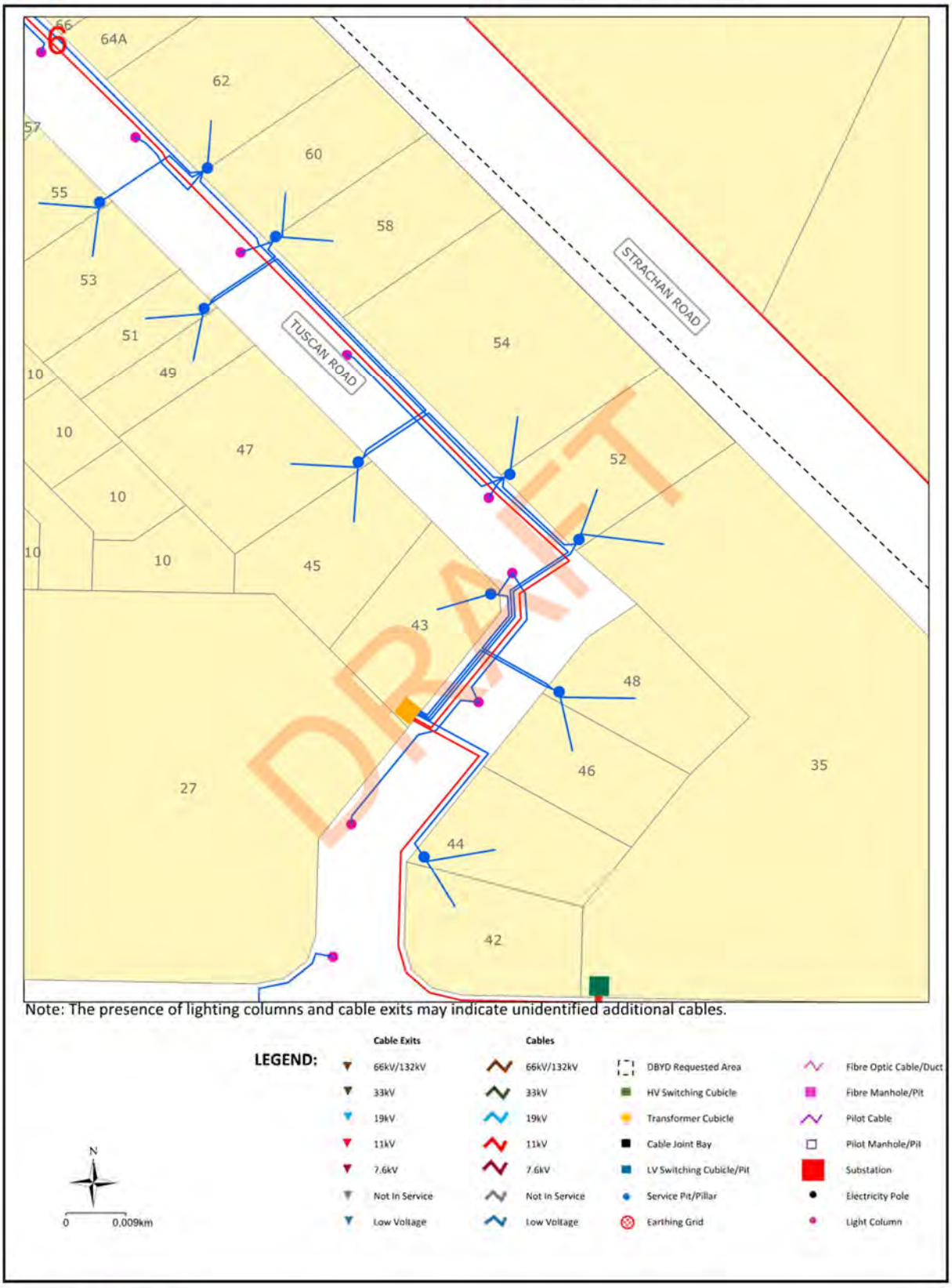
Date: 24/01/2020

SA Power Networks

Map 6

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

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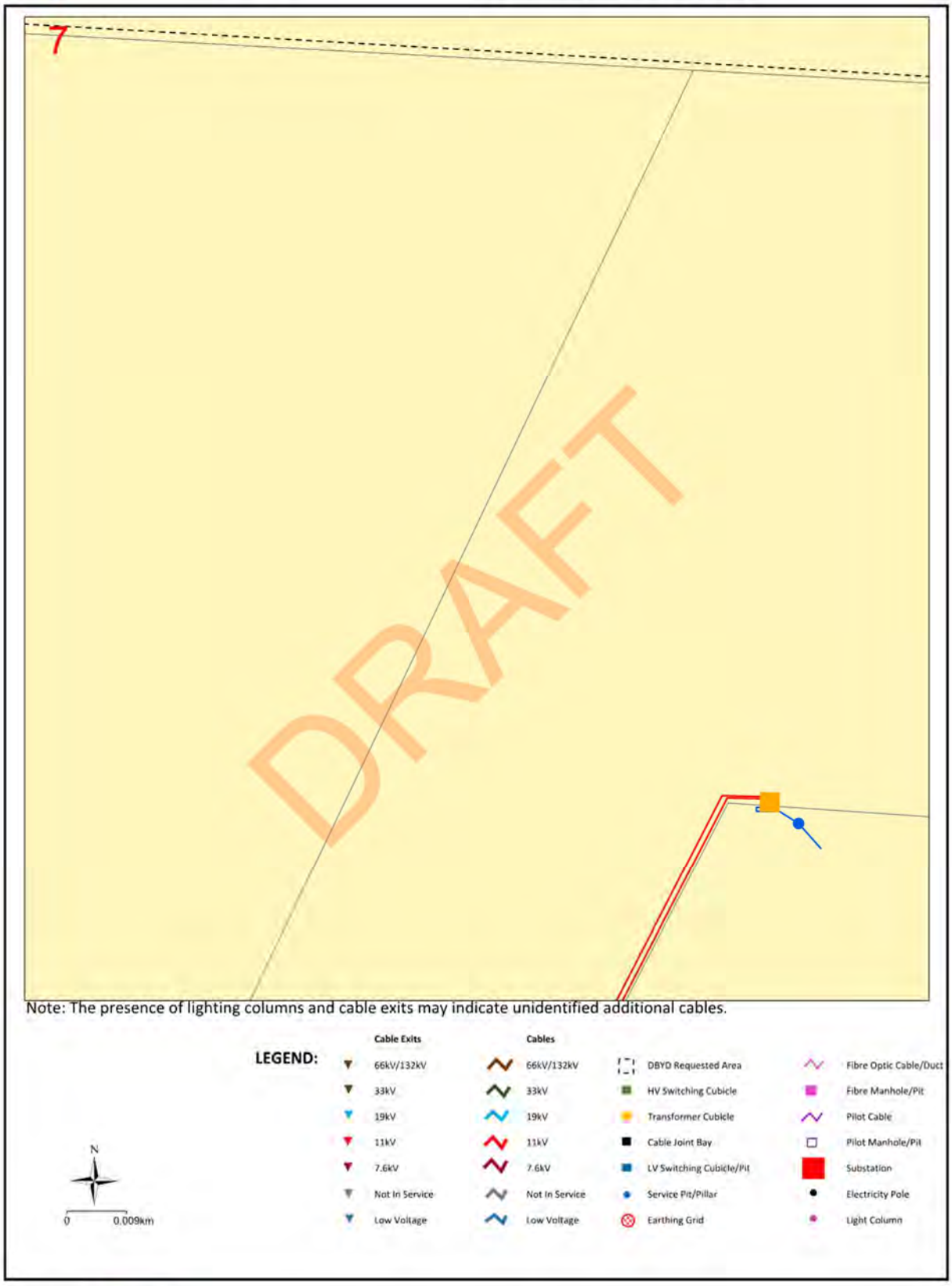
Date: 24/01/2020

SA Power Networks

Map 7

Sequence No: 94147133

Strachan Road Golden Grove



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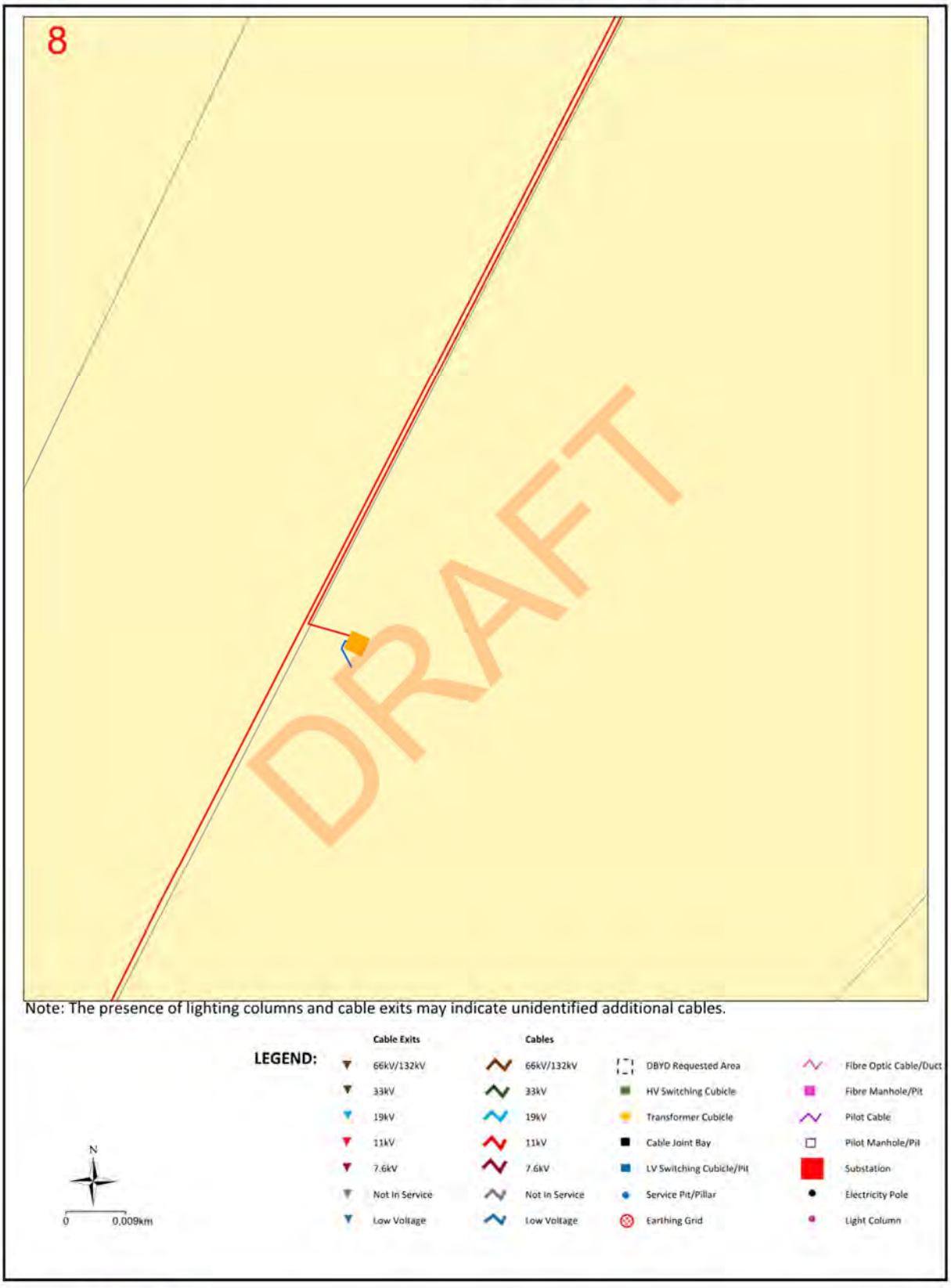
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SA Power Networks

Map 8

Sequence No: 94147133

Strachan Road Golden Grove



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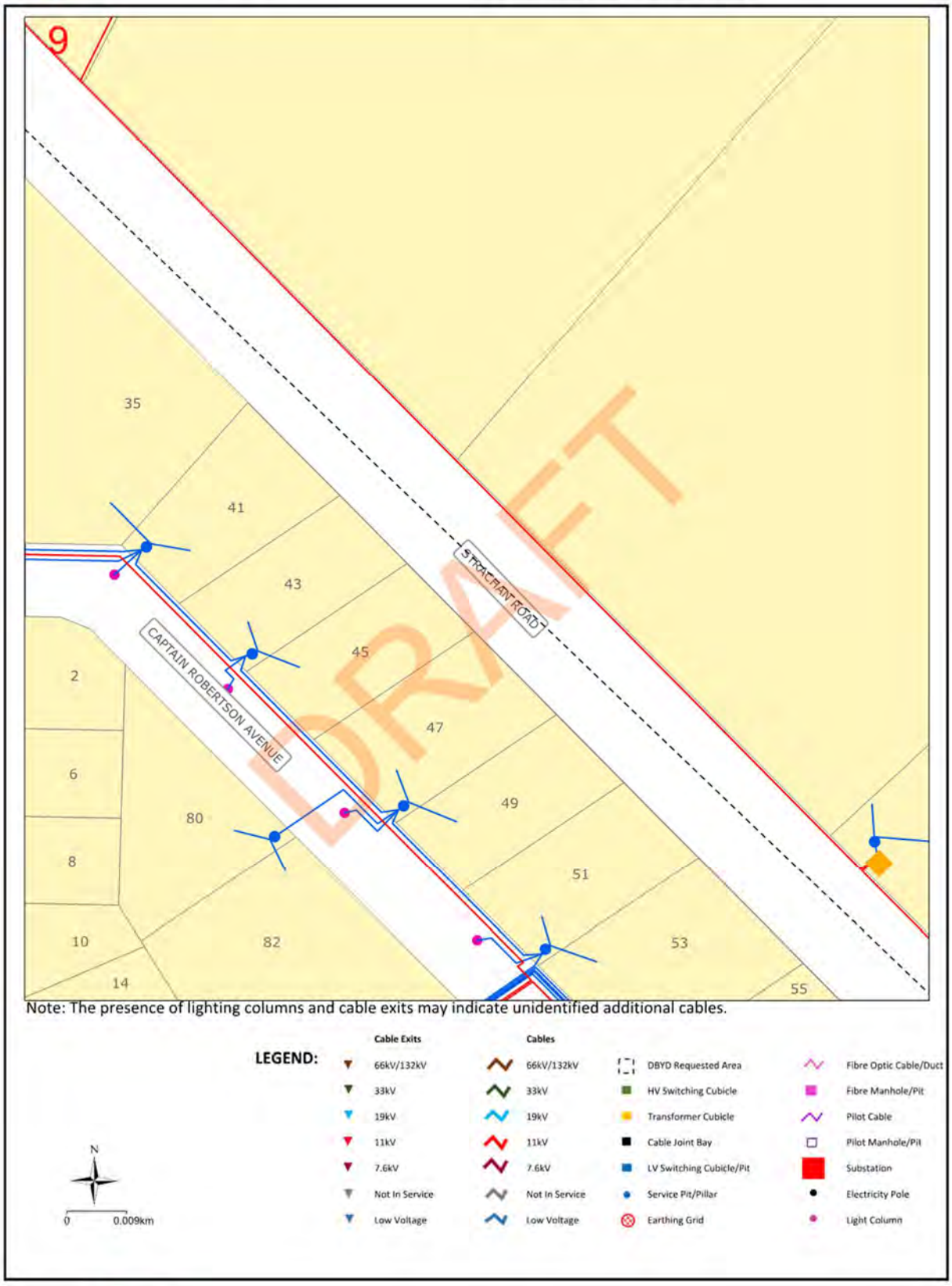
Date: 24/01/2020

SA Power Networks

Map 9

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

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Date: 24/01/2020

SA Power Networks

Map 10

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 11

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

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Date: 24/01/2020

SA Power Networks

Map 12

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 13

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 14

Sequence No: 94147133

Strachan Road Golden Grove



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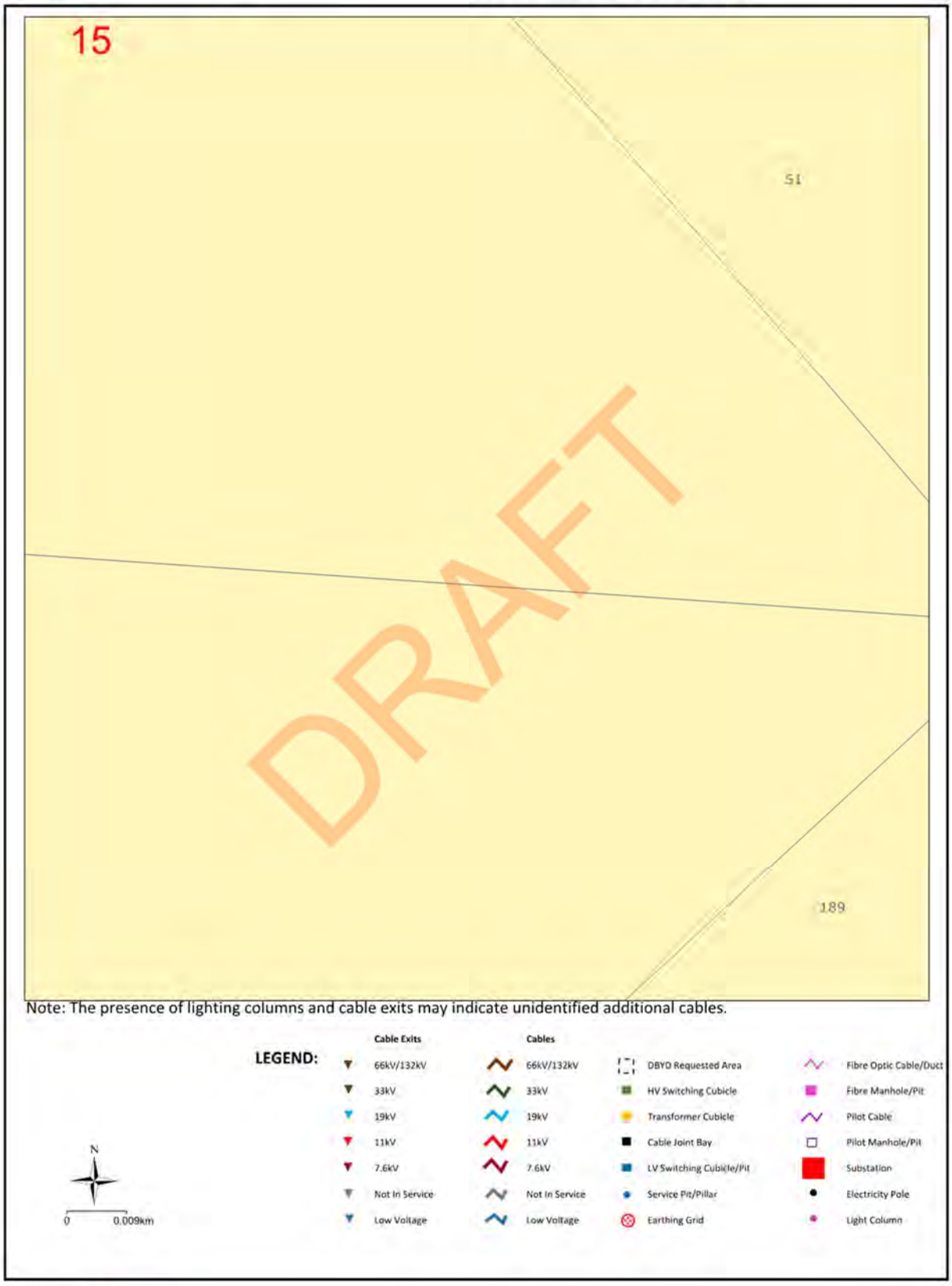
Date: 24/01/2020

SA Power Networks

Map 15

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 16

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 17

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

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Date: 24/01/2020

SA Power Networks

Map 18

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

Powered by dbyd

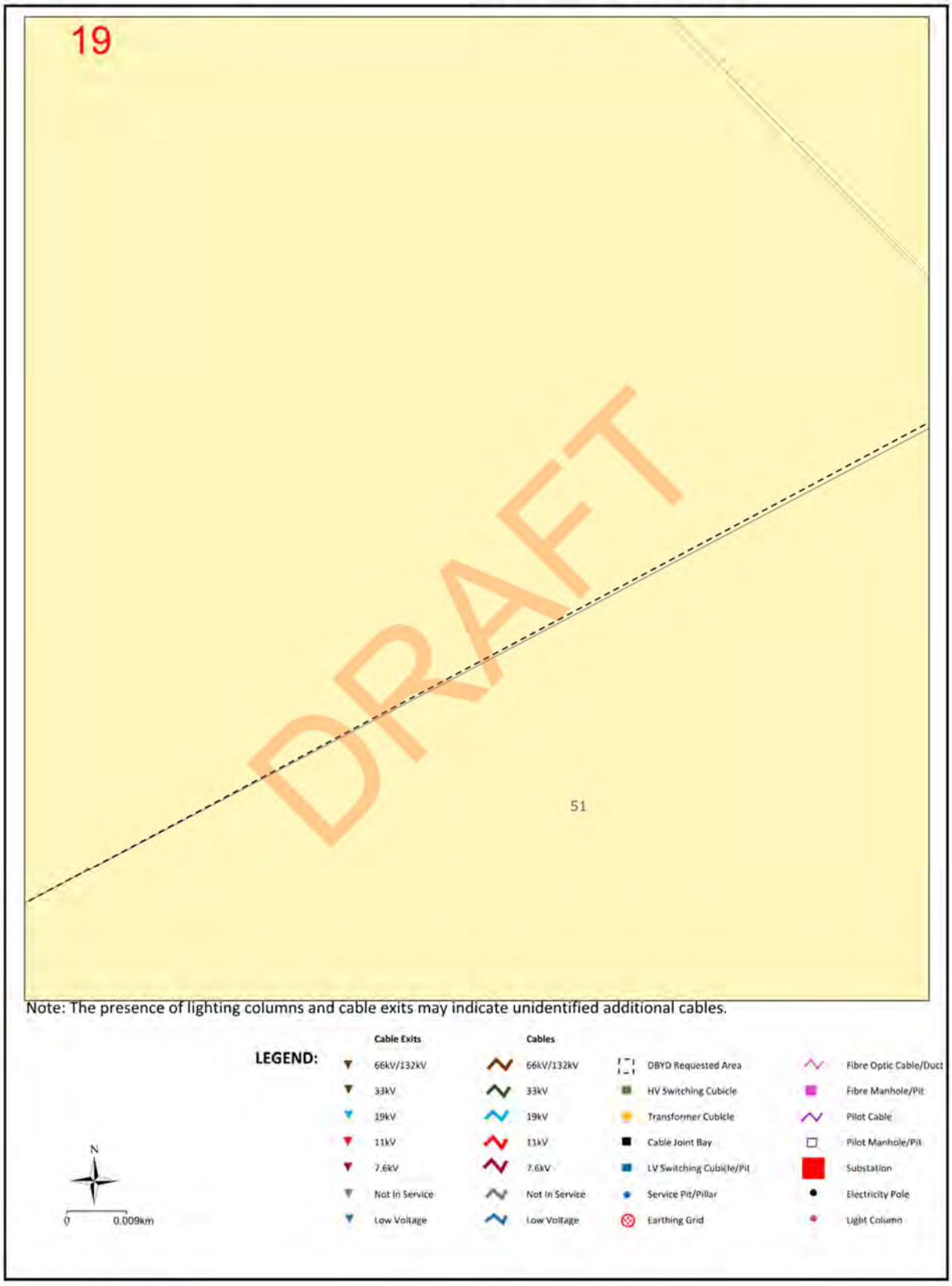
Date: 24/01/2020

SA Power Networks

Map 19

Sequence No: 94147133

Strachan Road Golden Grove



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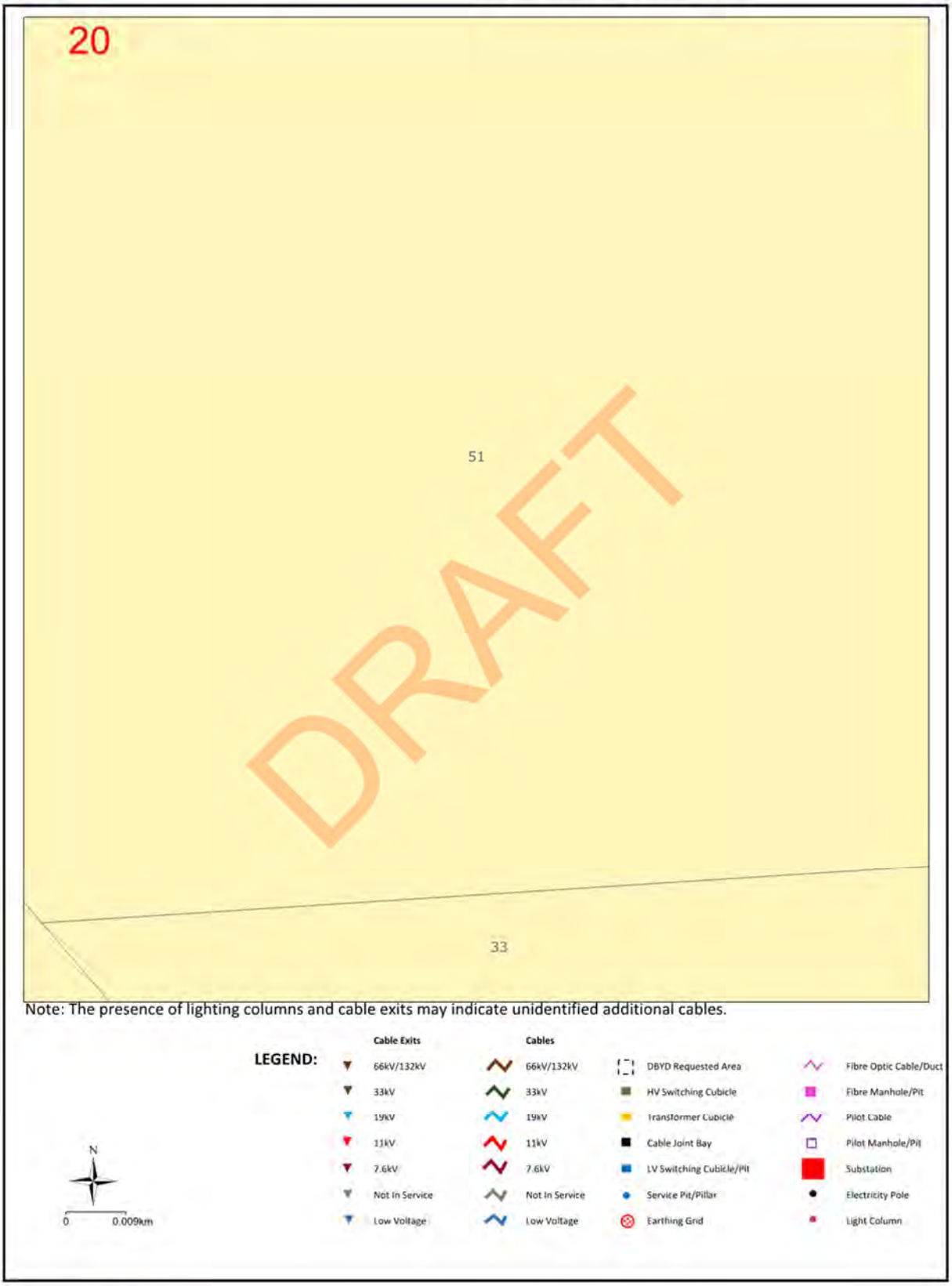
Date: 24/01/2020

SA Power Networks

Map 20

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:	Cable Exits	Cables		
	66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
	33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
	19kV	19kV	Transformer Cubicle	Pilot Cable
	11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
	7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
	Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
	Low Voltage	Low Voltage	Earthing Grid	Light Column

Powered by dbyd

Date: 24/01/2020

SA Power Networks

Map 21

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

Powered by dbyd

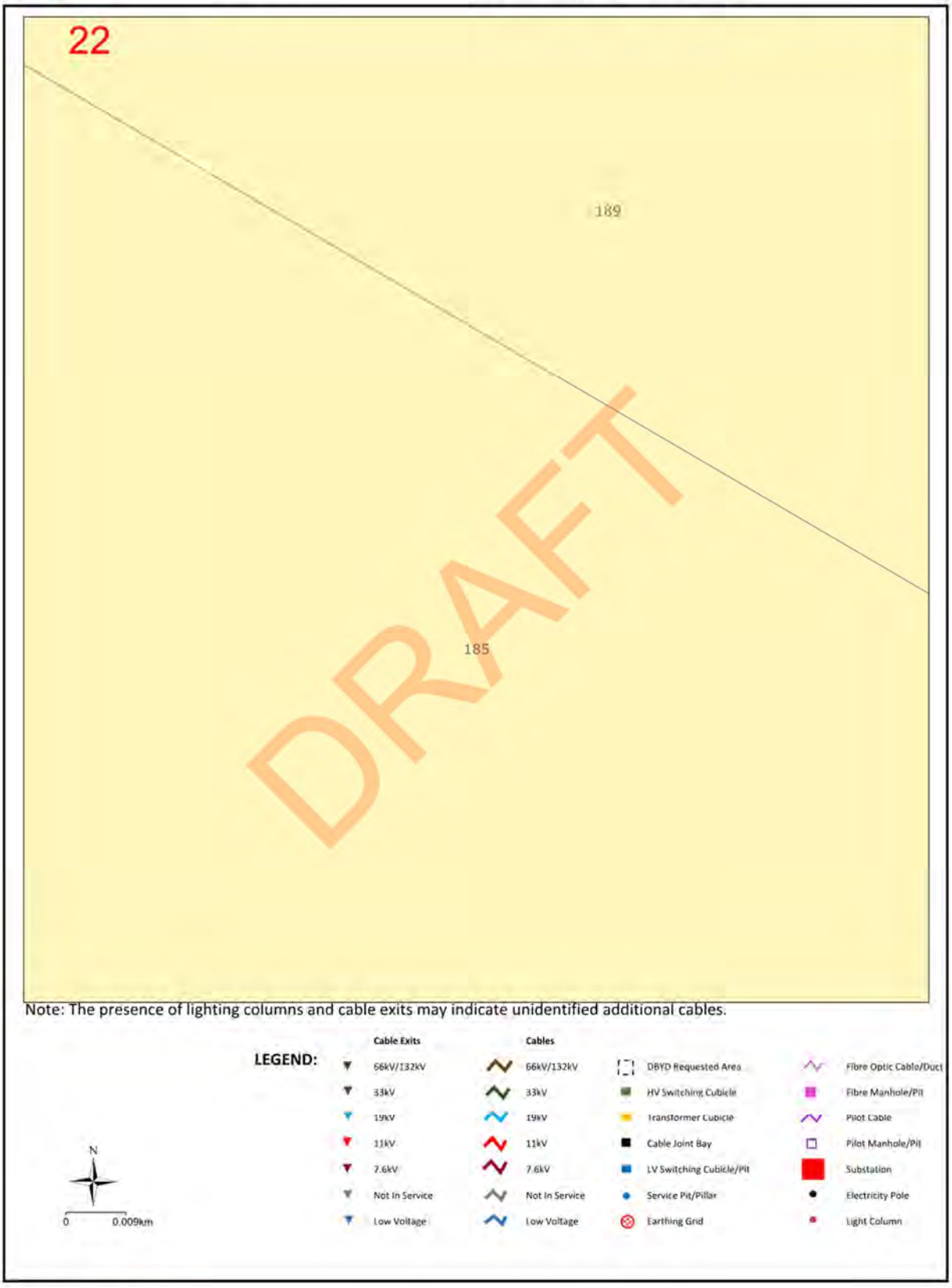
Date: 24/01/2020

SA Power Networks

Map 22

Sequence No: 94147133

Strachan Road Golden Grove



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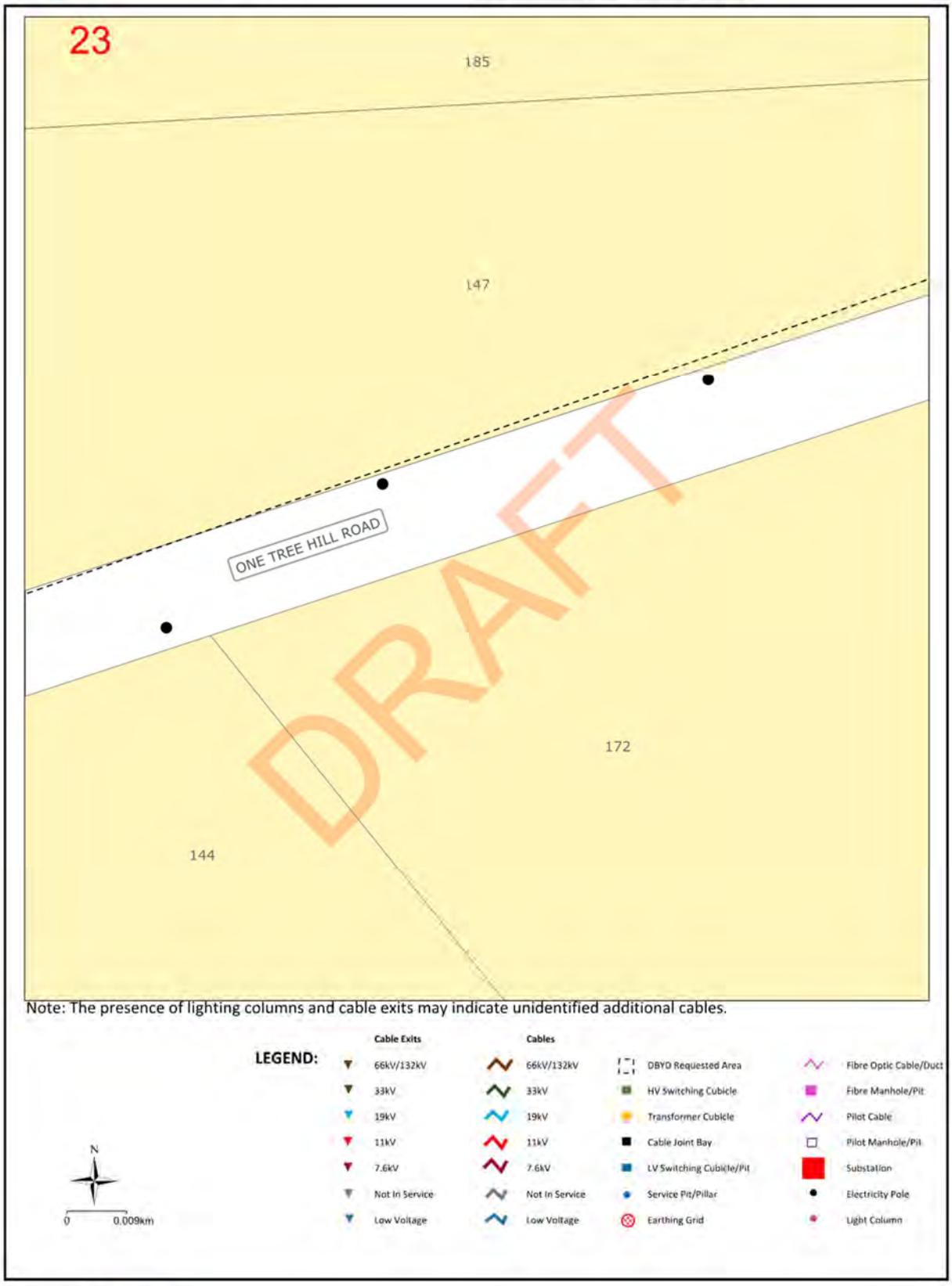
Date: 24/01/2020

SA Power Networks

Map 23

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

Powered by dbyd

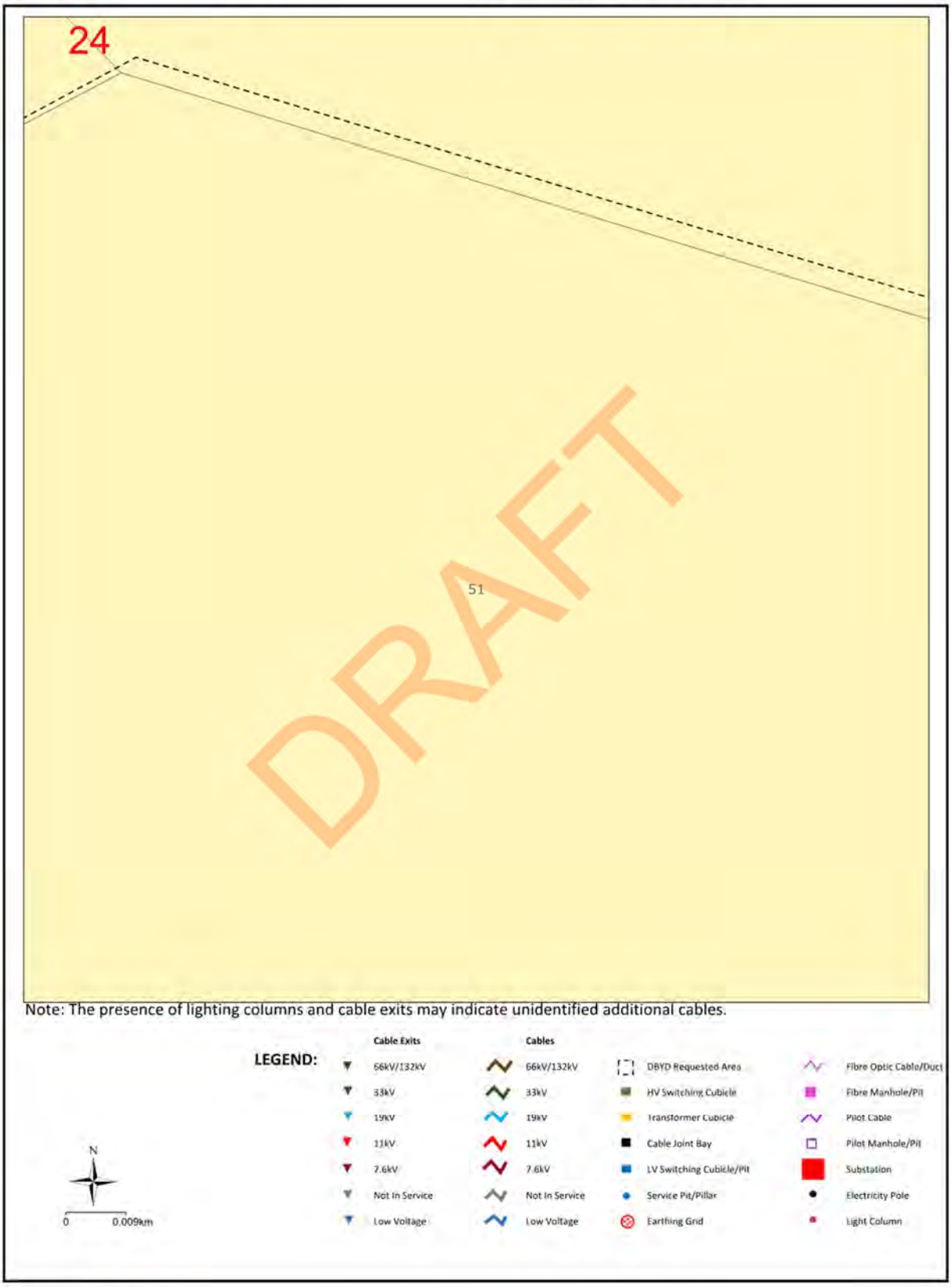
Date: 24/01/2020

SA Power Networks

Map 24

Sequence No: 94147133

Strachan Road Golden Grove



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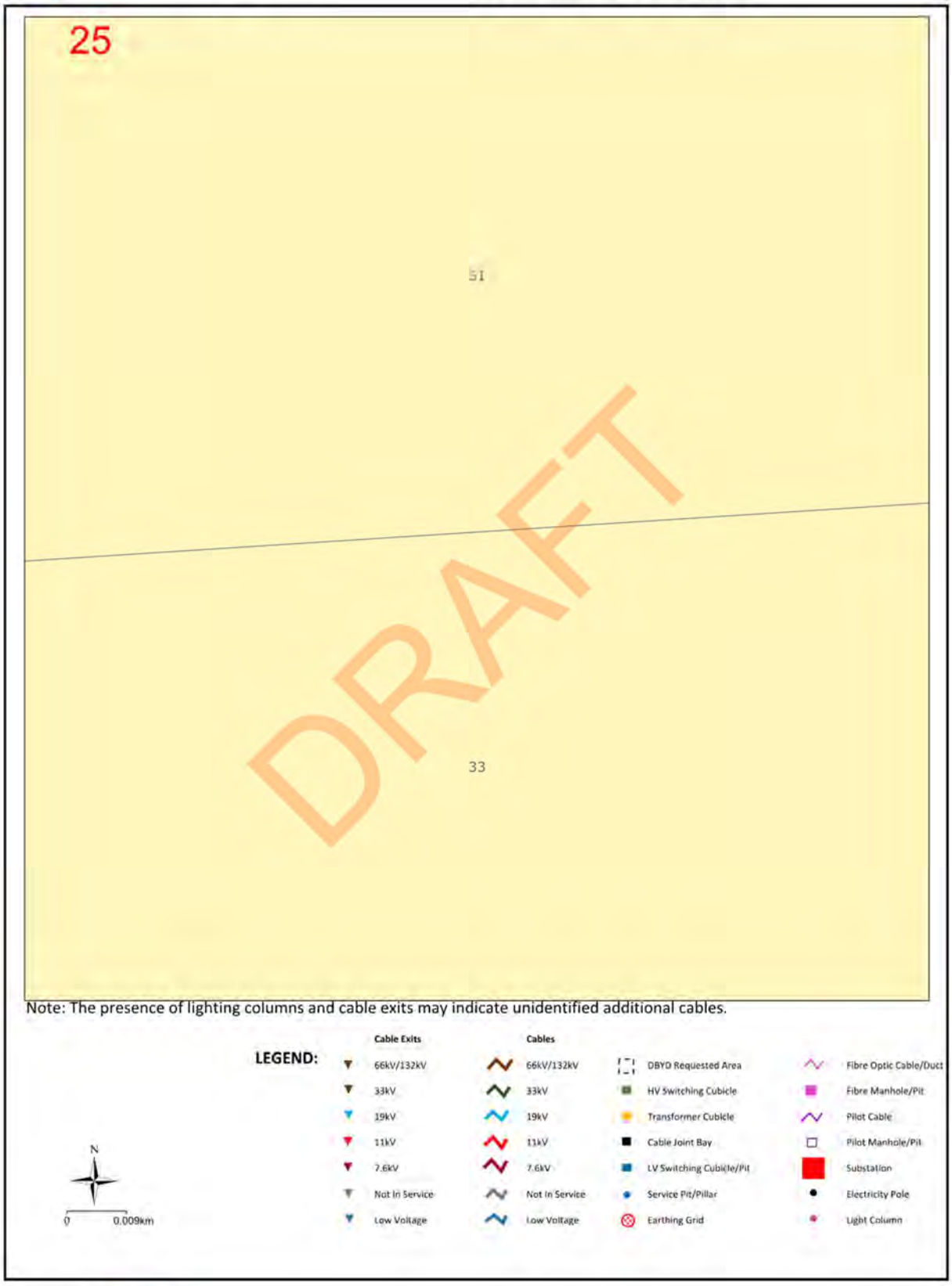
Date: 24/01/2020

SA Power Networks

Map 25

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

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Date: 24/01/2020

SA Power Networks

Map 26

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 27

Sequence No: 94147133

Strachan Road Golden Grove



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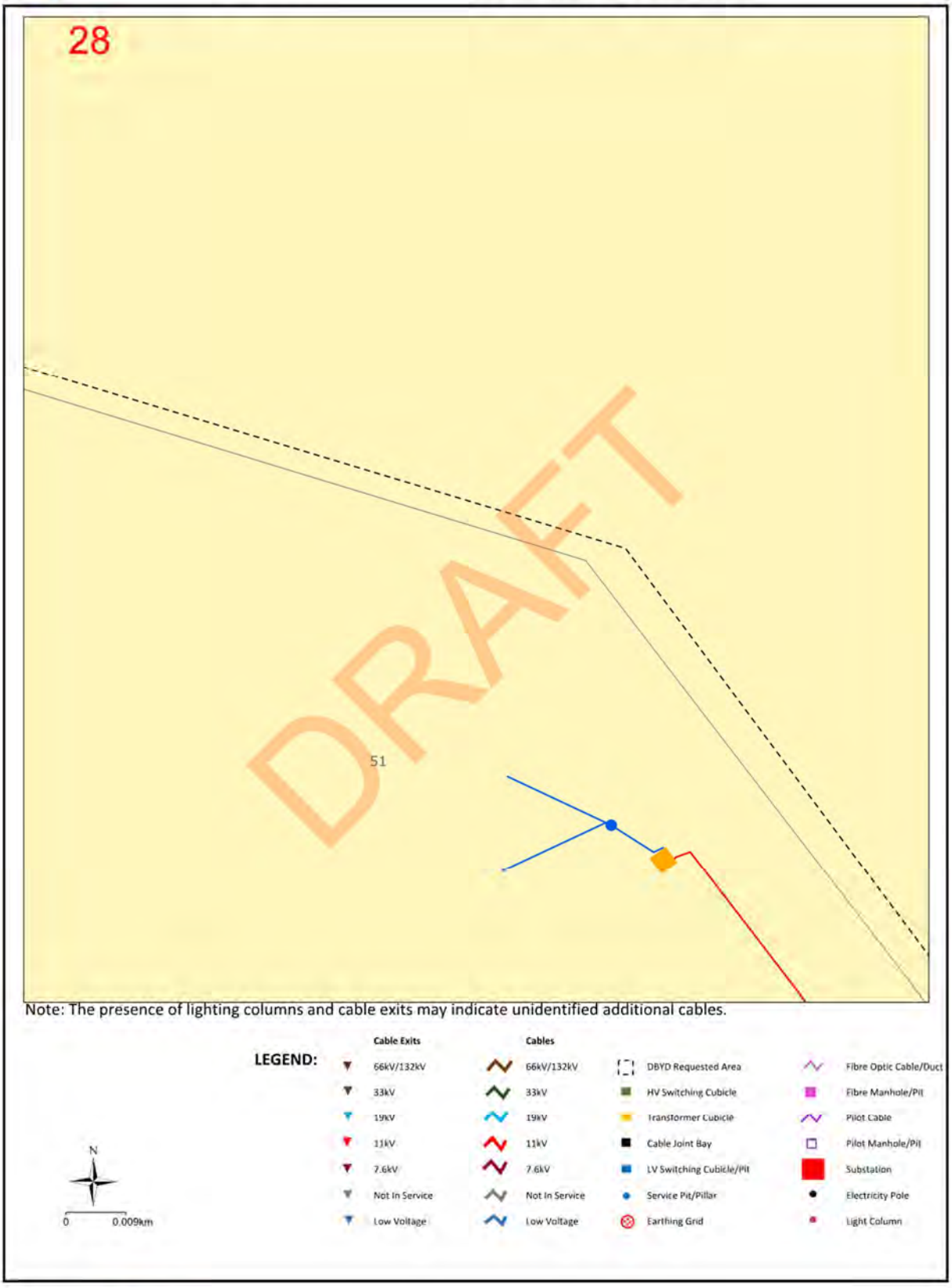
Date: 24/01/2020

SA Power Networks

Map 28

Sequence No: 94147133

Strachan Road Golden Grove



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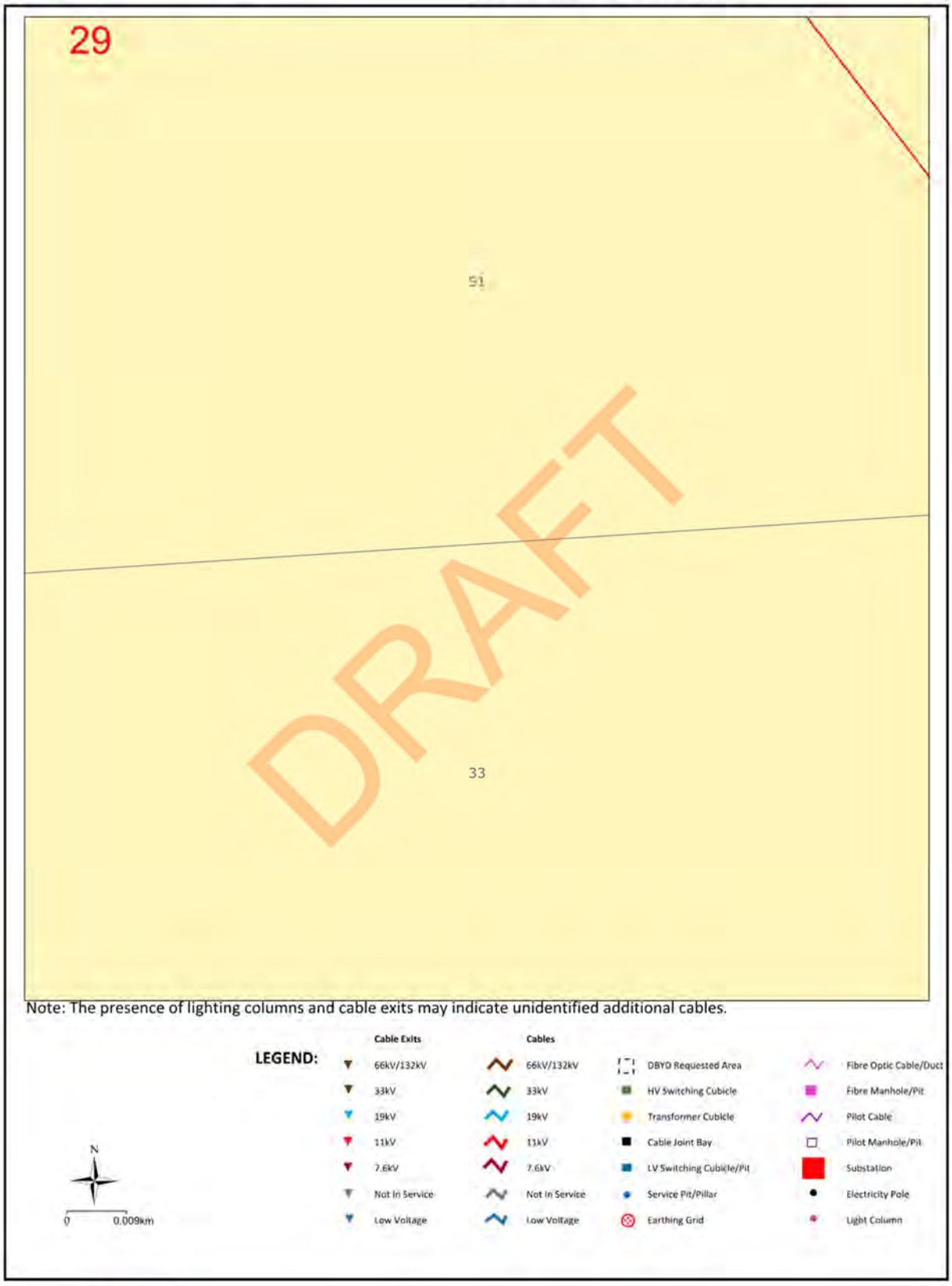
Date: 24/01/2020

SA Power Networks

Map 29

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

Powered by dbyd

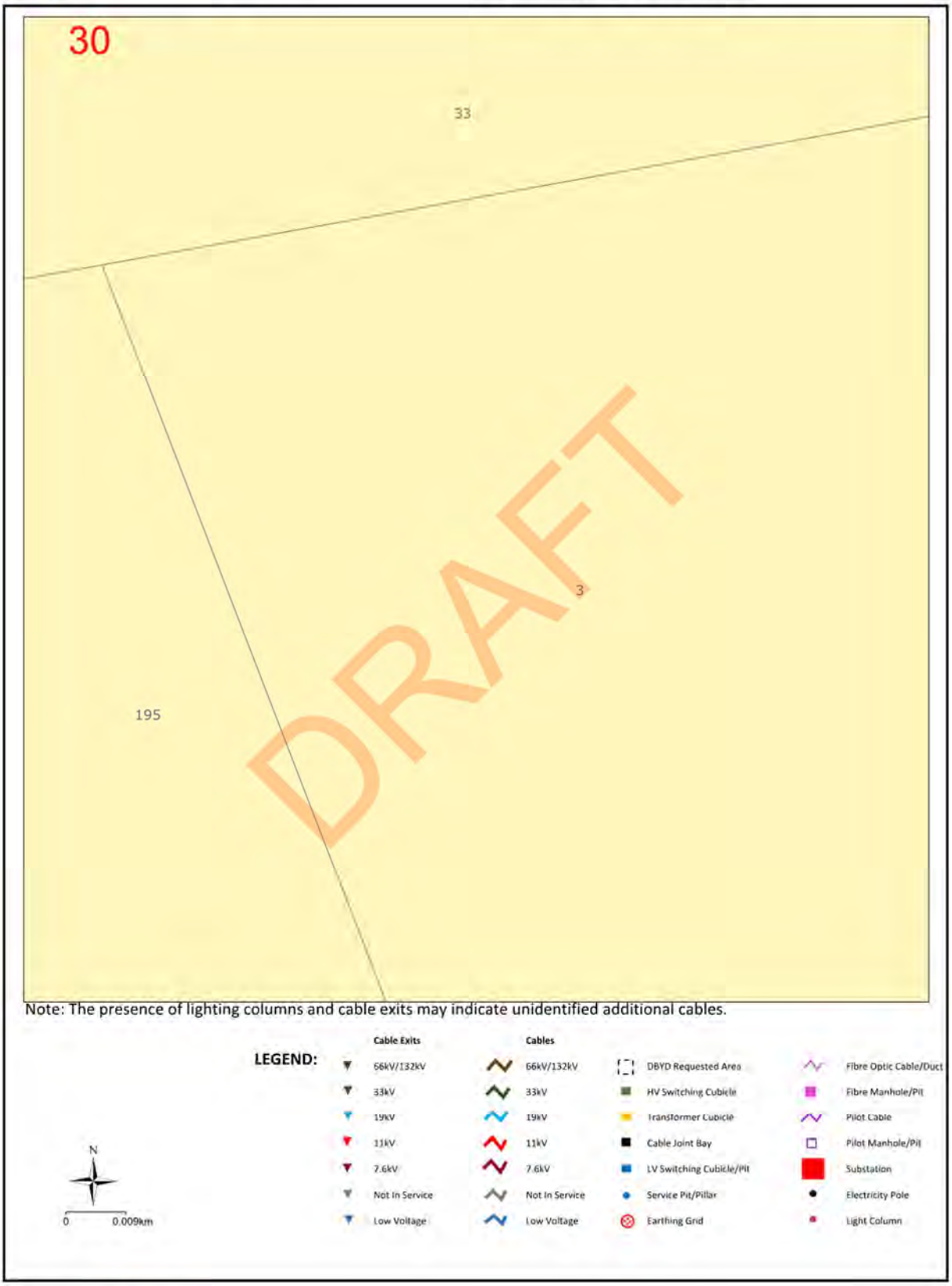
Date: 24/01/2020

SA Power Networks

Map 30

Sequence No: 94147133

Strachan Road Golden Grove



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Date: 24/01/2020

SA Power Networks

Map 31

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

Powered by dbyd

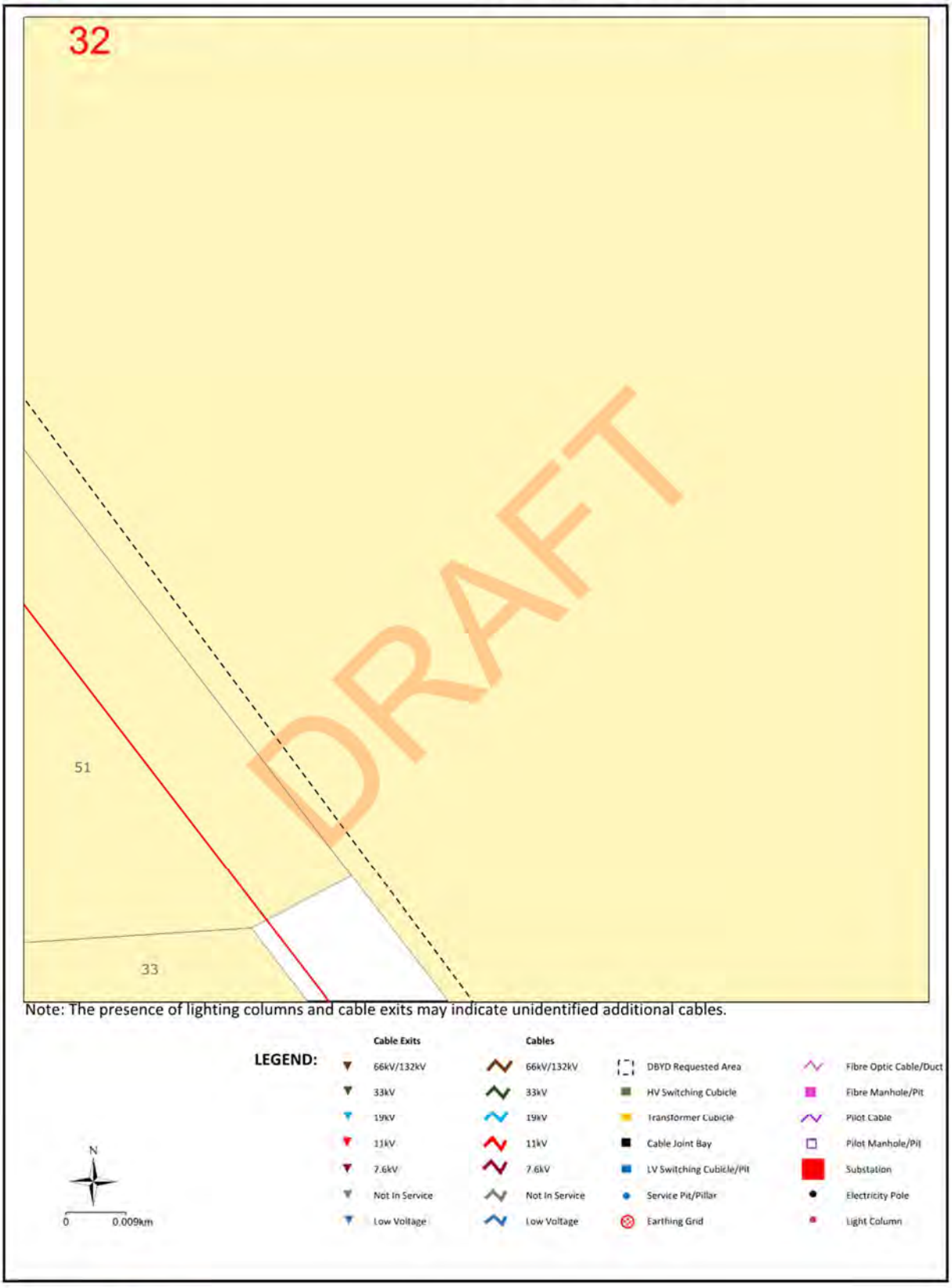
Date: 24/01/2020

SA Power Networks

Map 32

Sequence No: 94147133

Strachan Road Golden Grove



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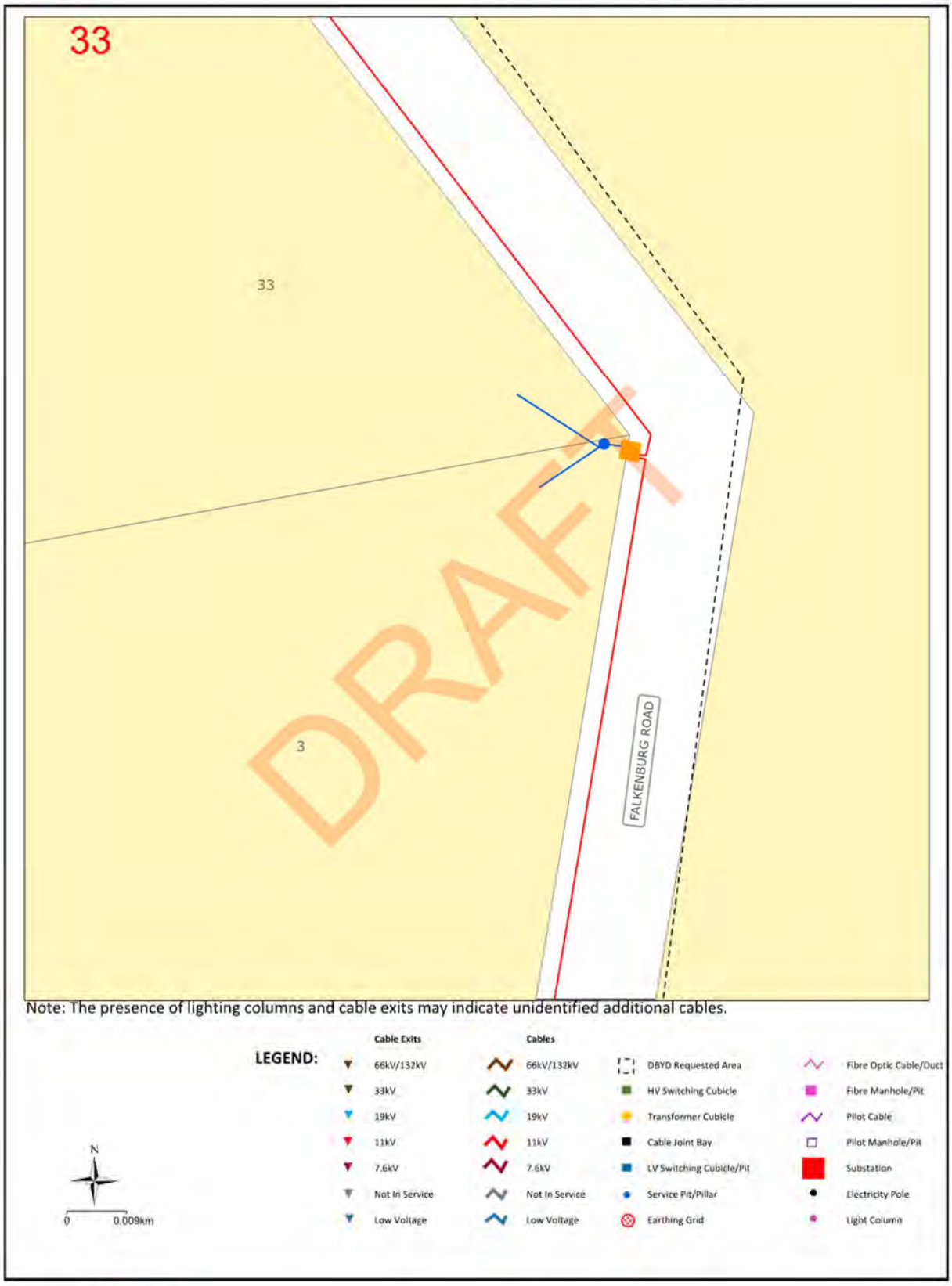
Date: 24/01/2020

SA Power Networks

Map 33

Sequence No: 94147133

Strachan Road Golden Grove



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

LEGEND:

Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

N

0 0.009km

Powered by dbyd

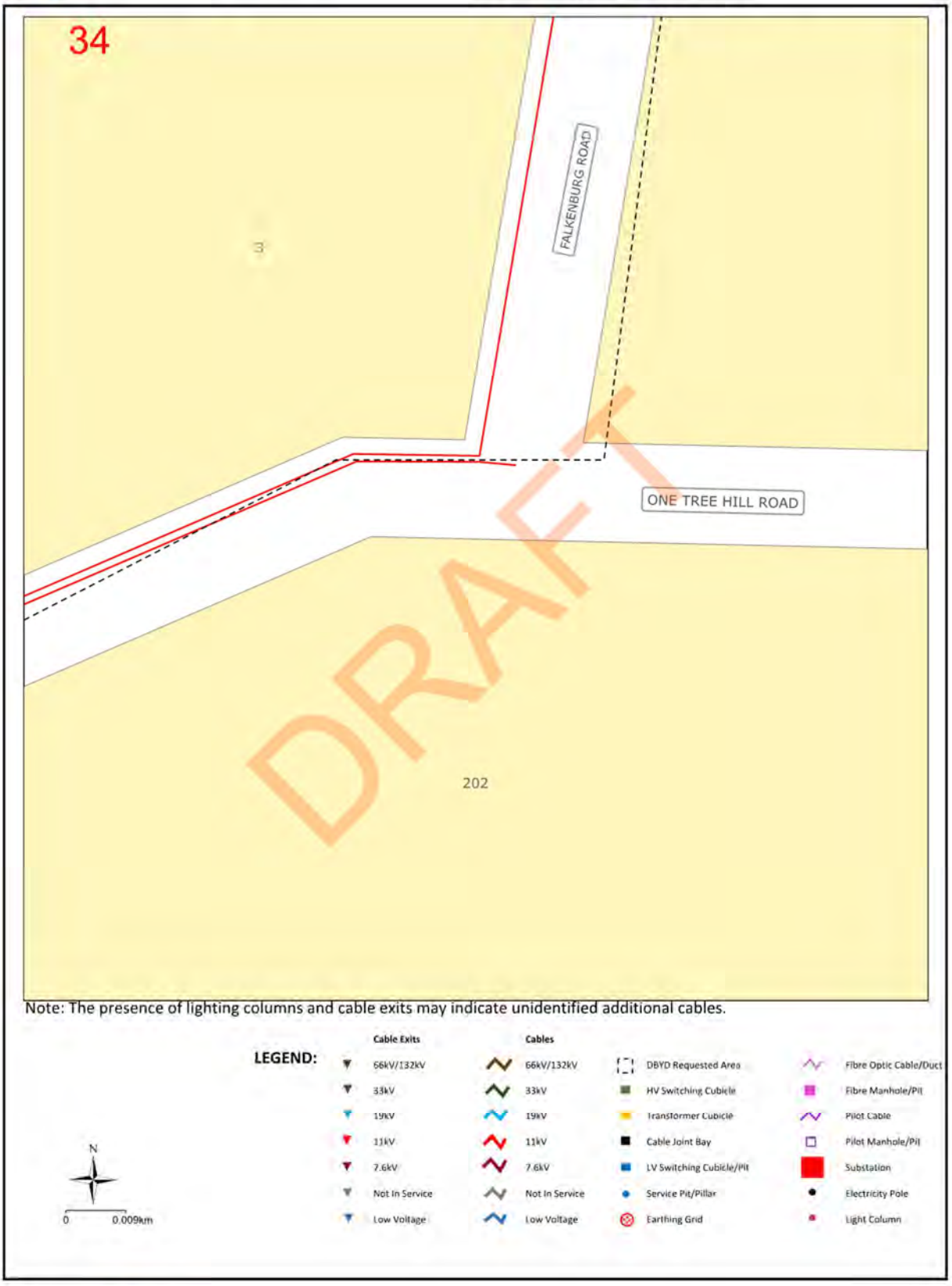
Date: 24/01/2020

SA Power Networks

Map 34

Sequence No: 94147133

Strachan Road Golden Grove



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

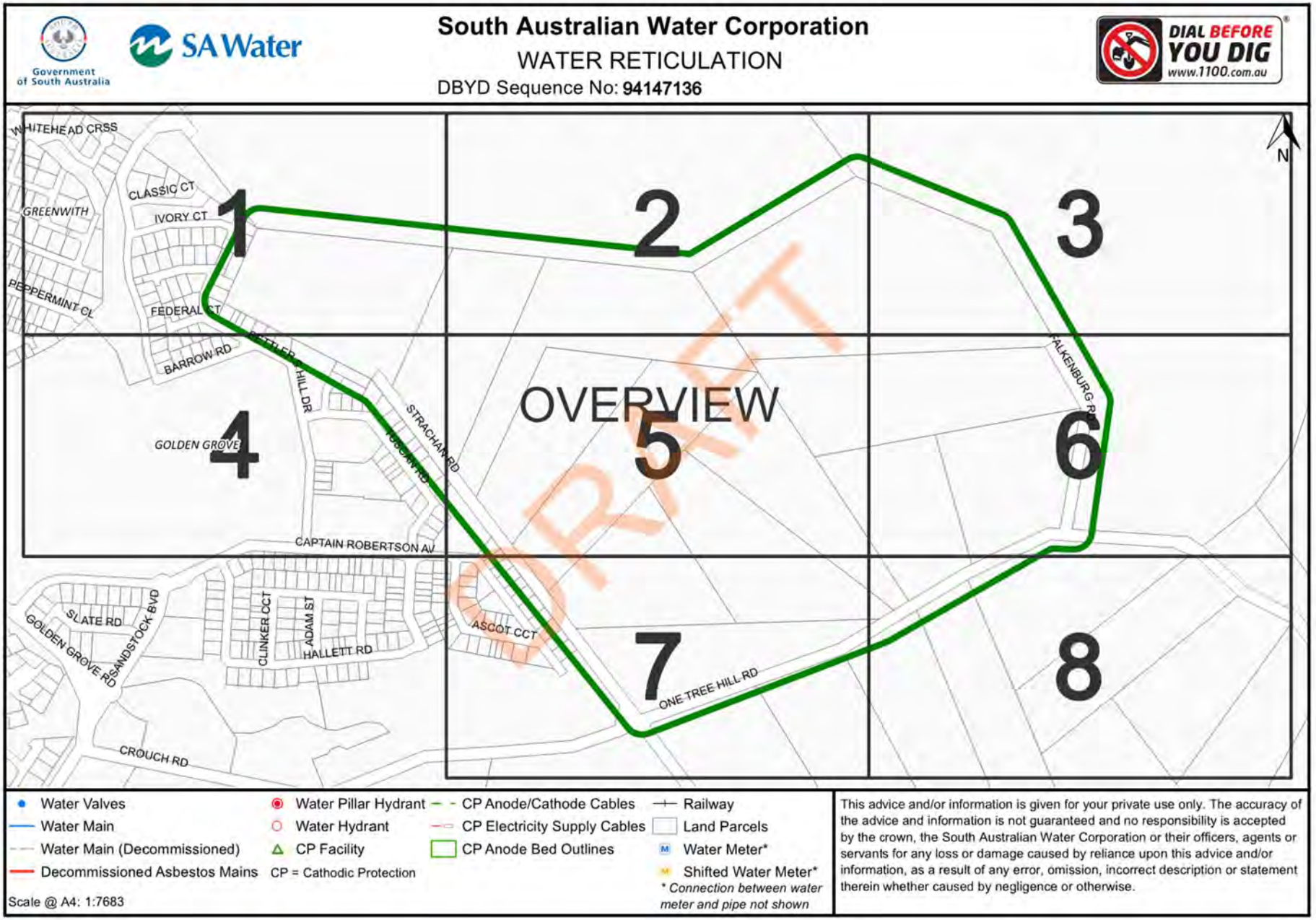
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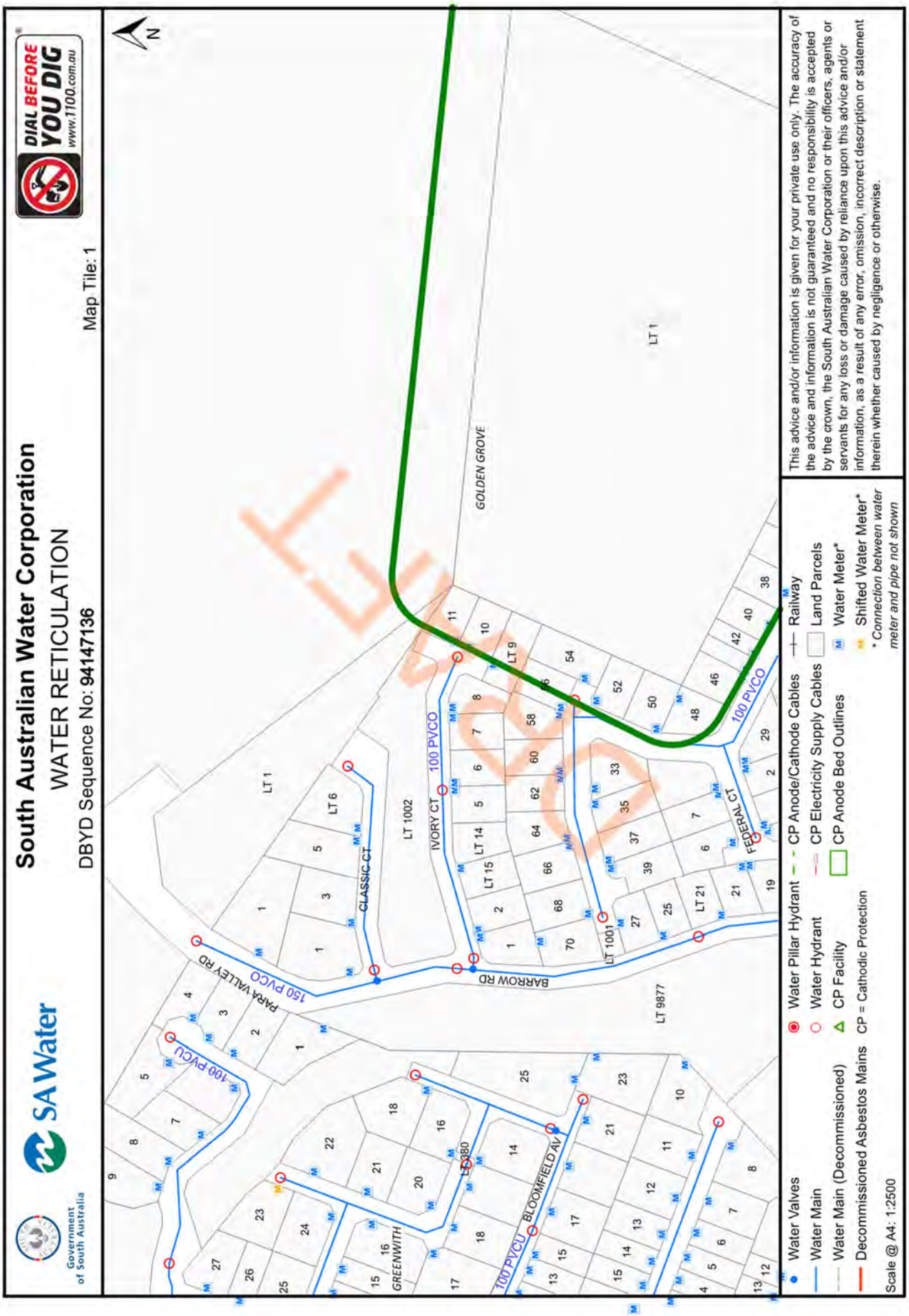
Cable Exits	Cables		
66kV/132kV	66kV/132kV	DBYD Requested Area	Fibre Optic Cable/Duct
33kV	33kV	HV Switching Cubicle	Fibre Manhole/Pit
19kV	19kV	Transformer Cubicle	Pilot Cable
11kV	11kV	Cable Joint Bay	Pilot Manhole/Pit
7.6kV	7.6kV	LV Switching Cubicle/Pit	Substation
Not In Service	Not In Service	Service Pit/Pillar	Electricity Pole
Low Voltage	Low Voltage	Earthing Grid	Light Column

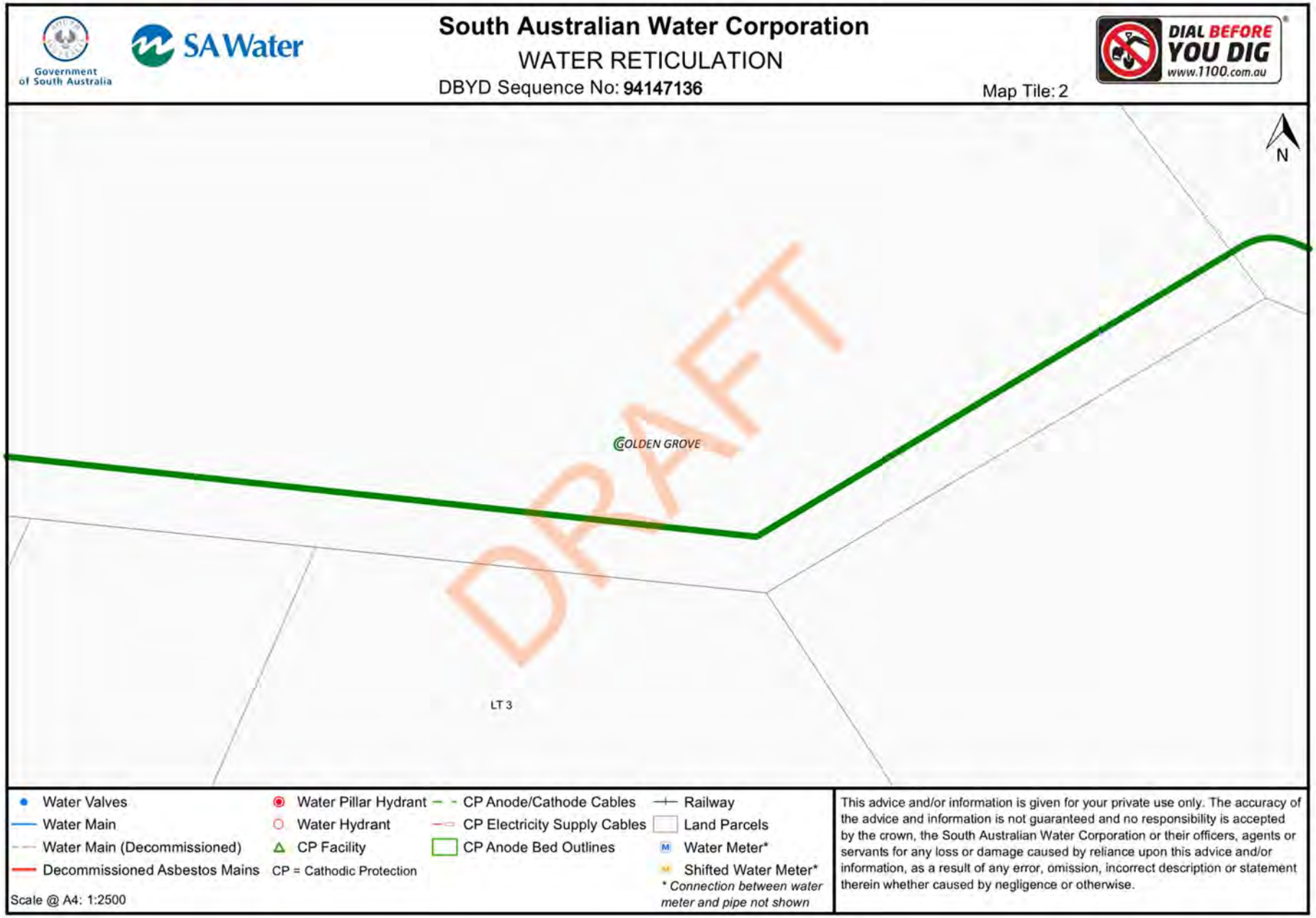
N

0 0.009km

Powered by dbyd


Government of South Australia
SA Water
South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 94147136
DIAL BEFORE YOU DIG
www.1100.com.au
OVERVIEW
DRAFT
N
1
2
3
4
5
6
7
8
WHITEHEAD CRSS
CLASSIC CT
IVORY CT
GREENWITH
PEPPERMINT CL
FEDERAL CT
BARROW RD
HILL DR
GOLDEN GROVE
STRACHAN RD
FALKENBURG RD
CAPTAIN ROBERTSON AV
SLATE RD
GOLDEN GROVE RD
SANDSTOCK BVD
CLINKER DCT
ADAM ST
HALLETT RD
ASCOT CCT
ONE TREE HILL RD
CROUCH RD
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:7683
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South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 1
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
GOLDEN GROVE
BARROW RD
PARA VALLEY RD
CLASSIC CT
IVORY CT
FEDERAL CT
BLOOMFIELD AV
GREENWITH
150 PVCO
100 PVCO
100 PVCU
LT 1
LT 1002
LT 1001
LT 9877
LT 6
LT 9
LT 14
LT 15
LT 21
LD 380
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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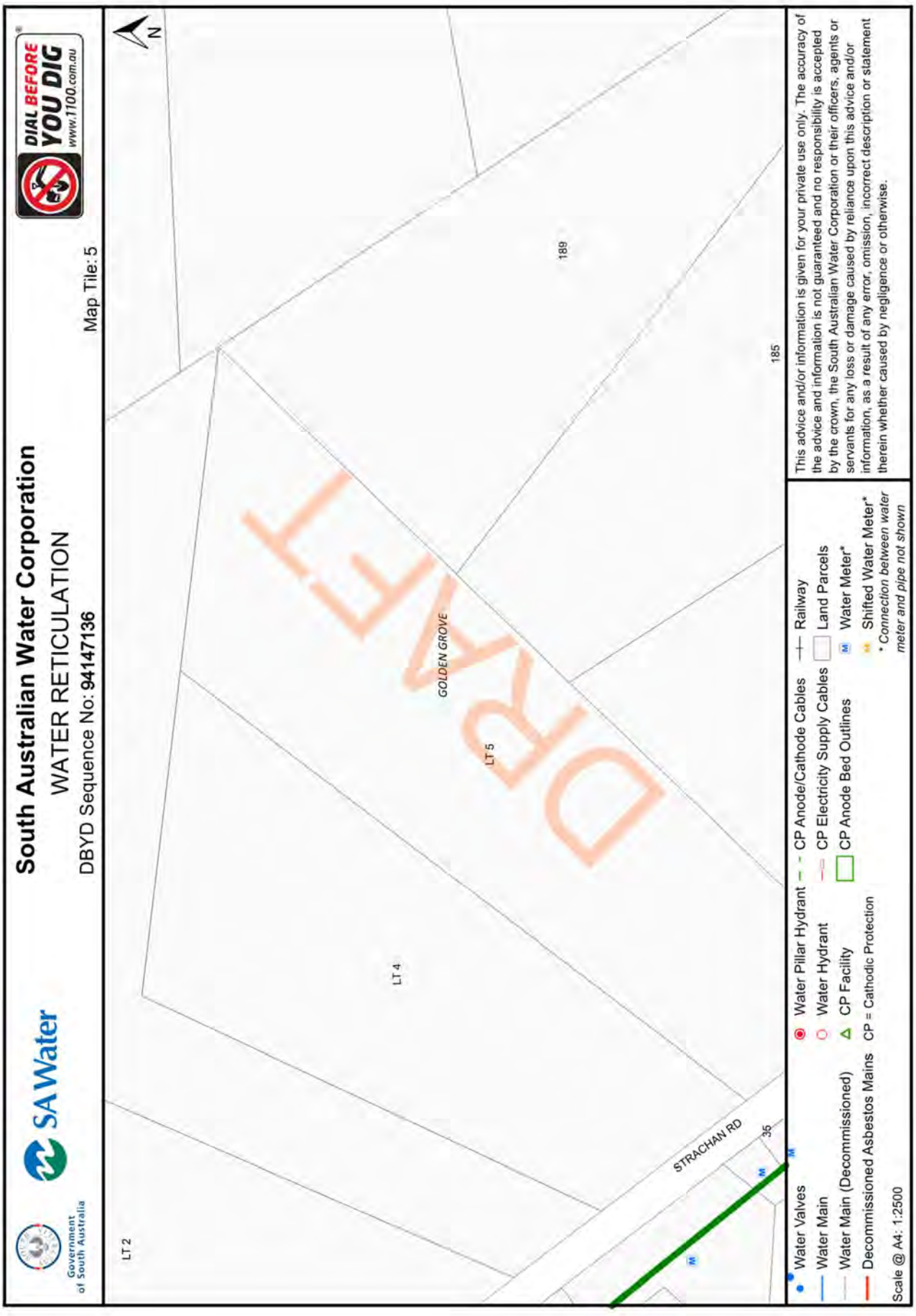

Government of South Australia
SA Water
South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 2
DIAL BEFORE YOU DIG
www.1100.com.au
N
GOLDEN GROVE
LT 3
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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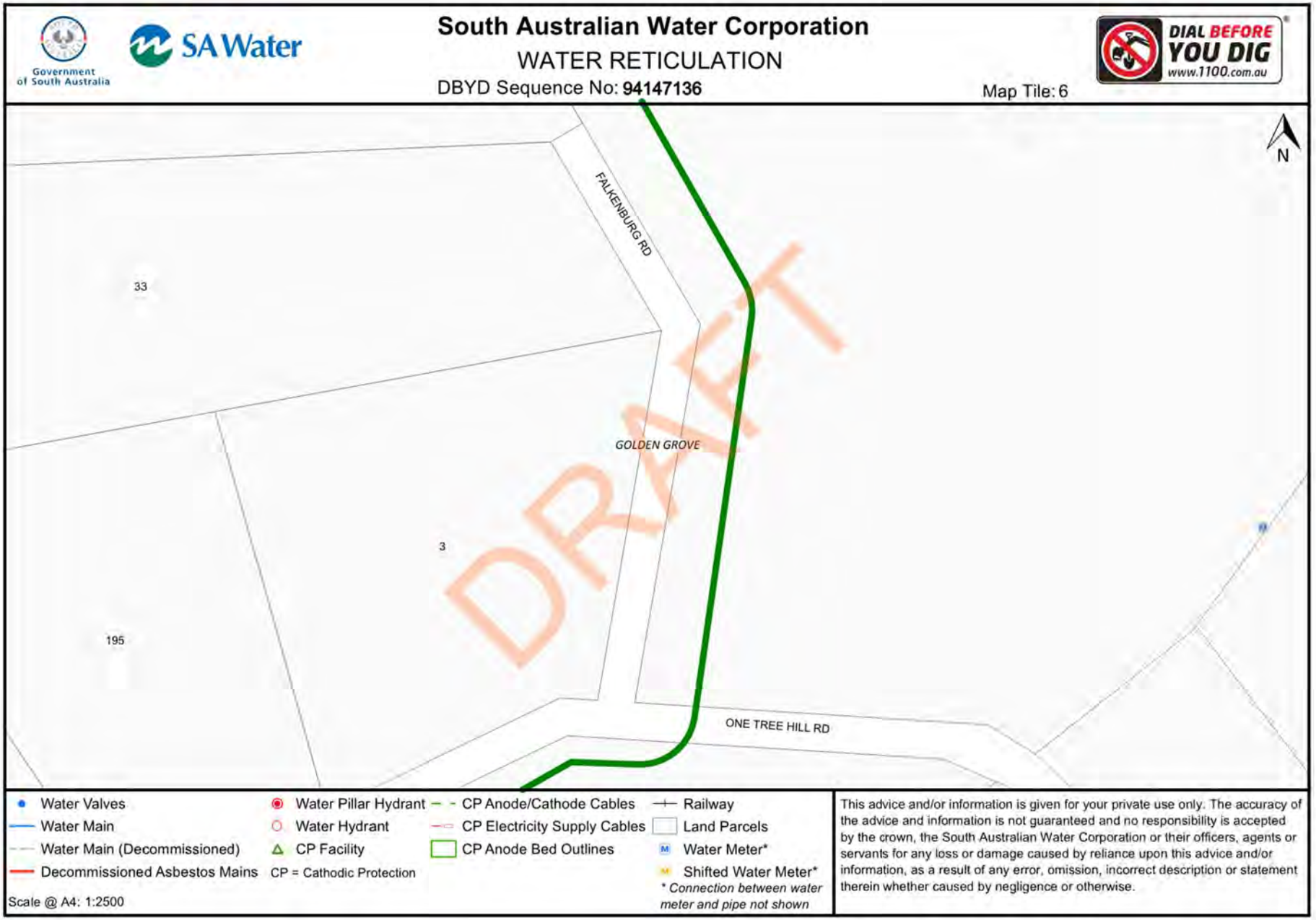

South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 3
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
GOLDEN GROVE
51
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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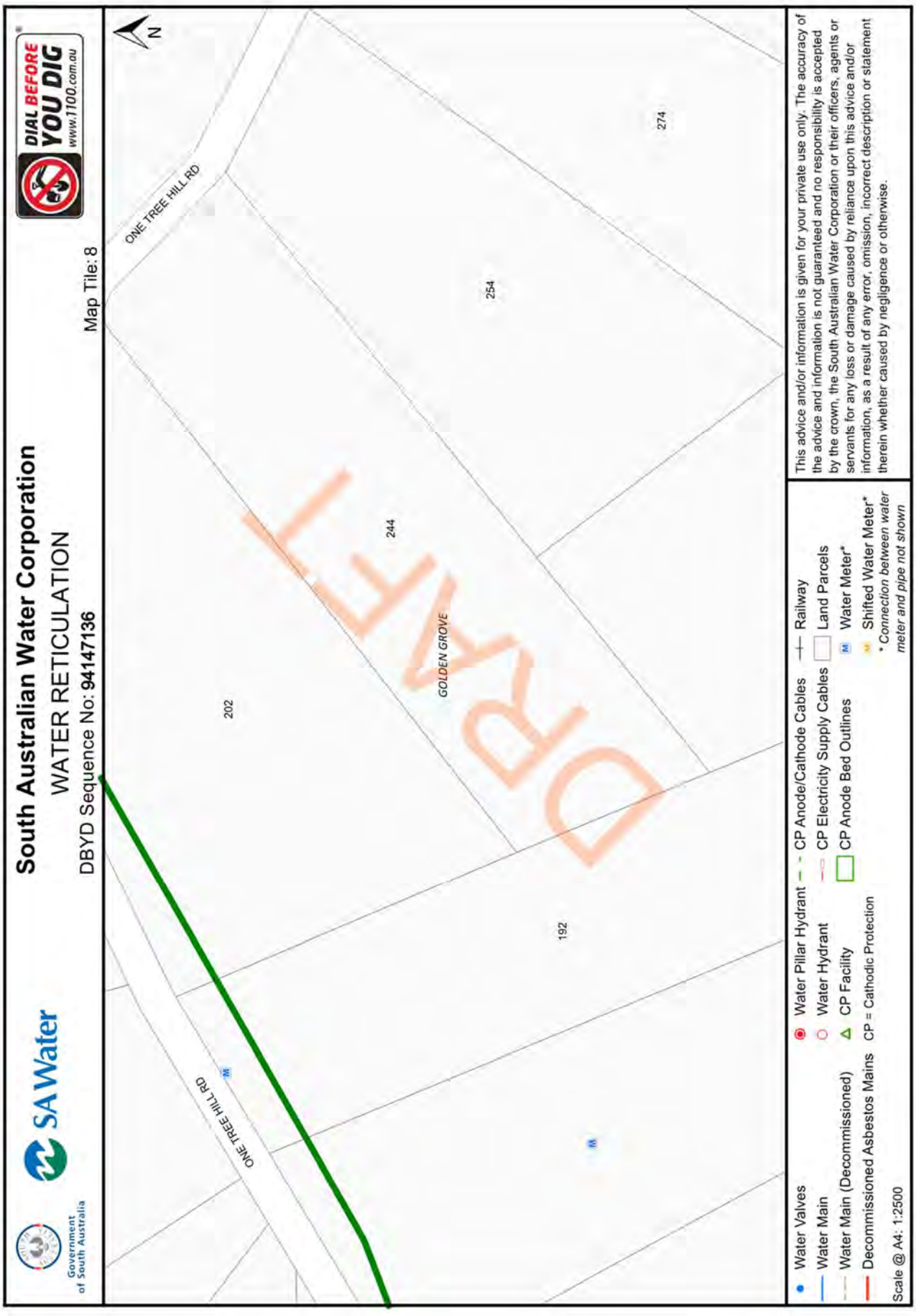
Item 13.1

Attachment 6


South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 5
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
LT 2
LT 4
LT 5
GOLDEN GROVE
189
185
STRACHAN RD
35
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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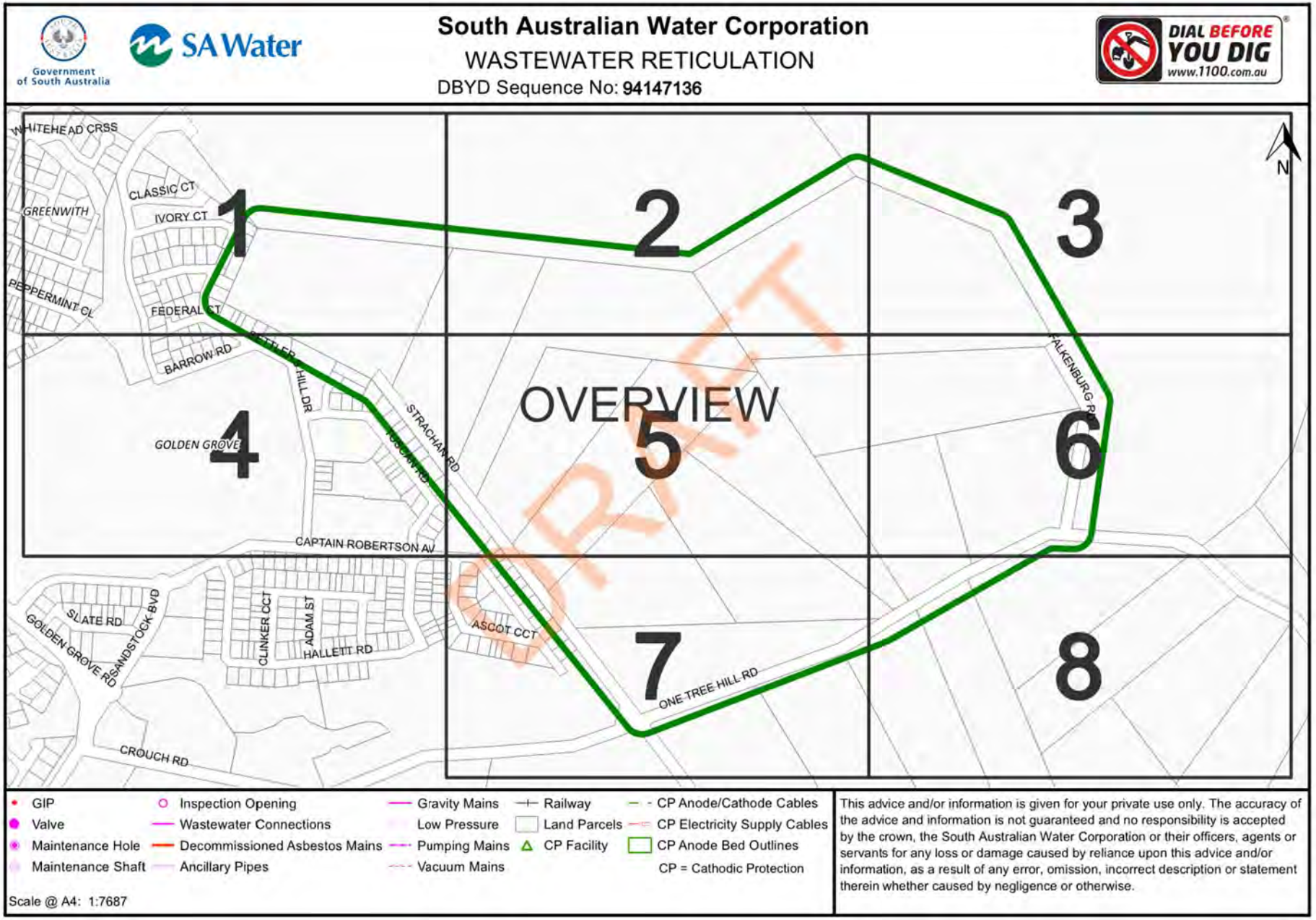

Government of South Australia
SA Water
South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 6
DIAL BEFORE YOU DIG
www.1100.com.au
N
FALKENBURG RD
33
GOLDEN GROVE
3
195
ONE TREE HILL RD
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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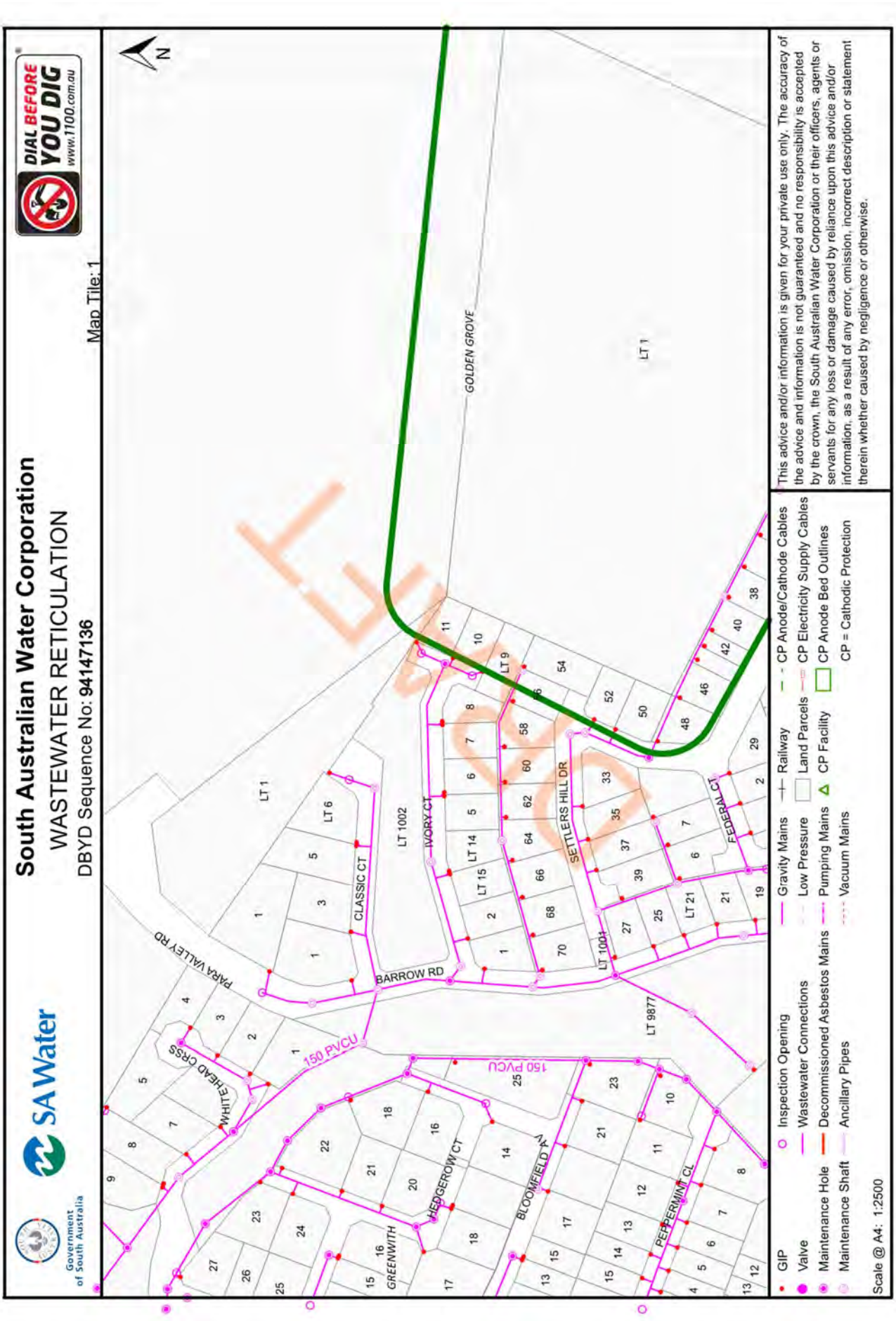

South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 7
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
LT 6
147
172
ONE TREE HILL RD
STRACHAN RD
CAPTAIN ROBERTSON AV
ASCOT CCT
GOLDEN GROVE
LT 5680
200 PVCO
150 PVCO
100 PVCO
2-4
6
8
10
12
80
82
16
20
22
24-26
15
17-19
23
25
27
29
31
33
35
37
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
This advice and/or information is given for your private use only. The accuracy of the advice and information is not guaranteed and no responsibility is accepted by the crown, the South Australian Water Corporation or their officers, agents or servants for any loss or damage caused by reliance upon this advice and/or information, as a result of any error, omission, incorrect description or statement therein whether caused by negligence or otherwise.
DRAFT



Item 13.1

Attachment 6

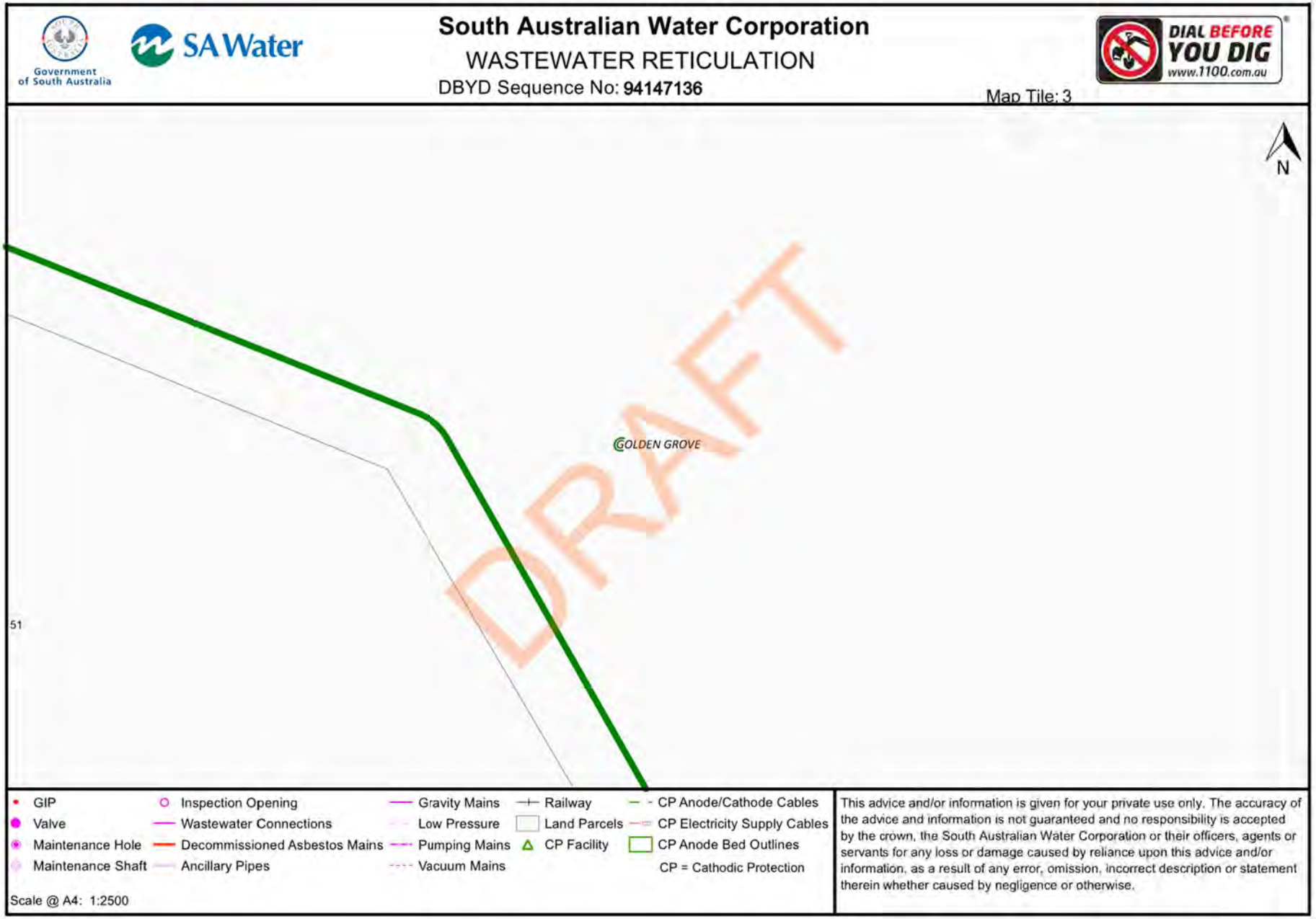

Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 94147136
DIAL BEFORE YOU DIG
www.1100.com.au
OVERVIEW
1
2
3
4
5
6
7
8
N
WHITEHEAD CRSS
CLASSIC CT
IVORY CT
GREENWITH
PEPPERMINT CL
FEDERAL CT
BARROW RD
GOLDEN GROVE
HILL DR
STRACHAN RD
FALKENBURG RD
CAPTAIN ROBERTSON AV
SLATE RD
GOLDEN GROVE RD
SANDSTOCK BVD
CLINKER CCT
ADAM ST
HALLETT RD
ASCOT CCT
ONE TREE HILL RD
CROUCH RD
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:7687
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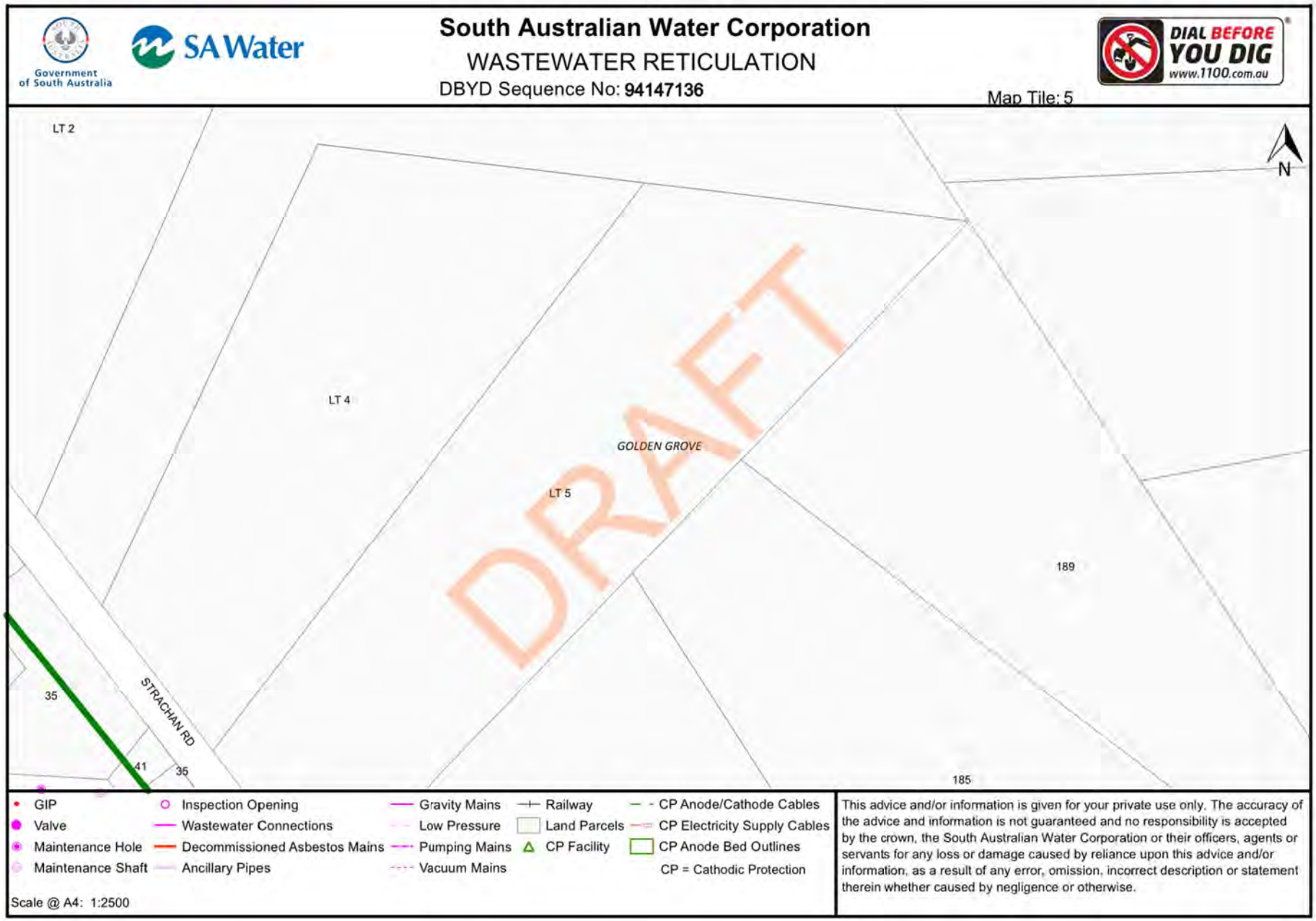
Item 13.1

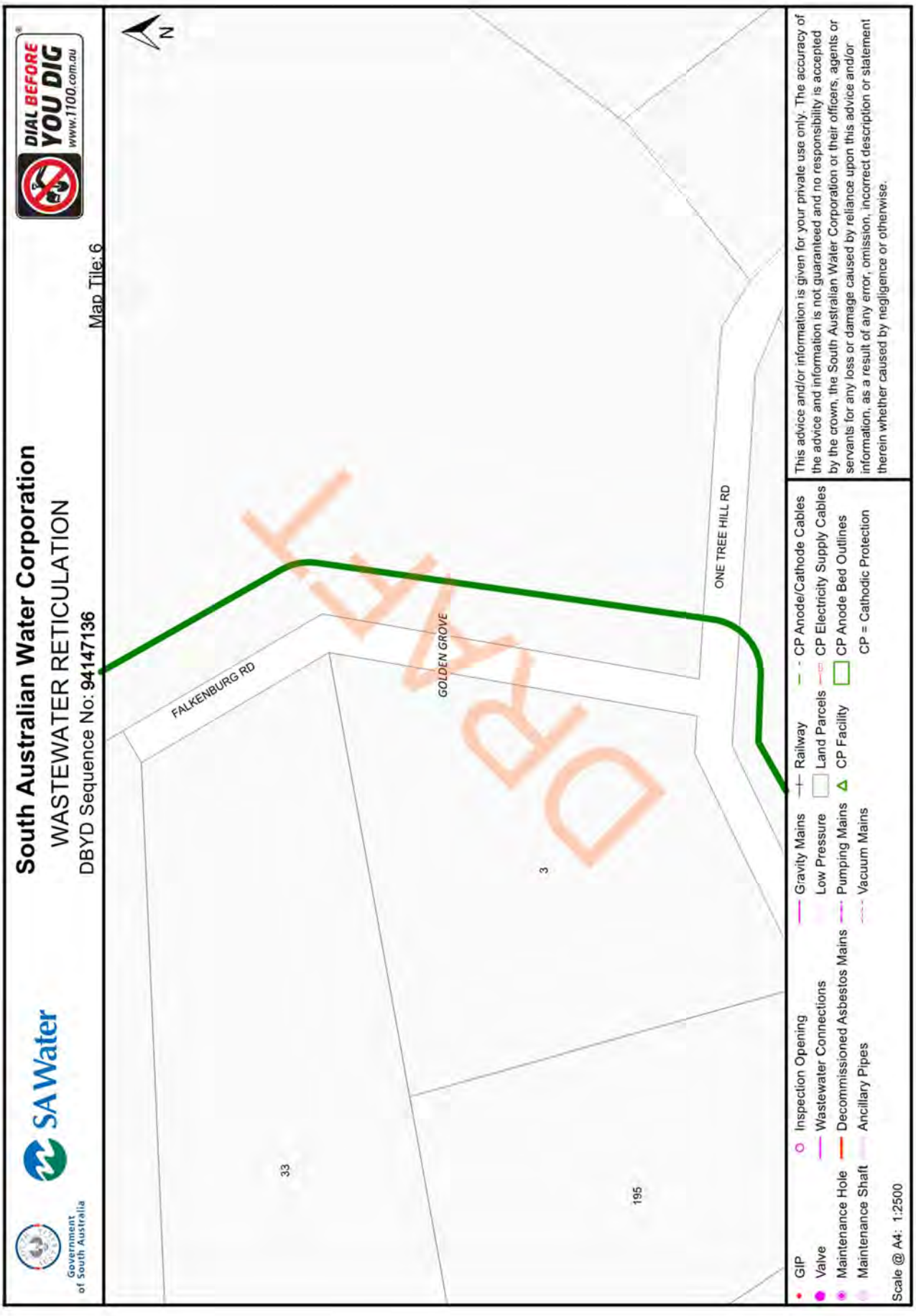
Attachment 6


South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 2
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
GOLDEN GROVE
LT 3
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 3
DIAL BEFORE YOU DIG
www.1100.com.au
N
GOLDEN GROVE
51
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 4
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
STRACHAN RD
LT 803
TUSCAN RD
150 PVCU
QUARTZ CT
SETTLERS HILL DR
CAPTAIN ROBERTSON AV
LT 501
LT 75
BARROW RD
LT 36
150 PVCU
GREENWITH
GOLDEN GROVE
1-25
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
- CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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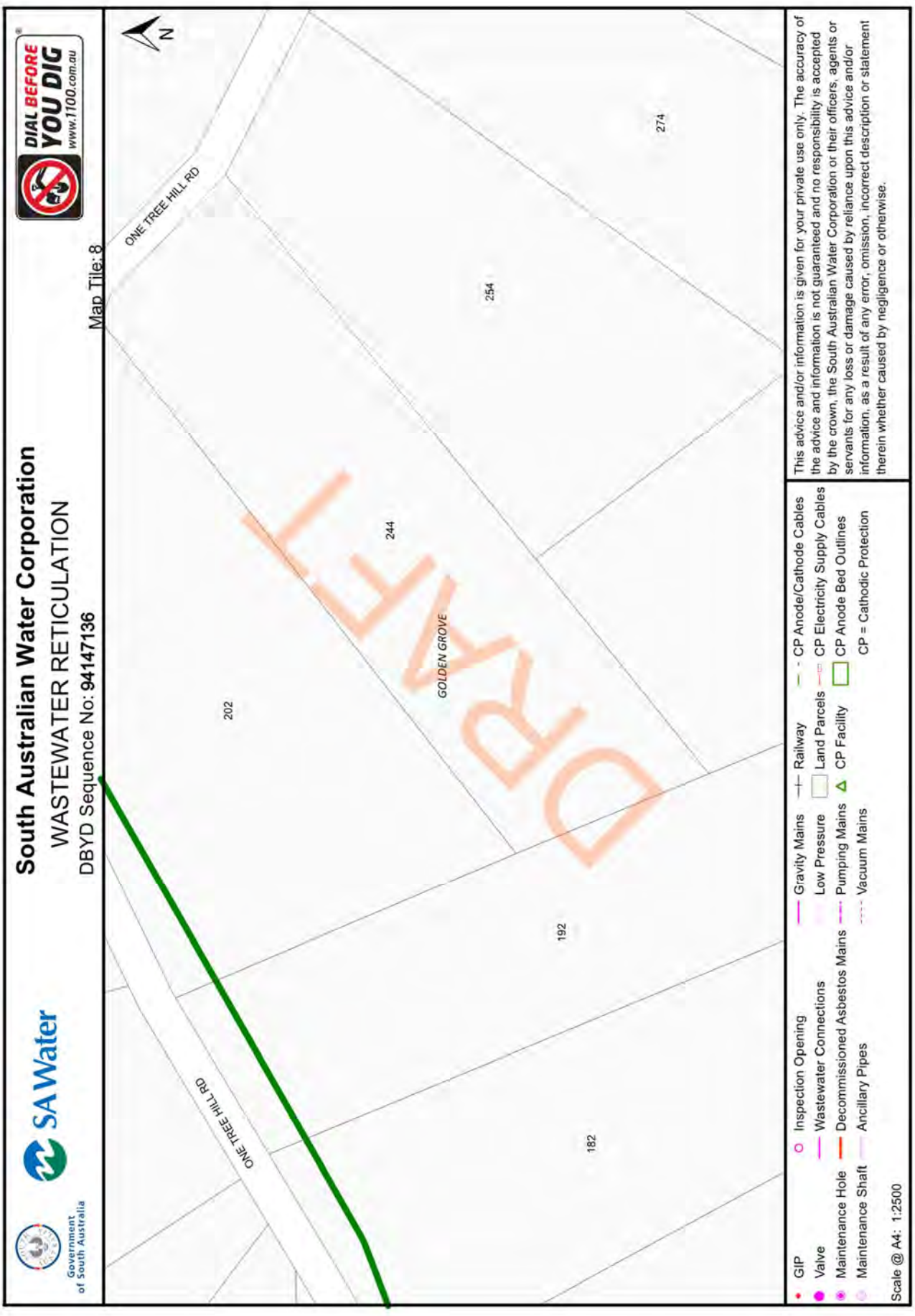

Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 5
DIAL BEFORE YOU DIG
www.1100.com.au
LT 2
LT 4
LT 5
GOLDEN GROVE
N
DRAFT
189
185
35
41
35
STRACHAN RD
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 6
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
FALKENBURG RD
GOLDEN GROVE
ONE TREE HILL RD
33
3
195
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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Item 13.1

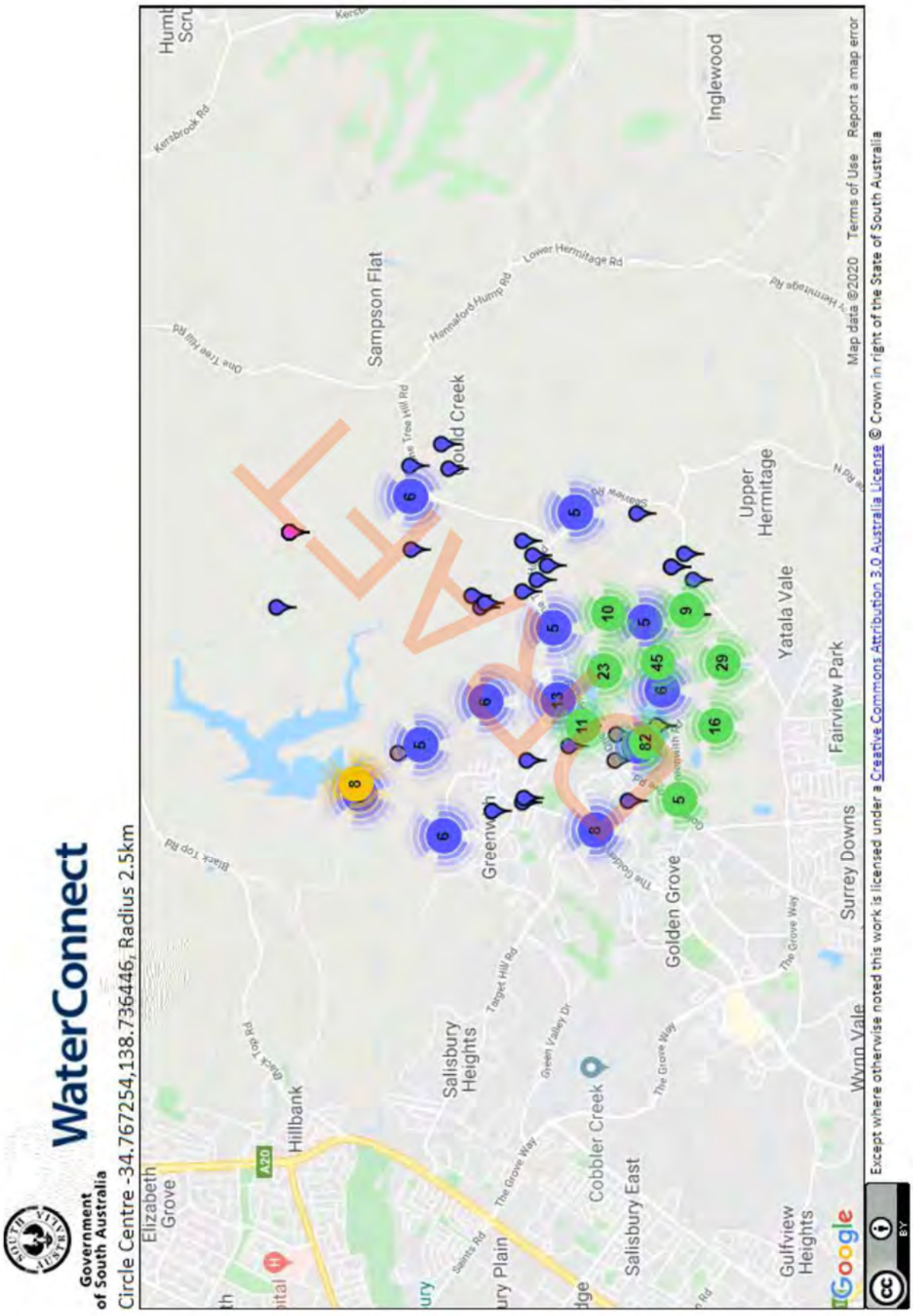
Attachment 6


South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 94147136
Map Tile: 8
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
ONE TREE HILL RD
GOLDEN GROVE
202
244
254
274
192
182
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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Appendix H WaterConnect 2.5 km Well Search Results

DRAFT

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WaterConnect
Government of South Australia
Circle Centre -34.767254,138.736446, Radius 2.5km
Elizabeth Grove
Hillbank
A20
Salisbury Heights
Cobbler Creek
Salisbury East
Golden Grove
Greenwith
Sampson Flat
Gould Creek
Inglewood
Upper Hermitage
Yatala Vale
Fairview Park
Surrey Downs
Wynn Vale
Gulfview Heights
Kersbrook Rd
Lower Hermitage Rd
Hannaford Hump Rd
Target Hill Rd
The Grove Way
Green Valley Dr
Black Top Rd
Saints Rd
Map data ©2020
Terms of Use
Report a map error
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Google

WaterConnect

Groundwater Data Report

Government of South Australia
Department for Environment and Water

Circle Centre -34.767254,138.736446, Radius 2.5km

Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-2401	15.24																
6628-2402	15.24																
6628-2403	19.81																
6628-2888	15.24	08/09/1959	UKN														
6628-3464	41.15	07/04/1960	UKN	41.15	EXP												
6628-3465	12.12	12/01/1973	UKN	12.12	EXP												
6628-3466	10.52	10/01/1973	UKN	10.52	EXP												
6628-3467	16.08	25/01/1973	UKN	16.08	EXP												
6628-3468	20.03	16/03/1973	UKN	20.03	EXP												
6628-3469	21.35	29/03/1973	UKN	21.35	EXP												
6628-3470	39.58	26/03/1973	UKN	39.58	EXP												
6628-3471	20.08	14/09/1972	UKN	20.08	EXP												
6628-3472	20.2	17/12/1974	ABD	4.36	INV												
6628-3473	20.4	18/12/1974	ABD	4	INV												
6628-3474	4.34	27/01/1961	ABD	4.34	INV												
6628-3475	6.1	27/01/1961	ABD	6.1	INV	4.42	27/01/1961										
6628-3476	5.33	27/01/1961	ABD	5.33	INV	4.27	27/01/1961										
6628-3477	55.78	19/02/1959	ABD	55.78	INV	5.18	26/01/1961										
6628-3478	5.03	27/01/1961	ABD	5.03	INV	4.88	27/01/1961										
6628-3479	5.18	27/01/1961	ABD	5.18	INV	4.27	27/01/1961										
6628-3480	3.81	27/01/1961	ABD	3.81	INV												
6628-3481	6.1	26/01/1961	ABD	6.1	INV	5.64	26/01/1961										
6628-3482	5.56	26/01/1961	ABD	5.56	INV												
6628-3483	4.57	26/01/1961	ABD	4.57	INV												
6628-3484	4.88	26/01/1961	ABD	4.88	INV												
6628-3485	4.88	26/01/1961	ABD	4.88	INV	3.66	26/01/1961										
6628-3486	6.55	25/01/1961	ABD	6.55	INV	5.18	25/01/1961										
6628-3487	5.64	25/01/1961	ABD	5.64	INV	5.18	25/01/1961										
6628-3488	5.49	25/01/1961	ABD	5.49	INV	5.18	25/01/1961										
6628-3489	2.29	25/01/1961	ABD	2.29	INV												
6628-3490	1.22	25/01/1961	ABD	1.22	INV												
6628-3491	0.61	31/01/1961	ABD	0.61	INV												
6628-3492	5.79	31/01/1961	ABD	5.79	INV	4.27	31/01/1961										
6628-3493	4.88	31/01/1961	ABD	4.88	INV	3.35	31/01/1961										
6628-3494	5.94	02/02/1961	ABD	5.94	INV	4.88	02/02/1961										
6628-3495	4.88	31/01/1961	ABD	4.88	INV												
6628-3496	5.64	31/01/1961	ABD	5.64	INV	3.66	31/01/1961										

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Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-3497	4.88	02/02/1961	ABD	4.88	INV												
6628-3498	7.32	31/01/1961	ABD	7.32	INV	6.1	31/01/1961										
6628-3499	3.96	31/01/1961	ABD	3.96	INV	3.05	31/01/1961										
6628-3500	4.88	02/02/1961	ABD	4.88	INV												
6628-3501	0.61	01/02/1961	ABD	0.61	INV												
6628-3502	7.92	01/02/1961	ABD	7.92	INV	3.81	01/02/1961										
6628-3503	6.71	02/02/1961	ABD	6.71	INV	5.33	02/02/1961										
6628-3504	5.49	02/02/1961	ABD	5.49	INV												
6628-3505	6.1	01/02/1961	ABD	6.1	INV	5.64	01/02/1961										
6628-3506	6.1	01/02/1961	ABD	6.1	INV												
6628-3507	6.71	03/02/1961	ABD	6.71	INV	6.25	03/02/1961										
6628-3508	1.52	03/02/1961	ABD	1.52	INV												
6628-3509	0.61	03/02/1961	ABD	0.61	INV												
6628-3510	0.91	03/02/1961	ABD	0.91	INV												
6628-3511	3.2	03/02/1961	ABD	3.2	INV												
6628-3512	5.33	02/02/1961	ABD	5.33	INV												
6628-3513	5.64	01/02/1961	ABD	5.64	INV												
6628-3514	7.32	03/02/1961	ABD	7.32	INV	4.57	03/02/1961										
6628-3515	4.57			4.57				16.42	07/09/1971	200	07/09/1971	Nds					
6628-3517	129.54		OPR		DOM	76.2	23/11/1971	2.53	23/11/1971	2186	14/12/1971	Ndt	1.52				
6628-3518	10.41	12/09/1973	UKN	10.41	INV												
6628-3519	28.61	10/09/1973	UKN	28.61	INV												
6628-3520	24.42	02/05/1973	UKN	24.42	INV												
6628-3521	30	17/04/1973	UKN	30	INV												
6628-3522	60.96	01/01/1971		33.23	STK	21.98	07/09/1971	0.38	07/09/1971	1878	09/04/1984	Nds					
6628-3523	121.92		ABD	121.92		12.19	07/09/1971										
6628-3524	35.76	23/02/1973	UKN	35.76	INV												
6628-3525	25	08/05/1973	UKN	25	INV												
6628-3526	23.73	08/03/1973	UKN	23.73	INV												
6628-3527	33.63	05/03/1973	UKN	33.63	INV												
6628-3528	32.4	15/02/1973	UKN	32.4													
6628-3529	12.2	06/02/1973	UKN	12.2	INV												
6628-3530	8	08/10/1975	OPR	8	DRN												
6628-3531	8.1	08/10/1975	OPR	8.1	DRN												
6628-3532	8.1	08/10/1975	OPR	8.1	DRN												
6628-3533	9.15	08/10/1975	OPR	9.15	DRN												
6628-3534	9.15	08/10/1975	OPR	9.15	DRN												
6628-3535	13.25	30/07/1976	ABD	13.25	EXP												
6628-3536	13	04/08/1976	ABD	13	INV												
6628-3537										686	08/04/1933						
6628-3538	92.35							1.52	09/06/1933	723	09/06/1933	Nds	92.35				
6628-3539	70	21/09/1954		70	STK	29.7	11/03/1975	1	11/03/1975	827	11/03/1975	Nds	27.5				

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Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-3540	92.96	01/01/1966		92.96	IRR	33.05	12/03/1975	1.76	12/03/1975			Nds	13.11				
6628-3541	7.6	01/01/1966		7.6		0.87	12/03/1975	0.63	12/03/1975	827	12/03/1975	Ndt	7.6				
6628-3549	11.58	01/01/1964	OPR	11.58	STK	10	02/08/1976	0.25	13/09/1971	2239	02/08/1976						
6628-3550	91.44	01/01/1951		91.44	IRR	6.4	28/08/1964	2.27	28/08/1964	851	28/08/1964	Nds	91.44				
6628-3551	121.92				IRR	22.2	10/04/1984	5.05	07/09/1971	895	10/04/1984	Nds					
6628-3552	3.12		ABD	1.7	STK	1.45	21/01/1966			2681	18/01/1966	Nds					
6628-3553			ABD														
6628-3554	43.49	05/09/1962	UKN	43.49	EXP							Nds					
6628-3555	36.27	13/09/1962	UKN	36.27	EXP							Nds					
6628-3556	61	01/01/1955		61	STK	0.91	06/12/1955	2.15	18/06/1975	457	06/12/1955	Nds	21.34				
6628-3557	2.74			2.74	SPR					492	07/03/1946						
6628-3558	42.67			42.67	GEN	11.06	30/03/1971	2.53	30/03/1971	1832	30/03/1971	Nds					
6628-3559	16.46	19/01/1960	UKN	16.46	EXP					282	18/01/1961	T(T1)					
6628-3560	3.66	04/11/1960	UKN	3.66	INV												
6628-3561	5.49	04/11/1960	UKN	5.49	EXP												
6628-3562	10.36	04/11/1960	UKN	10.36	EXP												
6628-3563	12.8	03/11/1960	UKN	12.8	EXP												
6628-3564	12.81	03/11/1960	UKN	12.81	EXP												
6628-3565	17.68	03/11/1960	UKN	17.68	EXP												
6628-3566	6.1	02/11/1960	UKN	6.1	EXP												
6628-3567	7.32	02/11/1960	UKN	7.32	EXP												
6628-3568	10.97	01/11/1960	UKN	10.97	EXP												
6628-3569	35.36	05/12/1960	UKN	35.36	EXP					1155	06/12/1960						
6628-3570	17.68	02/11/1960	UKN	17.68	EXP												
6628-3571	12.8	01/11/1960	UKN	12.8	EXP												
6628-3572	9.14	01/11/1960	UKN	9.14	EXP												
6628-3573	6.71	31/10/1960	UKN	6.71	EXP	6.25	31/10/1960										
6628-3574	9.14	31/10/1960	UKN	9.14	EXP												
6628-3575	15.24	31/10/1960	UKN	15.24	EXP	10.36	31/10/1960										
6628-3576	15.24	28/10/1960	UKN	15.24	EXP	10.97	28/10/1960										
6628-3577	17.07	28/10/1960	UKN	17.07	EXP	13.87	28/10/1960										
6628-3578	18.29	21/10/1960	UKN	18.29	EXP												
6628-3579	9.14	26/10/1960	UKN	9.14	EXP												
6628-3580	11.58	26/10/1960	UKN	11.58	EXP	9.14	26/10/1960										
6628-3581	9.14	26/10/1960	UKN	9.14	EXP	7.47	26/10/1960										
6628-3582	15.85	27/10/1960	UKN	15.85	EXP	11.28	27/10/1960										
6628-3583	15.24	27/10/1960	UKN	15.24	EXP	12.65	27/10/1960										
6628-3584	16.46	28/10/1960	UKN	16.46	EXP	13.87	28/10/1960										
6628-3585	30.48	11/11/1960	UKN	30.48	EXP					5331	22/11/1960						
6628-3586	30.48	16/01/1961	UKN	30.48	EXP					2870	16/01/1961						
6628-3587	41.76	14/12/1960	UKN	41.76	EXP												
6628-3588	38.1	29/11/1960	UKN	38.1	EXP					680	29/11/1960						

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Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-3589	38.1	21/11/1960	UKN	38.1	EXP					4727	23/11/1960						
6628-3590	12.8	04/11/1960	UKN	12.8	EXP												
6628-3591	7.92	07/11/1960	UKN	7.92	EXP												
6628-3592	18.29	10/11/1960	UKN	18.29	EXP												
6628-3593	17.68	14/11/1960	UKN	17.68	EXP												
6628-3594	6.71	15/11/1960	UKN	6.71	EXP												
6628-3595	15.24	15/11/1960	UKN	15.24	EXP												
6628-3596	30.49			30.49				1	23/09/1975	1384	23/09/1975	T(T1)					
6628-3597	117.35	01/01/1955		117.35	STK			7.58	25/11/1965	866	23/11/1965	Nds	27.43				
6628-3598	91.44				IRR			2.3	06/05/1974	1049	07/05/1974	Nds	82.3				
6628-3599	99	01/01/1954		99	STK	9.14	08/12/1955	3.79	18/06/1975	688	18/06/1975	Nds	48.77				
6628-3600	10.97	26/10/1965	UKN	10.97	EXP												
6628-3601	18.29	26/10/1965	UKN	18.29	EXP												
6628-3602	2.74	26/10/1965	UKN	2.74	EXP												
6628-3603	2.74	26/10/1965	UKN	2.74	EXP												
6628-3604	10.97	26/10/1965	UKN	10.97	EXP												
6628-3605	9.14	26/10/1965	UKN	9.14	EXP												
6628-3606	18.29	26/10/1965	UKN	18.29	EXP												
6628-3607	7.32	26/10/1965	UKN	7.32	EXP												
6628-3608	18.29	26/10/1965	UKN	18.29	EXP												
6628-3609	18.29	26/10/1965	UKN	18.29	EXP												
6628-3610	5.18	26/10/1965	UKN	5.18	EXP												
6628-3611	5.18	26/10/1965	UKN	5.18	EXP												
6628-3612	106.68	01/01/1936		106.68	IND			7.56	17/12/1975	712	10/12/1986	Nds	45.72				
6628-3613		01/10/1973			STK					723	10/12/1986						
6628-3614	9.14			9.14						785	11/08/1936						
6628-3615	15.24	13/05/1954	UKN	15.24	EXP												
6628-3616	13.11	26/05/1954	UKN	13.11	EXP												
6628-3617	13.72	27/05/1954	UKN	13.72	EXP												
6628-3618	25.91	04/06/1954	UKN	25.91	EXP												
6628-3619	25.6	10/06/1954	UKN	25.3	EXP												
6628-3620	27.43	17/06/1954	UKN	27.43	EXP												
6628-3621	12.19	01/01/1964	ABD	12.19	STK	10.06	28/08/1964			1830	28/08/1964						
6628-3622	7.62	01/01/1964		7.62	STK	1.37	07/09/1971	0.19	07/09/1971	2086	07/09/1971						
6628-3623	18.3	01/01/1936			STK	5.8	15/04/1975	0.5	15/04/1975	1664	15/04/1975						
6628-3624					STK												
6628-3625	31.39				DOM	23.25	19/11/1974	4.74	19/11/1974	728	19/11/1974	Nds	12.19				
6628-3626	135.8	06/05/1977		135.8	TWS	51	06/05/1977	0.25	06/05/1977	1127	05/05/1977	N	12	1660			
6628-3689	5.49	11/11/1960	UKN	5.49	EXP												
6628-3690	17.07	10/11/1960	UKN	17.07	EXP												
6628-3691	1.68	11/11/1960	UKN	1.68	EXP												
6628-3692	5.18	11/11/1960	UKN	5.18	EXP												

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Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-3693	3.66	11/11/1960	UKN	3.66	EXP												
6628-3694	36.58	30/03/1954	UKN	36.58	EXP												
6628-3695	7.62	23/03/1954	UKN	7.62	EXP												
6628-3696	17.07	01/04/1954	UKN	17.07	EXP												
6628-3697	6.1	19/05/1954	UKN	6.1	EXP												
6628-3698	15.54	12/05/1954	UKN	15.54	EXP												
6628-3707	25.6	03/10/1951	UKN	25.6	EXP												
6628-3708	7.62	01/10/1951	UKN	7.62	EXP												
6628-3714	15.24	11/10/1951	UKN	15.24	EXP												
6628-3723	30.5	01/01/1965		30.5	DOM	18.9	11/06/1975	1.3	11/06/1975	1496	11/06/1975	Nds					
6628-3724	8.84	07/04/1954	UKN	8.84	EXP												
6628-3725	36.58	30/04/1954	UKN	36.58	EXP												
6628-3726	31.09	17/09/1951	UKN	31.09	EXP												
6628-3727	21.34	04/10/1951	UKN	21.34	EXP												
6628-3728	103.6	01/12/1974		103.6	DOM			2.52	12/06/1975	1496	12/06/1975		61				
6628-3729	137.2			137.2													
6628-3730	45.72		OPR	45.72	STK			1.26	20/01/1965			Ndt					
6628-3731	16.15	03/09/1951	UKN	16.15	EXP												
6628-3734	16.76	05/05/1954	UKN	16.76	EXP												
6628-3735	17.37	07/05/1954	UKN	17.37	EXP												
6628-4129	20	16/06/1977		20	INV												
6628-4130	20.8	22/06/1977		20.8	INV												
6628-4131	21	14/07/1977		21	INV												
6628-4132	10	29/06/1977	UKN	10	INV												
6628-4133	10	04/07/1977	UKN	10	INV												
6628-4134	10	06/07/1977	UKN	10	INV												
6628-6110	21.5	08/05/1978		21.5	INV												
6628-6886	20.58	29/03/1978		20.58	EXP	12.45	31/03/1978	0.02	31/03/1978				18				
6628-6887	20.58	29/03/1978		20.58	OBS								20				
6628-8926	39	15/02/1977		39	OBS	20.16	10/08/1987			740	04/03/1985	T(T1)			YAT054	H	H
6628-11201	8	23/03/1977	UKN	8	EXP												
6628-11202	10.3	24/03/1977	UKN	10.3	EXP												
6628-11203	9	25/03/1977	UKN	9	EXP												
6628-11204	11.3	29/03/1977	UKN	11.3	EXP												
6628-11205	14.3	30/03/1977	UKN	14.3	EXP												
6628-11206	14.2	31/03/1977	UKN	14.2	EXP												
6628-11207	11.9	01/04/1977	UKN	11.9	EXP												
6628-11208	10.3	04/04/1977	UKN	10.3	EXP												
6628-11209	9.6	05/04/1977	UKN	9.6	EXP												
6628-11210	4	06/04/1977	UKN	4	EXP												
6628-11211	16.5	07/04/1977	UKN	16.5													
6628-11212	5.2	11/04/1977	UKN	5.2	EXP												

DRAFT

Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-11213	8.1	13/04/1977	UKN	8.1	EXP												
6628-11214	5.3	14/04/1977		5.3	EXP							T(T1)					
6628-11215	6.4	15/04/1977	UKN	6.4	EXP												
6628-11216	8	15/04/1977	UKN	8	EXP												
6628-11217	7.8	15/04/1977	UKN	7.8	EXP												
6628-11218	6.5	18/04/1977	UKN	6.5	EXP												
6628-11219	6.6	19/04/1977	UKN	6.6	EXP												
6628-11220	5.8	20/04/1977	UKN	5.8	EXP												
6628-11221	4.4	21/04/1977	UKN	4.4	EXP												
6628-11222	1.7	22/04/1977	UKN	1.7	EXP												
6628-11223	2.8	22/04/1977	UKN	2.8	EXP												
6628-11224	3	22/04/1977	UKN	3	EXP												
6628-11225	5.8	22/04/1977	UKN	5.8													
6628-11226	9	25/04/1977	UKN	9	EXP												
6628-11362	26.5	31/01/1980	UKN	26.5													
6628-11363	11	01/02/1980	UKN	11													
6628-11364	23	18/02/1980	UKN	23													
6628-11365	8.5	05/02/1980	UKN	8.5													
6628-11366	29	08/02/1980	UKN	29													
6628-11367	25	07/02/1980	UKN	25													
6628-11368	35	06/02/1980	UKN	35													
6628-11369	6	19/02/1980	UKN	6													
6628-11370	21	12/02/1980		21								T(T1)					
6628-11371	15	19/02/1980	UKN	15													
6628-11372	23	14/02/1980		23													
6628-11373	30.7	25/02/1980	UKN	30.7													
6628-11374	21	12/02/1980	UKN	21													
6628-11375	23	13/02/1980	UKN	23													
6628-11376	25	13/02/1980	UKN	25													
6628-11377	31	15/02/1980	UKN	31													
6628-11378	18	21/02/1980	UKN	18													
6628-11379	17	18/02/1980	UKN	17													
6628-11380	22.1	26/02/1980	UKN	22.1													
6628-11381	13	22/02/1980	UKN	13													
6628-11408	42	28/04/1980		42	OBS	18	28/04/1980	0.06	28/04/1980	661	21/08/1980	N	42	6981			
6628-11409	60	29/04/1980		60	OBS	21	29/04/1980	0.63	29/04/1980	583	21/08/1980	N	60	6982			
6628-11410	60	30/04/1980		60	OBS	20.5	30/04/1980	0.38	30/04/1980	1216	30/04/1980	N	60	6983			
6628-11946	152	30/03/1982		152	IRR			2.15	30/03/1982	1328	29/03/1982	Nds	36.7	10096			
6628-12357	62	07/07/1983		62	IRR	40.2	08/07/2019	3	07/07/1983			Nds	3	12760			
6628-12834	5.5	06/04/1984	CLP	5.5		5.32	06/04/1984										
6628-12837	29.5	10/04/1984	ABD	29.5	STK	18.95	10/04/1984			739	10/04/1984	Nds					
6628-12838	15.3	09/04/1984	ABD	15.3								Nds					

DRAFT

Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-13219	118	16/01/1985	OPR	118	IRR			2.5	16/01/1985	629	16/01/1985	Ndt	18	15919			
6628-13322	122.5	09/05/1985	OPR	122.5	DOM			0.25	09/05/1985	2030	08/05/1985	Ndt	84	16494			
6628-13468	126	10/09/1985	OPR	126	IRR	16	23/09/1985	10.6	10/09/1985	923	10/09/1985	Nds	54	17279			
6628-13609	152	27/03/1986		152	IND	20	21/04/1986	11.5	27/03/1986	735	27/03/1986	N	41	18212			
6628-13711	121	17/07/1986		121	DOM	55	20/08/1986	3.5	17/07/1986	1160	16/07/1986	Ndt		18599			
6628-13743	8.5	28/02/1986	UKN	8.5	EXP												
6628-13744	39.5	03/03/1986	UKN	39.5	EXP												
6628-13745	42	25/03/1986	UKN	42	EXP												
6628-13746	49.5	13/03/1986	UKN	49.5	EXP												
6628-13748	45.5	14/03/1986	UKN	45	EXP												
6628-13758	61	01/04/1986	UKN	61	EXP												
6628-13759	33	02/04/1986	UKN	33	EXP												
6628-13760	35	03/04/1986	UKN	35	EXP												
6628-13761	44.5	04/04/1986	UKN	44.5	EXP												
6628-13762	43.5	08/04/1986	UKN	43.5	EXP												
6628-13763	65	10/04/1986	UKN	65	EXP												
6628-13764	53.5	11/04/1986	UKN	53.5	EXP												
6628-13765	50.5	14/04/1986	UKN	50.5	EXP												
6628-13766	49	03/06/1986	UKN	49	EXP												
6628-13767	53	04/06/1986	UKN	53	EXP												
6628-13768	51.5	05/06/1986	UKN	51.2	EXP												
6628-13769	35	06/06/1986	UKN	35	EXP												
6628-13773	20.5	14/06/1986	UKN	20.5	EXP												
6628-13774	38.5	16/06/1986	UKN	38.5	EXP												
6628-13775	29.5	17/06/1986	UKN	29.5	EXP												
6628-13779	44.5	20/06/1986	UKN	44.5	EXP												
6628-13780	38.5	20/06/1986	UKN	38.5	EXP												
6628-13781	32.5	21/06/1986	UKN	32.5	EXP												
6628-13782	47.5	23/06/1986	UKN	47.5	EXP												
6628-13783	59.5	24/06/1986	UKN	59	EXP												
6628-13784	17.5	24/06/1986	UKN	17.5	EXP												
6628-13785	43.5	25/06/1986	UKN	43.5	EXP												
6628-13786	52.5	26/06/1986	UKN	52.5	EXP												
6628-13787	44.5	26/06/1986	UKN	44.5	EXP												
6628-13788	47.5	27/06/1986	UKN	47.5	EXP												
6628-13790	40.5	05/08/1986	UKN	40.5	EXP												
6628-13791	26	06/08/1986	UKN	26	EXP												
6628-13792	6.5	07/08/1986	UKN	6.5	EXP												
6628-13793	23.5	07/08/1986	UKN	23.5	EXP												
6628-13795	26.5	13/08/1986	UKN	26.5	EXP												
6628-13796	22.5	13/08/1986	UKN	22.5	EXP												
6628-14338	102.1	11/01/1989	OPR	102	IRR	30.5	21/02/1989	12.5	21/02/1989	1581	10/01/1989	N	102.1	21305			

DRAFT

Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-14626	5.8	26/01/1985	ABD	0	INV												
6628-14627	2.75	30/01/1985	ABD	0	INV												
6628-15002	14	25/11/1975	UKN	14	EXP												
6628-15003	5	25/11/1975	UKN	5	EXP												
6628-15004	6	25/11/1975	UKN	6	EXP												
6628-15006	5	26/11/1975	UKN	5	EXP												
6628-15011	25	01/12/1975	UKN	25	EXP												
6628-15012	21	02/12/1975	UKN	21	EXP												
6628-15013	23	02/12/1975	UKN	23	EXP												
6628-15014	17	02/12/1975	UKN	17	EXP												
6628-15015	7.4	03/12/1975	UKN	7.4	EXP												
6628-15016	13	03/12/1975	UKN	13	EXP												
6628-15017	14	03/12/1975	UKN	14	EXP												
6628-15018	30	04/12/1975	UKN	30	EXP												
6628-15019	30	04/12/1975	UKN	30	EXP												
6628-15020	30	05/12/1975	UKN	30	EXP												
6628-15021	30	05/12/1975	UKN	30	EXP												
6628-15022	30	12/12/1975	UKN	30	EXP												
6628-15023	29	12/12/1975	UKN	29	EXP												
6628-15024	23	15/12/1975	UKN	23	EXP												
6628-15025	28	15/12/1975	UKN	28	EXP												
6628-15027	27	16/12/1975	UKN	27	EXP												
6628-15035	21	30/01/1976	UKN	21	EXP												
6628-15046	11	06/02/1976	UKN	11	EXP												
6628-15051	3	12/02/1976	UKN	3	EXP												
6628-15052	3	12/02/1976	UKN	3	EXP												
6628-15053	23.5	12/02/1976	UKN	23.5	EXP												
6628-15054	29	13/02/1976	UKN	29	EXP												
6628-15055	15	13/02/1976	UKN	15	EXP												
6628-15056	23	16/02/1976	UKN	23	EXP												
6628-15057	22	16/02/1976	UKN	22	EXP												
6628-15058	23	17/02/1976	UKN	23	EXP												
6628-15059	13	17/02/1976	UKN	13	EXP												
6628-15060	29	17/02/1976	UKN	29	EXP												
6628-15061	27	18/02/1976	UKN	27	EXP												
6628-15062	31	18/02/1976	UKN	31	EXP												
6628-15063	13	19/02/1976	UKN	13	EXP												
6628-15064	17	19/02/1976	UKN	17	EXP												
6628-15065	17	20/02/1976	UKN	17	EXP												
6628-15066	15.5	20/02/1976	UKN	15.5	EXP												
6628-15067	19	20/02/1976	UKN	19	EXP												
6628-15068	5	20/02/1976	UKN	5	EXP												

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Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-15069	15	20/02/1976	UKN	15	EXP												
6628-15070	14	23/02/1976	UKN	14	EXP												
6628-15071	14	23/02/1976	UKN	14	EXP												
6628-15072	26	23/02/1976	UKN	26	EXP												
6628-15073	14	23/02/1976	UKN	14	EXP												
6628-15074	6	24/02/1976	UKN	6	EXP												
6628-15075	11	24/02/1976	UKN	11	EXP												
6628-15076	15	24/02/1976	UKN	15	EXP												
6628-15077	12	24/02/1976	UKN	12	EXP												
6628-15078	11	24/02/1976	UKN	11	EXP												
6628-15079	7	25/02/1976	UKN	7	EXP												
6628-15080	23	25/02/1976	UKN	23	EXP												
6628-15081	25	26/02/1976	UKN	25	EXP												
6628-15082	27.5	26/02/1976	UKN	27.5	EXP												
6628-15083	27	27/02/1976	UKN	27	EXP												
6628-15084	9	01/03/1976	UKN	9	EXP												
6628-15085	9	01/03/1976	UKN	9	EXP												
6628-15086	2	01/03/1976	UKN	2	EXP												
6628-15087	2	02/03/1976	UKN	2	EXP												
6628-15088	10	02/03/1976	UKN	10	EXP												
6628-15089	9	02/03/1976	UKN	9	EXP												
6628-15090	11	02/03/1976	UKN	11	EXP												
6628-15091	10	03/03/1976	UKN	10	EXP												
6628-15092	31	03/03/1976	UKN	31	EXP												
6628-15093	17	03/03/1976	UKN	17	EXP												
6628-15094	62	08/02/1977	UKN	62	EXP												
6628-15096	57	10/02/1977	UKN	57	EXP												
6628-15098	52	14/02/1977	UKN	52	EXP												
6628-15099	39	15/02/1977	UKN	39	EXP	18.7	15/02/1977										
6628-15100	58	16/02/1977	UKN	58	EXP												
6628-15102	73	18/02/1977	UKN	73	EXP												
6628-15314	162	06/06/1990	OPR	162	DOM	106	06/06/1990	1.5	06/06/1990	788	04/06/1990	Ndt		24031			
6628-15458	32.5	31/03/1987	UKN	32.5	EXP												
6628-15459	44.5	31/03/1987	UKN	44.5	EXP												
6628-15460	49	01/04/1987	UKN	49	EXP												
6628-15461	44.5	02/04/1987	UKN	44.5	EXP												
6628-15462	44.5	02/04/1987	UKN	44.5	EXP												
6628-15463	53.5	03/04/1987	UKN	53.5	EXP												
6628-16103	39	05/08/1992		39	OBS	13.2	05/08/1992	1	05/08/1992	865	05/08/1992	N	6	28013	YAT126		
6628-16262	120	18/12/1992		120	DOM	52	18/12/1992	3	18/12/1992	466	18/12/1992	Ndt	9	28696			
6628-16472	50.4	10/12/1993		50.4	INV	33.03	06/11/2019	0.25	10/12/1993	210	07/11/2019	T(T1)	45.7	30601	YAT127	C	C
6628-16510	95	08/12/1993		95	STK	20	07/12/1993	0.4	08/12/1993	572	07/12/1993	Nds	1	30677			

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Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-16873	153	13/01/1995		153	STK	66	13/01/1995	7.58	13/01/1995	1016	13/01/1995	Ndt		33515			
6628-17219	28	09/02/1993		28													
6628-17266	167.6	23/09/1994		167.6	DOM			2.53	23/09/1994	3230	23/09/1994	Nds	13.7	31876			
6628-17279	133	10/11/1994		133	IND	20	10/11/1994	0.88	10/11/1994	783	08/11/1994	Nds	69.7	32919			
6628-17526	111.2	27/11/1995		111.2	DOM			0.28	27/11/1995	966	27/11/1995	Nds	17.7	36410			
6628-18044	80	04/05/1996		80	IRR	25.11	08/07/2019	1	04/05/1996	1362	04/05/1996	Nds	36	37227			
6628-18194	126.6	07/02/1997		126.6	IND	25.67	21/11/2019	3	07/02/1997	1011	21/11/2019	N	107.5	40385		N	N
6628-18573	141	16/05/1997		141	IRR	63	16/05/1997	2.7	16/05/1997			N	38	41072			
6628-19261	72	20/01/1999		72	IRR	30	20/01/1999	3	20/01/1999	2579	20/01/1999	Ndt	72	47394			
6628-19613	5.5	14/05/1999		5.5	MON	2.5	14/05/1999	0.1	14/05/1999			Nds	5.5	49257			
6628-19896	102	04/11/1999		102	IRR	17	04/11/1999	10	04/11/1999	988	04/11/1999	Nds	30	50640			
6628-19929	79	08/10/1999		79	STK	35	08/10/1999	10	08/10/1999	1396	07/10/1999	N	79	50391			
6628-20333	12	17/03/2000		12	INV							T(T1)	6	52515			
6628-20334	47	15/03/2000		47	INV							T(T1)	27.5	52516			
6628-20335	39	15/03/2000		39	INV							T(T1)	18.5	52471			
6628-20494	200	23/01/2001		200	IRR	40	23/01/2001	3	23/01/2001	1138	19/01/2000	Nds	42	54355			
6628-20571	121	28/10/2000		121	IRR	37	28/10/2000	3	28/10/2000	944	21/03/2000	Nds	42	51923			
6628-20898	120.5	28/09/2002		120.5	INV	4	28/09/2002	0.5	26/09/2002	1038	26/09/2002	Nds	13	58930			
6628-21047	150.5	06/06/2002		150.5	INV	6.4	06/06/2002	2	06/06/2002	916	06/06/2002	N	3.5	57823			
6628-21048	105.5	13/06/2002	BKF	0	INV	16	13/06/2002	1.6	13/06/2002	1160	15/06/2002	Nds		61705			
6628-21148	69	10/07/2002	ABD	0	INV	2.4	10/07/2002	1	10/07/2002	2245	11/07/2002			58845			
6628-21338	71.5	14/04/2003		71.5	ENV	18	14/04/2003	3	14/04/2003	1463	17/04/2003	Nds	71.5	61705			
6628-21394	98	27/06/2003		98	ENV	23	27/06/2003	7.5	27/06/2003	783	29/07/2003	Nds	99	62362			
6628-21395	91	01/07/2003		91	ENV	10	01/07/2003	11.25	01/07/2003	905	30/07/2003	Nds	91.8	62361			
6628-21530	104	19/11/2003		104	IND	22	19/11/2003	1.5	19/11/2003	1021	19/11/2003	N	85	62665			
6628-21785	64	15/03/2004		64	STK	19	15/03/2004	5	15/03/2004	1984	12/03/2004	Ndt	36	64885			
6628-21907	80			80	DOM	28	25/08/2004	2.2	25/08/2004	1653	24/08/2004	Nds	58	65668			
6628-22121	104	03/06/2005		104		63	03/06/2005	2.5	03/06/2005	2030	03/06/2005	N	60	107507			
6628-22122	99	23/05/2005		99		55	23/05/2005	4	23/05/2005	1023	20/05/2005	N	60	105962			
6628-22123	120	30/05/2005		120		75	30/05/2005	3.13	30/05/2005	1234	30/05/2005	N	60	107335			
6628-22125	51	25/05/2005		51		38.74	12/11/2019	0.5	25/05/2005	1381	21/11/2019	N	45	106608	YAT137	C	C
6628-22127	34	25/05/2005		34		10.44	06/11/2019	1	25/05/2005	2862	08/11/2019	N	28	106610	YAT139	C	C
6628-22224	28	01/07/2005	NL	28	MON		08/01/2016	0.25	01/07/2005	1479	12/09/2014	NE	22	107516	YAT141	N	N
6628-22730	15.05	11/08/2006		15.05								Nds		121340			
6628-22731	15	10/08/2006		15								Nds		121341			
6628-22732	20.15	09/08/2006		20.15								Nds		121342			
6628-22733	25.4	06/08/2006		25.4	INV							Ndt		121343			
6628-22734	35.1	04/08/2006		35.1								Ndt		121344			
6628-22738	77		EQP	77	IRR	47	08/01/2007					Ndt					
6628-23186	88	10/09/2007		85		44	10/09/2007	2.5	10/09/2007	2574	10/09/2007	Ndt	36	131015			
6628-23436	109	08/03/2008		109	DRN	8	08/03/2008	8	08/03/2008	980	27/09/2008	Nds	20	141155			
6628-23863	120	17/10/2008		120		55	17/10/2008	15	17/10/2008	627	16/10/2008	Ndt	66	137282			

Unit No	Max Depth (m)	Date	Status	Latest Depth (m)	Purpose	SWL (m)	SWL Date	Yield (L/sec)	Yield Date	TDS (mg/L)	TDS Date	Aquifer	Cased To (m)	Permit No	Obs No	SWL Status	Salinity Status
6628-24772	64	23/03/2009		64		48	23/03/2009	3.5	23/03/2009	1945	23/03/2009	Nds	64	151888			
6628-24860	131.5	13/03/2009	OPR	131.5	MAR	31	13/03/2009	20	13/03/2009	811	26/11/2009	N	30	159994			
6628-25300	120			120		76	26/03/2010	3.8	26/03/2010	2121	26/03/2010	Ndt		188350			
6628-25593	80	05/01/2010		80		65	05/01/2010	3	05/01/2010	1203	04/01/2010	Ndt	75	158882			
6628-25979	175	08/12/2010		175		96	08/12/2010	7.5	08/12/2010	1748	08/12/2010	Ndt	119.5	197177			
6628-27227	91	27/02/2014		91		30	27/02/2014	1.88	27/02/2014	853	27/02/2014		89	226131			
6628-28364	90	12/05/2016		90		37	12/05/2016	0.7	12/05/2016	1322	12/05/2016	N	47.5	262086			
6628-30496	40	07/11/2019		40	INV	22	07/11/2019			1322	22/11/2019		25	350350			
6628-30498	40	11/11/2019		40	INV	22	11/11/2019			1289	11/11/2019		25	350351			

424 records

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Golden Grove Land Division

One Tree Hill Road

Preliminary Environmental Noise Assessment

S6227C3

March 2

Preliminary Draft for Northern side of OTH Road only

Report and scope being updated to inform Code Amendment

sonus.

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Golden Grove Land Division
Preliminary Environmental Noise Assessment
S6227C3
March 2020

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Document Title	: Golden Grove Land Division – One Tree Hill Road Preliminary Environmental Noise Assessment
Document Reference	: S6227C3
Date	: March 2020
Author	: Alexander Lee, MAAS
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Golden Grove Land Division
Preliminary Environmental Noise Assessment
S6227C3
March 2020

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SUMMARY

A preliminary environmental noise assessment has been made of the proposed residential subdivision at Golden Grove. In the vicinity of the proposed site are a sand mine and One Tree Hill Road, which both have the potential to produce noise on the proposed land.

For the sand mine, consideration has been given to the potential for residences on the land to constrain the operation of the sand mine, as well as the acoustic amenity on the land.

There are existing residences closer to the sand mine than the proposed land. The current noise requirements for the sand mine (at these existing residences) are more onerous than the requirements for any future residences and therefore the proposed subdivision will not constrain the operation of the sand mine more than it already is.

The worst case noise associated with sand mining occurs when mobile plant is located at the surface, closest to residences. However, the nature of sand mining results in mobile noise sources being located in each location for a relatively short period of time, until the sand has been removed. That is, the theoretical worst case noise associated with sand mining may only occur briefly until the sand (or overburden) at the surface has been removed and the mobile plant operates below ground level and/or further from the residence. Therefore depending on the relative timing of building residences and the progress of the sand mine, there is the potential for there to be no building requirements imposed.

Notwithstanding, a conservative assessment has been made by assuming that the mobile plant is operating in the worst case location. In this scenario, an allowance should be made for acoustic treatments corresponding to facade categories 1 and 2 for the portions of the site shown below:

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It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

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Within the area designated as Category 1, typical treatments might comprise:

- Masonry (other than autoclaved aerated concrete) construction for external walls;
- Upgrades to the thickness of glazing elements; and,
- Acoustic seals fitted to all external doors and windows.

In addition to the Category 1 treatments, Category 2 treatments might comprise:

- Solid core external doors; and,
- Upgraded ceiling construction to bedrooms, including thicker plasterboard ceilings, or higher density insulation.

Based on the current road classification and Development Plan requirements, there is no need to assess the noise from traffic on One Tree Hill Road. In addition, based on the traffic volumes, it is unlikely that the road classification or requirements under the Development Plan will change as part of the proposed residential subdivision.

Notwithstanding the above, the allowance for acoustic treatments in the vicinity of the sand mine will also result in reducing traffic noise levels within these residences.

It is considered that any further allowances (in addition to those recommended for the sand mine) to account for the noise from traffic on One Tree Hill Road are not warranted.

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INTRODUCTION

A preliminary environmental noise assessment has been made of the proposed residential subdivision at Golden Grove.

The land proposed for the subdivision is shown in Appendix A. There are two noise sources with the potential to impact on the amenity at residences within the proposed subdivision; a sand mine and One Tree Hill Road, both to the south of the development site.

The purpose of the assessment is to determine the severity of noise sources in the vicinity and to provide an indication of the possible level of acoustic treatment required to attenuate noise from the sources. Following the assessment, it is anticipated that an allowance could be made in the project budget for the attenuation measures. Ultimately, any acoustic treatment which is required to be incorporated into the development will be dependent on the Development Plan in force at the time of development, most likely the result of a Development Plan Amendment. This preliminary assessment considers noise criteria which might apply should the project progress, and details the potential acoustic treatments needed to achieve them. During the design phase, the assessment would need to be updated, based on the final Development Plan, measurements of the noise sources in the vicinity and additional information relating to the operation of the nearby sand mine. The updated assessment will ensure that each of the noise sources is adequately accounted for in the final design of the subdivision.

The preliminary environmental noise assessment has considered the following policies and guidelines:

- The Tea Tree Gully Council Development Plan (the Development Plan), 27 December 2018;
- *Environment Protection (Noise) Policy 2007; and,*
- *Minister's Specification SA78B Construction requirements for the control of external sound,* and the associated *South Australian Planning Policy Library Technical Information Sheet 08 Noise and Air Emissions Overlay 3*.

SAND MINE

Criteria

The Development Plan in place at the time of the development is likely to include provisions to protect the ongoing operation of the sand mine as well as provisions to achieve an acceptable level of amenity at proposed residences.

The *Environment Protection (Noise) Policy 2007* (the Policy) provides the most relevant objective noise criteria and is referenced by the the current Tea Tree Gully Council Development Plan.

The Policy is underpinned by the World Health Organisation Guidelines for community noise and is directly linked to Australian/New Zealand Standard AS/NZS2107 (the Australian Standard). The Policy provides an objective measure of acceptable noise levels for residential amenity and for the protection of the ongoing operation of existing mining land uses. That is, achieving the relevant requirements of the Policy at residences on the subject site would provide suitable noise levels at those residences and would protect the existing land uses from any action under the *Environment Protection Act 1993* in the event of a noise complaint.

The Policy provides for achieving an appropriate level of amenity:

- outside of a residence, such as in a backyard or other private open space; or
- inside habitable rooms of a residence, such as bedrooms and living areas, in situations where acoustic treatment is applied to a facade.

Where the assessment location is inside a habitable room, the applicable noise criteria are determined to be the higher of the external criteria less 20 dB(A), or the levels provided by the relevant Australian Standard.

The Policy provides goal noise levels based on the Development Plan zones of the noise source (Mineral Extraction Zone), the noise receiver and the separating land, as shown below.

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Preliminary Environmental Noise Assessment
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The noise criteria which apply at the subject site will therefore be dependent on any changes to the Development Plan zones within the land areas highlighted above. The following summarises the objective criteria for the current zones as well as for the scenarios where the subject site and possibly the separating land are changed from a Rural Living Zone to a Residential Zone;

- For the current Development Plan (subject site within Rural Living Zone), the Policy provides the following noise criteria;
    - Daytime (7am to 10pm) noise levels directly outside residences of no greater than 56 dB(A); or daytime noise levels within habitable rooms of the residences of 36 dB(A) (with the internal noise level achieved by applying acoustic treatment to the facades of the residence); and,
    - Night-time (10pm to 7am) noise levels directly outside residences of no greater than 48 dB(A); or night time noise levels within habitable rooms of the residences of 30 dB(A) (with the internal noise level achieved by applying acoustic treatment to the facades of the residence).
- Where the proposed subdivision land becomes a Residential Zone or similar, but the separating land remains a Rural Living Zone, the policy provides the following noise criteria;
    - Daytime (7am to 10pm) noise levels directly outside residences of no greater than 52 dB(A) or 32 dB(A) within habitable rooms; and,

- Night-time (10pm to 7am) noise levels directly outside residences of no greater than 45 dB(A) or 30 dB(A) within habitable rooms).

- Where the land between the subject site and the Sand Mine becomes a Residential Zone or similar, the policy provides the following noise criteria;
  - Daytime (7am to 10pm) noise levels directly outside residences of no greater than 59 dB(A) or 39 dB(A) within habitable rooms; and,
  - Night-time (10pm to 7am) noise levels directly outside residences of no greater than 50 dB(A) or 30 dB(A) within habitable rooms).

Under the Policy, noise levels are effectively "adjusted" for each characteristic of tone, impulse, low frequency and modulation that the noise source exhibits. Based on similar activities, a 5 dB(A) penalty is considered to be warranted for noise character from the mine. The application of a penalty for noise character has been included in the predicted noise levels.

Assessment

The worst case noise associated with sand mining occurs when mobile plant is located at the surface, closest to residences. However, the nature of sand mining results in mobile noise sources being located in each location for a relatively short period of time, until the sand (or overburden) has been removed. That is, the theoretical worst case noise associated with sand mining may only occur briefly until the sand at the surface has been removed and the mobile plant operates below ground level and/or further from the residence. Therefore, depending on the timing of the subdivision and the progress of the mine, there is the potential for there to be no building requirements imposed. Notwithstanding, a conservative assessment has been made by assuming that the mobile plant is operating in the worst case location.

The noise from activity at the sand mine has been predicted based on previous noise measurements of activity at other similar facilities, including:

- Processing activities;
- Truck movements;
- Excavator Operation; and,
- Dozer operation.

A 3D model of the nearby sand mine and the surrounding area has been developed using the SoundPlan noise modelling software. The model has been used to predict the noise level at the subject site from activity at the mine. The noise model takes into account the sound power levels generated by each noise source, the separation distance to the proposed subdivision, the local topography and worst case meteorological conditions with respect to noise propagation (resulting in the highest noise level at residences).

Based on the model, relative noise contours from the operation of the sand mine at 1 dB(A) increments have been produced, as shown below.

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

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As shown above, there are other residences, which are closer to the sand mine operations than the proposed development and are within the Residential and Rural Living zones. The noise from the sand mine operation is therefore already required to achieve the same criteria at locations which are closer and predicted to experience higher noise levels.

Based on the above, it is not expected that any treatments will be required to avoid the sand mine being constrained.

Notwithstanding the above, preliminary predictions indicate a noise level of up to 51 dB(A) at the closest proposed allotment to the mine. It has therefore been considered that the objective noise criteria may be exceeded at the existing residences and indeed at the closest allotments of the proposed subdivision. That is,

there is the potential that treatments may be required across a portion of the site to ensure that an appropriate level of amenity is achieved. Therefore, it is recommended that an allowance be made to incorporate treatments, although these may not ultimately be required.

The treatments have been based on the facade noise reductions provided by The *Minister's Specification SA78B Construction requirements for the control of external sound* (SA78B). SA78B establishes requirements for the building facade to adequately reduce internal noise levels from road, rail and mixed use areas. Each facade is assigned a "Category" ranging from 1 to 5, with Category 1 being limited treatment and Category 5 being extensive.

Based on the preliminary predictions, it is recommended that an allowance be made for acoustic treatments corresponding to facade Categories 1 and 2 for the portions of the site shown below:

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It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

Within the area designated as Category 1, treatments are likely to include:

- Masonry (other than autoclaved aerated concrete) construction for external walls;
- Upgrades to the thickness of glazing elements; and,
- Acoustic seals fitted to all external doors and windows.

In addition to the category 1 treatments, category 2 treatments are likely to also include:

- Solid core external doors; and,
- Upgraded ceiling construction to bedrooms, including thicker plasterboard ceilings, or higher density insulation.

Specific treatments will be designed at the detailed design phase if needed.

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ROAD TRAFFIC

Criteria

Minister's Specification SA78B is the contemporary approach for assessing the noise from traffic corridors.

SA78B applies to *"all Class 1, 2, 3, 4 or 9c aged care buildings that are in a designated area identified on the Noise and Air Emissions Overlay in the relevant Development Plan"*, and establishes mandatory requirements for the building facade to adequately reduce internal noise levels from road, rail and mixed use areas in the vicinity.

Road noise is assessed based on the road classification (type A or B for suburban areas or type R for rural roads) and the speed limit of the road. The closest main road to the subject site is One Tree Hill Road to the south. The road is not classified within the Development Plan or SA78B supporting document, *South Australian Planning Policy Library Technical Information Sheet 08 Noise and Air Emissions Overlay 3*.

The road classification is based on the traffic volume, the use of the road for freight and the designation as a DPTI major traffic route or a growth corridor. One Tree Hill Road is not a freight or major traffic route and does not appear to be associated with a growth corridor. While traffic volume data are not readily available for One Tree Hill Road, data obtained for the its major feeder road (Golden Grove Road), indicate that traffic volumes are well below the requirements for a type A or B road.

Assessment

Based on the current road classification and development Plan requirements, there is no need to assess the noise from traffic on One Tree Hill Road. In addition, based on the traffic volumes it is unlikely that the road classification or requirements under the Development Plan will change as part of the proposed residential subdivision.

Notwithstanding the above, the allowance for acoustic treatments in the vicinity of the sand mine will also result in reducing traffic noise levels within these residences.

Based on the above no further allowances (in addition to the allowance for the sand mine) are warranted to account for the noise from traffic on One Tree Hill Road.

APPENDIX A Subject Site & Nearby Noise Sources



WGA
WALLBRIDGE GILBERT AZTEC

Holmes Dyer

Golden Grove Residential Development

INFRASTRUCTURE REPORT

Project No. WGA191249
Doc No. RP-CV-0001
Rev. C

27 March 2020

DRAFT

Preliminary Draft for Northern side of OTH Road only

Report and scope being updated to inform Code Amendment

WGA

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Revision History

Rev	Date	Issue	Originator	Checker	Approver
A	21/10/2019	Preliminary Issue to Client	SMc	SMc	DB
B	01/11/2019	Minor Cost Update	SMc	SMc	DB
C	27/03/2020	Issue to Client	SMc	SMc	Db

CONTENTS

1 INTRODUCTION **1**
1.1 Background 1
1.2 Scope of Design 2
1.3 Site Infrastructure/ Reference Information 2
2 WASTEWATER **3**
2.1 Wastewater Infrastructure 3
2.2 Wastewater Masterplanning 3
3 POTABLE WATER **6**
3.1 Potable Water Infrastructure 6
3.2 Potable Water Masterplanning 6
4 COMMUNICATIONS **9**
4.1 Existing Site Infrastructure 9
4.2 Communications Masterplanning 9
5 GAS INFRASTRUCTURE **10**
5.1 Existing Infrastrcuture 10
5.2 Gas Masterplanning 10
6 ELECTRICAL INFRASTRUCTURE **11**
6.1 Existing Infrastructure 11
6.2 Electrical Masterplanning 11
6.3 ElectraNet Easement 11
7 SITE TOPOGRAPHY **12**
7.1 Existing Grading AND Anticipated EARTHWORKS 12

Appendices

Appendix A CURRENT SITE LAYOUT AND STAGING PLAN
Appendix B DBYD INFORMATION
Appendix C HIGH-LEVEL COST ANALYSIS
Appendix D CONCEPT SEWER LAYOUT (INTERNAL)
Appendix E CONCEPT POTABLE WATER LAYOUT (INTERNAL)
Appendix F ROADS AND EARTHWORKS PLAN

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1 INTRODUCTION

1.1 BACKGROUND

Wallbridge Gilbert Aztec (WGA) has been engaged by Holmes Dyer to provide a services master plan report consolidating recent planning correspondence from the respective service authorities for a proposed Residential Development, located in Golden Grove. The purpose of this report is to determine the viability of the proposed development of multiple parcels in Golden Grove. The subject land is bound by Strachan Road to the west, One Tree Hill Road to the south, Falkenburg Road to the east and undeveloped land to the north. It is currently zoned rural living and comprises 13 individual titles. The site is approx. 67 ha in size and can be categorised by relatively steep topography with multiple open stormwater channels conveying stormwater west through the site. The subject site is defined as the 'Core Area' in Figure 1, demonstrating the individual titles.

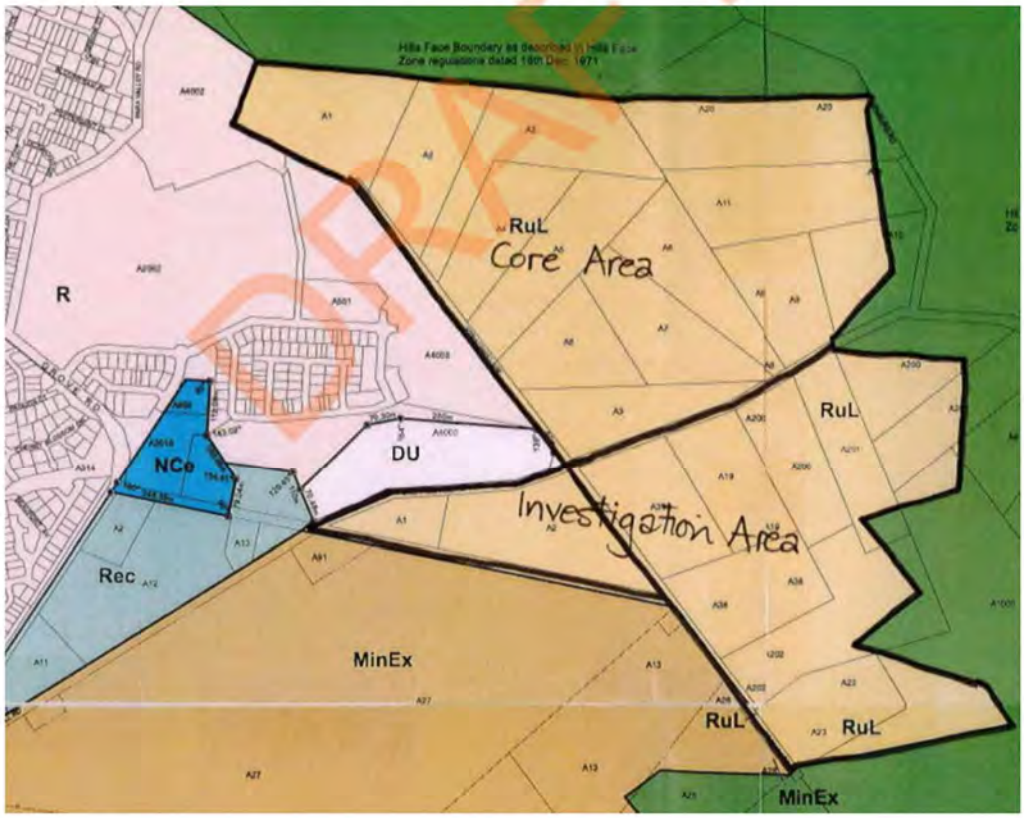


Figure 1: Subject Site – Illustration of Individual Land Titles

The current masterplan shows that the development will comprise 617 residential allotments, incorporating a range of dwelling types and allotment sizes. The current site layout plan and staging plan has been included in Appendix A.

1.2 SCOPE OF DESIGN

The purpose of this report is to

- Complete an investigation into the infrastructure currently servicing the proposed site, assessing the existing infrastructure availability and capacity;
- Attain an appreciation of the requirement for augmentation or upgrade works that may be associated with development of each site; and
- Consolidate investigations to provide supporting information and justification for development of the site, including a high-level costing analysis.

1.3 SITE INFRASTRUCTURE/ REFERENCE INFORMATION

The location of the existing services within the vicinity of the subject site have been investigated and are detailed within the following sections of the report.

Service authorities have been consulted to acquire background information and formalise potential supply arrangements for a potential development. At the time of this report, planning assessments are still being undertaken and formal advice yet to be received.

The following key services have been identified through searches via Dial Before You Dig (DBYD), Location SA and consultation with relevant service authorities:

- Potable Water – SA Water
- Wastewater – SA Water
- Gas – APA Group (APA)
- Electricity Supply – South Australian Power Networks (SAPN)
- Stormwater – City of Tea Tree Gully (Council)
- Communications – National Broadband Network (NBN).

Note that while existing services have been identified, further engagement with the respective service providers is ongoing to finalise available capacity and augmentation requirements required to cater for the development. Drawings showing the location of existing services, provided by the relevant service authorities, are included in Appendix B.

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2 WASTEWATER

2.1 WASTEWATER INFRASTRUCTURE

Information on the existing wastewater infrastructure has been obtained through a Dial Before You Dig (DBYD) search and use of the SA Government's Location SA Map Viewer. SA Water has been contacted for information.

Formal planning advice has been sought but not received from SA Water at the time of this report. This advice will include possible trigger points and augmentation costs if applicable for the development.

There is currently no SA Water infrastructure located within the proposed development site. The following services are located nearest to the development site:

- Crouch Road – contains a single gravity sewer drain operated and maintained by SA Water (DN150 PVCU), which conveys wastewater west toward Golden Grove Road. This is located approx. 860m south-west of the Strachan Road/ One Tree Hill Road intersection;
- Settlers Hill Drive – a SA Water gravity main (DN150 PVCU) has been installed as part of the relatively new development abutting the site. The main is located adjacent the north-western corner of the subject site.

2.2 WASTEWATER MASTERPLANNING

High level wastewater masterplanning for the development is based upon site topography. A concept masterplan for the internal network is included in Appendix D. It is noted that the site terrain falls to the north-western corner of the site. On this basis, two sewer pump station would need to be established within the open space proposed in the north-western corner of the site, with one either side of the existing watercourse. One would likely be required in Stage 1 of the development. Based on existing site topography, an internal sewer pumping main would be required to the intersection of Strachan Road/ One Tree Hill Road. This pumping main would be appropriately sized for the entire development.

SA Water has provided the following planning advice relating to the Development. It is noted that the assessment has been undertaken for a 1,000 allotment Development. Further work is being undertaken at the time of this report to refine this assessment to cater for 617 allotments. Preliminary advice from SA Water is that the following advice is not expected to change significantly.

Sewer services are available to the proposed development subject to:

The construction of the sewer infrastructure must be in accordance with SA Water Network Infrastructure Standards.

• The following network upgrade works are undertaken:

- Upgrade 945m of existing DN150 gravity to DN225 between receiving point 1 (MH 7659487) and WWPS375. Refer Figure A3. It is recommended that flows be split between parallel main where possible.
- Upgrade 1210m of existing DN150 gravity main to DN225 between receiving point 2 (MH 7645320) and MH 4062878. Refer Figure A4.
- Head works: new 860m gravity main to connect development south of One Tree Hill Road to the SA Water network. Refer Figure A4.

• Additionally, downstream pump stations WWPS375, WWPS133 and others may require upgrades pending a detailed review of the system. This detailed review can be conducted once the development site is detailed further (lay out of lots, internal trunk retic infrastructure and proposed connections points to the SA Water Network).

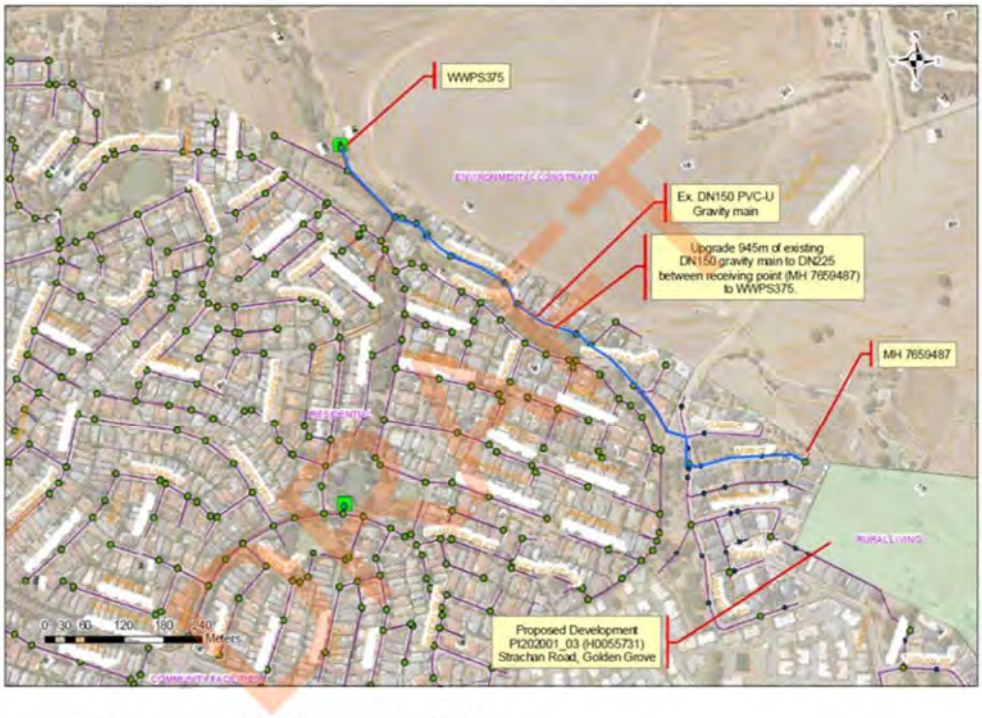


Figure 2 - Network Upgrade 1 of 2 (SA Water, 2020)

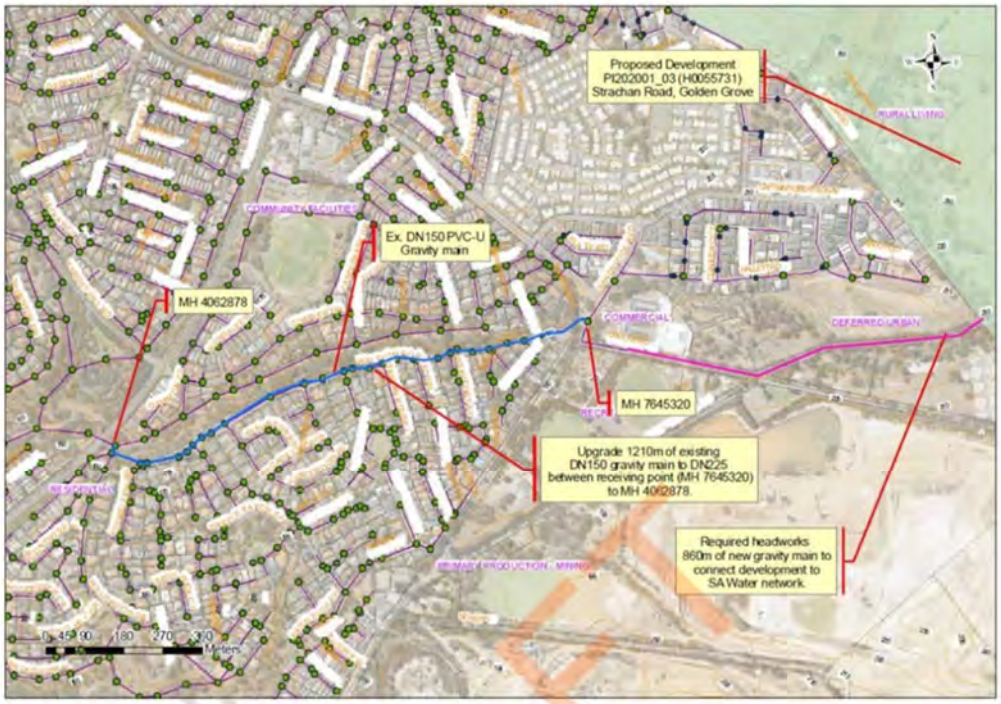


Figure 3 - Network Upgrade 2 of 2 (SA Water, 2020)

A review of the 2019/20 SA Water Augmentation Charges document has indicated that Golden Grove is not within the current list of locations where wastewater augmentation fees are payable.

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3 POTABLE WATER

3.1 POTABLE WATER INFRASTRUCTURE

Information on the existing potable water infrastructure has been obtained through a Dial Before You Dig (DBYD) search and use of the SA Government's Location SA Map Viewer. SA Water has been contacted for information.

Formal planning advice has been sought but not received from SA Water at the time of this report. This advice will include possible trigger points and augmentation costs if applicable for the development.

The following services are located nearest to the development site:

- Crouch Road – contains a single potable water main (DN80) operated and maintained by SA Water, which conveys extends from Golden Grove and terminates approx. 750m east of the One Tree Hill Road/ Crouch Road intersection, at the southern boundary of the 'Investigation Area' shown in Figure 1; and
- Adjacent Development – SA Water potable water mains (DN100 – DN150 PVCU) are also present throughout the development immediately west of the subject site.

3.2 POTABLE WATER MASTERPLANNING

For the purpose of high-level cost analysis, WGA has undertaken a concept potable water network layout, included as Appendix E. A booster pump has been included within the internal development cost estimate, based on preliminary SA Water advice, in order to service allotments in the most elevated portions of the Development (above RL 225.0m).

SA Water has provided the following planning advice relating to the Development. It is noted that the assessment has been undertaken for a 1,000 allotment Development. Further work is being undertaken at the time of this report to refine this assessment to cater for 617 allotments. Preliminary advice from SA Water is that the following advice is not expected to change significantly.

Water services are available to the proposed development subject to:

- Augmentation mains
  - Relay ~ 1,100m of Ex.300 PVCM main in Cobblers Drive with a new DN450 main, shown as DA on Figure 1.
- Distribution main
  - Construct ~1,140m of DN375 approach main along Couch Road, shown as A-C on Figure 1 to extend supply to development site.
  - More work to be done on how we might service the development above EL225. One possible solution might be to construct one or more Booster PS at the EL225 m contour line to maintain

a satisfactory pressure to proposed customers that are located between the contours of 225m – 250m. This element will require more work regarding levels of service and reliability. Further work may yet inform us that we cannot service above this contour. This is a risk to the development above this contour.

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It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.
Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

SA Water's additional planning advice will further define the required scope of works, which will allow the estimate to be further refine once the advice is received.

A review of the 2019/20 SA Water Augmentation Charges document has indicated that Golden Grove is not within the current list of locations where potable water augmentation fees are payable.

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4 COMMUNICATIONS

4.1 EXISTING SITE INFRASTRUCTURE

Information on the existing communications infrastructure has been obtained through correspondence with NBN Co, with supporting information sought through a Dial Before You Dig (DBYD). The following summarises existing communications infrastructure within the site's vicinity:

- In-service cable exists at the boundary of the proposed development, currently terminating at the Strachan Road/ One Tree Hill Road intersection.
- Refer Appendix B for DBYD information.

4.2 COMMUNICATIONS MASTERPLANNING

NBN has undertaken a feasibility assessment to service the proposed development and has advised there would be no backhaul component that would apply, as works external to the site would be limited and at the expense of NBN.

Internal NBN infrastructure will be installed within the common service trench and progressively extended as the stage works continue. The developer would contribute a portion of the internal infrastructure cost as follows:

- Single Dwelling Units (SDU): $600.00 incl. GST per premises; and
- Multi Dwelling Units (MDUs): $400.00 incl. GST per premises.

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5 GAS INFRASTRUCTURE

5.1 EXISTING INFRASTRCUTURE

Information on the existing infrastructure has been obtained through correspondence with APA Group, with supporting information sought through a Dial Before You Dig (DBYD). The following summarises existing gas infrastructure within the site's vicinity:

- No gas infrastructure exists within the boundary or vicinity of the proposed development site.
- The closest potential supply point for gas is the development immediately west of the subject site, which contains a network of 63mm and 125mm high pressure mains; and
- Refer Appendix B for DBYD information.

5.2 GAS MASTERPLANNING

It is understood that the subject site falls under APA Group's normal urban growth and can be serviced via the gas infrastructure to the west of the proposed development with no network upgrade requirement. APA Group is currently undertaking an economic analysis, to confirm whether any cost would be associated with a network extension. Gas infrastructure would be installed within the common service trench and progressively extended as the stage works continue at APA's cost.

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6 ELECTRICAL INFRASTRUCTURE

6.1 EXISTING INFRASTRUCTURE

Information on the existing electrical infrastructure has been obtained through a Dial Before You Dig (DBYD) search, use of the SA Government's Location SA Map Viewer, as well as discussions with SA Power Networks and ElectraNet.

- Strachan Road - there is currently 11kV underground mains located within the eastern verge of Strachan Road for its entire length. This infrastructure is owned and maintained by SAPN.
- One Tree Hill Road – a combination of 11kV underground and overhead mains are present within One Tree Hill Road. The electrical mains alternate between the northern and southern verge, and extends from the intersection with Strachan Road, past the subject site boundary to Falkenburg Road.
- ElectraNet – a 275 kV transmission line currently runs through the site in a north-south direction as shown in Appendix A, within a 50m ElectraNet easement. There are three transmission towers located within the subject site boundary.

6.2 ELECTRICAL MASTERPLANNING

SA Power Networks (SAPN) has advised that network/ substation upgrades would be required to support the proposed Development. It is understood that existing capacity would cater for the first two (2) stages of the Development, or approximately 100 lots, at standard augmentation rates of $238/ kVA, estimated at 6 kVA/ allotment. Any further development would trigger the upgrade. WGA is working with SAPN to understand the scope of these upgrade works, so that a cost can be determined and whether it would be charged through increased augmentation or an upfront cost. An estimate has of this work has been provided, based on informal advice from SAPN. This cost information will be formalised by SAPN and WGA is continuing to liaise as necessary.

It is expected that a high voltage loop will be required throughout the site to connect between Strachan Road and One Tree Hill Road. This would be installed on a staged basis, within the common service trench and has been included as part of WGA's internal cost estimate.

Further authority advice will allow WGA to complete an electrical HV masterplan to give further accuracy to the cost estimate.

6.3 ELECTRANET EASEMENT

The ElectraNet overhead transmission lines are required to be located within a 50m easement. Any development within this zone would comply with the requirements set out in ElectraNet's '*Land Use Guidelines for Electricity Transmission Corridors*,' 2013.

Consideration has been given to relocating the transmission line underground and a cost has been provided in Appendix C based on previous projects and high-level discussions with ElectraNet. Undergrounding the cables would reduce the required easement width to 15m, as opposed to 50m.

7 SITE TOPOGRAPHY

7.1 EXISTING GRADING AND ANTICIPATED EARTHWORKS

A site grading plan can be seen in Appendix F, which demonstrates the topography of the site in its current form. It is evident from this analysis that the majority of the site ranges between 8 – 18% (5 – 10 degrees). On this basis, earthworks will be required on a staged basis to ensure compliant road and services grades.

Expected earthworks quantities are shown in the cost breakdown provided in Appendix C. It is anticipated that cut/ fill balance can be achieved, with any excess cut being utilised as allotment fill under Level 1 Supervision. This is considered to be the most cost-efficient approach, rather than removing excess material from the site. Given the relatively steep site grading, the intent is to undertake the necessary staged earthworks to minimise the height differential across allotments, which would minimise retaining wall heights.

Allowance has been made in the high-level cost analysis for retaining walls to be constructed along roads directly adjoining the proposed water course where required. Retaining on individual allotments has not been allowed for at this time. There are a number of solutions when considering individual allotment earthworks solutions during detailed design, including:

- retaining the entire height differential using a single rear retaining wall;
- terraced walls of varying heights;
- installation of batters within allotments;
- split-level builds; or
- a combination of the above.

Development of a site-wide road grading and earthworks model has been undertaken, and is provide in Appendix F.

APPENDIX A

CURRENT SITE LAYOUT AND STAGING PLAN

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

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APPENDIX B

DBYD INFORMATION

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DIAL BEFORE YOU DIG www.1100.com.au

Job No 18076874

Phone: 1100
www.1100.com.au

Caller Details

Contact:	Mr Scott Mcclean	**Caller Id:**	976385	**Phone:**	0882237433
Company:	Wallbridge & Gilbert	**Mobile:**	Not Supplied	**Fax:**	Not Supplied
Address:	60 Wyatt Street ADELAIDE SA 5000	**Email:**	smcclean@wgeng.com		

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig 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.



User Reference: 191249
Working on Behalf of: Private

Enquiry Date:	Start Date:	End Date:
10/09/2019	11/09/2019	25/09/2019

Address:
Strachan Road
Golden Grove SA 5125

Job Purpose:	Onsite Activity:
Design	Planning & Design
Location of Workplace:	**Location in Road:**
Both	CarriageWay,Footpath,Nature Strip

- Check the location of the dig site is correct. If not submit a new enquiry.
- If the scope of works change, or plan validity dates expire, resubmit your enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:
Not Supplied

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at **www.1100.com.au**
- **For more information on safe excavation practices, visit www.1100.com.au**

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days.
Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.
** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.
# Asset owners highlighted with a hash require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
88824372	APA, Sa	0881154500	NOTIFIED
88824366	City of Tea Tree Gully	0883977212	NOTIFIED
88824376	NBN Co, SaNt	1800626762	NOTIFIED
88824368	SA Power Networks	0882920218	NOTIFIED
88824374	SA Water	0874241117	NOTIFIED
88824370	Telstra SANT	1800653935	NOTIFIED

END OF UTILITIES LIST



THE CITY OF TEA TREE GULLY

SPECIFICATION

FOR

REINSTATEMENT OF EXCAVATIONS IN COUNCIL CONTROLLED ROADWAYS, FOOTPATHS AND LAND

DRAFT

1 INTRODUCTION

This Specification details the requirements of The City of Tea Tree Gully for the restoration and reinstatement of roadways, footpaths and other Council owned land that have been damaged or disturbed due to excavations. The excavations considered relate mainly, but not exclusively, to the repair, replacement, upgrading, relocation and the like of Utility Services.

The Specification does not address notifications, traffic control, safety and environmental issues, excavation and work on the service itself or any other particular requirements of the Principal.

The Principal responsible for the works would in general not be the City of Tea Tree Gully but a Utility Service Authority, Property Developer or other organisation or their agent.

The Contractor would be the person or organisation, either within or contracted by the Principal's organisation, responsible for the execution of the works.

The Superintendent would be the person, either within or contracted by the Principal's organisation, responsible for superintending the works.

2 BACKFILL AROUND SERVICE/CONDUIT/PIPE

The material type, compaction details and extent of the backfill material to the bed, haunch, side and overlay zone of the service/conduit/pipe shall be to the requirements and specification of the Service Authority for the particular utility service being installed. The overlay zone is the trench backfill immediately over the service/conduit/pipe for a maximum of 300mm.

Prior to backfill any unsuitable material in the base of the trench and an over-excavation shall be backfilled with a material approved by the Superintendent and Council's Responsible Officer and compacted to 92% modified compactive effort when tested in accordance with AS 1289.5.4.1.

All refuse and foreign materials shall be removed from the excavation prior to backfilling.

3 TRENCH BACKFILL

3.1 General

The trench backfill % modified density compaction shown means percentage modified compactive effort when tested in accordance with AS 1289.5.4.1.

The depth of trench between the overlay zone and the underside of the pavement layers shall be backfilled with PM63 sand. The sand shall be placed in 200mm thick loose layers. The sand shall be compacted to 98% modified density if within 800mm of the finished road/footpath surface. The sand below 800mm above the finished surface (to above the overlay zone) may be compacted to a minimum of 92% modified density. See attached Figures 1 to 4.

The excavated material may be used only where approved by the Superintendent; such approval shall be sought at least 7 days prior to commencement of work.

3.2 Selected layers

If the excavation passes through a selected material zone(s) below the subbase layer, the depth of trench within the select material zone(s) shall be backfilled with quarry rubble to PM 2/20, placed in 200mm thick loose layers and compacted to 98% modified density. The excavated selected zone material may be used only where approved by the Superintendent.

3.3 Verges and unsealed shoulders

Backfilling of trenches in verges and unsealed shoulders between the overlay zone and 300mm below the ground surface shall be backfilled with PM63 sand placed in 200mm thick loose layers compacted to 98% modified density if within 800mm of the finished verge/shoulder surface. The sand below 800mm above the finished surface (to above the overlay zone) may be compacted to a minimum of 92% modified density. See attached Figure 3.

The excavated material may be used only where approved by the Superintendent; such approval shall be sought at least 7 days prior to commencement of work.

The remaining 300mm shall be backfilled with PM2/20 quarry rubble placed in 2 equal layers and compacted to 98% modified density.

3.4 Parklands

Backfilling of trenches in park lands and Council owned vacant land between the overlay zone and 200mm below the ground surface shall be backfilled with PM63 sand placed in 200mm thick loose layers compacted to a minimum of 95% modified density. The excavated material may be used only where approved by the Superintendent; such approval shall be sought at least 7 days prior to commencement of work. See attached Figure 4.

The remaining 200mm shall be backfilled with topsoil compacted to the equivalent density of the adjacent soil.

Any existing grass turfs, taken up and stored, shall be relaid to butt up

Any additional turf required to fully restore grassed areas shall be the same type as the existing grass.

4 PAVEMENT LAYERS

Any temporary pavement material, ie sub-base, base and asphalt surfacing, shall be removed and legally disposed of off-site by the Contractor prior to final reinstatement of the carriageway.

The sub-base shall consist of either crushed rock to PM 1/20 or quarry rubble to PM 2/20 material. The sub-base shall be placed in the layers and thicknesses shown on the attached Figures 1, 2 and 3 and compacted to 98% modified density.

The base shall consist of either crushed rock to PM 1/20 placed in the layers and thicknesses shown on the attached Figures and compacted to 98% modified density.

5 PAVEMENT WEARING SURFACE

The bituminous wearing surface shall consist of a 50mm thick layer of AC 10 medium duty mix as shown on the attached Figure 1. The underlying granular material and sides of the exposed excavation shall be sprayed with a tack coat (eg CRS60) applied at 1 litre/sq metre.

The asphalt surface shall extend 100mm beyond the edges of the excavation.

The joint between the existing and the new asphalt shall be a vertical sawcut or milled surface and be tack coated prior to placing the new asphalt. Any residual sawcuts shall be sealed with an approved crack seal compound.

The resulting reinstated pavement surface shall be such that less than a ±5mm tolerance over a 3m straightedge is present within 1 to 2 weeks after completion. The surface shall also not contain any abrupt changes in evenness or hollows that transmit an impact to traffic.

6 FOOTPATHS

6.1 General

Any footpaths or other public surfaces disturbed by the trenching works shall be restored to a surface consistent with the adjacent existing surface unless otherwise directed by the Superintendent after approval by the Councils Responsible Officer.

Any temporary pavement material shall be removed and legally disposed of off-site by the Contractor prior to final footpath restoration. The temporary material may only remain in place and be incorporated into the final base if approved by the Superintendent and Councils Responsible Officer.

All segmentally paved, concrete or asphalt footpaths or other public surfaces shall be constructed on a base of 150mm crushed rock to PM1/20 compacted to 98% modified compactive as shown on Figure 2.

6.2 Concrete Footpaths

Concrete footpaths shall be constructed of 25 MPa concrete of minimum thickness 100mm, or equal to the thickness of the existing footpath, whichever is the greater. The surface finish, texture, colour and pattern shall be the same as that of the existing adjacent footpath or as directed by the Superintendent after approval by Council's Responsible Officer. The concrete surface shall extend a at least 100mm beyond the edges of the excavation.

The joint between new and existing concrete surfaces shall be a vertical sawcut. The joint type, spacing and filling material shall match that of the existing concrete footpath.

Where the length of concrete footpath that requires reinstatement equals the width of the service trench plus the 100mm overlap to either side, a simple construction joint is all that would be required unless a specific type of joint was present before excavation. In that instance the specific joint type shall be replaced.

6.3 Asphalt Footpaths

Asphalt surfaced footpaths shall consist of AC 10 light duty mix of minimum 25mm nominal thickness or the thickness of the existing adjacent footpath surface, whichever is the greater. See attached Figure 2. The underlying granular material and sides of the exposed excavation shall be sprayed with a tack coat (eg CRS60) applied at 1 litre/sq metre.

The asphalt surface shall extend 100mm beyond the edges of the excavation.

The joint between the existing and the new asphalt shall be a vertical sawcut or milled surface and be tack coated prior to placing the new asphalt.

The asphalt shall be compacted to a smooth even surface, flush with the adjacent footpath surfaces.

6.4 Segmental Paving Footpaths

The segmental pavers used for footpath reinstatement shall be the same type, material, colour, size and laying pattern as the existing adjacent footpath. Pavers shall be placed on a layer of screeded bedding sand of nominal thickness 25mm. The bedding sand, joint filling sand and compaction of the placed pavers shall be carried out as per accepted high quality industry practice. Replacement pavers may be available for purchase from the Council.

Reuse of existing paving units, taken up and stored, shall be permitted provided the pavers are in good condition.

Only whole pavers shall be used. The new/replaced pavers shall extend at least 300mm beyond the edges of the excavated trench.

The restored surface shall be even, uniform and flush with the adjacent existing paved surfaces.

The paving pattern and relationship (for example stopped short with a mortar filled gap) at tree surrounds, service boxes, poles, etc, shall match the pattern at similar existing features in the immediate area or be as directed by the Superintendent in consultation with Council's Responsible Officer.

7 KERBING AND ROADSIDE DRAINAGE FEATURES

The Contractor shall reinstate any concrete kerb and gutter, median kerb, spoon drains or other concrete features removed or damaged by the trenching works. The concrete features shall be reconstructed to match the profile of the existing feature using 25 MPa concrete.

The joint between new and existing concrete surfaces shall be a vertical sawcut. The joint type, spacing and filling material shall match that of the existing concrete feature.

The Contractor shall report to the Superintendent and Council's Responsible Officer all instances of damage caused to the road drainage systems, i.e. culverts, gullies, subsoil drainage, roadside drainage systems, etc. incurred during trenching works. All costs for the repairs shall be borne by the Contractor.

8 ROADWAY FEATURES AND FURNITURE

8.1 Pavement Markings

The Contractor shall notify Council before the trenching works commence, or at least within 1 day of commencing emergency work, of all pavement markings, raised pavement markers or pavement bars that are removed or damaged during trenching work. Council shall either reinstate these items itself or authorise the Contractor to reinstate these features. Any such reinstatement shall be to the Contractor's cost and shall be completed within 5 working days of the completion of the final surfacing.

The Contractor shall provide temporary delineation at the site until reinstatement of pavement marking has been completed. Costs for this work shall be borne by the Contractor.

8.2 Road Furniture

The Contractor shall notify Council before the trenching works commence, or at least within 1 day of commencing emergency work, of all road signs, guide posts, guard fence or other road furniture that is temporarily removed or damaged during trenching work. Council shall either reinstate these items itself or authorise the Contractor to reinstate these features. The costs of such reinstatement shall be borne by the Contractor and shall be completed prior to traffic use.

The Contractor shall ensure that all relevant regulatory signs within the roadwork site remain visible to road users at all times

9 MEDIANS AND TRAFFIC ISLANDS

The Contractor shall reinstate medians and traffic islands to conform with the existing surface treatment using new materials of the same type, quality, depth and compaction. Costs for this work shall be borne by the Contractor.

The Contractor shall replace any vegetation (e.g. shrubs, median grasses, etc.) which are removed or damaged during trenching works with vegetation that is of the same type and in the same positions as that removed or damaged. Costs for this work shall be borne by the Contractor.

Unless specified by the Superintendent, where the existing median consists of compacted material the reinstated compaction shall be no less than 92% modified density. Testing of median compaction shall only be undertaken if requested by the Superintendent. If requested, the cost of testing shall be borne by the Contractor.

10 POST REINSTATEMENT CONDITIONS AND OBLIGATIONS

10.1 Maintenance Period

For all work, the Contractor shall be responsible for the cost of making good any settlement or other deterioration in the reinstated excavation for the maintenance period after the Superintendent and Council's Responsible Officer has been notified of the completion of reinstatement and Practical Completion has been granted. The maintenance period shall be 12 months if quality assurance (conformity testing as described below) is provided.
If the Superintendent, after consultation with Council's Responsible Officer, advises the Contractor that conformity testing is not required and the Contractor elects not to undertake conformity testing the maintenance period shall be 18 months. If the Contractor elects to undertake conformity testing then the maintenance period shall be 12 months.

The expiry of the maintenance period does not limit the Contractor's continuing legal liability for personal injury (including death) and/or damage to property arising as a result subsidence or failure that may be attributable to the failure to meet appropriate standards of work and material or to poor or faulty workmanship.

The Contractor shall maintain the completed surface in a safe and trafficable condition for all traffic including bicycles and pedestrians until the end of the maintenance period.

The Contractor shall indemnify and keep indemnified the Council against all claims that may arise due to the excavation or settlement of the reinstatement until the maintenance responsibility has transferred to the Council.

All costs and charges incurred by the Council for any works necessitated by Council due to non-compliance with the requirements of this Specification for all installations by the Contractor shall be borne by the Contractor until the end of the maintenance period.

Before carrying out any work necessitated by settlement of the excavation for all installations and for which an order has not been obtained, the Council will give notice to the Superintendent of the Council's intentions so that the deficient work may be inspected before rectification.

Where the Contractor is required to undertake additional works due to a defect occurring during the maintenance period, the maintenance period shall be extended for twelve months from when the Council is notified of the completion of the additional works. Conformity testing of the additional works may be requested after consultation with the Superintendent and Council's Responsible Officer.

The Superintendent and Council may still undertake verification testing if non-conformance to the reinstatement requirements is observed.

10.2 Defect Recording Levels

A defect is considered to be the settlement, rutting or other deformation that signifies the deterioration of the reinstatement. A defect is considered to exist if:

- There is deformation of $\geq$ 20 mm under a 1.2 m straight edge, and/or,
- The surface of the pavement is cracked, ravelling or stripping, and/or,
- There are abrupt changes in level or steps of $\geq$ 5 mm

When a reinstatement exhibits any defect the reinstatement is considered to have failed. If the reinstatement fails within the Maintenance Period it shall be the responsibility of the Contractor to rectify the reinstatement.

If the Council notifies the Superintendent or Contractor of a failed reinstatement, the Contractor shall, within 7 days rectify the defect, providing that the deformation of the defect never exceeds 50mm under a 1.2m straight edge. If corrective action is not taken within 7 days, the Council reserves the right to undertake the rectification of the defect and all associated costs shall become a debt due to the Council from the Contractor.

If the deformation exceeds 50mm under a 1.2m straight edge the defect shall be repaired or made safe for road users immediately. If the Council is required to make the reinstatement safe as a result of an Emergency Callout (i.e. the condition of the reinstatement creates an immediate hazard to road users) the cost of works carried out by Council shall be borne by the Contractor. The Contractor shall repair a reinstatement that has been made safe within 24 hours. The Council reserves the right to undertake the rectification of the defect after this period and all associated costs shall become a debt due to Council from the Contractor.

10.3 Crack Sealing

During the maintenance period the Contractor shall be required to repair cracks greater than 3mm that develop within the reinstated pavement or between the reinstatement and the adjoining road pavement. The Contractor shall propose a method and materials to the Superintendent and Councils Responsible Officer for approval.

10.4 Testing

The testing regime as described below, all costs borne by the Contractor, would be acceptable to Council.

i) General

Copies of laboratory test results to confirm compliance with materials and compaction requirements as specified herein for any reinstatement works carried out submitted to Councils Responsible Officer within 14 days of testing.

Testing undertaken by a laboratory registered by the National Association of Testing Authorities.

Any material which does not comply with this Specification shall be removed and replaced to the Contractor's cost.

Verification testing may be undertaken by the Superintendent. Copies of all test results forwarded to Council's Responsible Officer.

ii) Testing frequency

a) Minimum frequencies for unbound Pavement Layer and Trench Backfill testing for carriageways, footpaths, shoulders and verges:

- Layers and backfill to 800mm below finished surface surface

  0 –25m^2 one test per layer

  25 – 100m^2 minimum 2 tests per layer

  over 100m^2 2 tests per layer and an additional test per layer for every 100m2 or part thereof over 1000m2

- Backfill greater than 800mm below finished surface

  One test per layer per 100m^2 or part thereof.

ii) Minimum frequencies for asphalt testing:

0 – 100 tonnes	2 samples
101 – 300 tonnes	3 samples
301 – 600 tonnes	4 samples
> 600 tonnes	4 samples plus 1 sample for each additional 200 tonnes or part thereof.

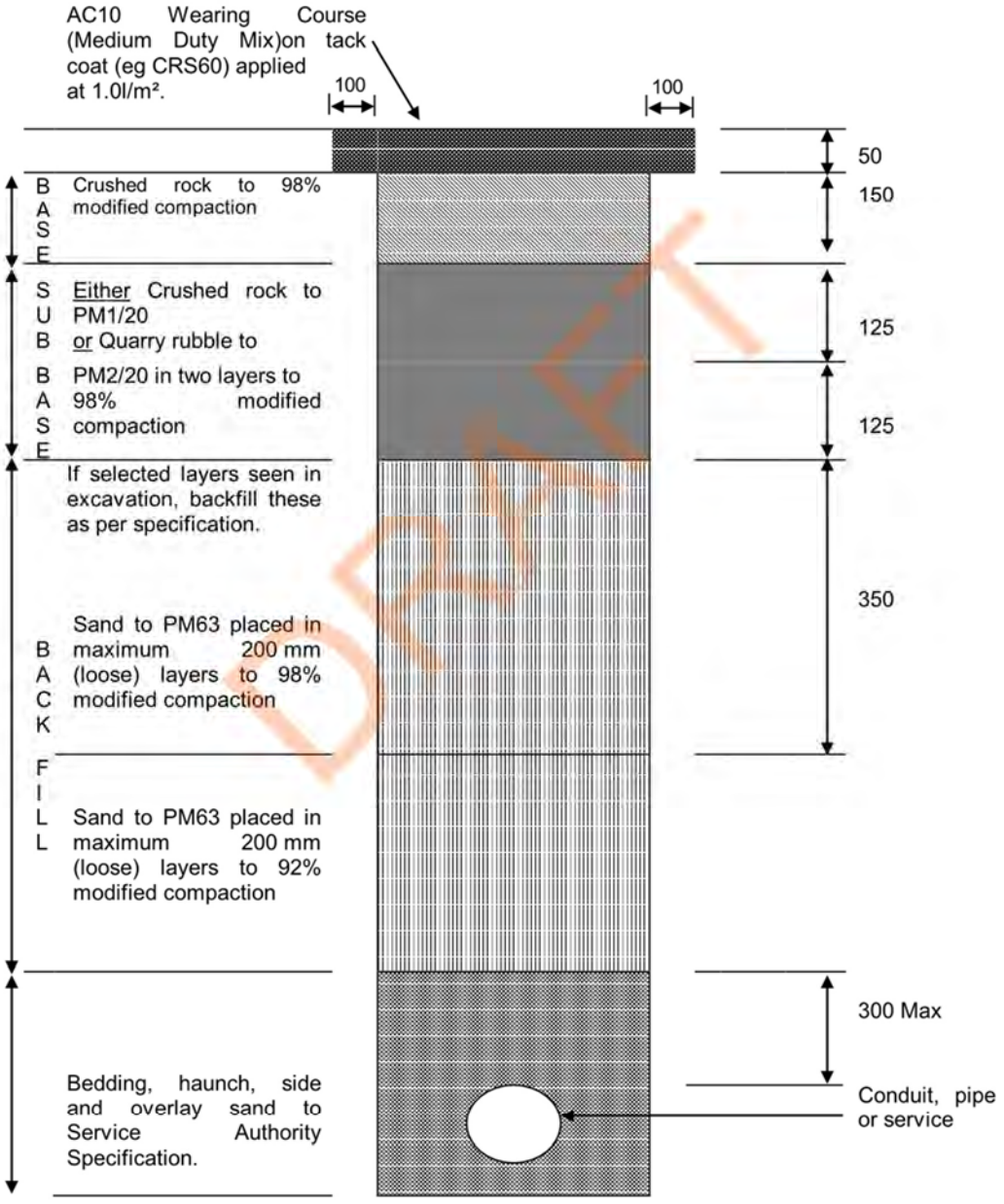
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CITY OF TEA TREE GULLY

FIGURE 1

RESTORATION REQUIREMENTS

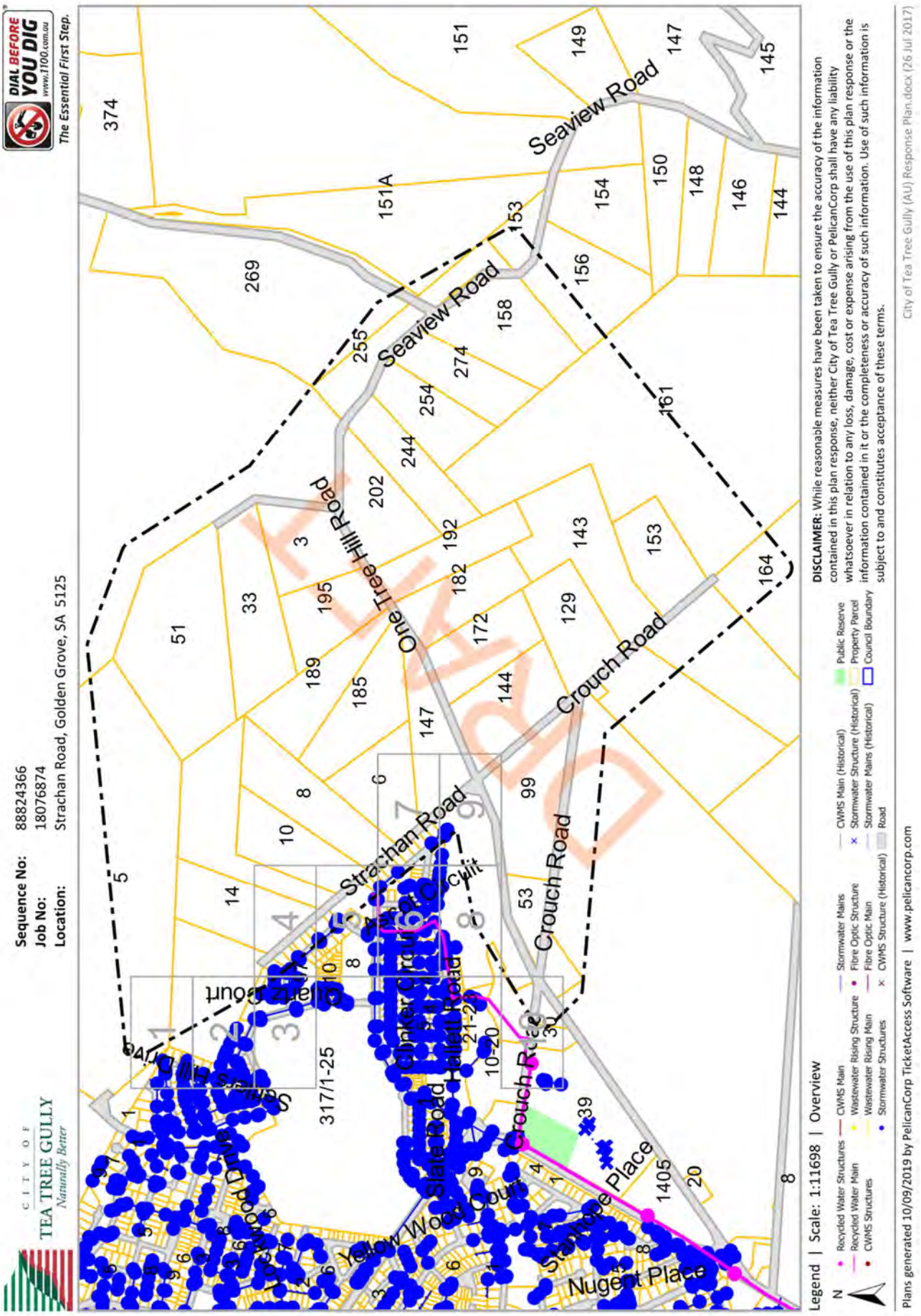
ROADWAY PAVEMENTS



NOTE:
1. Not to Scale
2. All dimensions in millimetres

Roadreinstatespec extract cttg (2)

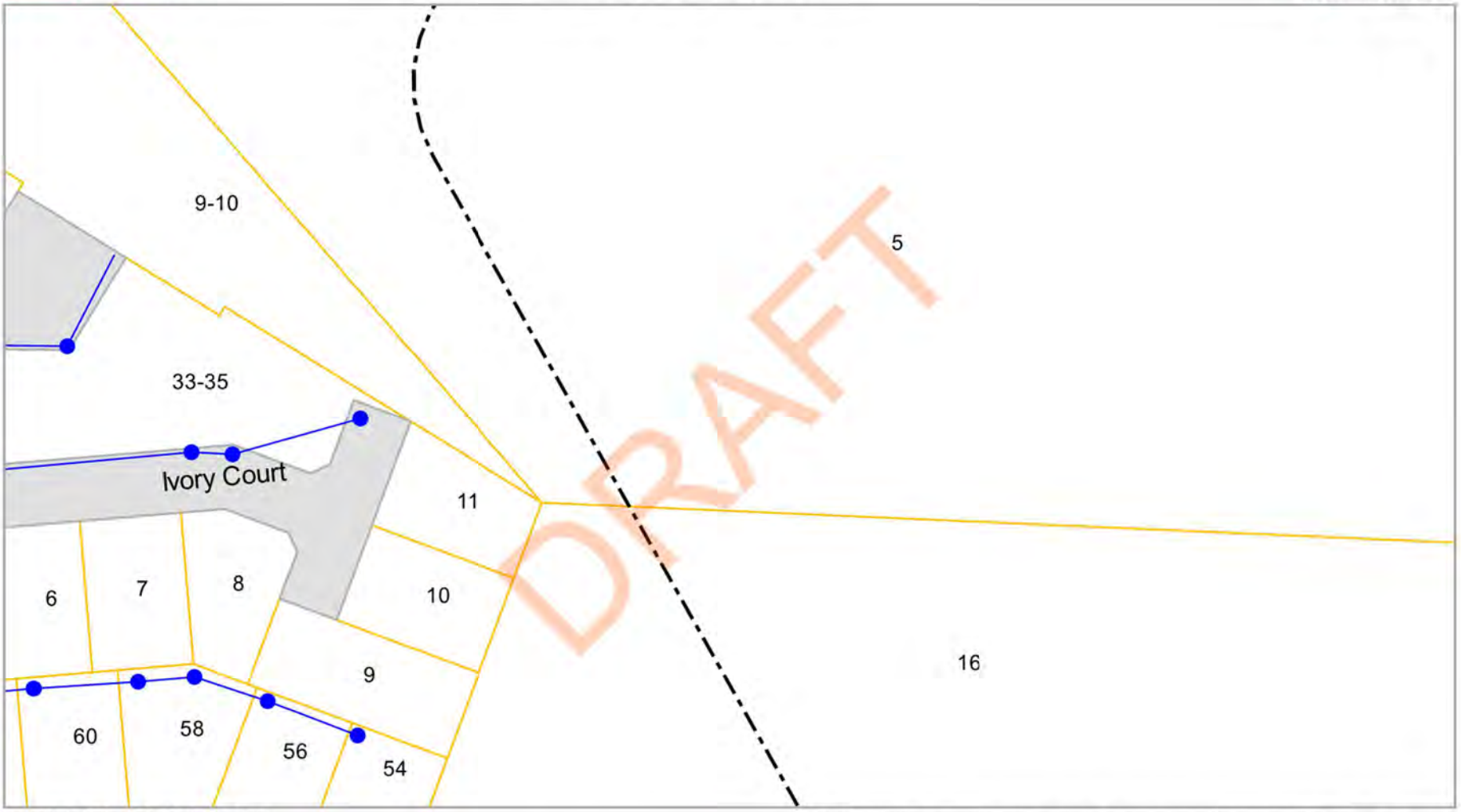
- 8 -


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CITY OF TEA TREE GULLY
Naturally Better
Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125
Seaview Road
One Tree Hill Road
Crouch Road
Strachan Road
Clinker Court
Hallett Road
Slate Road
Yellow Wood Court
Stanhope Place
Nugent Place
Legend | Scale: 1:11698 | Overview
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
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City of Tea Tree Gully (AU) Response Plan.docx (26 Jul 2017)

CITY OF TEA TREE GULLY
Naturally Better

Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125

DIAL BEFORE YOU DIG www.1100.com.au
The Essential First Step.



Legend | Scale: 1:1000 | Tile No: 1

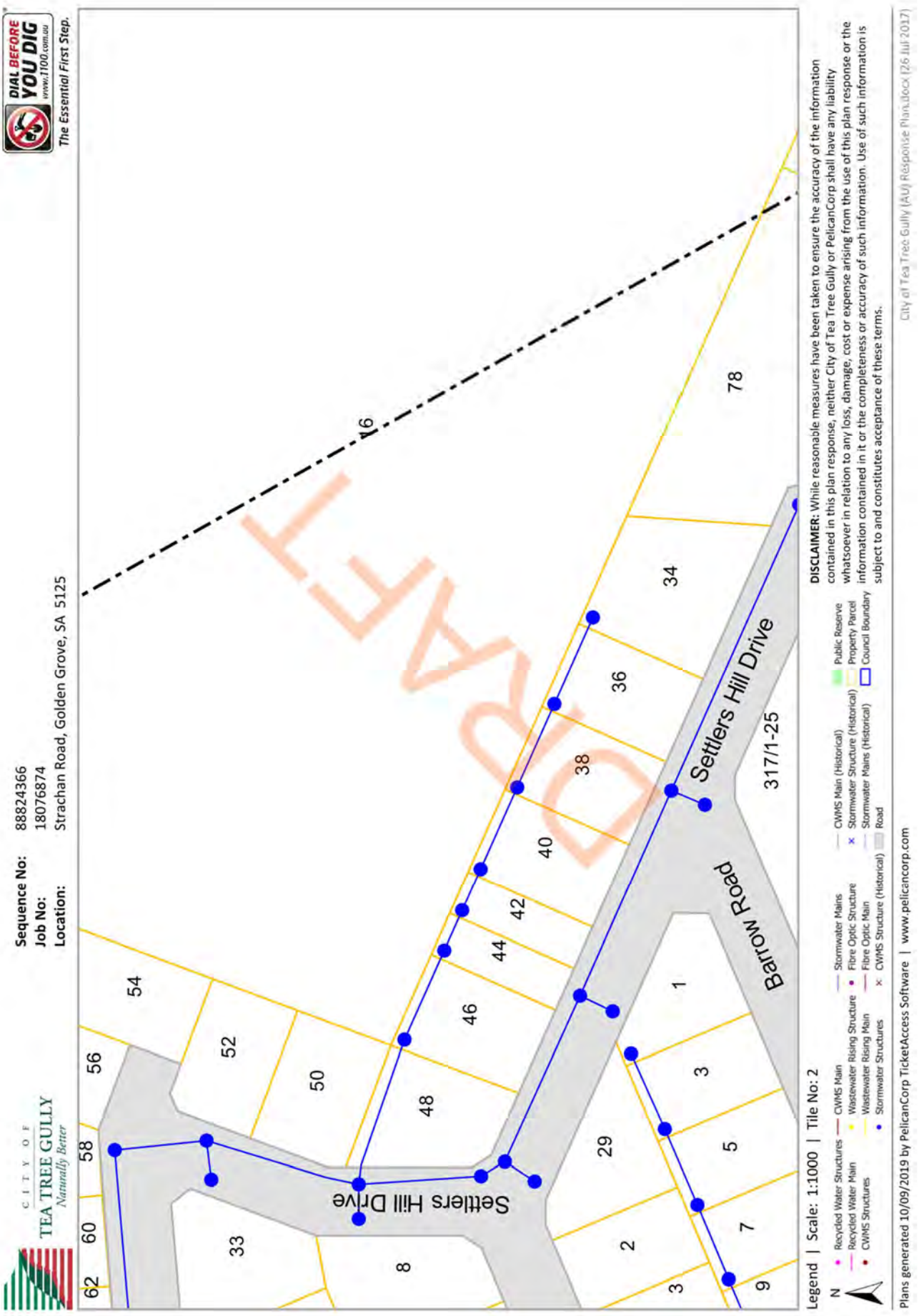
N

Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary

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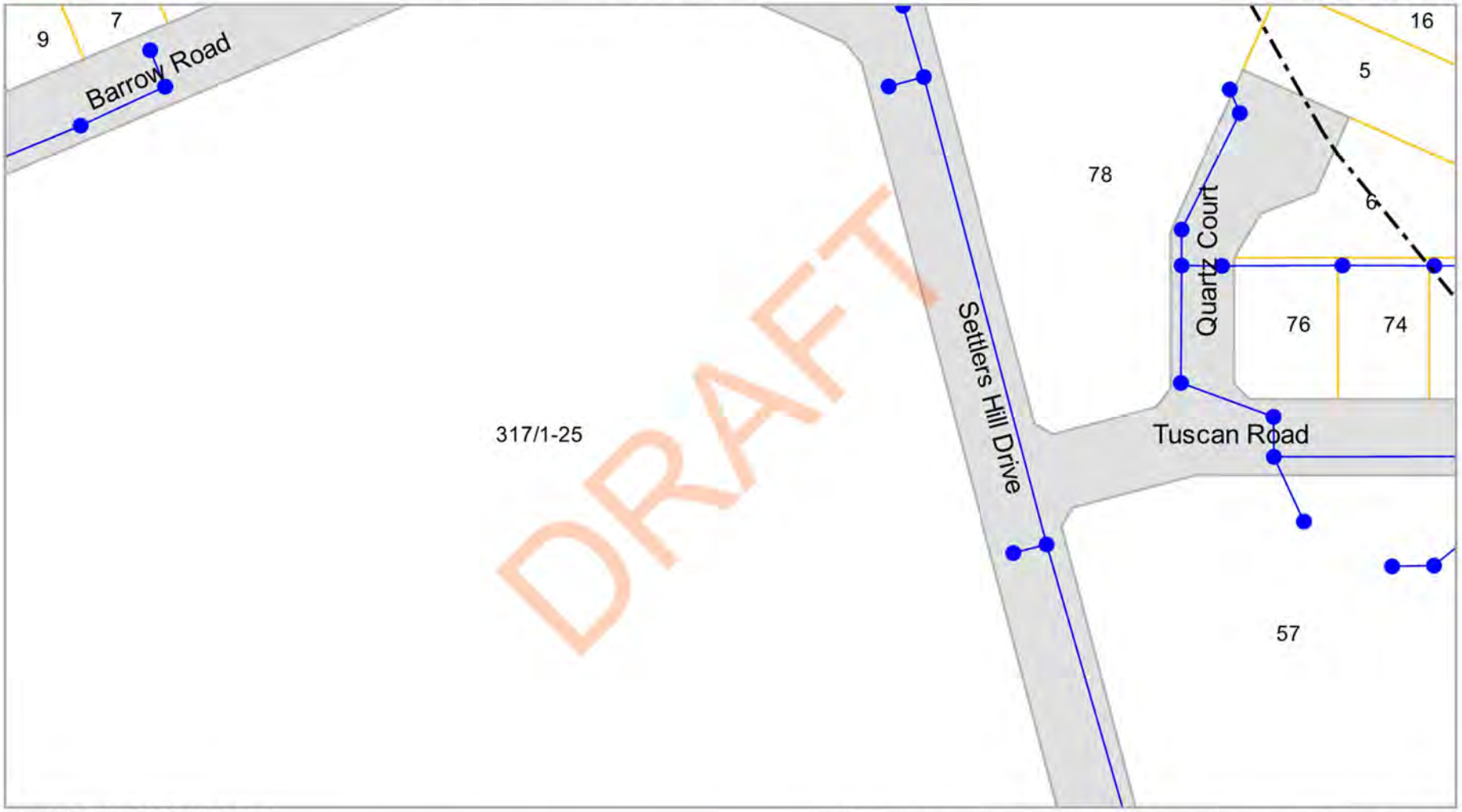
City of Tea Tree Gully (AU) Response Plan.docx (26 Jul 2017)


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The Essential First Step.
CITY OF TEA TREE GULLY
Naturally Better
Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125
DRAFT
Settlers Hill Drive
Barrow Road
317/1-25
16
78
34
36
38
40
42
44
46
48
50
52
54
56
58
60
62
33
8
29
2
1
3
5
7
9
Legend | Scale: 1:1000 | Tile No: 2
N
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
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City of Tea Tree Gully (AU) Response Plan.dock (26 Jul 2017)

CITY OF TEA TREE GULLY
Naturally Better

Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125

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The Essential First Step.



Legend | Scale: 1:1000 | Tile No: 3

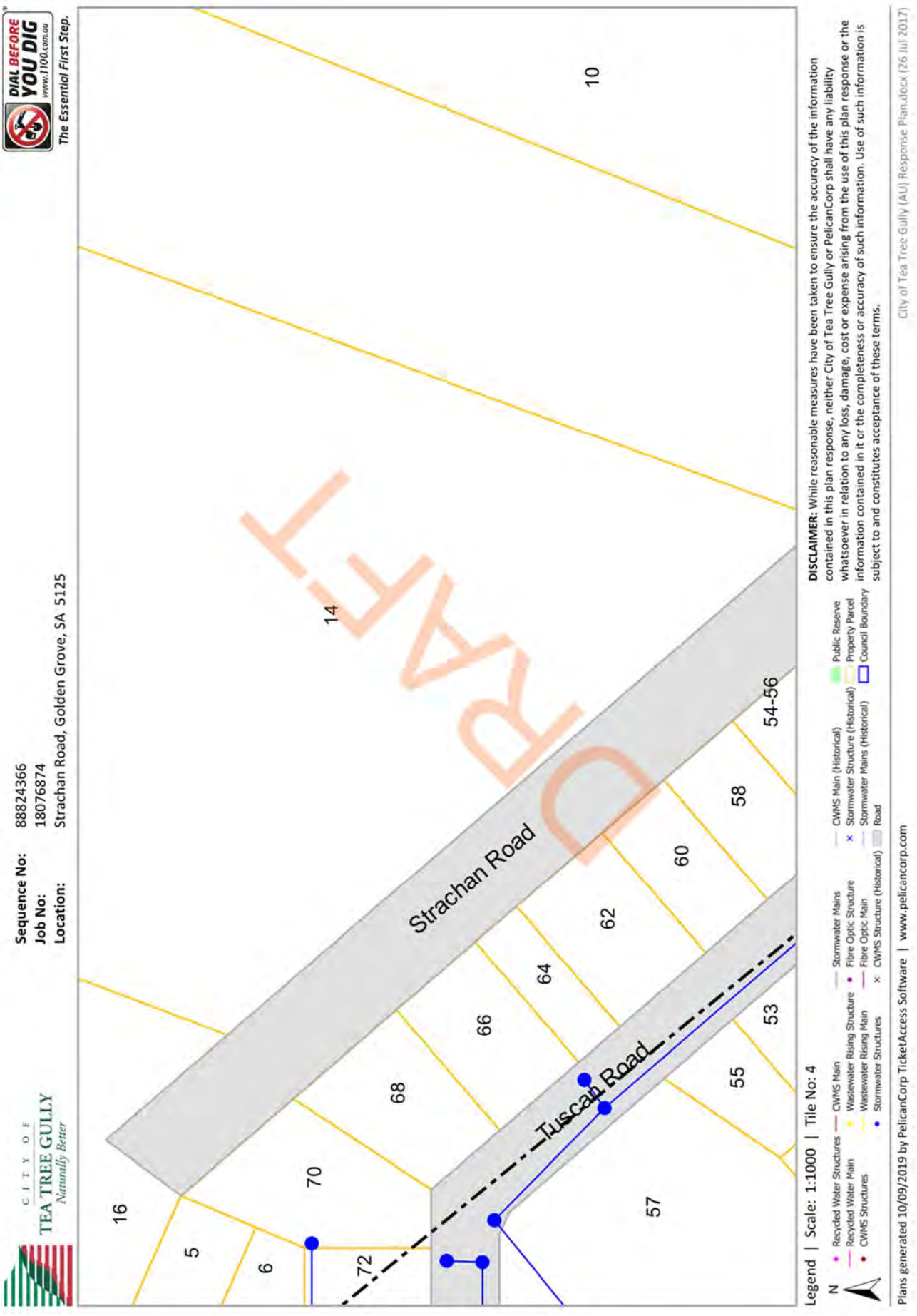
N

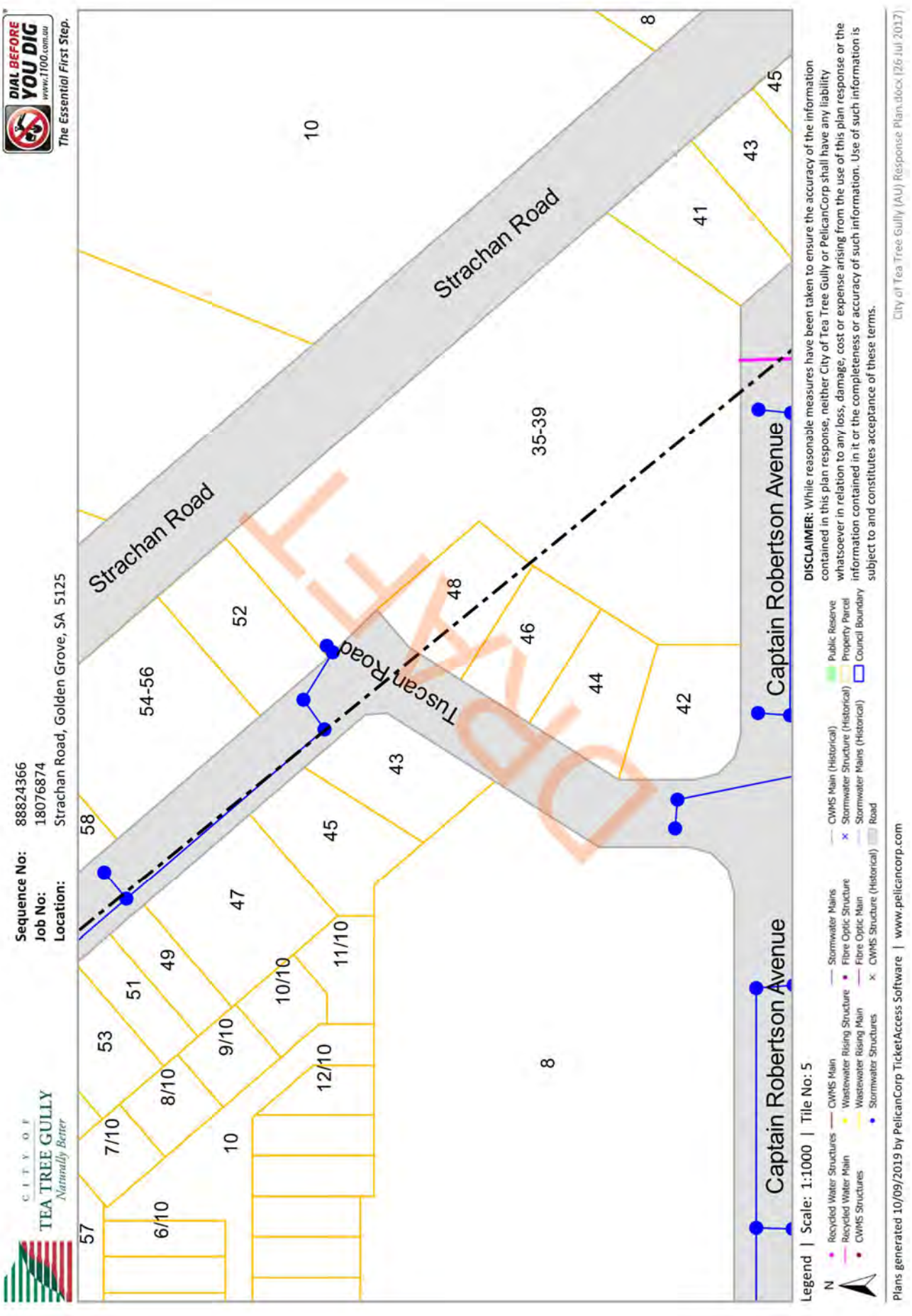
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary

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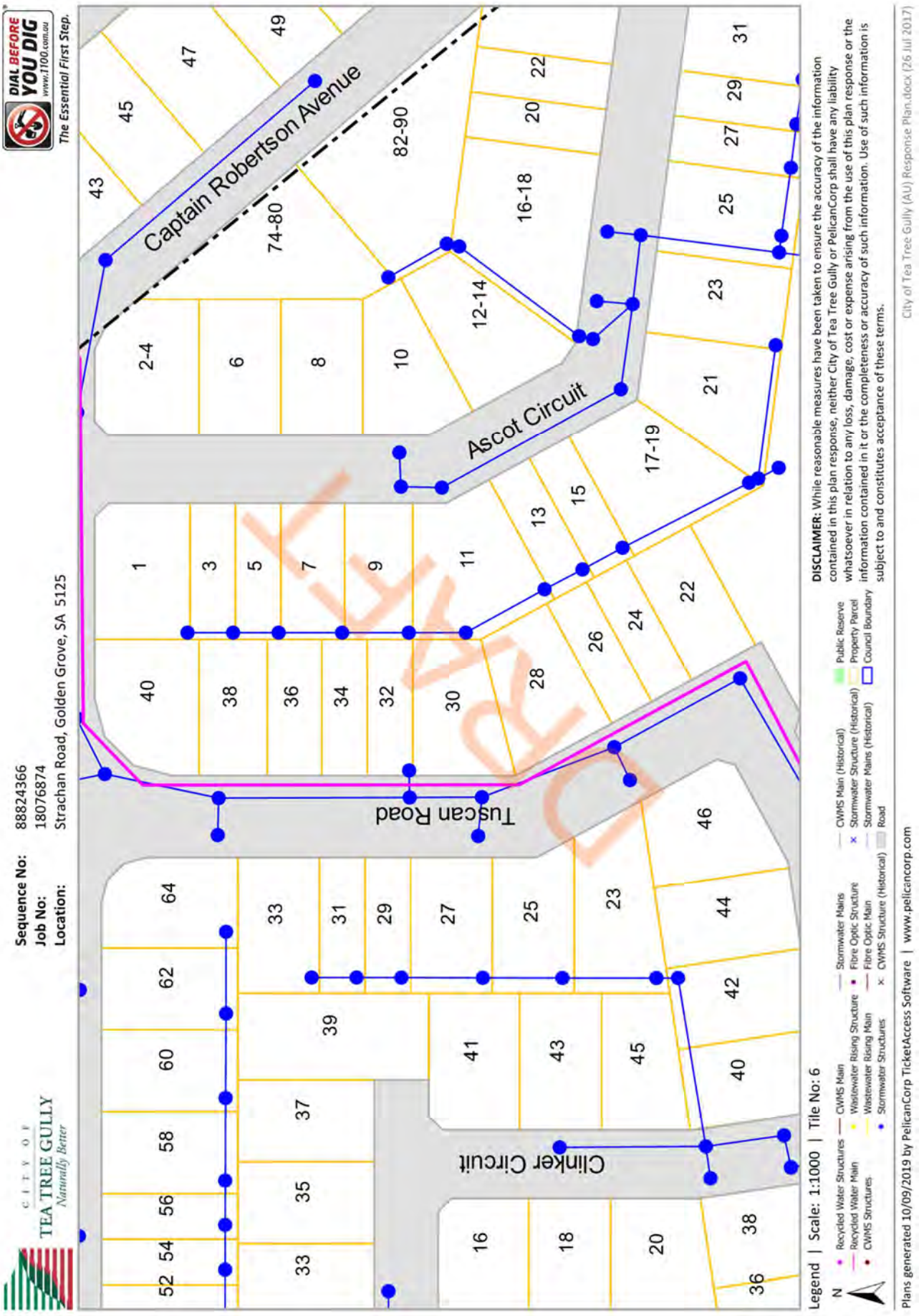
City of Tea Tree Gully (AU) Response Plan.docx (26 Jul 2017)


DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step.
Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125
CITY OF TEA TREE GULLY
Naturally Better
DRAFT
Strachan Road
Tuscan Road
10
14
16
5
6
70
72
68
66
64
62
60
58
54-56
53
55
57
Legend | Scale: 1:1000 | Tile No: 4
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
N
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Item 13.1

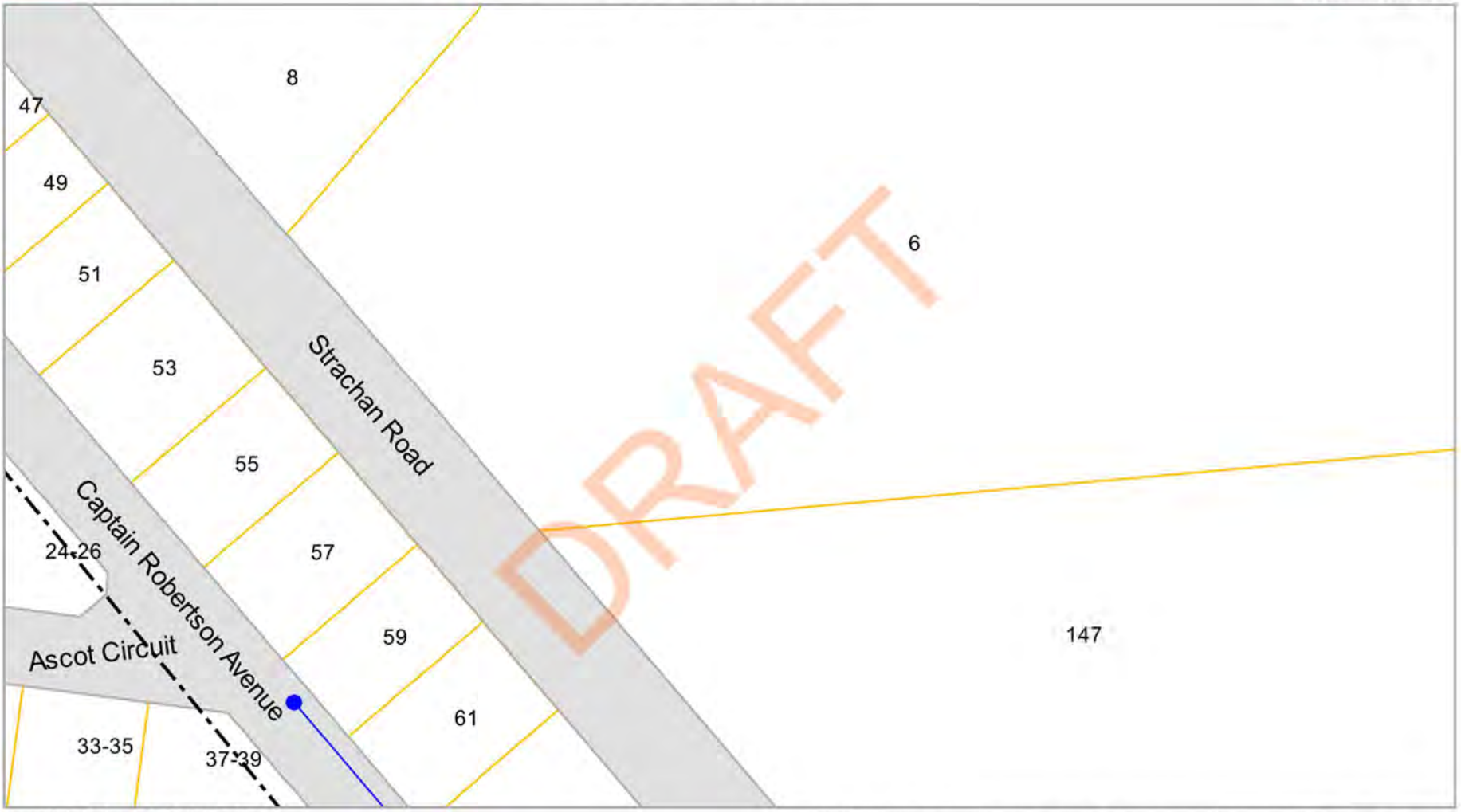
Attachment 8


DIAL BEFORE YOU DIG
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The Essential First Step.
Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125
Captain Robertson Avenue
Ascot Circuit
Tuscan Road
Clinker Circuit
CITY OF TEA TREE GULLY
Naturally Better
Legend | Scale: 1:1000 | Tile No: 6
N
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
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City of Tea Tree Gully (AU) Response Plan.docx (26 Jul 2017)

CITY OF TEA TREE GULLY
Naturally Better

Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125

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Legend | Scale: 1:1000 | Tile No: 7

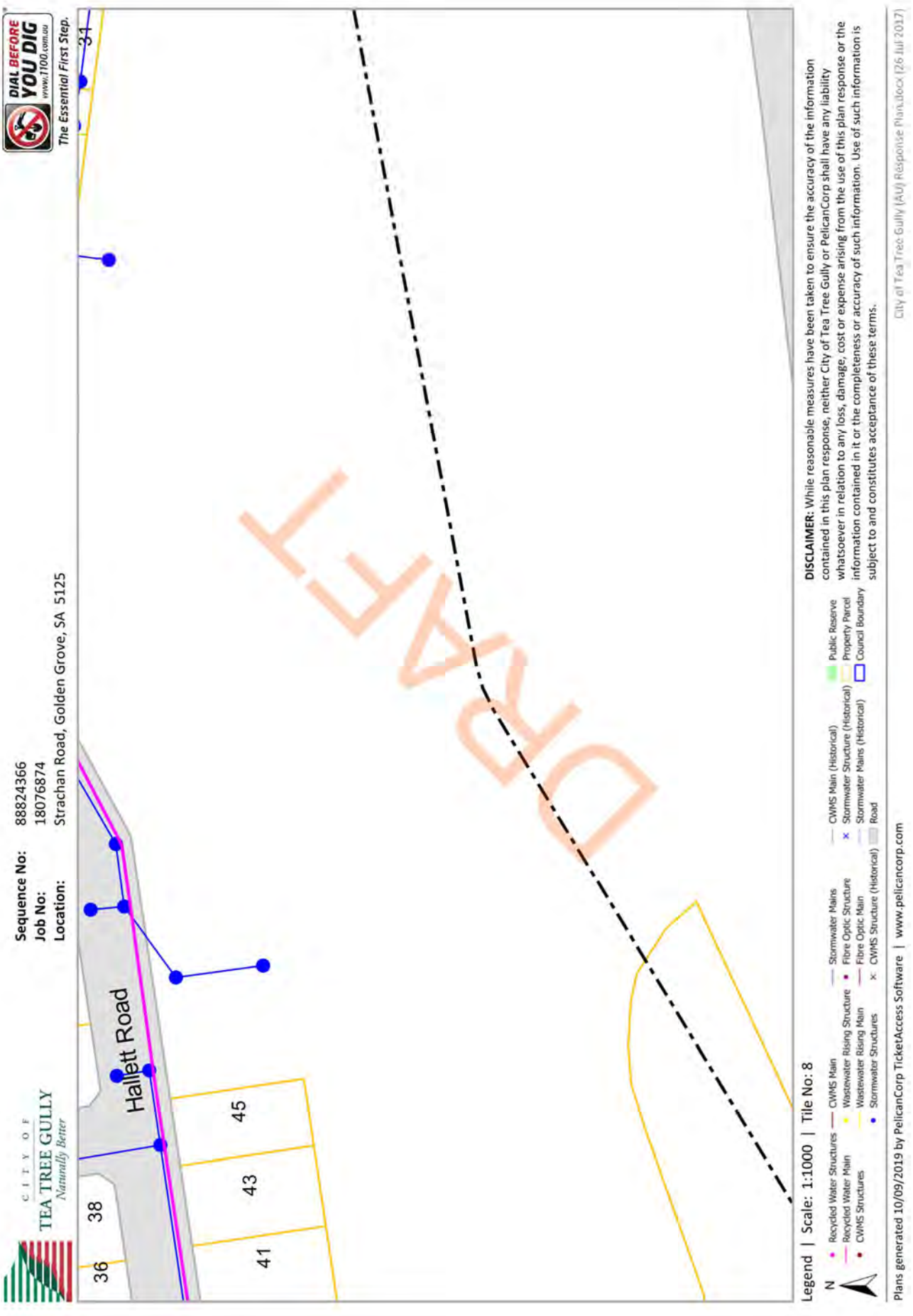
N

Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary

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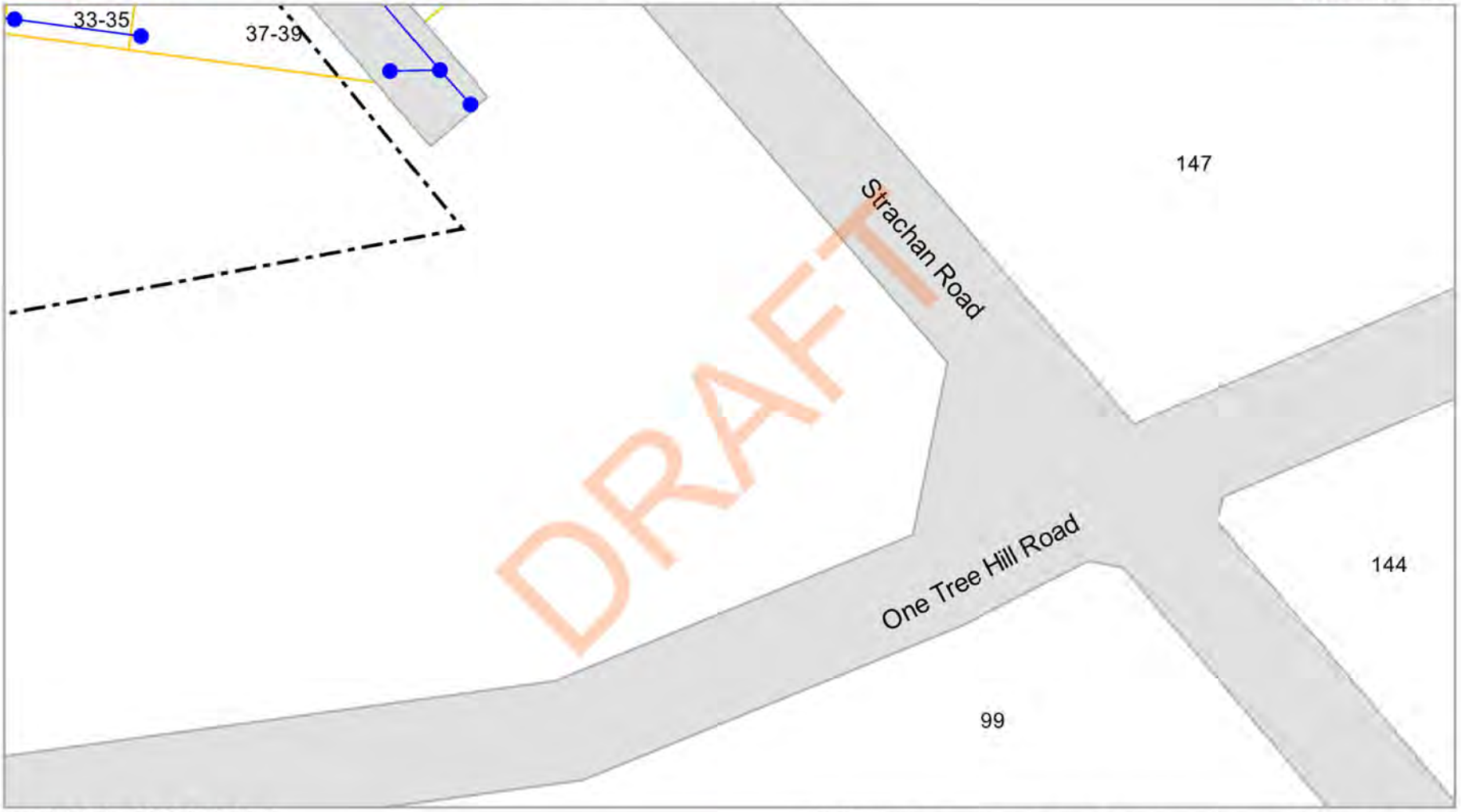
City of Tea Tree Gully (AU) Response Plan.docx (26 Jul 2017)


DIAL BEFORE YOU DIG
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The Essential First Step.
Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125
CITY OF TEA TREE GULLY
Naturally Better
Hallett Road
34
38
36
45
43
41
DRAFT
Legend | Scale: 1:1000 | Tile No: 8
N
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
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City of Tea Tree Gully (AU) Response Plan.dock (26 Jul 2017)

CITY OF TEA TREE GULLY
Naturally Better

Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125

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Legend | Scale: 1:1000 | Tile No: 9

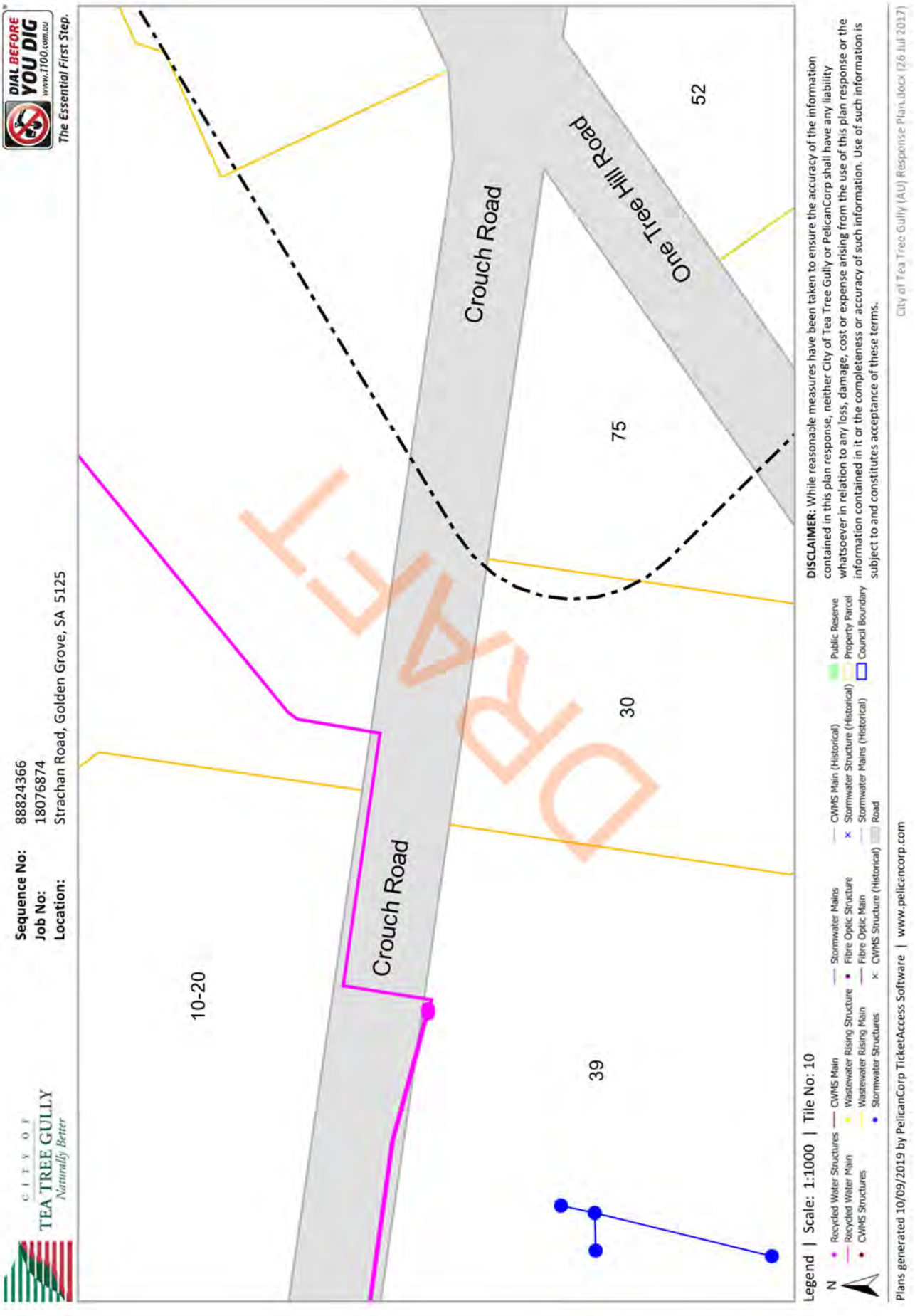
N

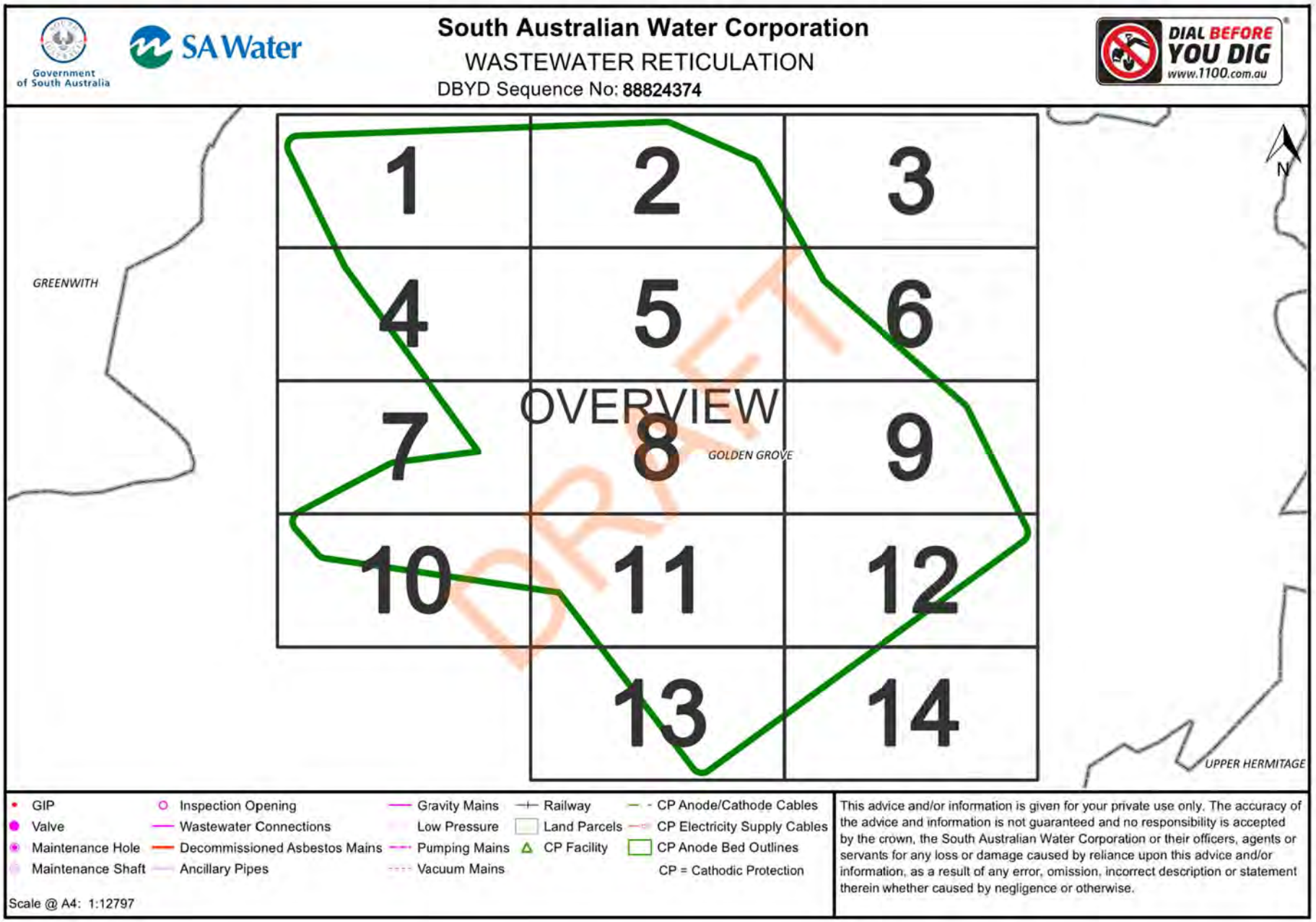
- Recycled Water Structures
- Recycled Water Main
- CWMS Structures
- CWMS Main
- Wastewater Rising Structure
- Wastewater Rising Main
- Stormwater Structures
- Stormwater Mains
- Fibre Optic Structure
- Fibre Optic Main
- CWMS Structure (Historical)
- CWMS Main (Historical)
- Stormwater Structure (Historical)
- Stormwater Mains (Historical)
- Road
- Public Reserve
- Property Parcel
- Council Boundary

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City of Tea Tree Gully (AU) Response Plan.docx (26 Jul 2017)

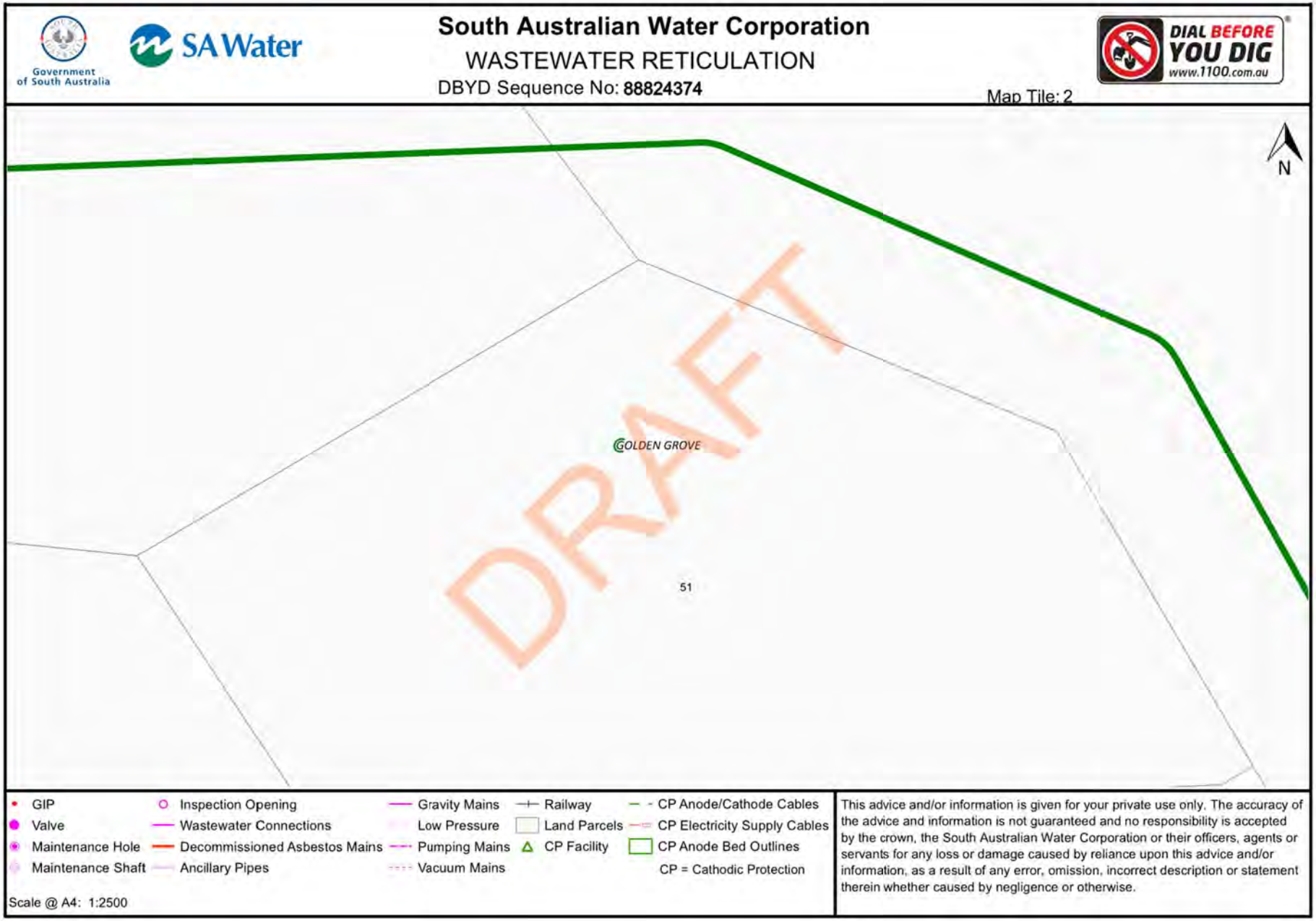

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The Essential First Step.
CITY OF TEA TREE GULLY
Naturally Better
Sequence No: 88824366
Job No: 18076874
Location: Strachan Road, Golden Grove, SA 5125
Crouch Road
Crouch Road
One Tree Hill Road
10-20
39
30
75
52
DRAFT
Legend | Scale: 1:1000 | Tile No: 10
N
Recycled Water Structures
Recycled Water Main
CWMS Structures
CWMS Main
Wastewater Rising Structure
Wastewater Rising Main
Stormwater Structures
Stormwater Mains
Fibre Optic Structure
Fibre Optic Main
CWMS Structure (Historical)
CWMS Main (Historical)
Stormwater Structure (Historical)
Stormwater Mains (Historical)
Road
Public Reserve
Property Parcel
Council Boundary
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City of Tea Tree Gully (AU) Response Plan.dock (26 Jul 2017)

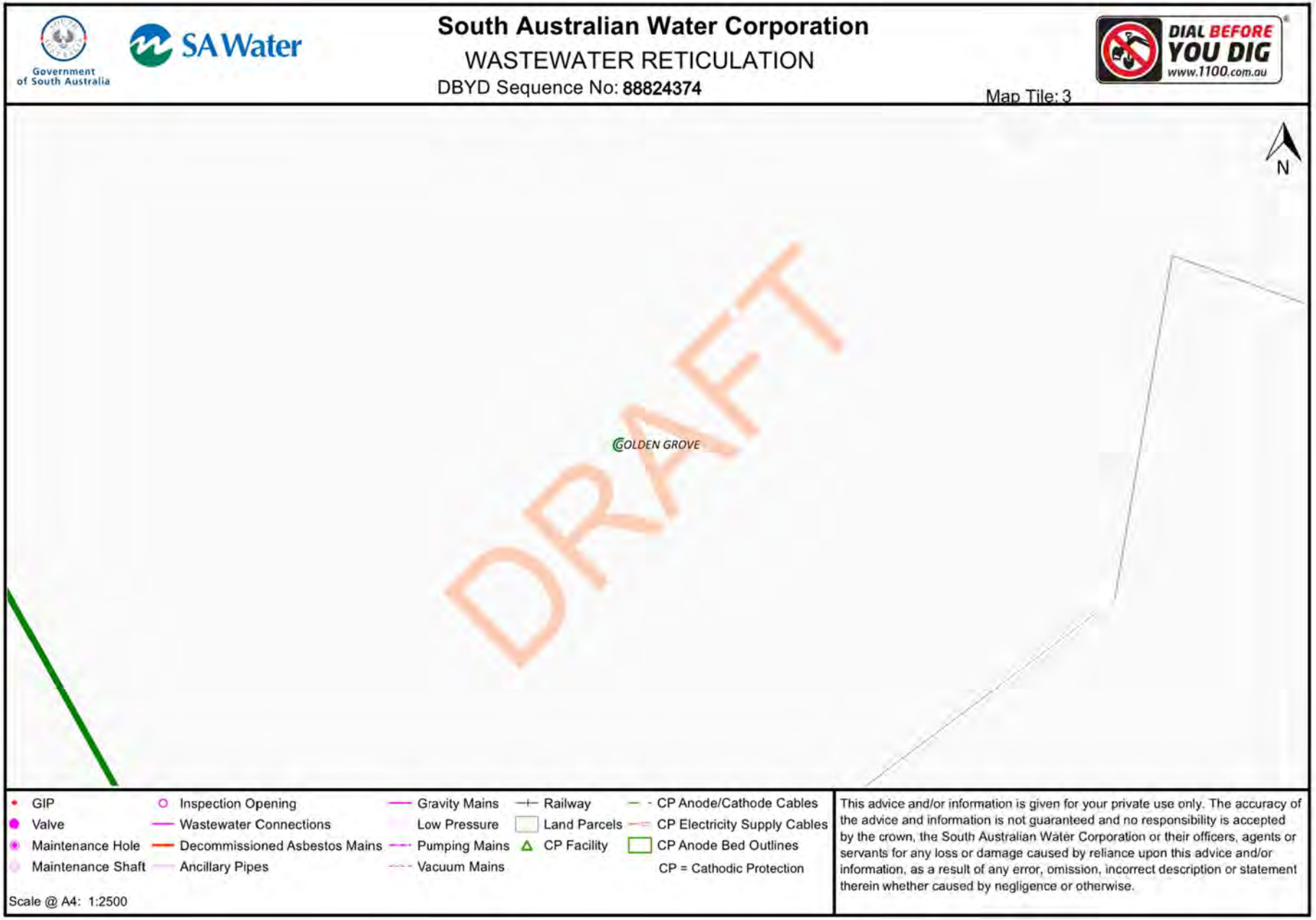

Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
DIAL BEFORE YOU DIG
www.1100.com.au
GREENWITH
OVERVIEW
GOLDEN GROVE
UPPER HERMITAGE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
N
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:12797
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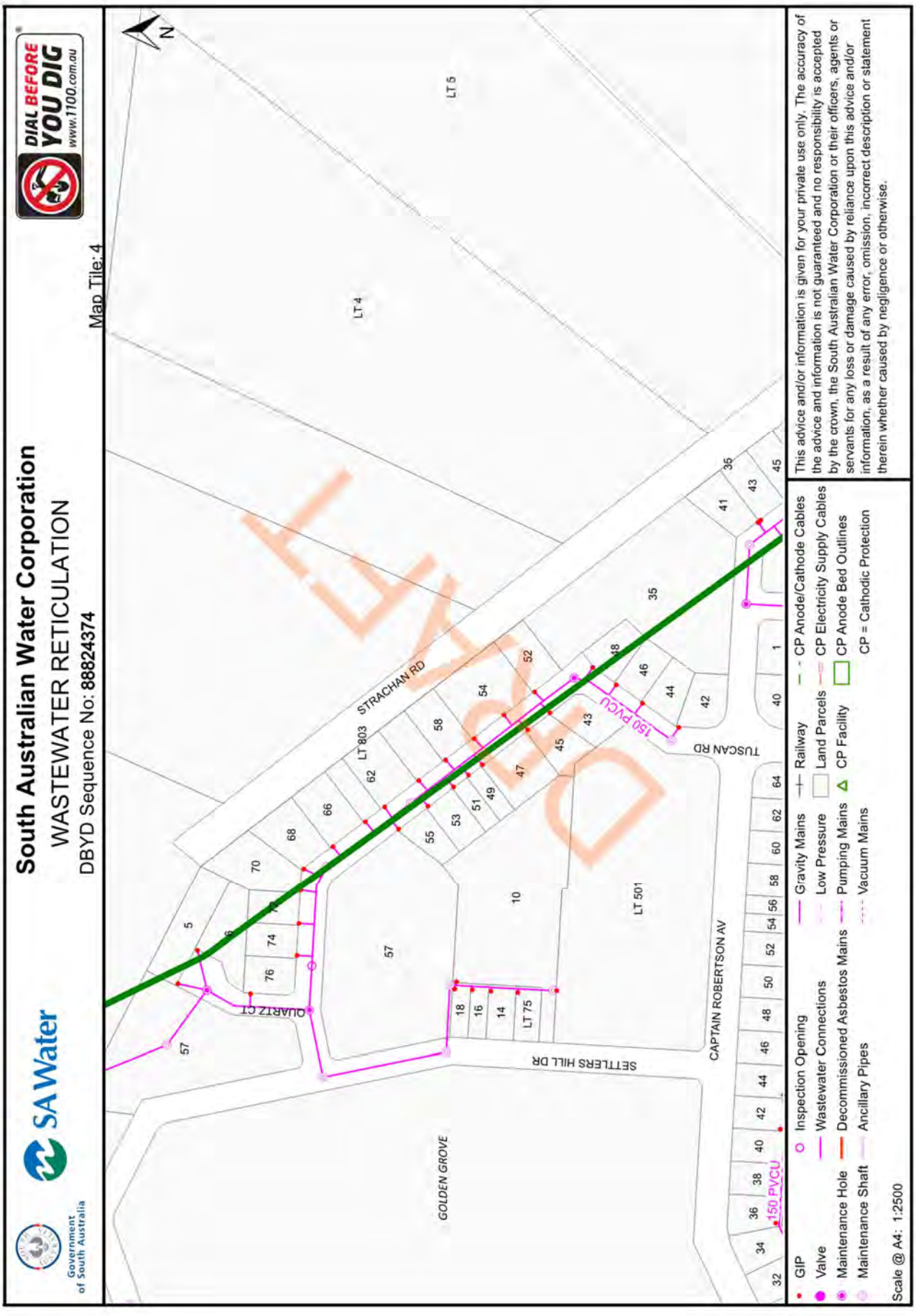
Item 13.1

Attachment 8

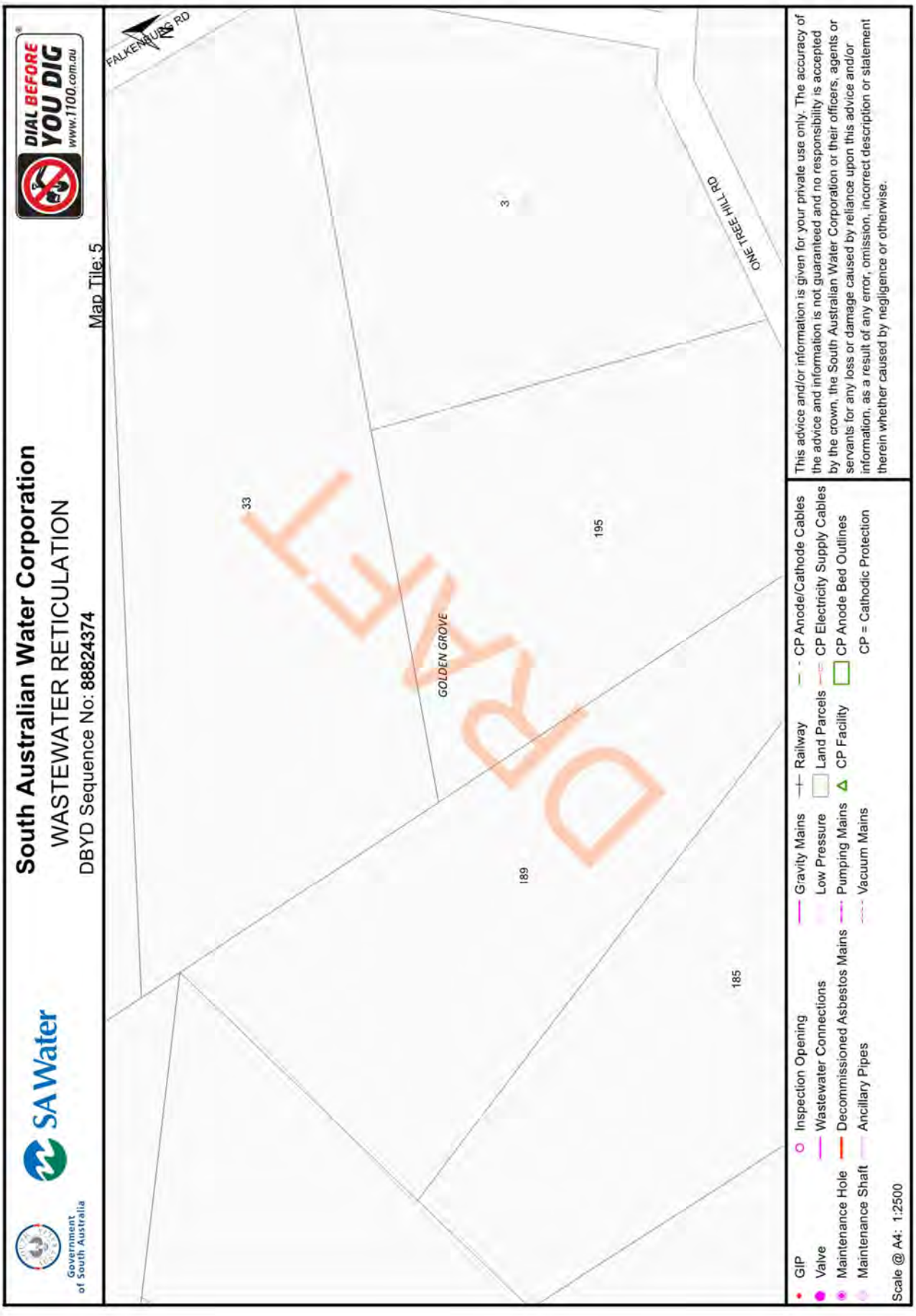


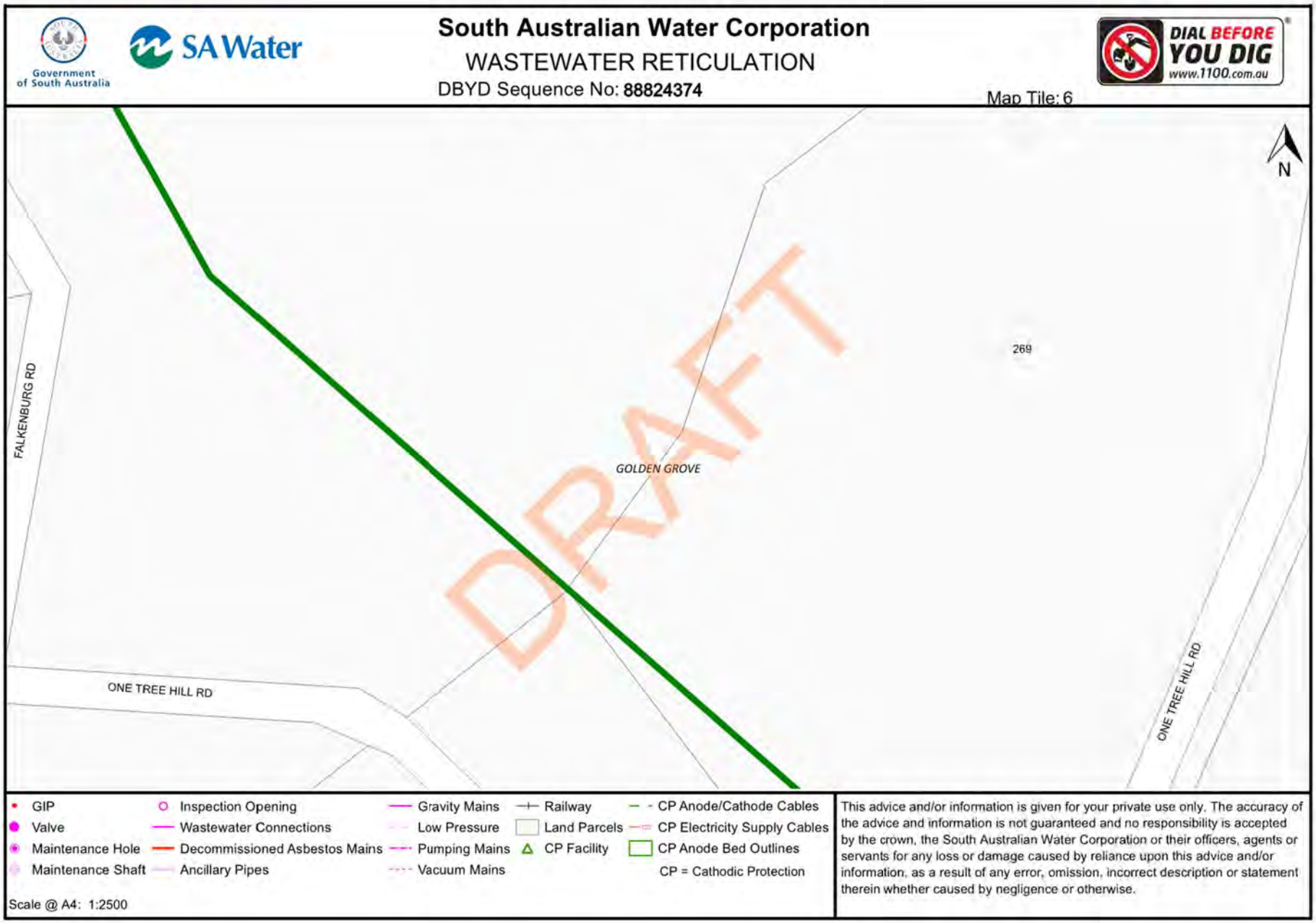

Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
DIAL BEFORE YOU DIG
www.1100.com.au
Map Tile: 2
N
GOLDEN GROVE
51
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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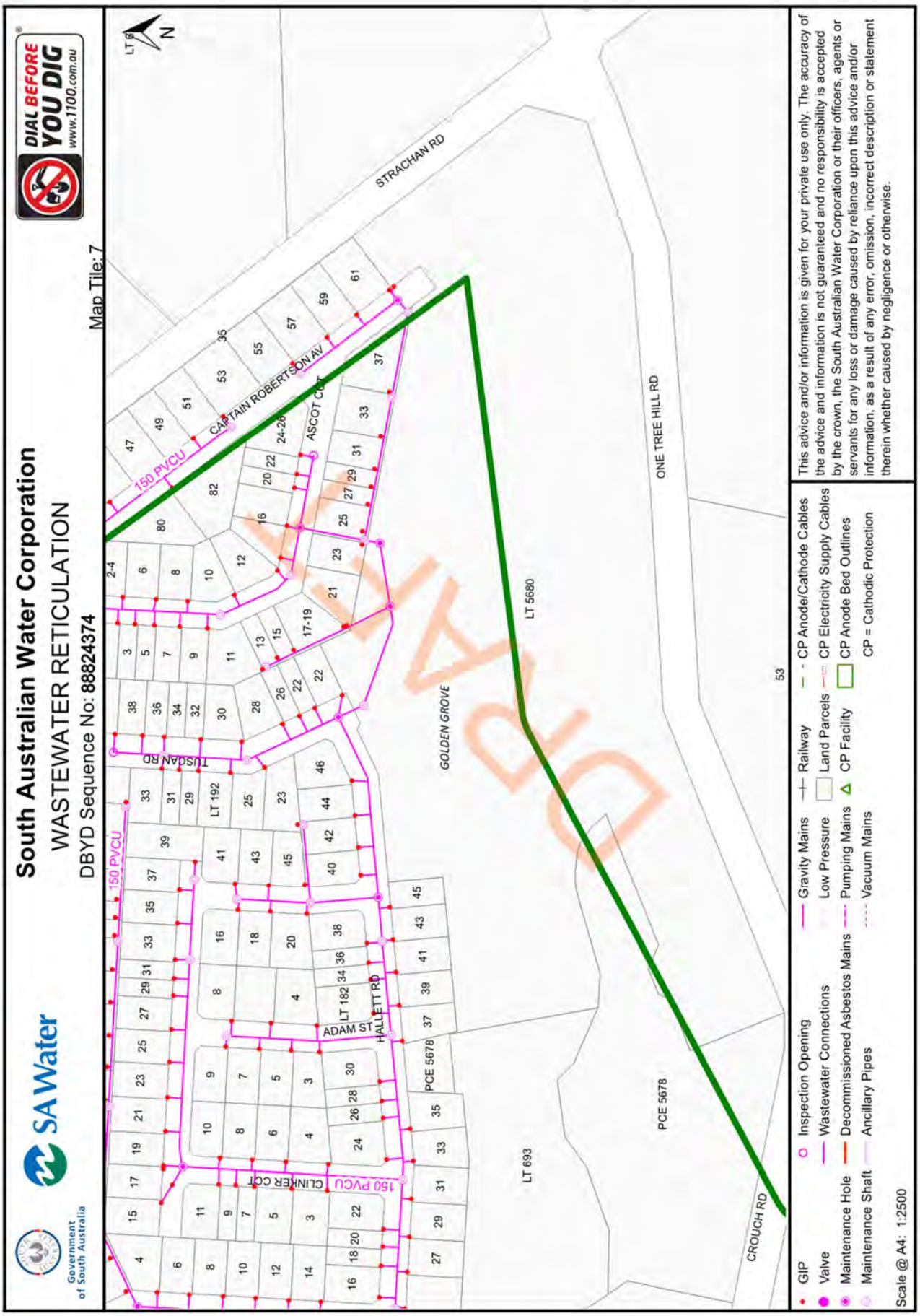

Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 3
DIAL BEFORE YOU DIG
www.1100.com.au
N
GOLDEN GROVE
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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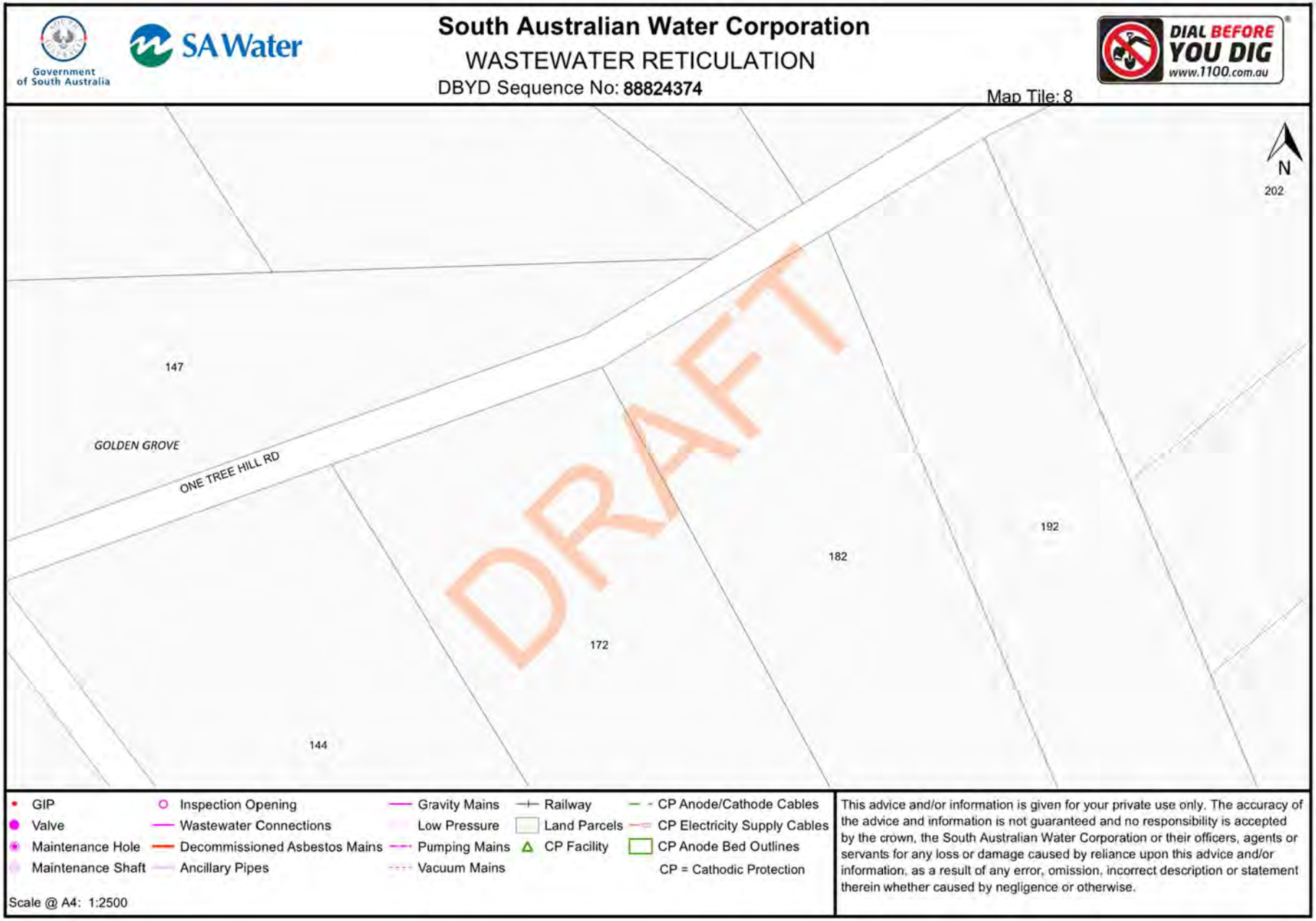


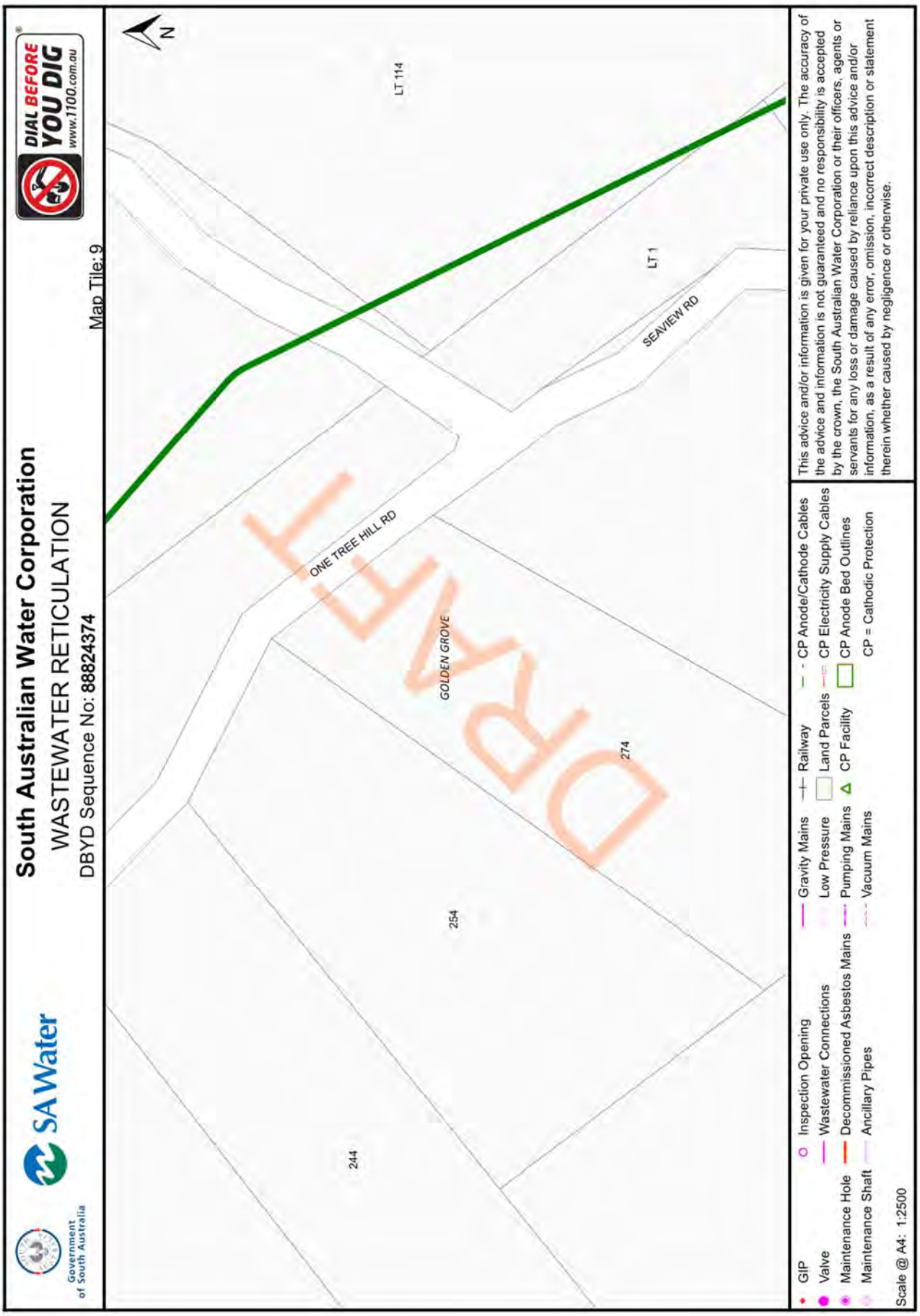
Item 13.1
Attachment 8


South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 5
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
FALKENBURG RD
ONE TREE HILL RD
GOLDEN GROVE
33
3
195
189
185
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
- CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
DIAL BEFORE YOU DIG
www.1100.com.au
Map Tile: 6
N
269
FALKENBURG RD
GOLDEN GROVE
ONE TREE HILL RD
ONE TREE HILL RD
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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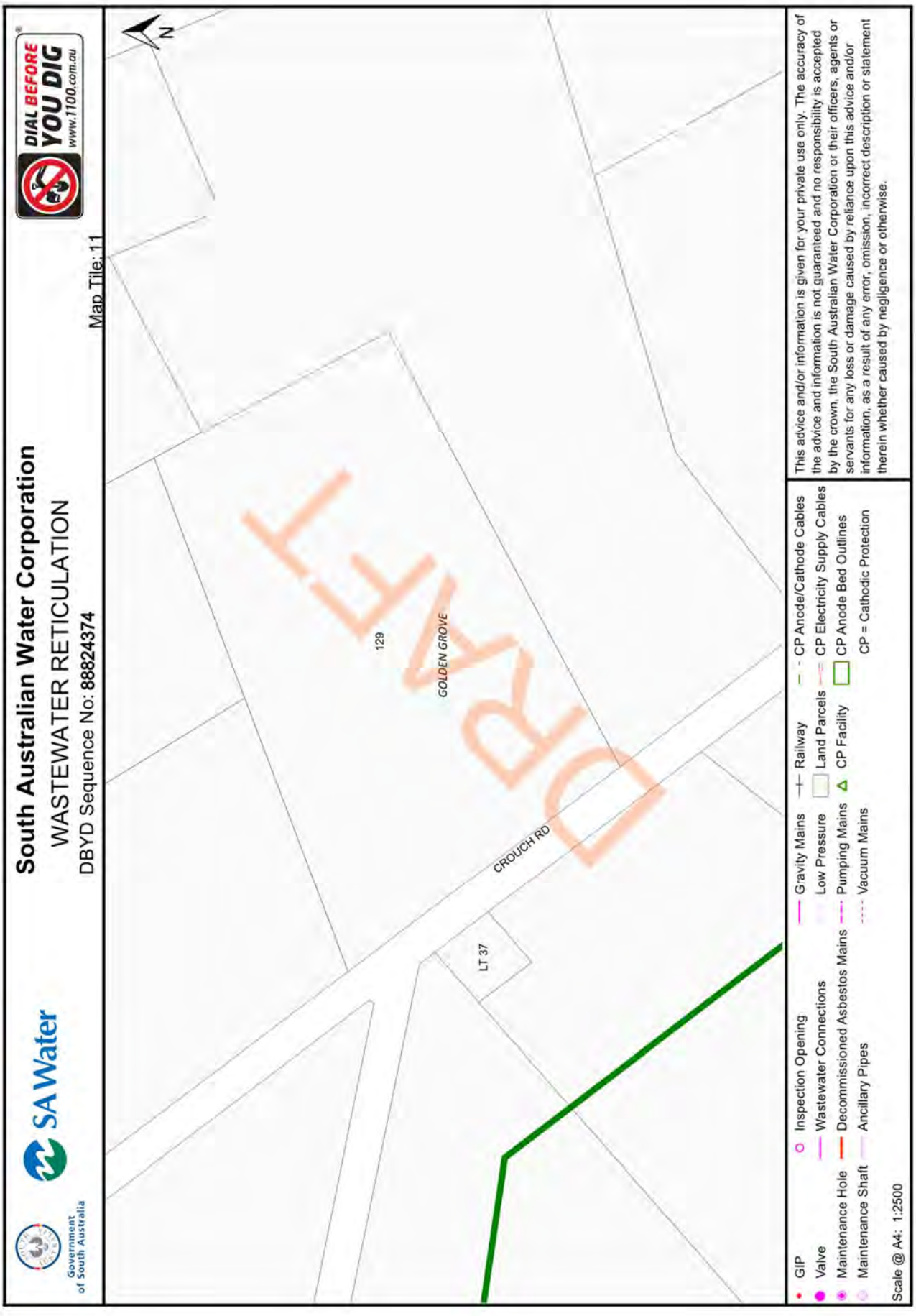

South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 7
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
STRACHAN RD
CAPTAIN ROBERTSON AV
ASCOT CCT
ONE TREE HILL RD
TUSCAN RD
GOLDEN GROVE
ADAM ST
HALLETT RD
CLINKER CCT
CROUCH RD
LT 192
LT 182
LT 5680
LT 693
PCE 5678
PCE 5678
150 PVCU
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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DRAFT

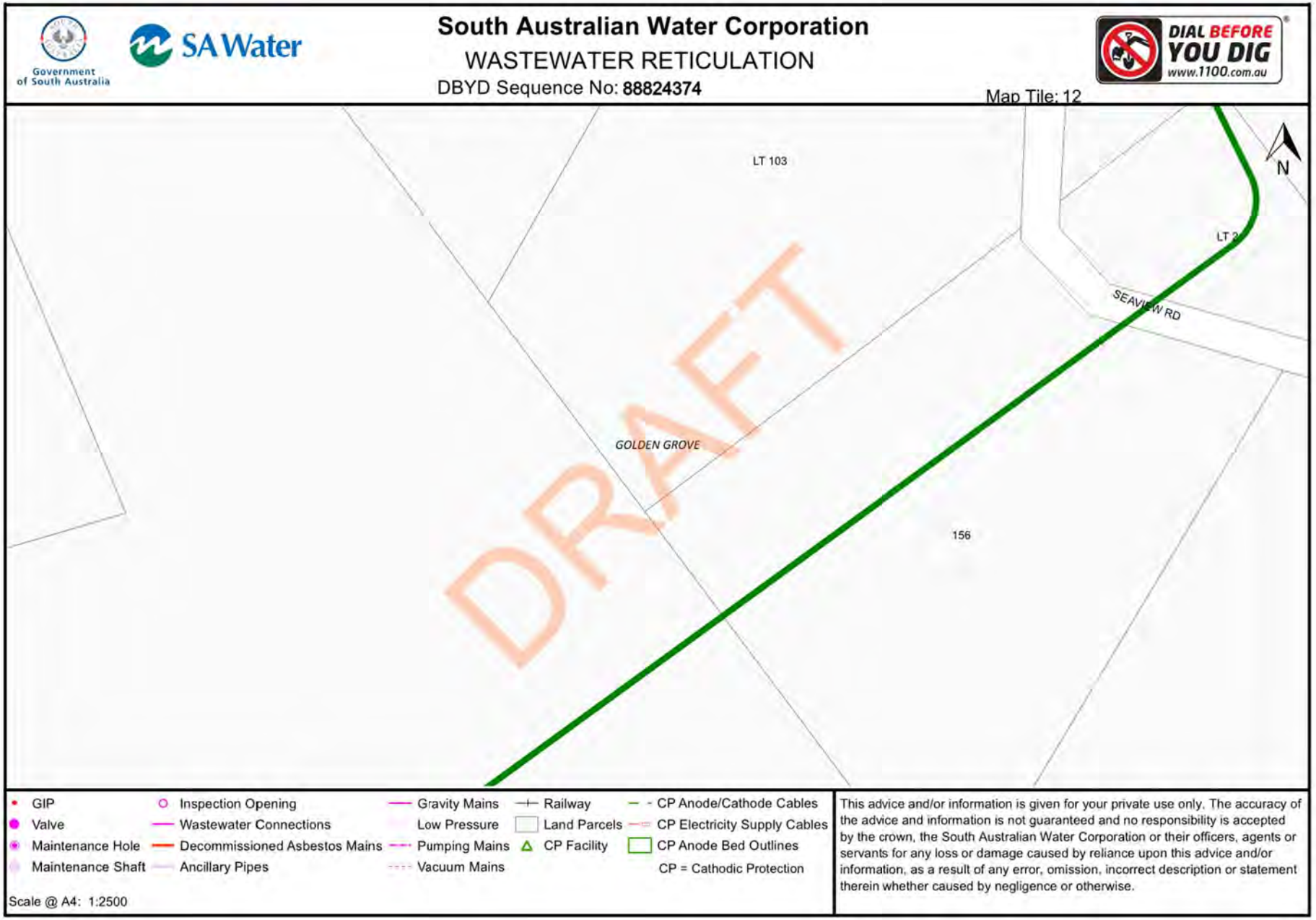

Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
DIAL BEFORE YOU DIG
www.1100.com.au
Map Tile: 8
N
202
147
GOLDEN GROVE
ONE TREE HILL RD
192
182
172
144
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 9
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
LT 114
LT 1
SEAVIEW RD
ONE TREE HILL RD
GOLDEN GROVE
244
254
274
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
- CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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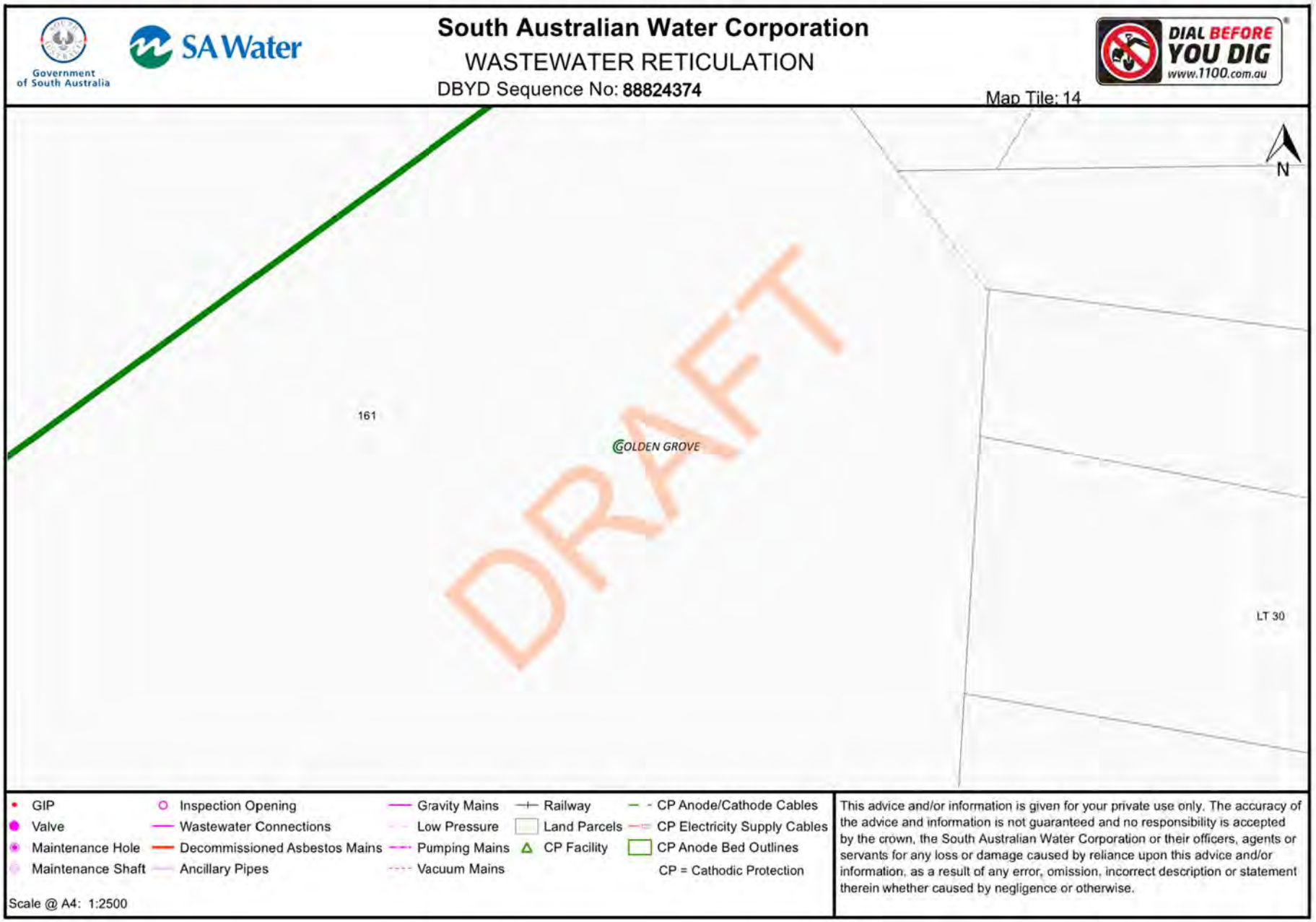


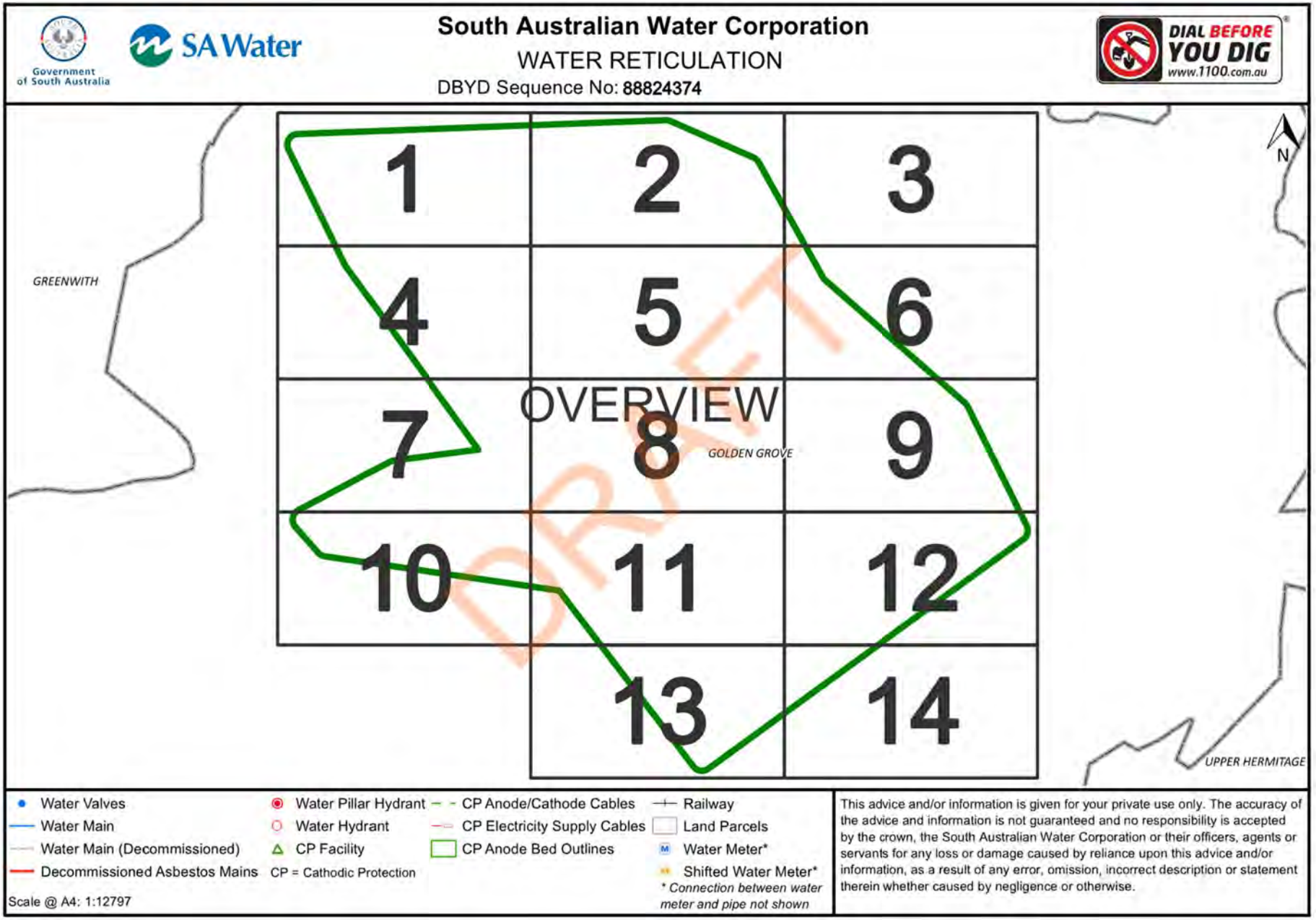
Attachment 8
Item 13.1

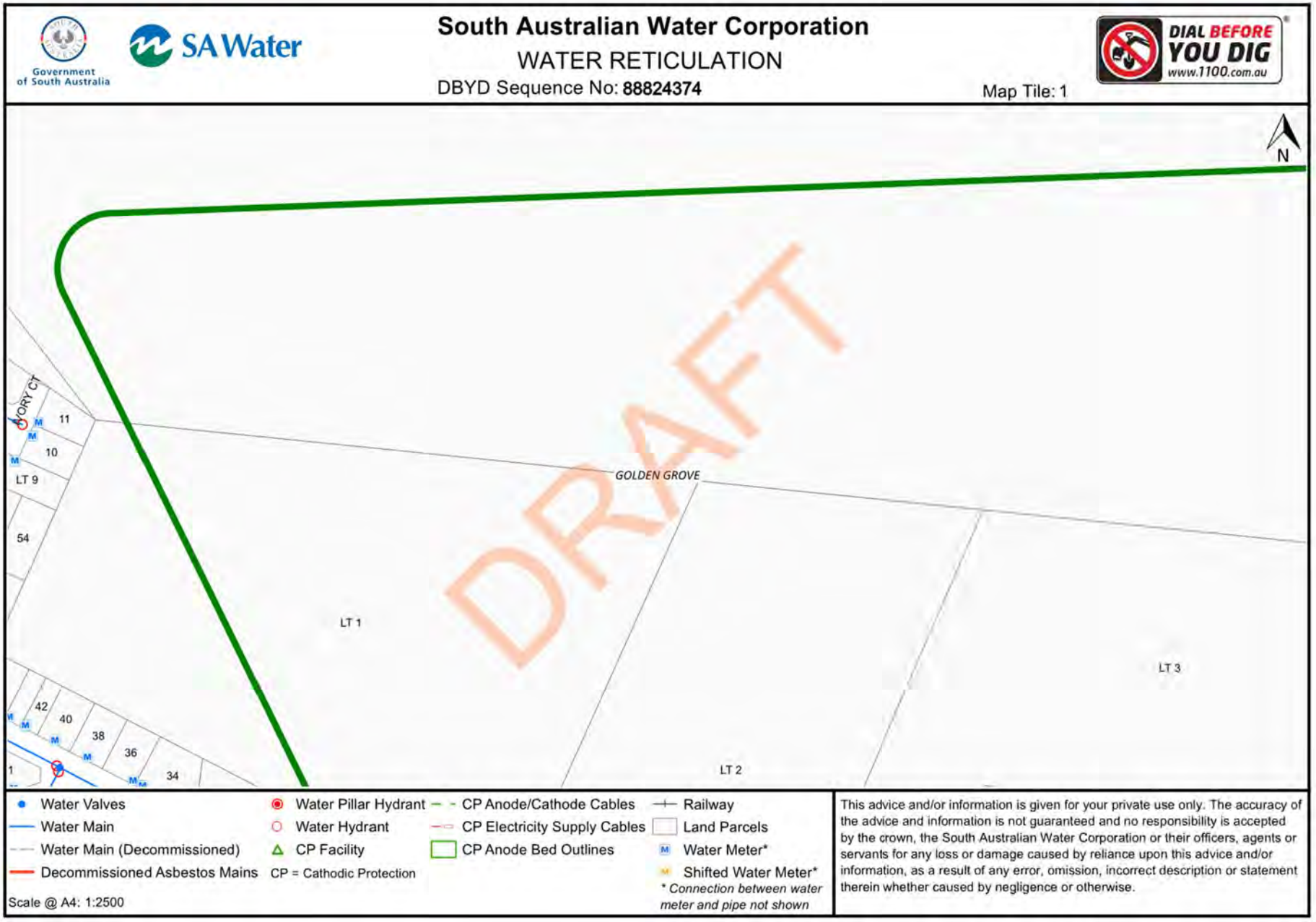

South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 11
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
DRAFT
129
GOLDEN GROVE
CROUCH RD
LT 37
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
DIAL BEFORE YOU DIG www.1100.com.au
Map Tile: 12
LT 103
LT 2
SEAVIEW RD
GOLDEN GROVE
156
N
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 13
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
153
CROUCH RD
GOLDEN GROVE
LT 13
LT 28
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
- CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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Government of South Australia
SA Water
South Australian Water Corporation
WASTEWATER RETICULATION
DBYD Sequence No: 88824374
DIAL BEFORE YOU DIG
www.1100.com.au
Map Tile: 14
N
161
GOLDEN GROVE
LT 30
DRAFT
GIP
Valve
Maintenance Hole
Maintenance Shaft
Inspection Opening
Wastewater Connections
Decommissioned Asbestos Mains
Ancillary Pipes
Gravity Mains
Low Pressure
Pumping Mains
Vacuum Mains
Railway
Land Parcels
CP Facility
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
CP = Cathodic Protection
Scale @ A4: 1:2500
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Government of South Australia
SA Water
South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
DIAL BEFORE YOU DIG
www.1100.com.au
N
GREENWITH
OVERVIEW
GOLDEN GROVE
UPPER HERMITAGE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:12797
This advice and/or information is given for your private use only. The accuracy of the advice and information is not guaranteed and no responsibility is accepted by the crown, the South Australian Water Corporation or their officers, agents or servants for any loss or damage caused by reliance upon this advice and/or information, as a result of any error, omission, incorrect description or statement therein whether caused by negligence or otherwise.


Government of South Australia
SA Water
South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 1
DIAL BEFORE YOU DIG
www.1100.com.au
N
DRAFT
IVORY CT
11
10
LT 9
54
GOLDEN GROVE
LT 1
LT 2
LT 3
42
40
38
36
34
1
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 2
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
GOLDEN GROVE
51
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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Government of South Australia

SA Water

South Australian Water Corporation

WATER RETICULATION

DBYD Sequence No: **88824374**

Map Tile: 3

DIAL BEFORE YOU DIG www.1100.com.au



- Water Valves
- Water Main
- Water Main (Decommissioned)
- Decommissioned Asbestos Mains
- Water Pillar Hydrant
- Water Hydrant
- CP Facility

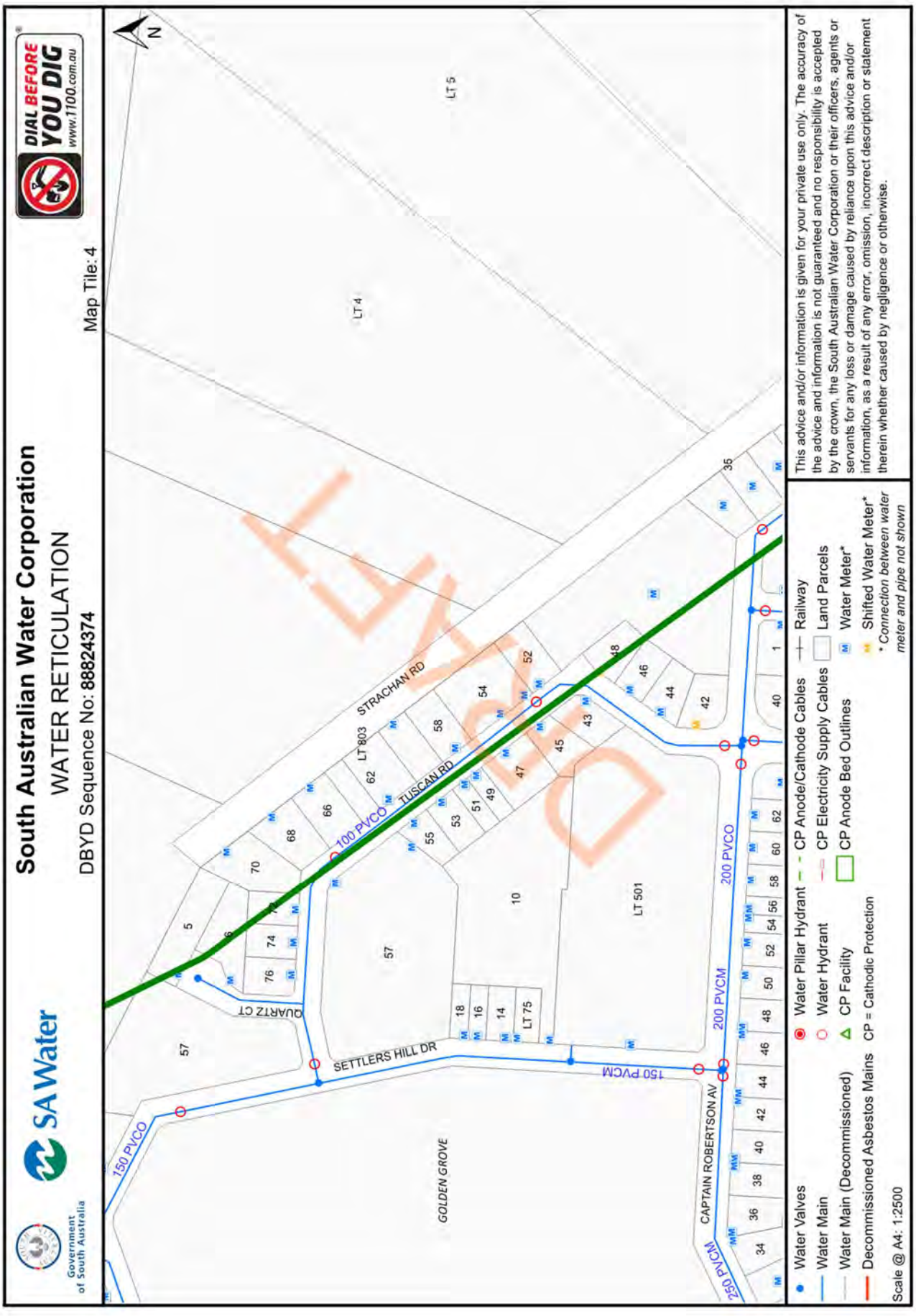
CP = Cathodic Protection

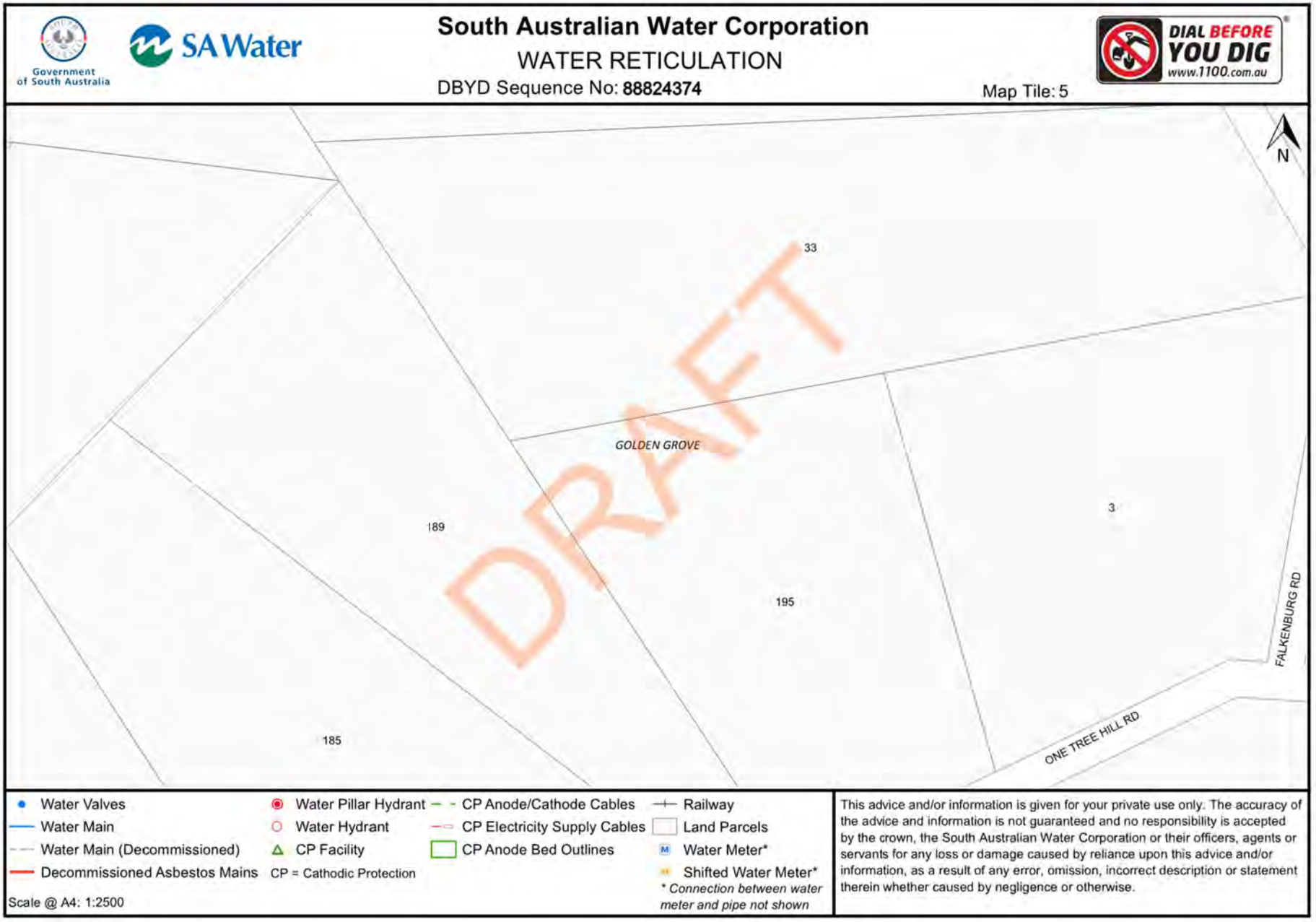
- CP Anode/Cathode Cables
- CP Electricity Supply Cables
- CP Anode Bed Outlines
- Railway
- Land Parcels
- Water Meter*
- Shifted Water Meter*

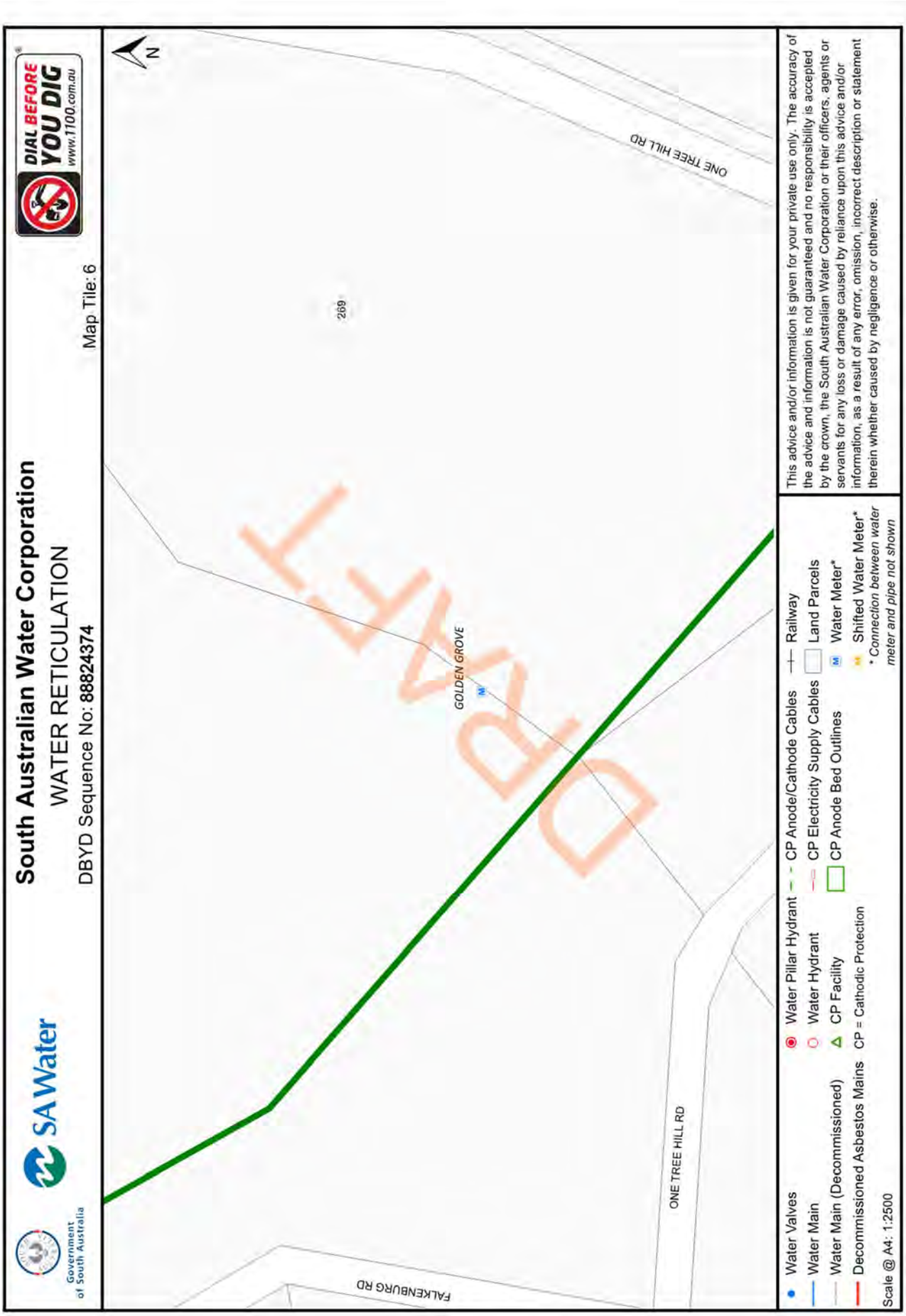
** Connection between water meter and pipe not shown*

Scale @ A4: 1:2500

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South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 4
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
LT 4
LT 5
LT 501
LT 803
LT 75
STRACHAN RD
TUSCAN RD
QUARTZ CT
SETTLERS HILL DR
CAPTAIN ROBERTSON AV
GOLDEN GROVE
150 PVCO
100 PVCO
200 PVCM
150 PVCM
250 PVCM
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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DRAFT

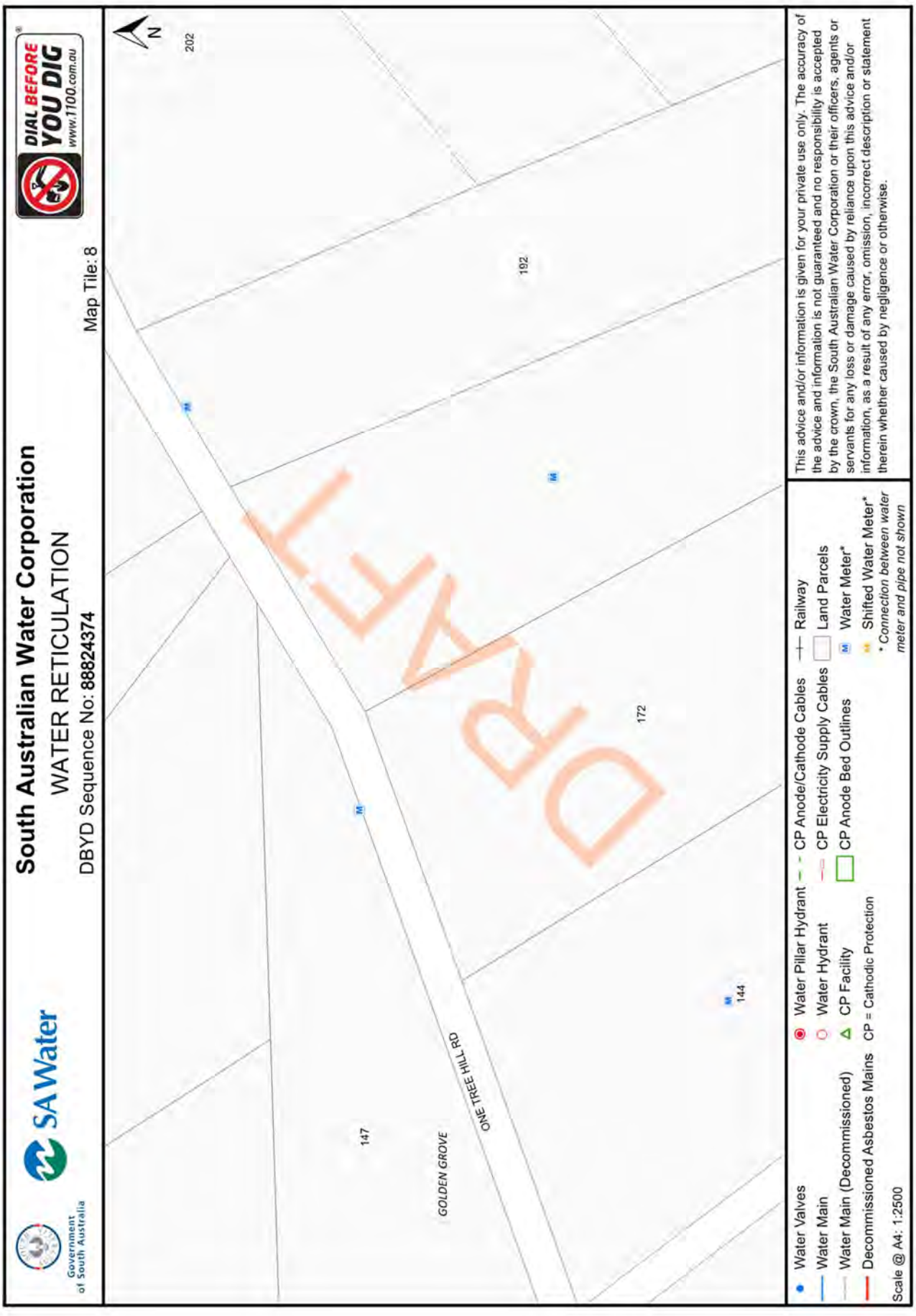

Government of South Australia
SA Water
South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 5
DIAL BEFORE YOU DIG
www.1100.com.au
N
33
GOLDEN GROVE
189
195
3
185
FALKENBURG RD
ONE TREE HILL RD
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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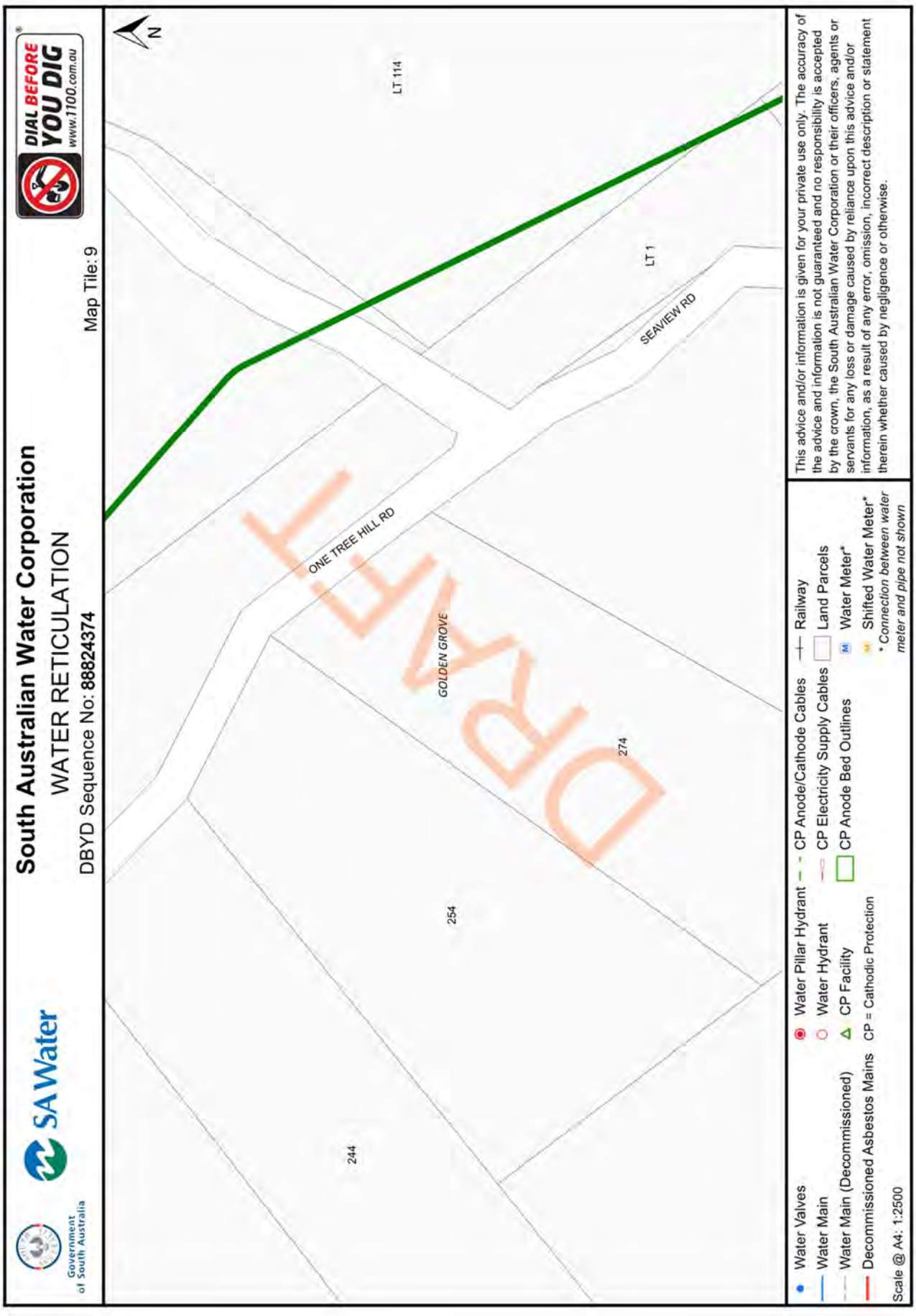

South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 6
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
ONE TREE HILL RD
269
GOLDEN GROVE
FALKENBURG RD
ONE TREE HILL RD
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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Item 13.1

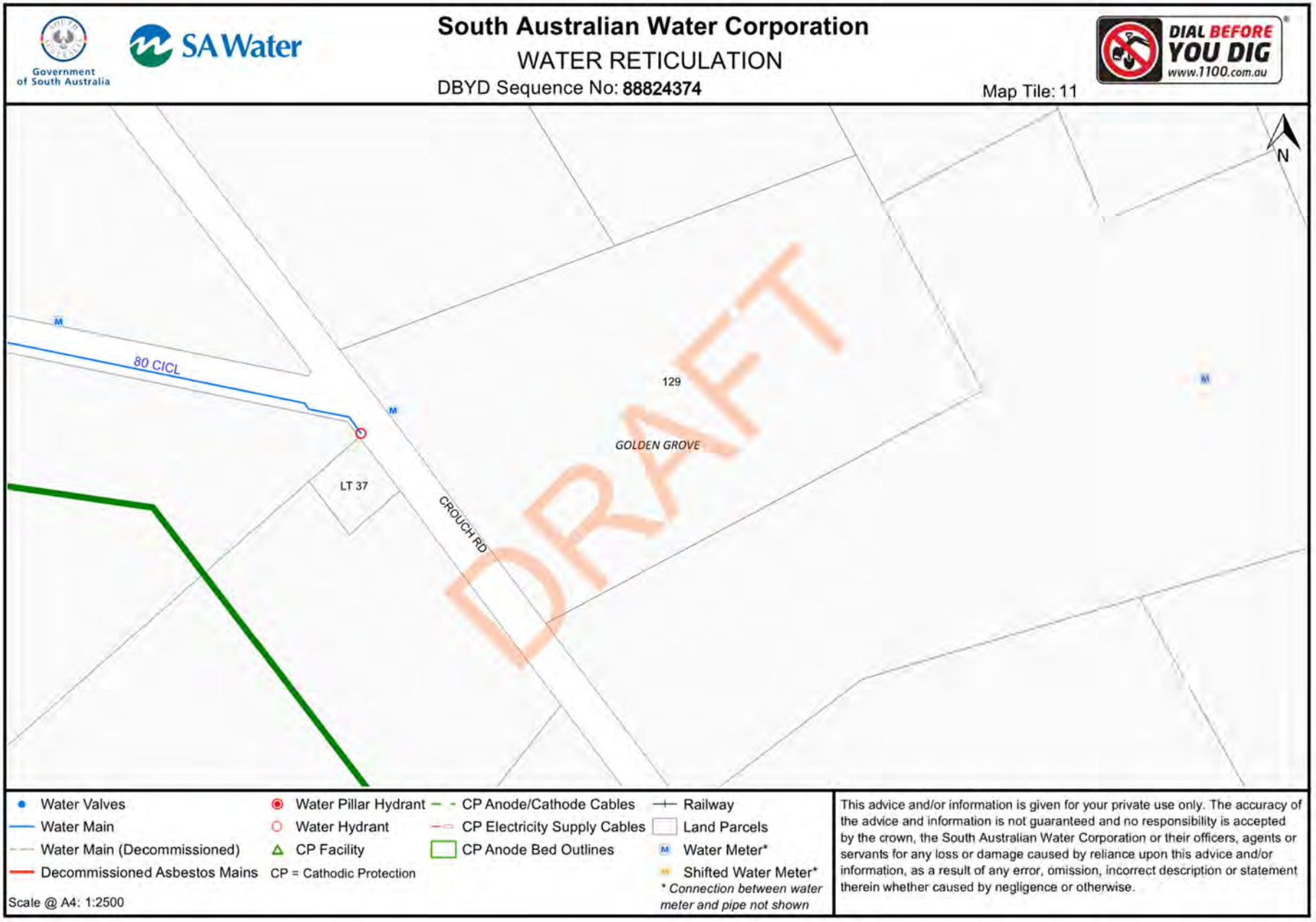
Attachment 8

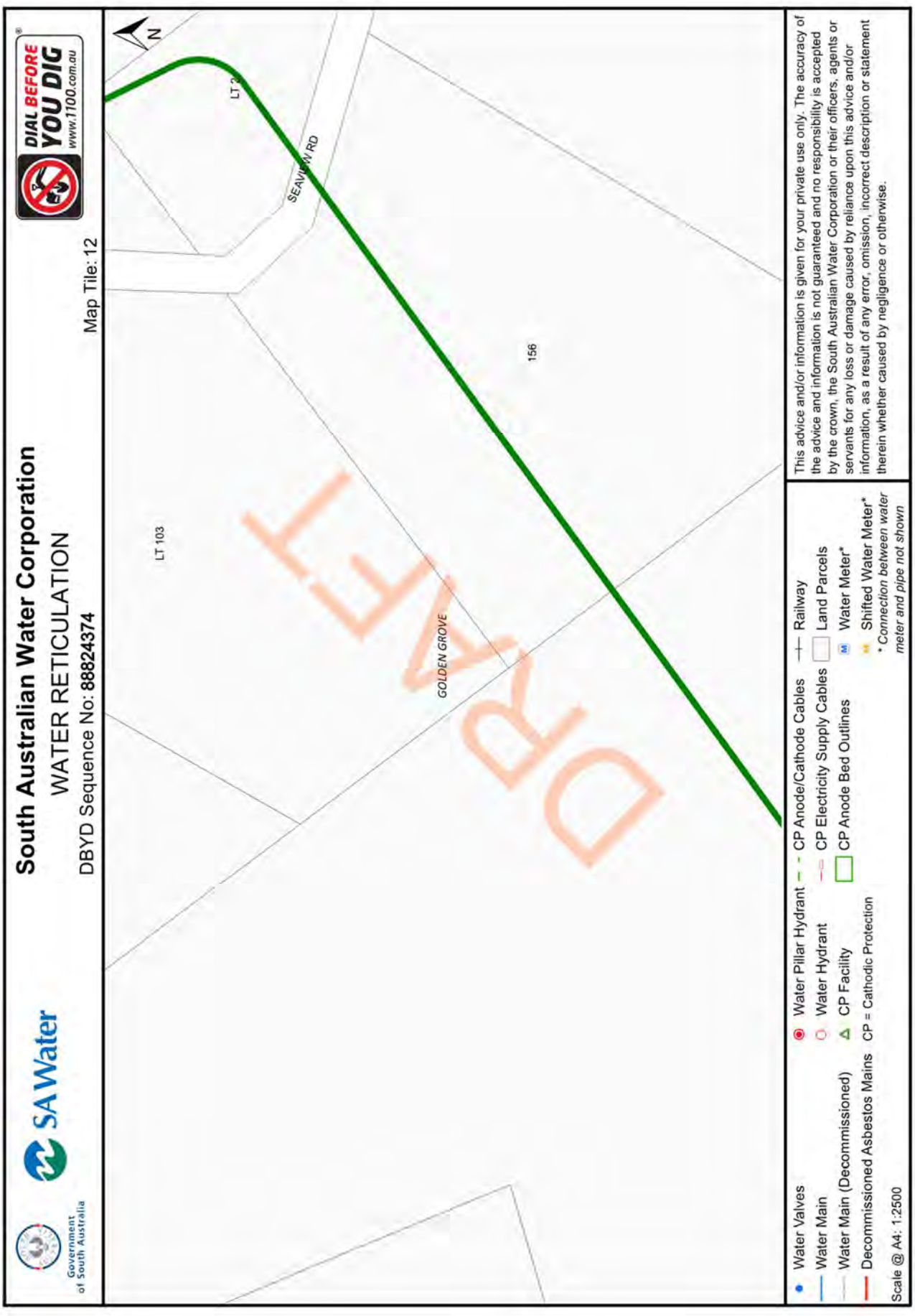

South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 8
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
202
192
172
147
144
GOLDEN GROVE
ONE TREE HILL RD
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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Item 13.1
Attachment 8

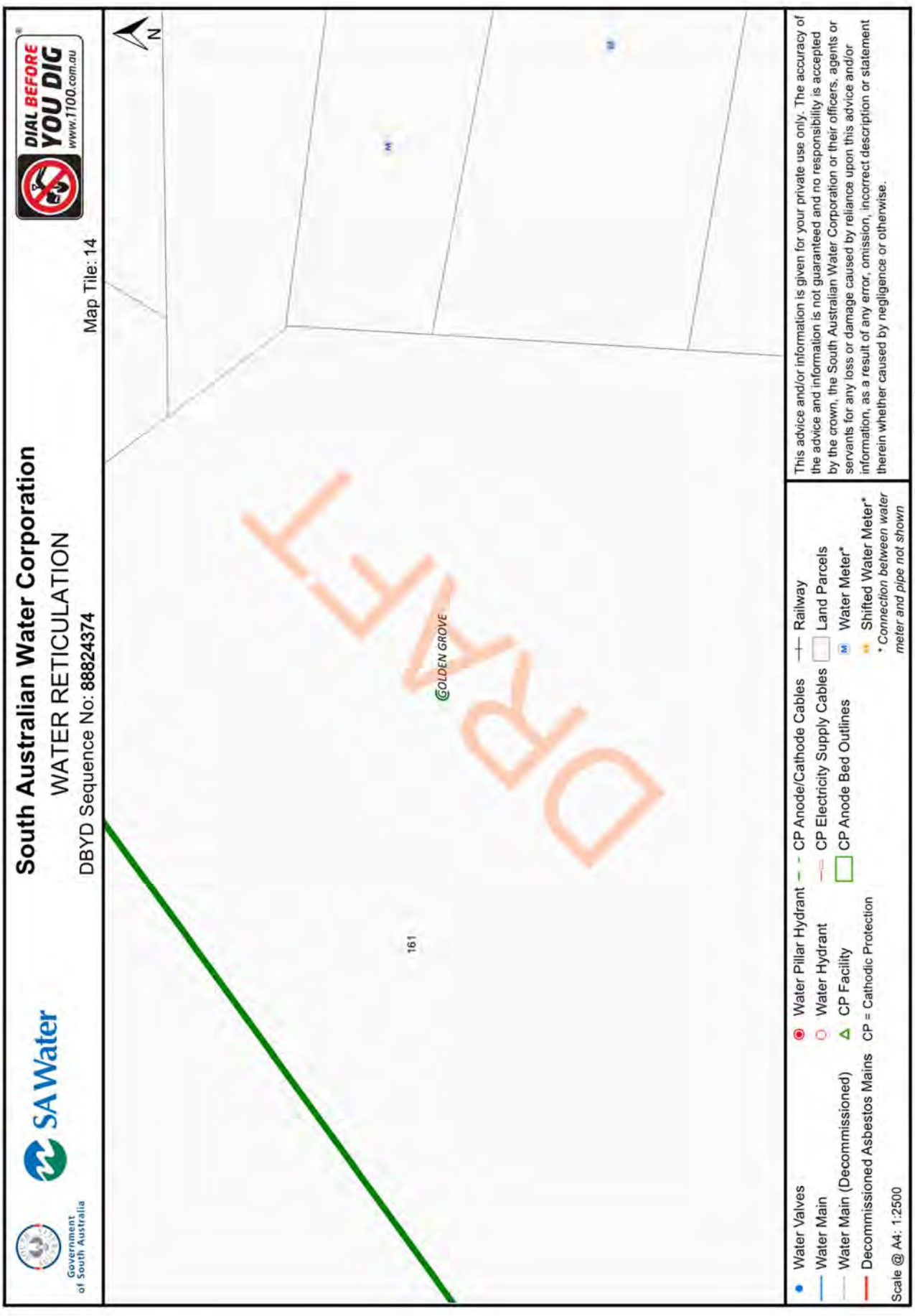

South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 10
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
CROUCH RD
GOLDEN GROVE
ONE TREE HILL RD
80 CICL
99
52
75
30
36
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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Government of South Australia
SA Water
South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 11
DIAL BEFORE YOU DIG
www.1100.com.au
N
80 CICL
129
GOLDEN GROVE
LT 37
CROUCH RD
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 12
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
SEAVIEW RD
LT 103
GOLDEN GROVE
156
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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Item 13.1
Attachment 8


South Australian Water Corporation
WATER RETICULATION
DBYD Sequence No: 88824374
Map Tile: 14
DIAL BEFORE YOU DIG
www.1100.com.au
SA Water
Government of South Australia
N
GOLDEN GROVE
161
DRAFT
Water Valves
Water Main
Water Main (Decommissioned)
Decommissioned Asbestos Mains
Water Pillar Hydrant
Water Hydrant
CP Facility
CP = Cathodic Protection
CP Anode/Cathode Cables
CP Electricity Supply Cables
CP Anode Bed Outlines
Railway
Land Parcels
Water Meter*
Shifted Water Meter*
* Connection between water meter and pipe not shown
Scale @ A4: 1:2500
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DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

operated by apa

APA Group
PO Box 6014 Halifax Street
South Australia 5000

10/09/2019

Company: Wallbridge & Gilbert
Mr Scott Mcclean
60 Wyatt Street
ADELAIDE
Sa 5000

smcclean@wgeng.com

Dear Mr Scott Mcclean

Sequence Number: 88824372
Worksite Address: Strachan Road
Golden Grove
SA 5125

Thank you for your Dial Before You Dig enquiry regarding the location of Gas Assets, we can confirm that the APA Group's Network's Division has **Gas Assets** in the vicinity of the above location.

You are hereby notified that the attached Duty of Care requirements apply to any activity in the vicinity of Gas Assets operated by APA, please ensure you read and comply with all the relevant requirements.

Should you have any questions with **regards to the attached information** please contact our Dial Before You Dig officer - 1800 085 628.

Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury. For Gas Emergencies please call 1800 GAS LEAK (1800 427 532).

Please find enclosed the following information: -

- APA's Duty of Care, If you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in identifying the location of APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately

Please Note: For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

Please ensure you review all the information contained in this response carefully and please do not hesitate to contact us for further information by sending an email to DBYDNetworksAPA@apa.com.au or contacting us direct on 1800 085 628.

Yours Faithfully,

Dial Before You Dig Officer
APA Group
Email: DBYDNetworksAPA@apa.com.au

DRAFT

DIAL BEFORE YOU DIG www.1100.com.au The Essential First Step

operated by apa

Duty of Care - Working Around Gas Assets

General Conditions

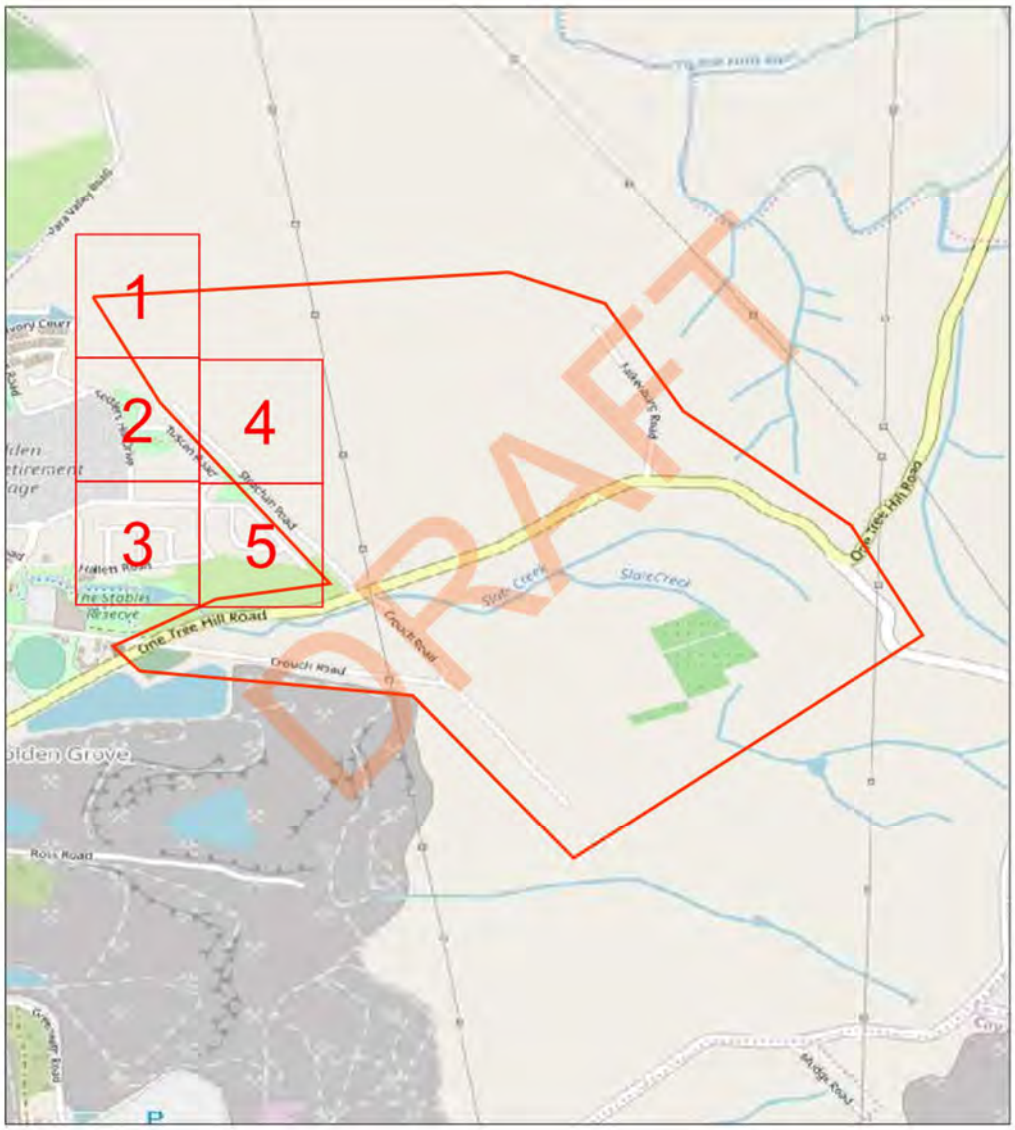
- This location enquiry is valid for 30 days from the date of this response
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Services pipelines (see below), **by hand** (Please Note: Do not use vacuum excavation systems as damage to Gas Assets may occur). Gas Asset depths may vary according to ground conditions
- Gas Service pipelines (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map
- Generally, a map of the inlet service connection installation can be found inside the gas meter box
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. **It is your responsibility** to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call 1800 427 532

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operated by apa

Site Address	Strachan Road Golden Grove 5125	**Sequence No**	88824372
Name	Mr Scott Mcclean		
Email	smcclean@wgeng.com		

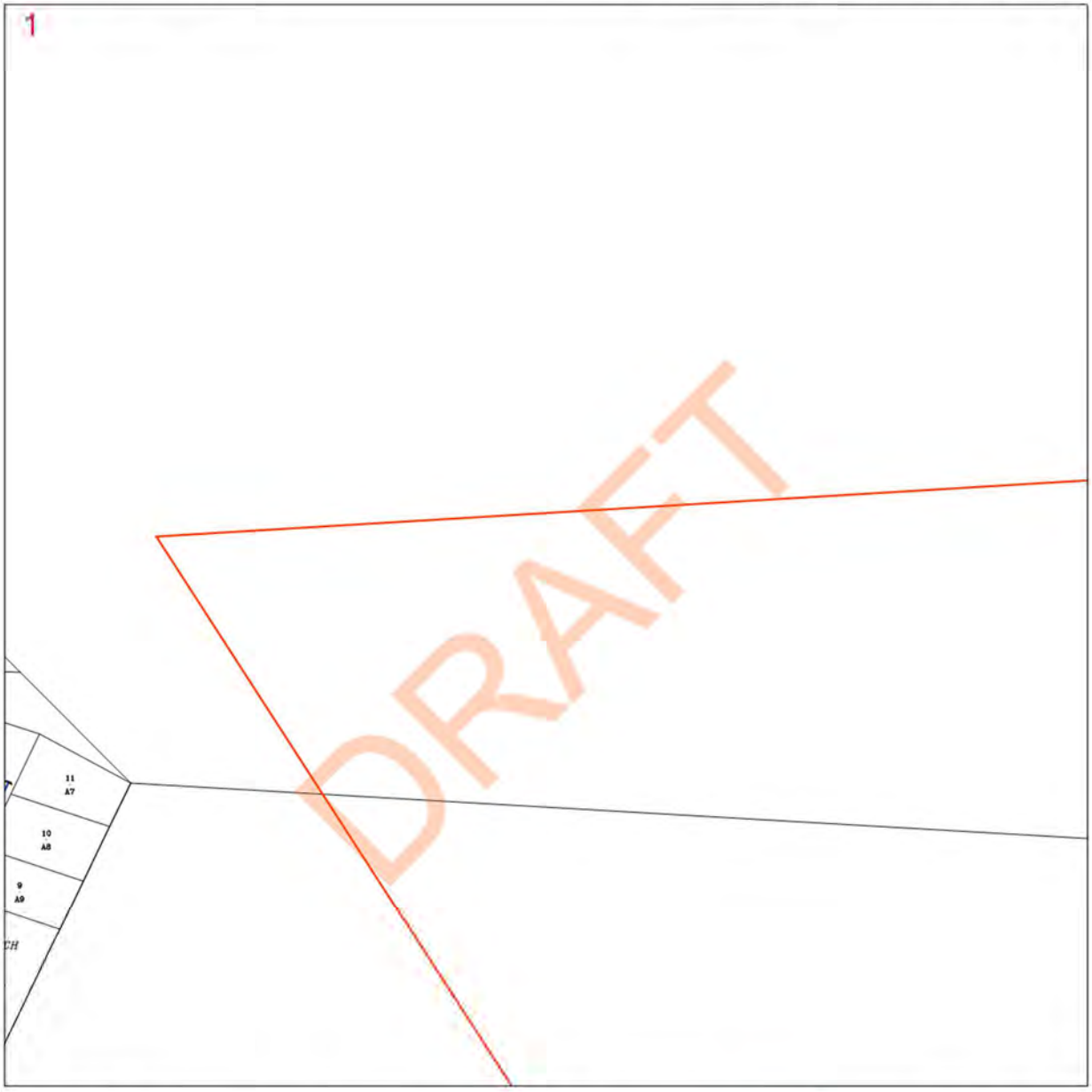


Scale 1: 14000	NORTH	Enquiry Area Map Key Area

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Site Address	Strachan Road Golden Grove 5125	Sequence No	88824372
Email	smcclean@wgeng.com	Map Reference	UbdAde 73G3,73G7,73H2,73H3,73H4,73H5,73H6,73H7,73J2,73J3,7:



ITEM	SYMBOL	TERMS	ITEM	SYMBOL
LOW PRESSURE 1.2 - 1.7kPa		B = BOUNDARY	DIAL BEFORE YOU DIG REQUESTED AREA	
MEDIUM PRESSURE 35 - 100kPa		D = DEPTH	PRIORITY MAIN COVERAGE	
HIGH PRESSURE 70 - 350kPa		Bok = BACK OF KERB		
TRANSMISSION PRESSURE 900 - 15000kPa		Fok = FRONT OF KERB		
PROPOSED MAIN (COLOUR BY PRESSURE)				
ABANDONED MAIN				

Map Key



Scale 1:1000

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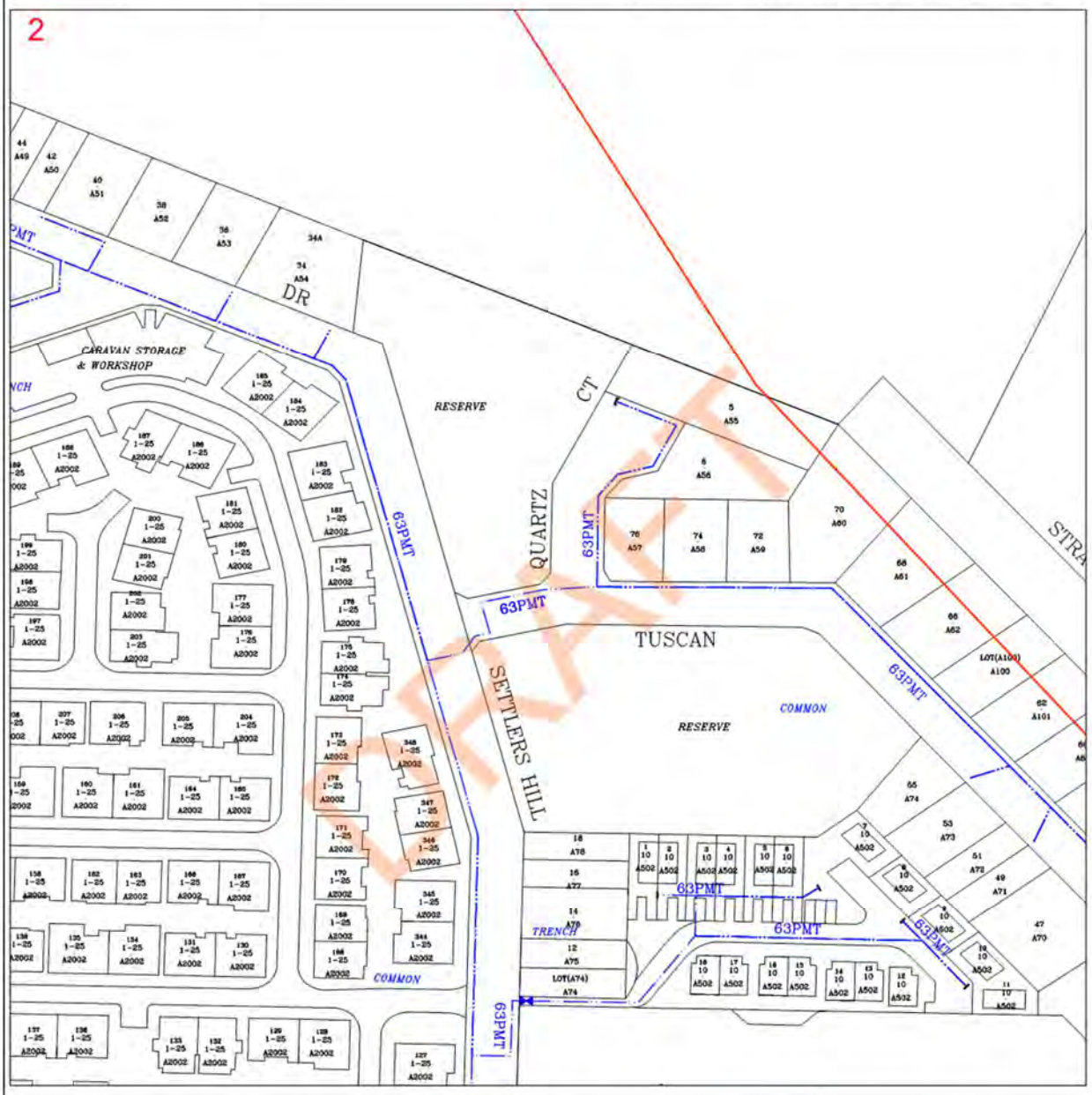
NORTH

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Page 4 of 8 • 10/09/2019

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Site Address	Strachan Road Golden Grove 5125	Sequence No	88824372
Email	smcclean@wgeng.com	Map Reference	UbdAde 73G3,73G7,73H2,73H3,73H4,73H5,73H6,73H7,73J2,73J3,7:



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HIGH PRESSURE 70 - 350kPa		Bok = BACK OF KERB		
TRANSMISSION PRESSURE 900 - 15000kPa		Fok = FRONT OF KERB		
PROPOSED MAIN (COLOUR BY PRESSURE)				
ABANDONED MAIN				

Map Key

	1	
2		4
3		5

Scale 1:1000

0 0.01km

NORTH

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DIAL BEFORE YOU DIG
The Essential First Step

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Site Address	Strachan Road Golden Grove 5125	Sequence No	88824372
Email	smcclean@wgeng.com	Map Reference	UbdAde 73G3,73G7,73H2,73H3,73H4,73H5,73H6,73H7,73J2,73J3,7



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TRANSMISSION PRESSURE 900 - 15000kPa		Fok = FRONT OF KERB		
PROPOSED MAIN (COLOUR BY PRESSURE)				
ABANDONED MAIN				

Map Key



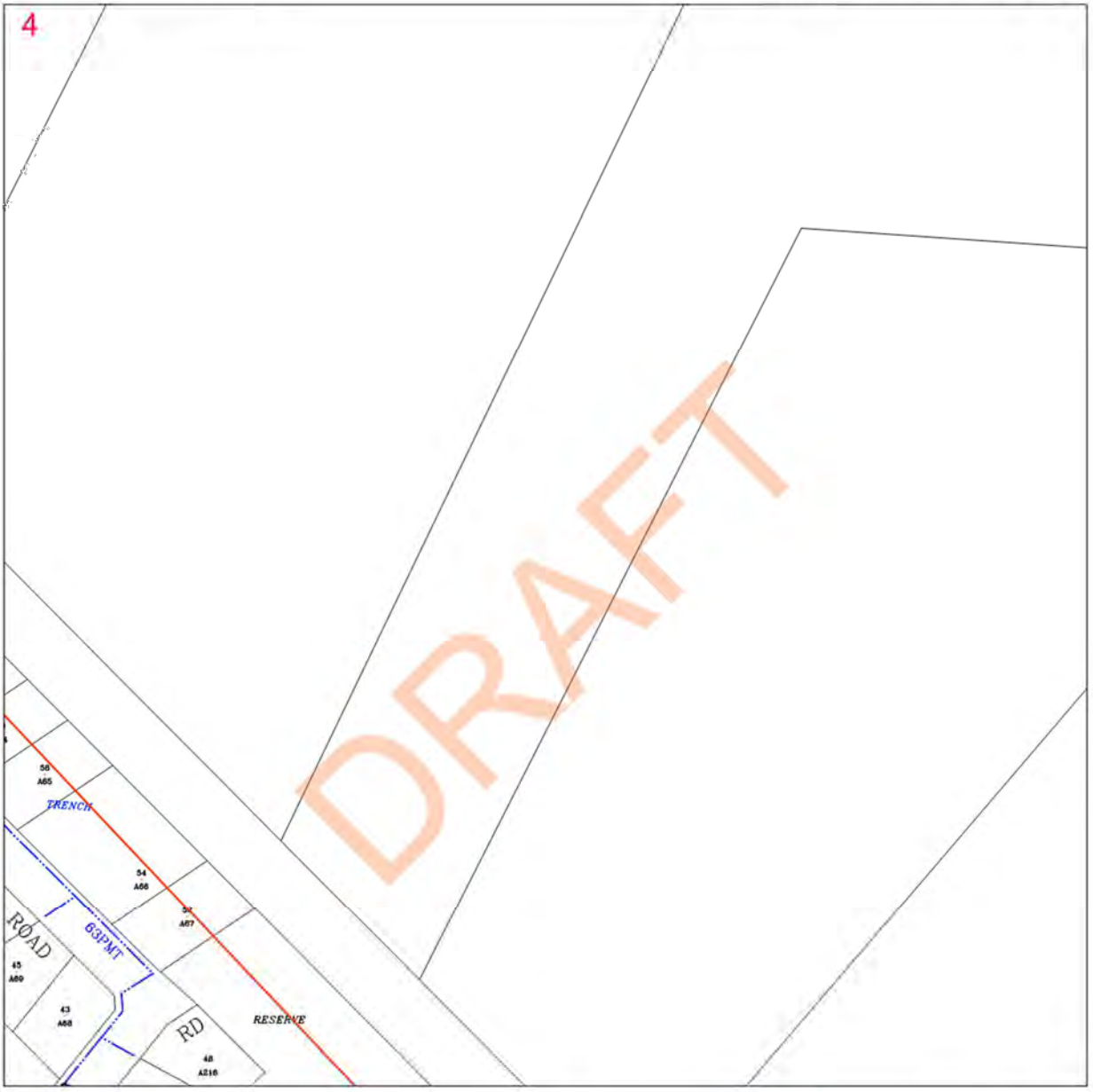
Scale 1:1000

NORTH

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Site Address	Strachan Road Golden Grove 5125	Sequence No	88824372
Email	smcclean@wgeng.com	Map Reference	UbdAde 73G3,73G7,73H2,73H3,73H4,73H5,73H6,73H7,73J2,73J3,7



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TRANSMISSION PRESSURE 900 - 15000kPa		Fok = FRONT OF KERB		
PROPOSED MAIN (COLOUR BY PRESSURE)				
ABANDONED MAIN				

Map Key

1	
2	4
3	5

Scale 1:1000

0 0.01km

NORTH

APPENDIX C

HIGH-LEVEL COST ANALYSIS

DRAFT

DEVELOPMENT COST ESTIMATE

WGA

GOLDEN GROVE DUE DILIGENCE - INTERNAL ESTIMATE, COMBINED STAGES

Consultant: Wallbridge Gilbert Aztec
Revision: F

Date 24/03/2020
Job No. WGA191249
Eng SMc

				No. of Lots	617
				WHOLE DEVELOPMENT	
ITEM	DESCRIPTION	UNIT	RATE ($)	QUANTITY	AMOUNT ($)
1	**PRELIMINARIES**				
1.1	Establishment	item			
1.2	Service locations	item			
1.3	Insurance	item			
1.4	Site supervisor	item			
1.5	Site engineer	item			
1.6	Quality control/site admin/safety	item			
1.7	Survey	item			
1.7.1	*Initial set out & offset pegging*	item			
1.7.2	*Survey during construction*	item		8% of Construction Total	
1.7.3	*As constructed survey (not included)*	item			
1.9	Site compound	item			
1.10	Security fencing (set up cost only)	item			
1.11	Traffic management	item			
1.12	Demobilise & cleanup	item			
1.13	SEDMP	item			
1.14	CITB Levy	item			
1.15	Demobilise & cleanup	item			
				$ 3,776.66	$ 2,330,201.44
2	**EARTHWORKS**				
	Strip topsoil stockpile	m2	$ 1.12	431469	$ 483,245.00
	Site clearing (incl. house demo and tree removal)	item	$ 220,000.00	1	$ 220,000.00
	Respread topsoil to allotment, reserves and verge	m2	$ 3.10	357700	$ 1,108,870.00
	Cut and Fill Onsite (Incl. Level 1 Supervision)				
	0 - 5000 m3	m3	$ 11.65	89215	$ 1,039,354.75
	Level 1 Supervision	m3	$ 2.30	89215	$ 205,194.50
	Cut and Remove Surplus Material				
	0 - 5000 m3	m3	$ 15.59	13373	$ 208,485.07
	5000 - 10000 m3	m3			$ -
	Other				
	Hydroseeding to verge and lot batters	m2	$ 0.85	176231	$ 149,796.56
	Trim and batter to verge and reserves	m2	$ 1.37	51275	$ 70,246.75
$ per lot				*$ 5,648.61*	$ 3,485,192.63
3	**ROADWORKS**				
	Trim and compact subgrade	m2	$ 2.91	73769	$ 214,667.06
	Proof roll subgrade, subbase and base	m2	$ 0.31	214295	$ 66,431.37
	Road Sub-base Layer 1				
	165mm thick quarry rubble	m2	$ 25.72	39738	$ 1,022,061.36
	Road Sub-base Layer 2				
	110mm thick quarry rubble	m2	$ 18.86	39738	$ 749,511.66
	150mm thick quarry rubble	m2	$ 25.72	21312	$ 548,144.64
	Road Base Layer				
	125mm thick quarry rubble	m2	$ 14.64	39738	$ 581,764.32
	Deep Lift Pavement (Collector Roads)				
	40mm AC10	m2	$ 20.81	21312	$ 443,502.72
	60mm AC14	m2	$ 26.00	21312	$ 554,112.00
	80mm AC20	m2	$ 39.50	21312	$ 841,824.00
	Pavement				
	Asphalt AC10 - 40mm	m2	$ 20.81	39738	$ 826,947.78
	Primer	m2	$ -	39738	$ -
	Kerbing				
	Kerb and gutter (100mm semi-mountable)	m	$ 52.00	14220	$ 739,440.00
	Kerb and gutter (150mm barrier)	m	$ 62.40	1800	$ 112,320.00
	Kerb outlet	each	$ 475.49	500	$ 237,903.50
	Spoon Drains				
	600 mm wide	m	$ 71.18	840	$ 59,791.20
	Traffic items				
	Pram crossing with tactiles	each	$ 1,092.00	140	$ 152,880.00
	Street signs	item	$ 21,705.00	1	$ 21,705.00
	Line marking	item	$ 30,000.00	1	$ 30,000.00
	Making Good				
	Match road to existing	each	$ 192.69	0	$ -
	Make good roundabout annulus (incl. conrete and AC pavements)	item	$ 15,000.00		$ -
	Footpaths and shared paths				
	Exposed agg 100mm thick reinforce concrete footpath (one side of road)	m2	$ 100.88	12015	$ 1,212,073.20
	150mm thick quarry rubble subbase	m2	$ 22.46	13217	$ 296,842.59
	Other				
	DSEP aprons	each	$ 395.90	168	$ 66,495.36
$ per lot				*$ 14,227.58*	$ 8,778,417.77

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DEVELOPMENT COST ESTIMATE

WGA

GOLDEN GROVE DUE DILIGENCE - INTERNAL ESTIMATE, COMBINED STAGES

Consultant: Wallbridge Gilbert Aztec
Revision: F

Date 24/03/2020
Job No. WGA191249
Eng SMc

				No. of Lots	617
				WHOLE DEVELOPMENT	
4	**STORMWATER**				
	Supply and Lay Pipes (uPVC)				
	225 mm uPVC	m	$ 124.80	1750	$ 218,400.00
	Supply and Lay Pipes (RRJ Class 2)				
	375 mm RC	m	$ 150.80	3326	$ 501,621.12
	450 mm RC	m	$ 197.60	2376	$ 469,497.60
	600 mm RC	m	$ 394.91	792	$ 312,768.72
	Supply and Lay Pipes (RRJ Class 4)				
	375 mm RC	m	$ 163.28	333	$ 54,313.46
	Supply and Install Side Entry Pits (pits and lids complete)				
	Double (1-2m)	each	$ 3,380.00	168	$ 567,704.80
	Supply and Install Junction Boxes (pits and lids complete)				
	900mm x 900mm	each	$ 3,588.00	180	$ 645,840.00
	Supply and Install Headwall				
	375mm	each	$ 7,000.00	19	$ 133,000.00
	600mm (incl. inlet structure)	each	$ 10,000.00	3	$ 30,000.00
	Other				
	Gross pollutant trap	each	$ 25,000.00	1	$ 25,000.00
	CCTV inspection	m	$ 9.00	8577	$ 77,193.36
	Cleaning stormwater system	item	-	1	$ 116,745.07
	Rearfront allotment connections	each	$ 295.64	117	$ 34,491.33
$ per lot				***$ 5,164.63***	**$ 3,186,575.46**
5	**COMMON SERVICE TRENCH / LIGHTING**				
	Per lot Allowance	per lot	$ 1,200.00	617	$ 740,400.00
$ per lot				***$ 1,200.00***	**$ 740,400.00**
6	**ELECTICAL**				
	Per lot Allowance	per lot	$ 7,800.00	617	$ 4,812,600.00
	SAPN Augmentation (6kVA per lot)	kVA	$ 235.00	3702	$ 869,970.00
$ per lot				***$ 9,210.00***	**$ 5,682,570.00**
7	**WATER**				
	Supply and Install pipe				
	100 mm class 12 irrigation pipe	m			$ -
	100 mm uPVC	m	$ 85.04	4630	$ 393,735.20
	250 mm uPVC	m	$ 175.72	3290	$ 578,118.80
	Supply and Install Stop Valve				
	100 mm uPVC	each	$ 863.20	25	$ 21,580.00
	250 mm uPVC	each	$ 985.00	9	$ 8,865.00
	Supply and Install Fire Plug				
	100 mm uPVC	each	$ 946.00	59	$ 55,814.00
	250 mm uPVC	each	$ 1,100.00	23	$ 25,300.00
	Supply and Install Allotment Connections				
	20mm	each	$ 488.49	617	$ 301,398.33
	40mm	each	$ 1,413.36		$ -
	20mm off live main	each	$ 2,392.00	0	$ -
	40mm off live main	each	$ 4,125.00		$ -
	Other				
	Pipe fittings (incl. thrust blocks)	item	-	1	$ 145,778.10
	Temporary end to water main (100mm)	each	$ 2,267.20	10	$ 22,672.00
	Temporary end to water main (250mm)	each	$ 3,550.00	5	$ 17,750.00
	Connection to main	each	$ 1,560.00	2	$ 3,120.00
	End cap to water main	each	$ 800.00	18	$ 14,400.00
	Pressure testing	item	-	1	$ 121,481.75
	Compaction testing	item	-	1	$ 48,592.70
	Booster pump station	item	$ 60,000.00	1	$ 60,000.00
	SA Water as-constructed survey	item	-	1	$ 72,889.05
	SA Water DAFI fees	each	$ 175.46	30	$ 5,263.80
$ per lot				***$ 3,074.16***	**$ 1,896,758.73**

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DEVELOPMENT COST ESTIMATE

WGA

GOLDEN GROVE DUE DILIGENCE - INTERNAL ESTIMATE, COMBINED STAGES

Consultant: Wallbridge Gilbert Aztec
Revision: F

Date 24/03/2020
Job No. WGA191249
Eng SMc

				No. of Lots	617
				WHOLE DEVELOPMENT	
8	**SEWER**				
	Supply and Lay Sewer Main				
	150 mm PVC (ave. 2.5m depth)	m	$ 126.00	8035	$ 1,012,410.00
	225 mm PVC (ave. 2.5m depth)	m	$ 220.00	2940	$ 646,800.00
	Supply and install rising main				
	100 mm	m	$ 110.00	1205	$ 132,550.00
	150 mm	m			$ -
	Supply and Install Maintenance Chamber				
	Supply and install access chamber (ave. 2.5m depth)	each	$ 5,917.13	24	$ 144,476.59
	Supply and install access chamber in existing road (ave. 2.5m depth)	each	$ 11,000.00	0	$ -
	Inspection opening	each	$ 644.80	18	$ 11,606.40
	Maintenance shaft (incl. cover)	each	$ 1,327.39	49	$ 64,820.88
	Manhole jump up	each			$ -
	Supply and Install Allotment Connections Off Any Size Main				
	100 mm single connection	each	$ 620.23	617	$ 382,681.91
	100 mm double connection	each	$ 884.52		$ -
	Live connection	each	$ 4,894.00	0	$ -
	Other				
	Internal Pump Station 1	Item	$ 120,000.00	1	$ 120,000.00
	Internal Pump Station 2	Item	$ 120,000.00	1	$ 120,000.00
	Other				
	Fittings & bends (*5% of pipe cost)	Item	-	1	$ 50,620.50
	CCTV inspection	m	$ 9.00	10975	$ 98,775.00
	Connect existing MH in existing road (incl. reinstatement)	each			$ -
	Connect to mains	each	$ 761.02	21	$ 15,981.42
	Pressure testing	item	-	1	$ 50,620.50
	Compaction testing	item	-	1	$ 50,620.50
	As constructed survey	item	-	1	$ 75,930.75
	SA Water DAFI Fees	each	$ 70.00	30	$ 2,100.00
$ per lot				*$ 4,829.81*	$ 2,979,994.45
9	**COMMUNICATIONS**				
	Pit and pipe	lot	$ 900.00	617	$ 555,300.00
	Developer charge	lot	$ 600.00	617	$ 370,200.00
$ per lot				*$ 1,500.00*	$ 925,500.00
10	**MISCELLANEOUS**				
	Retaining wall				
	Sleeper retaining wall to roads fronting reserve	m	$ 565.00	1800	$ 1,017,000.00
	Benching and Retaining				
	Sleeper Retianing Walls on Allotments	m	$ 565.00	0	$ -
	Rock Excavation				
	Provisional sum from preliminary borehole information	m3	$ 310.00	5428	$ 1,682,642.80
$ per lot				*$ 4,375.43*	$ 2,699,642.80
	CONSTRUCTION SUB-TOTAL				$ 31,457,719.48
	CITB Levy (0.25%)				$ 78,644.30
	Contingency (20%)				$ 6,307,272.76
				Per Lot	
	TOTAL CONSTRUCTION COST (Excl. GST)			*$ 61,335.49*	$ 37,844,000.00
	Authority Fees and Charges			$ 2,021.93	$ 1,247,533.80

This estimate is based on estimated prices from recent projects and on the information available to Wallbridge Gilbert Aztec (WGA) at the time of preparing the estimate. WGA does not accept any liability for actual costs varying from those estimated.

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DEVELOPMENT COST ESTIMATE

WGA

GOLDEN GROVE DUE DILIGENCE - INTERNAL ESTIMATE, COMBINED STAGES

Consultant:	Wallbridge Gilbert Aztec
Revision	F
Date	24/03/2020
Job No.	WGA191249
Eng	SMc

Exclusions/Assumptions

Stages
Staging plan is preliminary only, and has been developed as per WGA191249-SK-CV-Staging[A]

Preliminaries
We have assumed preliminaries are approximately 8% of the construction cost
20% contingency has been applied to construction costs

Earthworks
Cut to fill numbers are based on the roads and earthworks drawing WGA191249-SK-CV-0002[A]
Detention basin earthworks have been included within this estimate

Roadworks
Road layout and associated pavements as per WGA191249-SK-CV-0002[A]
We ave not allowed for any upgrades to Hall Rd as is currently unsealed
Upgrade to existing works are included within the general scheme estimate

Stormwater
Stormwater earhtworks have been included within this estimate
Additional works to achieve water quality targets is included in the general scheme estimate

Electrical
Augmentation fees have been based on a per connection basis as advised by SAPN.
After the first 50 lots (approx.), additional augmentation will be required. This will be detailed as further advice becomes available. As it relates to upgrade works, it is a general scheme item

Gas
Internal gas infrastructure will be delivered at no charge to the Developer.
Augmentation hargus (if applicable) for external works to be captured in general scheme items. APA to confirm

NBN
We have allowed for std developer charges per lot of $600 and construction of pit and pipe within CST
Backhaul charges not applicable

Water
Based on WGA concept layout - WGA191249-SK-CV-Water[A]
External water requirments are substanial and will be confirmed by SA Water. This is a general scheme item

Sewer
Two new internal pump stations have been allowed for. SA Water to confirm whether gravity connection can be made to he west of the site, which would remove one.
Based on WGA concept layout - WGA191249-SK-CV-Sewer[A]

Miscellaneous
Landscaping works is excluded
Engineering, planning and surveying fees are excluded
Excludes fencing
Excavation in rock is an estimate from preliminary borehole information. The precise extent within trenches and earthworks is unknown and subject to change
All works external to the site are excluded

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APPENDIX D

CONCEPT SEWER LAYOUT (INTERNAL)

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

DRAFT

APPENDIX E

CONCEPT POTABLE WATER LAYOUT (INTERNAL)

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

DRAFT

APPENDIX F

ROADS AND EARTHWORKS PLAN

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

DRAFT

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WGA
WALLBRIDGE GILBERT AZTEC

Holmes Dyer

Golden Grove Development

GOLDEN GROVE URBAN DEVELOPMENT STORMWATER MANAGEMENT STRATEGY

Project No. WGA191249
Doc No. WGA191249-RP-CV-0003
Rev. A
23 March 2020

DRAFT

Preliminary Draft for Northern side of OTH Road only

Report and scope being updated to inform Code Amendment

WGA

DRAFT

Revision History

Rev	Date	Issue	Originator	Checker	Approver
A	23/03/2020	Issued for approval	XT	SMc	GL

CONTENTS

1 INTRODUCTION **1**
1.1 Background 1
1.2 Scope and Purpose 2
1.3 Stormwater Management Requirements and References 2
1.4 Reference Documents 3
2 CATCHMENT OVERVIEW **4**
2.1 Existing Site and Catchments 4
2.2 Existing known Assets 4
2.3 Development Overview 4
3 CATCHMENT HYDROLOGY **6**
3.1 Existing Catchment 6
3.2 Post Development Detention Basin Sizing 6
4 STORMWATER TREATMENT SYSTEMS **8**
4.1 Selection of Treatment Systems 8
4.2 Preliminary Treatment sizing 8
5 STORMWATER QUALITY MODELLING **9**
5.1 Music Modelling 9
5.2 Treatment Requirements 11
5.3 Modelling Results 11
6 INTERIM ON-SITE MANAGEMENT **12**
6.1 Staged On-Site Stormwater Management 12

APPENDICES

Appendix A COUNCIL CORRESPONDENCE
Appendix B DETETNION BASIN CATCHMENT PLAN
Appendix C SITE AND EXTERNAL CATCHMENT BOUNDARY
Appendix D CALCULATIONS
Appendix E WSUD TREATMENT CALCS AND LAYOUT PLAN

DRAFT

1 INTRODUCTION

1.1 BACKGROUND

Wallbridge Gilbert Aztec (WGA) was engaged by Holmes Dyer to prepare a stormwater management strategy (strategy) for the proposed urban development at Golden Grove. The Golden Grove urban development (Development) is proposed on a rural parcel of land bounded by One Tree Hill Road and Strachan Road (refer to Figure 1.1). The land is proposed to be developed to be subdivided into 617 allotments. A network of roadways and linked open space corridors, buffer zones and open spaces will be positioned throughout the Development. An existing tributary flows along the length of the development in an east / west alignment. The unnamed tributary is referred to as tributary for the purposes of this report.

This strategy applies methodologies to manage both the quantity and quality of stormwater from the proposed development.



Figure 1.1: Site Location parallel

1.2 SCOPE AND PURPOSE

This strategy addresses the stormwater management requirements defined by the City of Tea Tree Gully Council (Council) and by the Environment Protection Authority (EPA). These requirements apply to:

- Stormwater runoff volume and flow management;
- Quality of stormwater discharged; and
- The environmental aspects associated with stormwater, the receiving environment and its values.

The intent of this report is to provide the strategic basis for the management of stormwater on the Development based on the following:

- A general overview of flow management from the 1% AEP post development flow restricting it to pre-development rates for the 20% AEP
- A general overview of the stormwater Internal network drainage design
- A general overview of WSUD and opportunities within the Development
- Stormwater management techniques to deliver performance objectives and
- The staged implementation of the stormwater strategy to suit the staged implementation of the development

The key goals of this strategy are to manage the impacts downstream because of increasing stormwater runoff from the proposed development. The strategy incorporates treatment and flood mitigation systems that will minimise the risk of potential adverse impacts on receiving environments, while also ensuring that approaches result in an overall net benefit to the area.

It is important to note that this report is a Strategy only, detailed design of individual stormwater management elements will be provided in a "Stormwater design report" for each individual land release through the life of the Development's inception.

1.3 STORMWATER MANAGEMENT REQUIREMENTS AND REFERENCES

The following listed Authorities have their own guidelines and requirements as relevant to stormwater management. These have been outlined below.

City of Tea Tree Gully (Council)

Email correspondence with Council outlining objectives are listed below. These include:

- Run-off rates should be restricted to discharge from the site at the pre-development 20% AEP rate for 1%AEP.
- In-line water quality treatment to be provided to meet EPA reduction targets.

Council email correspondence can be referred to in Appendix A.

Environment Protection Authority (EPA)

The EPA adopts the WSUD management approach which essentially define their requirements, which relate to management of both stormwater quantity and quality.

The EPA's minimum requirements are as follows:

- Run-off rates should not exceed the rate of discharge from the site that existed pre-development;
- Water quality treatment reduction targets of the typical urban average annual load as follows
  - Total Suspended Solids (TSS) 80%,
  - Total Phosphorus (TP) 60%,
  - Total Nitrogen (TN) 45%,
  - Retention of litter greater than 50mm for flows up to a 90% AEP peak flow,
  - No visible oils for flows up to a 90% AEP peak flow.
- Environment Protection Policy (Water Quality) 2015, under the Environment Protection Act, 1993.

1.4 REFERENCE DOCUMENTS

The stormwater management strategy is developed to encompass the design criteria in accordance with the following recognised references:

- EPA Environment Protection Act 1993, (Water Quality) Policy 2015 (WQ EPP 2015)
- WSUD Engineering Procedures – Stormwater (2005)
- Australian Runoff Quality, Engineers Australia (2006), and
- Water Sensitive Urban Design - Greater Adelaide Region Technical Manual (Dec 2010).

These handbooks and guidelines are considered as Australian and South Australian practice standards and cover all aspects of stormwater management. This includes the design for major and minor storm flow, and stormwater quality improvement. The Stormwater Management Strategy adopts the design standards, principles and practices covered by the handbooks.

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2 CATCHMENT OVERVIEW

2.1 EXISTING SITE AND CATCHMENTS

The site is bounded by One Tree Hill road to the South East and Strachan Road to the South West. The site includes a central drainage tributary which is defined by a valley with broad floors, incised/eroded channel with some sections of non-defined channel.

A cadastral and topographic map with 2 m contours for the region was obtained to assess the catchments throughout the site area. The catchment areas generally comprise of grass lands/rural areas used predominantly for grazing and agriculture. Land slope varies approximately from 5 - 11% on the upper slopes, to 15 - 25% within the lower valley areas along the tributary.

2.2 EXISTING KNOWN ASSETS

Given the rural nature of the locality, the site is not serviced by existing stormwater infrastructure. Waterway tributaries and valleys traverse the site and generally, most of the site will eventually drain into the Little Para River.

2.3 DEVELOPMENT OVERVIEW

The proposed development will comprise 617 mixed sized urban allotments and open space areas over a total land area of 64.9 Hectares. The development will include four main detention basins, a large network of open spaces, buffer zones and a wide central open space corridor along the tributaries.

Figure 2.1 below depict a preliminary site plan as a guide only. It should be noted that this is subject to change.

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

3 CATCHMENT HYDROLOGY

3.1 EXISTING CATCHMENT

The existing site catchment characteristics are described in Section 2. As required by council the development will reduce the 1% AEP discharge rate to the pre-development flow rate for the 20% AEP storm event.

The Flow travel time chart (Argue) was used to calculate the time of concentration and pre-development discharge flow rate, which was 0.78m³/s. Table 4.1 below summarises the parameters and calculated flow. Refer to Appendix D for calculations.

As seen in Table 4.1 the pre-development flow was also calculated using the Kinematic Wave Equation. However, this was not chosen as the primary method as is better suited to large planes that are fairly homogenous in terms of slope and roughness like large paved areas. For this reason, it was only used as a check.

Table 4.1: Catchment parameter summary

	Argue method	Kinematic Wave Eqn.
Approx. Area (Ha)	64.9	64.9
Coefficient of Runoff	0.2	0.2
Time of Concentration (min)	57	67
Pre-development Flow (m³/s)	0.78	0.70

3.2 POST DEVELOPMENT DETENTION BASIN SIZING

Based on the topography and proposed network of open space, four detention basin storage areas are proposed to suit the layout and topography. The development has been subdivided based on the topography and natural flow paths to reflect the catchments flowing to each detention basin storage area, refer to Appendix B for catchment breakup plan and location of basins.

To utilise the tributary traversing the development site it is proposed that the detention basins be in line. It should be noted flow from the upstream external catchment of approximately 5.1ha will not be detained. A site plan with external catchment can be seen in Appendix C.

A preliminary basin sizing calculation indicates the development requires approximately 33,000 to 35,000m³ of storage volume. To maximise the benefit of the proposed open space around the tributary, the basin sizing approach was based on maximising the storage of Basins A, B and D based on available space, and Basin C to be used to control the flow leaving the development site.

DRAINS software package was used to develop using a flow-routing model for the post development flows. Rainfall data and temporal patterns for the site have been obtained from the *ARR Data Hub* website and the analysis has been undertaken using the 2016 ARR procedures.

DRAINS model parameters for the development sub-catchments are as follows:

- Development sub-catchments modelled with 60% impervious, 20% supplementary and 20% grassed;
- Flow path lengths and slopes were input based on the flow path and topography of the catchment;
- Retardance coefficient n was 0.03; and
- Upstream catchment modelled with 0% impervious 0% supplementary and 20% grassed.

The post-development flow rate from the DRAINS modelling was determined to be 1.25m³/s with 0.47m³/s of that flow coming from the upstream catchment. The detention basin sizes are displayed in Table 4.2 and the drains model results can be seen in Appendix D.

Table 4.2: Detention basin storage volumes

	Volume (m³)
Basin A	4500
Basin B	4000
Basin C	16000
Basin D	9000

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4 STORMWATER TREATMENT SYSTEMS

4.1 TREATMENT SYSTEMS

Due to the steep nature of the development site and minimal open space areas the Strategy has been formulated to provide stormwater treatment systems predominately online within the tributary. This will include a network of wetland pools to improve the ecology & biodiversity and to assist in controlling velocities in the tributary post development. Within the wetlands a sequence of rock riffles and pools will be placed along the base of the tributary to ensure long term erosion stability and robustness. These techniques are designed to imitate natural waterways design to include:

- Rock riffles as grade control structures;
- Ensure velocities are managed appropriately to prevent bed and back erosion; and
- Revegetation at proposed wetland pools to facilitate filtering, sediment deposition, nutrient uptake, erosion control and visual amenity.

The Strategy uses a treatment train approach to stormwater management through the inclusion of:

- Wetland ponds each will comprise densely vegetated water bodies and/or beds that will incorporate treatment processes including enhanced sedimentation, fine filtration, adhesion biological uptake, and chemical processes to remove pollutants from urban stormwater;
- Ecological sponge systems will be designed as unlined systems with infiltration wells to allow for infiltration to subsoil layers; and
- Gross pollutant trap (GPT)/trash rack to interception debris and coarse sediments, this also includes access for maintenance.

4.2 PRELIMINARY TREATMENT SIZING

For the purposes of master planning, the treatment systems have been sized using the percentage area method. This has been proven to be a reliable method of sizing the surface area of treatment systems such that will comply to treatment targets. A notional equivalent impervious area (EIA) fraction was adopted of 0.75 for urban areas.

The nominated treatment areas are then evaluated using MUSIC modelling. A 2% of EIA was adopted to provide a notional treatment surface area for all systems. Most wetland ponds will be online and used in combination with rock riffles to reduce stream erosion. Refer to Appendix E for the preliminary sizing calculations, water quality catchment plan and proposed treatment systems layout for each sub catchment. Functional and detailed calculations for each treatment system including hydraulic control devices would be carried as part of future separate engineering design and subsequent development approval process.

5 STORMWATER QUALITY MODELLING

5.1 MUSIC MODELLING

This section summarizes the stormwater quality simulation carried out using MUSIC software and compares the outcomes to the EPA pollutant reduction targets as defined in the WSUD Guidelines for the Greater Adelaide Region (2013).

MUSIC modelling is utilised to conceptually confirm the required surface areas of the treatment systems to ensure that the treatment requirements can be met for the overall development. MUSIC version 6.2 has been used to assess the performance of the strategy. The model layout has been shown in Figure 5.1 and shows that development area catchment has been included in the model to provide proof of concept that the treatment strategy will accommodate the immediate and future stages of development.

Modelling Input Parameters

Development characteristics, site parameters and local climatic data sets have been entered into the MUSIC model. Refer to Figure 5.1 for screen output of the model showing catchment nodes and treatment systems graphically displayed. The treatment elements associated with the strategy are all included in the model as per their adopted design configurations.

MUSIC model uses climatic data comprising of daily rainfall interval and evaporation data from Parafield Airport (Station No 023013) from 1972 to 2010. The data is used to simulate the rainfall runoff on site and the subsequent treatment performance for the development strategy. The results and outcomes are presented in this Section.

The parameters entered MUSIC model for the source and treatment nodes are summarised in Table 5.1. The table is not intended to provide details of each node within the model; instead it provides a general overview of the typical parameters used for the source and treatment nodes. In this case the source nodes are represented by “urban nodes”, and the treatment nodes are represented by, gross pollutant trap, ponds and wetlands.

A screen copy of the model is provided in Figure 5.1.

Table 5.1: MUSIC Model parameters

Node Types	Parameters				
Urban	Soil storage capacity 40mm	1 mm depression storage	Typical impervious fraction 75% Urban	Stochastically generated pollutants	Initial storage capacity of 30%
Treatment	**Parameters**				
GPT	Treatment flow to the 63% AEP	TSS removal rate 70%	TP removal rate ZERO	TN removal rate ZERO	Gross pollutant removal rate 90%
Wetland systems and ponds	Surface area 150-2000m^2	Permanent pool volume is averaged over the area assuming 350mm depth	Extended detention depth 500mm	Infiltration loss 1.0mm/hr	Detention time is approximately 24 hours
Infiltration Ephemeral Wetland ponds (Ecological sponge)	Typical surface area 120m^2	Permanent pool volume = 0m^3 and 0.0m depth	Extended detention depth 300mm	Infiltration loss 6mm/hr	Detention time is approximately 48 hours

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It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

Figure 5.1: MUSIC model screen copy

5.2 TREATMENT REQUIREMENTS

The design of the site treatment system aims to treat stormwater in accordance with the standards as defined by WSUD best management practice pollutant reduction targets as defined in the WSUD Guidelines for the Greater Adelaide Region.

5.3 MODELLING RESULTS

The results presented in this section demonstrate water quality compliance in accordance with the target values specified. These are assessed against the standards defined in the table below. These targets were entered in the model to enable a direct comparison to be made.

Table 6.3: Water Quality Results compared to WSUD standards

Pollutant Type	TP	TN	TSS	Gross Pollutants
Target percentage reduction	60%	45%	80%	90%
Resultant percentage reduction	**72.2**	**48.4**	**83.6**	**100**

The results summarised in Table 6.3 demonstrate that the TSS, TP and TN reductions will meet the required performance criteria.

In summary, the resultant pollutant reductions attained from the simulations revealed that the discharge comply with the best management performance targets from referenced codes and guidelines, therefore the treatment strategy is satisfactory.

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6 INTERIM ON-SITE MANAGEMENT

6.1 STAGED ON-SITE STORMWATER MANAGEMENT

The implementation of the Development will be staged over several years. The construction of stages will follow a staging plan similar to Figure 6.1. However, this will be largely dependent upon the market and demand. This requires the implementation of urban development to be cognisant of the need to manage stormwater progressively to mitigate the risk of downstream impacts.

A suggested implementation strategy indicating management measures is provided below:

- Basin A to be constructed in the initial phase to cater for Stages 1 and 2;
- Basin B to be constructed upon commencement of Stages 3 and 4;
- Basin C to be constructed upon commencement of Stage 5; and
- Basin D to be constructed upon commencement of Stage 10.

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It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

7 SUMMARY

7.1 STORMWATER MANAGEMENT APPROACH

The intent of this report is to provide the strategic basis for the management of stormwater for the proposed development at Golden Grove. The key points to note about this strategy include:

- Council have specified flow management from the 1% AEP post development flow to be restricted to pre-development rates for the 20% AEP;
- The development site has generally steep grades, as such measures such as detention basins and water quality have been designed to regulate erosion and velocities post development;
- Four detention basins are proposed, where the basin sizing approach was based on maximising the storage of Basins A, B and D based on available space, and Basin C used to control the flow leaving the development site, total detention volume for the development is 33.5ML;
- There is an upstream catchment which will flow through the development site, this flow will be not be detained within the development detention basins.
- Water quality for the site will consist predominantly of online wetland ponds, with a sequence of rock riffles and pools to be placed along the base of the tributary to ensure long term erosion stability.
- A MUSIC model was produced to demonstrate compliance with the stormwater treatment requirements.
- The implementation of the development will be staged such that Basin A will be constructed with Stage 1, Basin B to be constructed together with Stage 3, Basin C to be constructed together with Stage 5 and Basin D to be constructed together with Stage 10.

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Appendix A

COUNCIL CORRESPONDENCE

DRAFT

Xuan Tran

From: Kelly, James <james.kelly@cttg.sa.gov.au>
Sent: 6 September 2019 4:26 PM
To: Joe La Spina; Slack, Nicola; Chan, Daniel
Cc: Scott McClean; Jason Leung
Subject: RE: Potential land development at Golden Grove - Stormwater management

Thanks Joe.

I thought I would provide some quick comments given the short turnaround and that we will be moving into our new Service Centre next week.

Given the scale of the development I believe multiple detention storages across the site before each discharge point into the watercourses will be required. Pre/post requirements will be 100year peak post to 5 year pre development.

I also believe in-line treatment such as a wetland arrangement will be required given the size to meet TTS, TN and TP requirements.

Locations of detention storages/wetlands are a little hard to determine at this early stage but we would be happy to work with your client down the track. I believe breaking the bigger catchment into smaller subcatchments with detention and treatment will be the most effective method.

Happy to catch up to discuss.

Cheers,
JAMES

James Kelly | Team Leader Civil Assets
City of Tea Tree Gully
Civic Centre, 571 Montague Rd, Modbury

D 08 8397 7212 | **T** 08 8397 7444

PO Box 571, Modbury, SA 5092
www.teatreegully.sa.gov.au

From: Joe La Spina <GLaSpina@wga.com.au>
Sent: Friday, 6 September 2019 4:05 PM
To: Slack, Nicola <nicola.slack@cttg.sa.gov.au>; Chan, Daniel <daniel.chan@cttg.sa.gov.au>
Cc: Kelly, James <james.kelly@cttg.sa.gov.au>; Scott McClean <SMcClean@wga.com.au>; Jason Leung <JLeung@wga.com.au>
Subject: Potential land development at Golden Grove - Stormwater management
Importance: High

Hi Daniel,

I just had a quick chat with Nicola. We are undertaking a preliminary investigation to define the requirements that will inform our stormwater management strategy for a parcel of land at Golden Grove. See attached plan a with contours.

There are several waterways and flow paths through the site. We seeking Council's input / requirements relating to stormwater management with regards to:

- Flood mitigation for downstream discharge (Detention and discharge requirements)
- Stormwater treatment
- Council's position in regards to on-line treatment systems (I.e. within the waterway corridor)
- Anything else you may wish to flag at this early stage?

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We are working to a tight timeframe as our client is seeking input to inform the site master plan. Are you please able to provide advice by no later than Tuesday (10th) morning? Please Cc all in this response as I will be away on leave.

Many thanks

Joe La Spina SENIOR PRINCIPAL STORMWATER ENGINEER
BE Civil & Water (Hons), MEng Water, FIE Aust, CPEng. NER. RPEQ. APEC

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Appendix B

DETETNION BASIN CATCHMENT PLAN

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

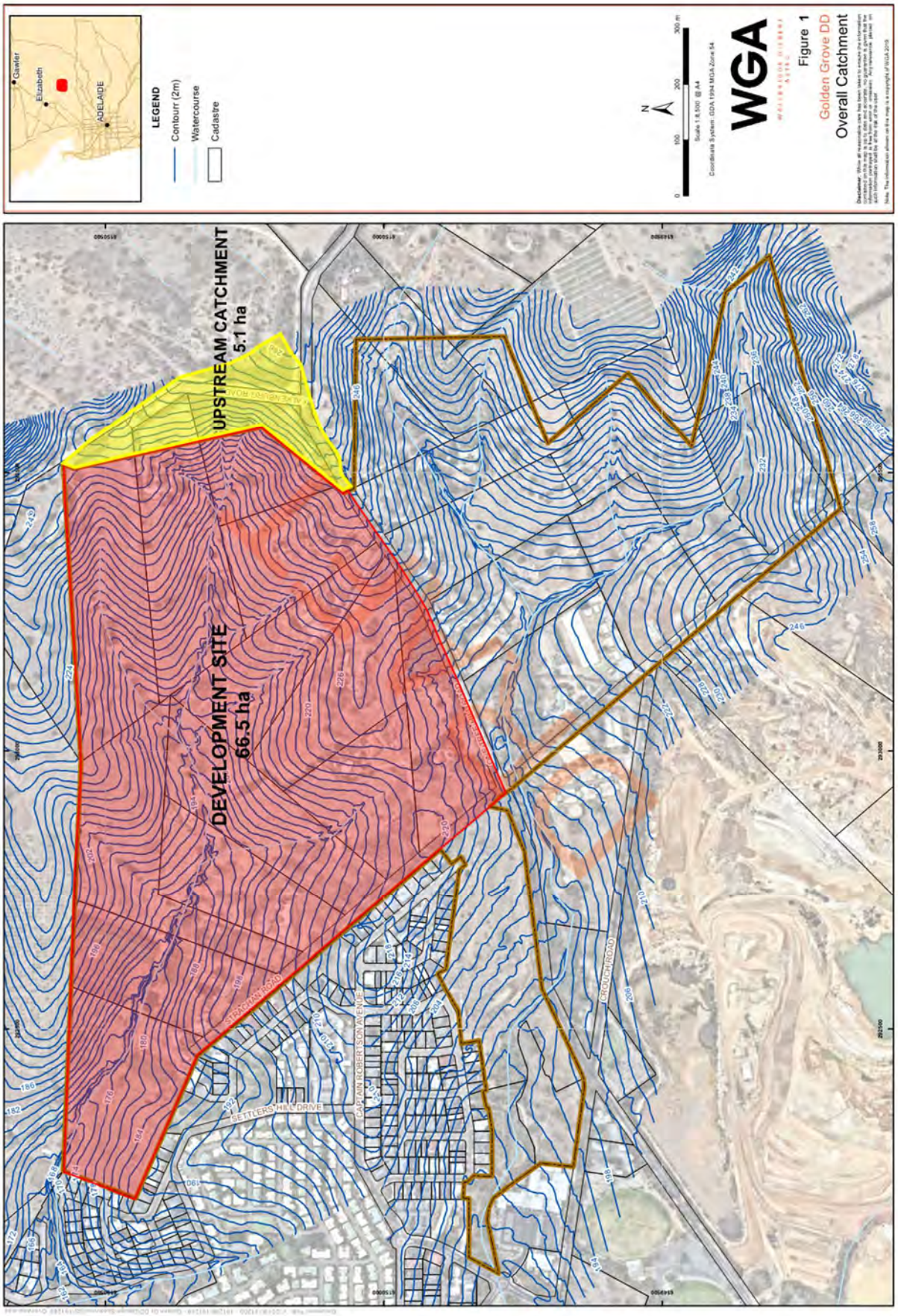
Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

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APPENDIX C

SITE AND EXTERNAL CATCHMENT BOUNDARY

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Attachment 9

APPENDIX D

CALCULATIONS

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Pre-development:

Full Catchment

Region	Runoff Coefficient	Area (m2)	C x A (m2)	C Weighted Average
Pre Development	0.2	649000	129800.00	1.00
		649000	**129800**	**0.2**

	C	I (mm/hr)	I (mm/s)	Q (m3/s)	Q (L/s)	
1 in 5	0.20	21.69	6.03E-06	0.78	782.10	*ARGUE*
1 in 5	0.20	19.46	5.41E-06	0.70	701.71	*KINEMATIC*

Time of concentration

L	1300 *m*	
n	0.06 *weedy*	
s	0.06 *m/m*	
Sheet Flow (tc)	45 *mins*	*From Argue Fig 5.3*
Channel Flow (tc)	12 *mins*	*From Argue Fig 5.4*
Total tc	**57 mins**	

1 in 5		
I	19.46	*mm/hr*
tc	66.71	*mins*
	0.00	
tc	66.71	*mins*
1 in 5	19.46	*mm/hr*

Post-development:

Full Catchment

Region	Runoff Coefficient	Area (m2)	C x A (m2)	C Weighted Average
Post Development	0.85	649000	551650.00	1.00
		649000	**551650**	**0.85**

	C	I (mm/hr)	I (mm/s)	Q (m3/s)	Q (L/s)	
1 in 100	0.85	66.23	1.84E-05	10.15	10148.73	*ARGUE*
1 in 100	0.85	72.28	2.01E-05	11.08	11076.45	*KINEMATIC*

Time of concentration

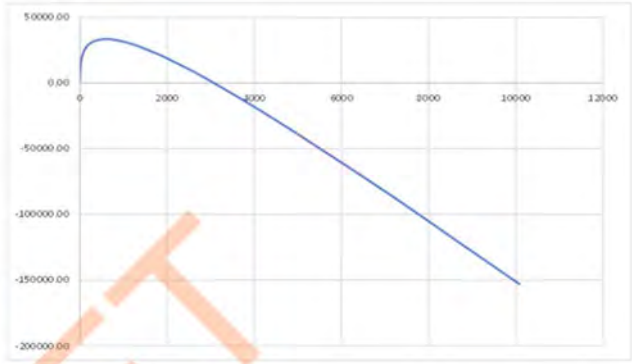
L	1110 *m*	
n	0.03 *concrete pipes / k&g*	
s	0.05 *m/m*	
Surface Flow (tc)	20 *mins*	*From Argue Fig 5.3*
Channel Flow (tc)	14 *mins*	*From Argue Fig 5.4*
Total tc	**30 mins**	

1 in 100		
I	72.28	*mm/hr*
tc	26.01	*mins*
	0.00	
tc	26.01	*mins*
1 in 100	72.28	*mm/hr*

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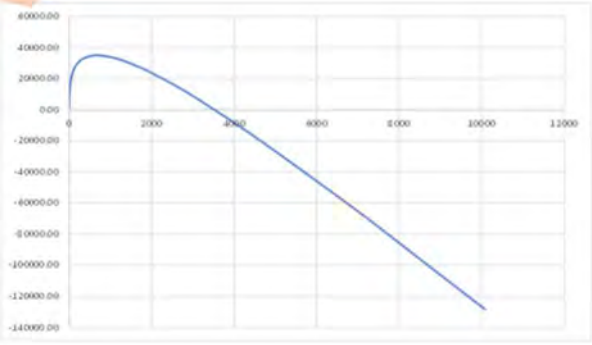
Detention Assessment - Argue

				Intensity ARI			
Area	649,000 m²	Duration	event	Inflow rate	Inflow Vol Vi	Max Storage
Coeff Permeability	0.85	min	mm/hr	l/sec	m3	Smax m3
Time of conc.	30.00 min	1	260.00	39841.4	2390.48	1663.13
*Check ARI Storm	100 year	2	229.00	35091.1	4210.93	3460.11
Max Outflow (Pre)	782.10 l/sec	3	204.00	31260.2	5626.83	4852.55
1 in 5 year pre development peak flow		4	185.00	28348.7	6803.68	6005.94
		5	169.00	25896.9	7769.07	6947.86
Max Storage Required	33395 m3	10	123.00	18848.0	11308.83	10370.30
depth	1 m	15	99.50	15247.0	13722.29	12666.46
surface area	33395 m2	20	84.50	12948.5	15538.14	14364.99
		25	74.00	11339.5	17009.21	15718.74
Remember to update formula as per 'Flows' spreadsheet in Intensity column		30	66.20	10144.2	18259.62	16851.83
		45	51.30	7861.0	21224.73	19465.01
		60	42.50	6512.5	23445.13	21333.45
		90	32.50	4980.2	26892.94	24077.37
		120	26.80	4106.7	29568.44	26048.98
		180	20.30	3110.7	33595.49	28668.25
		270	15.30	2344.5	37981.10	30942.19
		360	12.50	1915.5	41373.75	32223.16
		540	9.42	1443.5	46768.89	33394.95
		720	7.68	1176.9	50840.06	33242.78
		1080	5.73	878.0	56897.18	30853.21
		1440	4.63	709.5	61299.35	26808.68
		1800	3.92	600.7	64874.04	21936.68
		2160	3.40	521.0	67521.96	16137.90
		2880	2.72	416.8	72023.42	3745.98
		4320	1.95	298.8	77451.66	-24612.57
		5760	1.52	232.9	80496.77	-55354.24
		7200	1.25	191.5	82747.50	-86890.28
		8640	1.05	160.9	83409.48	-120015.08
		10080	0.91	139.3	84243.57	-152967.76

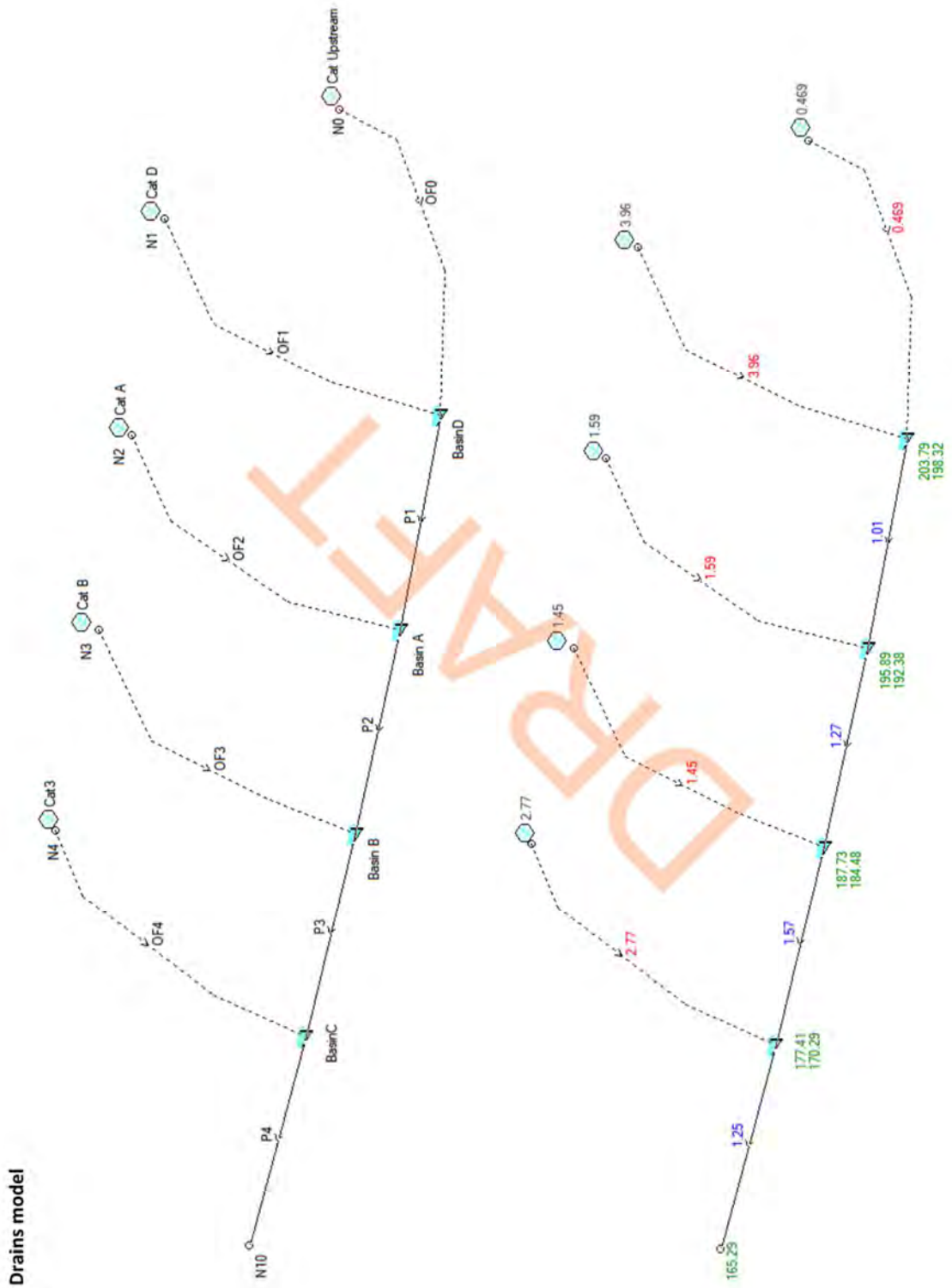


Detention Assessment - Kinematic

				Intensity ARI			
Area	649,000 m²	Duration	event	Inflow rate	Inflow Vol Vi	Max Storage
Coeff Permeability	0.85	min	mm/hr	l/sec	m3	Smax m3
Time of conc.	26.01 min	1	260.00	39841.4	2390.48	1821.89
*Check ARI Storm	100 year	2	229.00	35091.1	4210.93	3621.28
Max Outflow (Pre)	701.71 l/sec	3	204.00	31260.2	5626.83	5016.13
1 in 5 year pre development peak flow		4	185.00	28348.7	6803.68	6171.93
		5	169.00	25896.9	7769.07	7116.27
Max Storage Required	35136 m3	10	123.00	18848.0	11308.83	10550.76
depth	1 m	15	99.50	15247.0	13722.29	12858.98
surface area	35136 m2	20	84.50	12948.5	15538.14	14569.57
		25	74.00	11339.5	17009.21	15935.38
		30	66.20	10144.2	18259.62	17080.53
		45	51.30	7861.0	21224.73	19729.87
		60	42.50	6512.5	23445.13	21634.49
		90	32.50	4980.2	26892.94	24450.77
		120	26.80	4106.7	29568.44	26494.73
		180	20.30	3110.7	33595.49	29258.69
		270	15.30	2344.5	37981.10	31749.68
		360	12.50	1915.5	41373.75	33247.70
		540	9.42	1443.5	46768.89	34853.59
		720	7.68	1176.9	50840.06	35135.52
		1080	5.73	878.0	56897.18	33614.13
		1440	4.63	709.5	61299.35	30437.80
		1800	3.92	600.7	64874.04	26433.99
		2160	3.40	521.0	67521.96	21503.41
		2880	2.72	416.8	72023.42	10847.87
		4320	1.95	298.8	77451.66	-14037.90
		5760	1.52	232.9	80496.77	-41306.80
		7200	1.25	191.5	82747.50	-69370.07
		8640	1.05	160.9	83409.48	-99022.09
		10080	0.91	139.3	84243.57	-128502.00



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Drains model
Cat Upstream
N0
OF0
Cat D
N1
OF1
Cat A
N2
OF2
Cat B
N3
OF3
Cat3
N4
OF4
N10
P1
P2
P3
P4
BasinD
Basin A
Basin B
BasinC
0.469
3.96
1.59
1.45
2.77
203.79
198.32
195.89
192.38
187.73
184.48
177.41
170.29
165.29
1.01
1.27
1.57
1.25
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APPENDIX E

WSUD TREATMENT CALCS AND LAYOUT PLAN

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WSUD Treatment

Catchments	
Catchment 1	12.1 ha
Catchment 2	10.9 ha
Catchment 3	14.9 ha
Catchment 4	27 ha
Total Area	64.9 ha
EIA	48.7 ha
Treatment Area	1.0 ha

	Catchment Area (ha)	Treatment Node	Size of treatment (m^2)
C1	4.91	Wetland pond 1	2000
C2	1.87	Wetland pond 2	150
C3	3.12	Ecological sponge 1	120
C4	1.64	Wetland pond 3	300
C5	4.71	Ecological sponge 2	120
C6	6.1	Wetland pond 3	300
C7	3.19	Wetland pond 9	150
C8	15	Wetland pond 4	300
C9	7.81	Wetland pond 5	1500
C10	3.87	Ecological sponge 3	120
C11	5.97	Wetland pond 6	150
C12	2.77	Wetland pond 7	150
C13	3.4	Wetland pond 8	150

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It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

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Holmes Dyer

Golden Grove Development

GOLDEN GROVE URBAN DEVELOPMENT TRAFFIC DUE DILIGENCE REVIEW

Project No. WGA191249
Doc No. WGA191249-RP-TT-0001
Rev. A
20 March 2020

Preliminary Draft for Northern side of OTH Road only

Report and scope being updated to inform Code Amendment

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WGA

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Revision History

Rev	Date	Issue	Originator	Checker	Approver
A	20.03.2020	Draft for Client Review	IC	HSB	HSB

CONTENTS

1 Inroduction **1**
1.1 Background 1
1.2 Purpose of the Assessment 2
2 Existing Roadway and Traffic Conditions **3**
2.1 Existing Conditions 3
2.1.1 One Tree Hill Road 3
2.1.2 Golden Grove Road – South of One Tree Hill Road 4
2.1.3 Golden Grove Road – North of One Tree Hill Road 5
3 Stakeholder Consultation **6**
4 Traffic Generation and Distribution **8**
4.1 Trip Generation and Peak Period 8
4.1.1 Distribution 9
5 Mid-Block Assessment **11**
6 Intersection Analysis **12**
6.1 Introduction 12
6.2 One Tree Hill Road / New Development Access Junction 12
6.3 Golden Grove Road / One Tree Hill Road Intersection 14
6.4 Golden Grove Road / The Grove Way Intersection 19
7 Potential Upgrade Cost Opinion **24**
8 Summary and Conclusions **25**

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1 INRODUCTION

1.1 BACKGROUND

Wallbridge Gilbert Aztec (WGA) has been engaged by Holmes Dyer to undertake a high-level Traffic Assessment to determine the viability of potential residential development approximately 67 ha located at Golden Grove. The Golden Grove Development is bound by Strachan Road to the west, One Tree Hill Road to the South an Falkenburg Road to the east and as shown in **Figure 1** below.

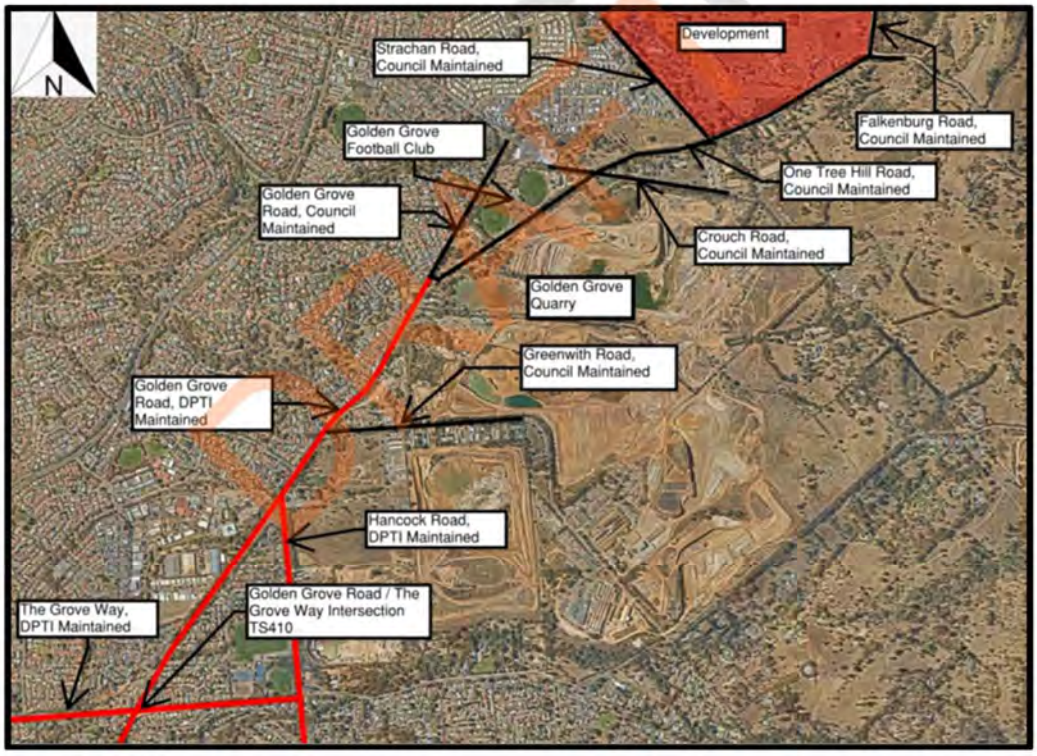


***Figure 1**: Locality Plan*

1.2 PURPOSE OF THE ASSESSMENT

The purpose of this report is to provide analysis of the existing and proposed future traffic impacts which will be utilised in the forthcoming development application.

The purpose and key elements of the study are to:

- Determine the traffic generation volumes for the development and the potential impacts this additional traffic make create.
- Provide of traffic engineering advice to determine possible road upgrades external to the development due to the potential impacts.
- Engage with the City of Tea Tree Gulley (Council) and the Department for Planning, Transport and Infrastructure (DPTI) to determine any road related issues or concerns that need to be considered.

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2 EXISTING ROADWAY AND TRAFFIC CONDITIONS

2.1 EXISTING CONDITIONS

Currently the proposed development site comprises rural land. **Figure 1** indicates the adjacent local road network.

2.1.1 One Tree Hill Road

One Tree Hill Road abuts the development site on the south side and the road is anticipated to cater for all road transport-based trips to and from the development. The road is classified as a Sub Arterial Road, and which is a road connecting arterial roads to areas of development and carrying traffic directly from one part of a region to another.

The road comes under the care and control of Council, and based on existing available data, the Average Annual Daily Traffic (AADT) volumes are in the order of 4,000 vehicles per day (vpd). Approximately 5.5 percent of the total traffic volumes comprise of heavy vehicle traffic. The AM peak hour is between 8:00am to 9:00am and PM peak hour is between 4:45pm to 5:45pm.

The posted speed limit is 60 kph for the initial 1.1 km east of the Golden Grove Road / One Tree Hill Road Intersection. The remaining 0.65 km to the development's proposed access has a posted speed limit of 80 kph.

One Tree Hill Road is a two-way two lane undivided road with a high number of trees and vegetation located near the edge of seal. The seal width is approximately 6.5 m with no marked bicycle lanes.

Key issues are considered to be:

- The road is relatively rough and undulating.
- There are no sealed shoulders, and which is considered an important safety requirement for a Sub Arterial road;
- A high number of roadside hazards with limited lengths of road safety barriers in place;
- The One Tree Hill Road / Crouch Road Intersection has a relatively poor arrangement due to sight line restrictions, low angle of intersection and no right or left turn auxiliary lanes in place;
- On street parking associated with the Golden Grove Football Club, and which generates a relatively high number of vehicles parking in close proximity to the edge of seal;

- Access to the Golden Grove Quarry that is located nominally 0.3 km east of the Golden Grove Road / One Tree Hill Road Intersection. The access generates heavy vehicle movements to and from One Tree Hill Road with no auxiliary lanes is place.

The following **Figure 2** indicates a typical arrangement for One Tree Hill Road, and highlights the level of vegetation in close proximity to the edge of seal.



***Figure 2** One Tree Hill Road, Looking East from Crouch Rod Intersection*

2.1.2 Golden Grove Road – South of One Tree Hill Road

Golden Grove Road to the south of the One Tree Hill Road Intersection is a two-way two lane undivided under the care and control of DPTI, and has a posted speed limit of 60 kph

Golden Grove Road forms a 4-legged roundabout with One Tree Hill Road (E) and Kings Avenue (W).

Traffic volumes are in the order of 10,800 vpd with 3.9 percent comprising of heavy vehicles.

DPTI is currently upgrading this section of Golden Grove Road, and in summary includes:

- New right turns auxiliary lanes at key intersections, including Greenwith Road.
- New roundabout at the Hancock Road Junction.
- Sealed Shoulders.
- Bicycle Lanes.

The upgrade will have improved road safety outcomes that would enable higher traffic volumes to be accommodated.

2.1.3 Golden Grove Road – North of One Tree Hill Road

Golden Grove Road north of the One Tree Hill Road Intersection has a traffic volume of 7,200 vpd, with approximately 3.3 percent heavy vehicle content. The posted speed limit is 60 kph.

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3 STAKEHOLDER CONSULTATION

To assist with identifying existing issues and concerns associated with the external road network, WGA has engaged with technical representatives from Council and DPTI.

WGA meet with Council on the 4th March 2020, with the following representatives present:

- Council, Gabby D'Aloia
- Council, James Kelly
- Council, Wahidullah Yousafzai
- WGA, Heath Blacker

Key discussions points raised where:

- Rideability of One Tree Hill Road is considered poor;
- Safety concerns with the impacts on the One Tree Hill Road / Crouch Road Intersection;
- On street parking issues with the Golden Grove Football Club;
- Consideration of the potential transference of Strachan Road from Council to the development;
- Good links for pedestrians and cyclists through to the development on the west is critical;
- Stormwater erosion along One Tree Hill Road, including the road shoulders and side drains, is prevalent, and hence stormwater management is critical for this development;

WGA meet with DPTI on the 13th of March 2020, with the following representatives present:

- DPTI, Marc Hryciuk
- WGA, Heath Blacker

Key discussion points raised where:

- The current upgrade of Golden Grove Road is anticipated to cater for the additional traffic generated by the development;
- The Golden Grove Road / One Tree Hill Road Intersection needs to be reviewed to confirm if any upgrades are warranted due the additional traffic movements.

- The Golden Grove Road / The Grove Road Intersection is being upgraded; however, it may not cater for the additional traffic generated by the development. This intersection needs to be reviewed and confirmed it will operate adequately based on the additional traffic volumes.
- The proposal of one access to the development is not supported, and an additional access is recommended. The additional access would improve access in an emergency (bushfire) and is considered a key safety requirement.

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4 TRAFFIC GENERATION AND DISTRIBUTION

4.1 TRIP GENERATION AND PEAK PERIOD

Traffic generation rates adopted for the proposed development have been based on the residential dwelling houses rates contained within the RTA Guide to Traffic Generating Developments Table 3.7.

WGA understands the development would incorporate nominally 612 residential dwellings, and the trip generation amounts are shown in the following tables:

Table 1: *Trip Generation Per Day*

Trips Per Day			
Section	Trips per dwelling	No. of dwellings	No. of Trips
Total	9	612	5500

Table 2: *Trip Generation Per Peak Hour*

Trips Per Peak Hour			
Section	Trips per dwelling	No. of dwellings	No. of Trips
Total	0.85	612	520

The use of the term 'trip' represents a one-way vehicular movement from one point to another excluding the return journey. Therefore, a vehicle entering and leaving the development corresponds to two trips.

4.1.1 Distribution

Trips generated by the Development have been assumed to be distributed in two general directions on One Tree Hill Road. The assumed proportion of trips to each of these directions is shown in **Figure 3** for AM and **Figure 4** for PM.

It is assumed the One Tree Hill Road (west) leg will attract most of the peak hour traffic due to the morning and evening commute towards shopping centres, schools, public transport centres, and the Adelaide CBD. However, a smaller proportion of trips will head east to connect into rural areas.

It is recognised that the scope of these investigations focused on land north of One Tree Hill Road. Further analysis and update is required to consider the wider impacts of the proposed Code Amendment.

Accordingly, preliminary layout plans are no longer relevant and have been omitted from the report.

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AM Peak Trips IN	AM Peak Trips OUT	PM Peak Trips IN	PM Peak Trips OUT
80	440	440	80

***Table 4**: Estimated Development Turning Volumes*

AM Traffic Movement				PM Traffic Movement			
LEFT IN (10%)	RIGHT IN (5%)	LEFT OUT (5%)	RIGHT OUT (80%)	LEFT IN (80%)	RIGHT IN (5%)	LEFT OUT (5%)	RIGHT OUT (10%)
50	25	25	415	415	25	25	50

Project No: WGA191349
Doc No: WGA191349-RP-TT-0001
Rev: A

5 MID-BLOCK ASSESSMENT

The pre and post development two-way movements for the following three adjacent roads are estimated to be:

Table 5: *Trip Generation Per Day*

Road Section	Current Daily Traffic Volume	Overall Increase in Daily Traffic Volumes	Post Development Daily Traffic Volume
One Tree Hill Road, West of the Development to Golden Grove Road	4,000	4,500	9,500
Golden Grove Road, North of One Tree Hill Road	7,200	1,800	9,000
Golden Grove Road, South of One Tree Hill Road	10,800	3,700	14,500

The above mid-block traffic volumes fall within what WGA considered to be suitable (nominally 15,000 vpd) and within the capacity for a two-lane undivided road.

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6 INTERSECTION ANALYSIS

6.1 INTRODUCTION

The following three intersections have been reviewed as part of our assessment:

- One Tree Hill Road / New Development Access Junction
- Golden Grove Road / One Tree Hill Road Intersection
- Golden Grove Road / The Grove Way Intersection

These intersections were identified as the critical intersections that would be impacted by the additional traffic movements, and were in part identified through the stakeholder consultation process.

6.2 ONE TREE HILL ROAD / NEW DEVELOPMENT ACCESS JUNCTION

To manage the estimated traffic volumes accessing the development a single lane roundabout is proposed. This treatment provides the following benefits at this location.

- Is considered a relatively safe treatment as roundabouts reduce the severity of impacts by slowing the entry and circulating speeds, and they reduce the impact angles for adjacent-direction crashes compare to other intersection forms (≤ 70°)
- Can accommodate a high level of right turning traffic when compare to a priority control junction

The roundabout treatment has been assessed for the AM and PM peak hour periods based on the layout shown in **Figure 5.**

Project No. WGA191249
Doc No. WGA191249-RP-TT-0001
Rev. A

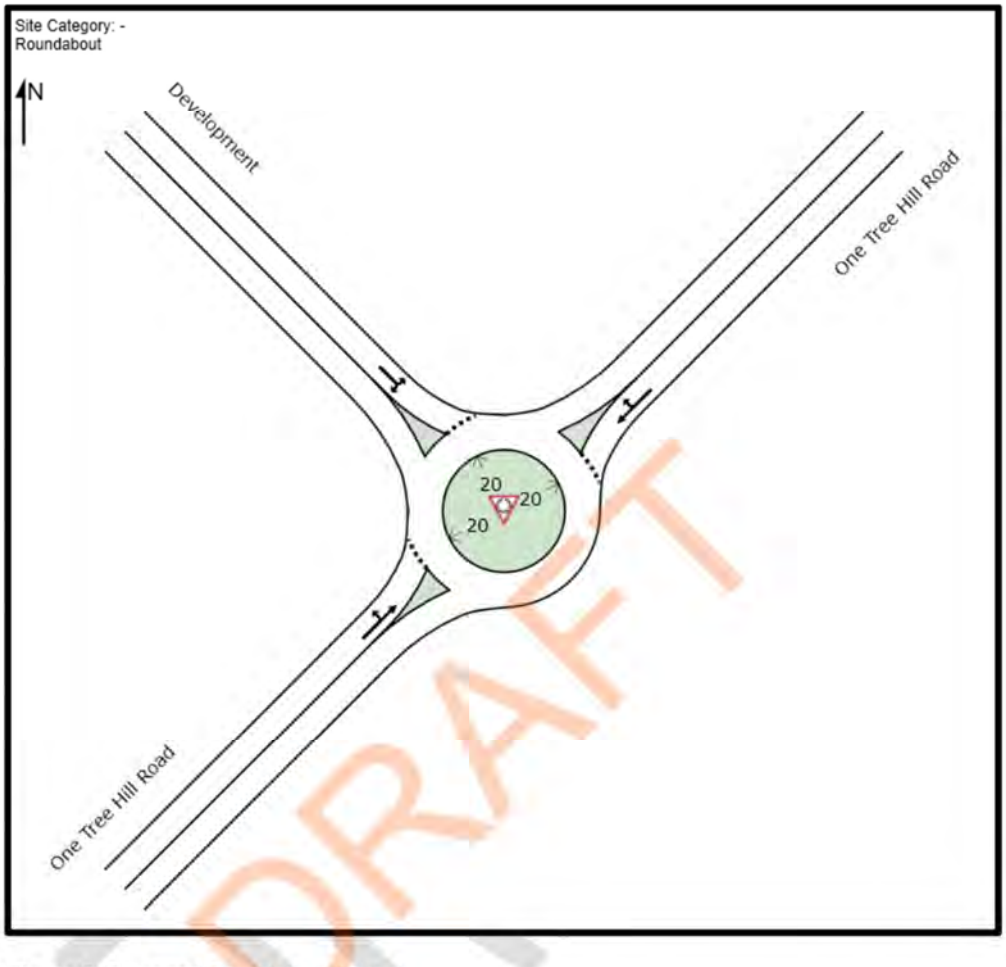


***Figure 5**: Proposed Roundabout Layout*

Table 6 and **Table 7** present a summary of the anticipated operating performance for the proposed access.

***Table 6:** AM Peak Hour Proposed Roundabout*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (NE)	0.33	7	16	A
Proposed Access (NW)	0.37	10	17	A
One Tree Hill Road (SW)	0.15	4	7	A
Roundabout summary	0.37	8	17	A

Table 7: *PM Peak Hour Proposed Roundabout*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (NE)	0.16	5	7	A
Proposed Access (NW)	0.07	8	3	A
One Tree Hill Road (SW)	0.45	4	24	A
Roundabout summary	0.45	5	24	A

The assessment indicates the proposed roundabout will operate below capacity and within acceptable operating limits for delays and queue lengths.

6.3 GOLDEN GROVE ROAD / ONE TREE HILL ROAD INTERSECTION

The following two figures outline the estimated post development traffic movements for the Golden Grove Road / One Tree Hill Road Intersection.



Figure 6*: Post Development AM Peak Hour Traffic Movement, Golden Grove Road / One Tree Hill Road Intersection*



***Figure 7**: Post Development PM Peak Hour Traffic Movement Golden Grove Road / One Tree Hill Road Intersection*

The existing and post development scenarios for the Golden Grove Road / One Tree Hill Road Intersection have been assessed for the AM and PM peak hour periods. **Table 6** to **Table 11** present a summary of this assessment.

***Table 8**: Summary Current AM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (SE)	0.33	8	15	A
Golden Grove Road (NE)	0.41	6	20	A
Golden Grove Road (SW)	0.26	6	13	A
Kings Avenue (NW)	0.14	10	5	A
Roundabout summary	0.41	7	20	A

***Table 9**: Summary Current PM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (SE)	0.19	6	8	A
Golden Grove Road (NE)	0.26	6	11	A
Golden Grove Road (SW)	0.50	6	30	A
Kings Avenue (NW)	0.07	11	3	B
Roundabout summary	**0.50**	**6**	**30**	**A**

***Table 10**: Summary Post Development AM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (SE)	0.87	22	121	C
Golden Grove Road (NE)	0.52	9	30	A
Golden Grove Road (SW)	0.45	8	27	A
Kings Avenue (NW)	0.18	11	8	B
Roundabout summary	0.87	14	121	B

***Table 11**: Summary Post Development PM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (SE)	0.43	7	23	A
Golden Grove Road (NE)	0.80	26	82	C
Golden Grove Road (SW)	0.93	13	184	B
Kings Avenue (NW)	0.33	23	19	C
Roundabout summary	**0.93**	**15**	**184**	**B**

Our assessment indicates the existing roundabout is operating within capacity and with minor levels of delays and queue lengths. The post development scenario is, however, operating with a high degree of saturation and with relatively long queue lengths.

As background a degree of saturation greater than 1.0 indicates oversaturated conditions in which long queues of vehicles build up on the critical approaches. In general, the lower the degree of saturation the better the quality of traffic service. In practice Austroads Guide to Traffic Management Part 3 indicates the target or practical degree of saturation for roundabouts is 0.85.

Project No: WGA191349
Doc No: WGA191349-RP-TT-0001
Rev: A

The post development scenario is anticipated to operate above the practical degree of saturation for a roundabout, and with relatively long queue lengths during the peak periods. To develop additional capacity, WGA has reviewed the option outlined in the Figure 8.

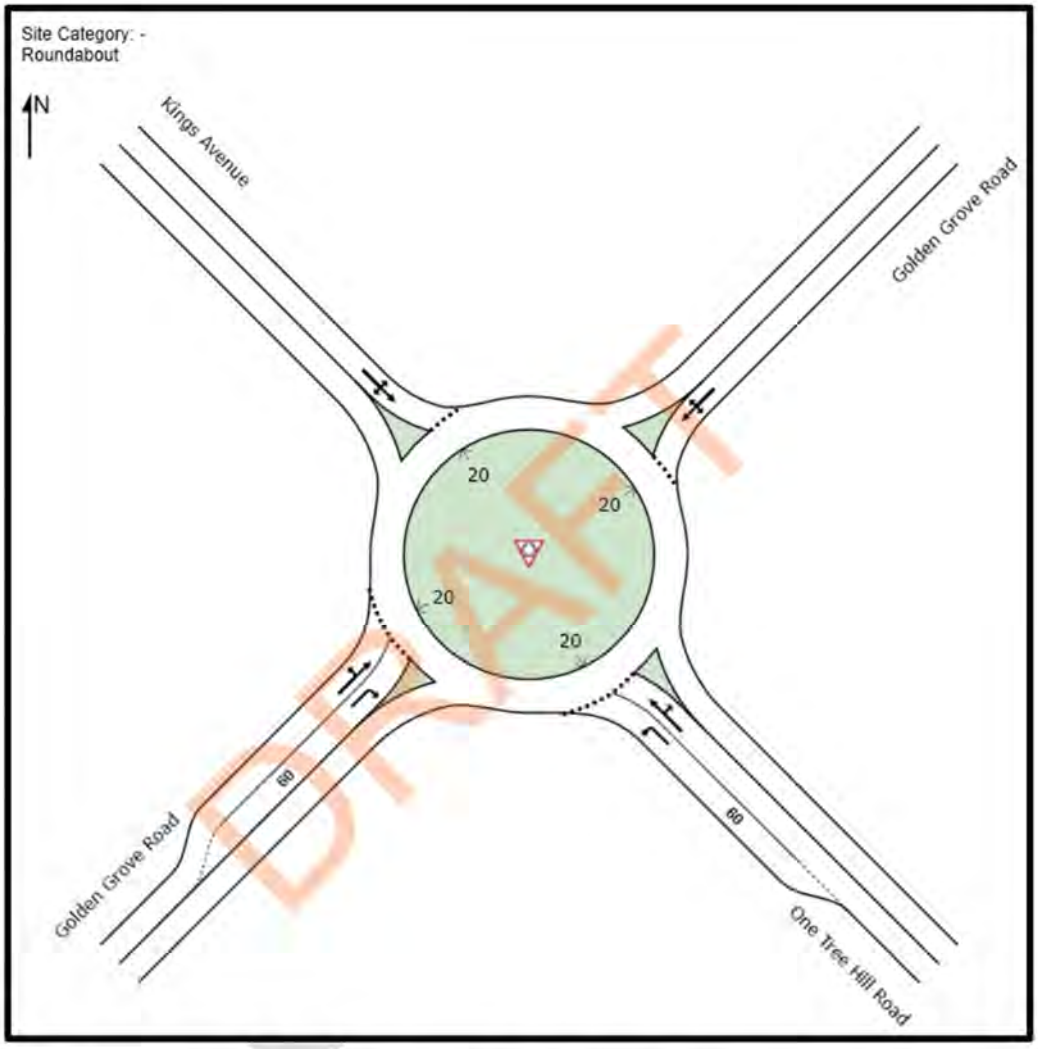


***Figure 8**: Upgrade Option, Golden Grove Road / One Tree Hill Road Intersection*

This option introduces additional approach lanes on Golden Grove Road (South) and One Tree Hill Road, and which align to the major turning volumes. **Table 12** and **Table 13** present a summary of the post-development performance for this option.

***Table 12**: Upgrade Option Results for the AM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (SE)	0.60	10	44	A
Golden Grove Road (NE)	0.51	8	29	A
Golden Grove Road (SW)	0.23	7	10	A
Kings Avenue (NW)	0.18	11	7	B
Roundabout summary	0.60	9	44	A

***Table 13**: Upgrade Option Results for the PM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
One Tree Hill Road (SE)	0.27	6	13	A
Golden Grove Road (NE)	0.66	18	52	B
Golden Grove Road (SW)	0.51	8	30	A
Kings Avenue (NW)	0.22	22	11	C
Roundabout summary	0.66	10	52	A

Our assessment of this option indicates that introducing additional entry lanes on One Tree Hill Road and Golden Grove Road would be sufficient to reduce the degree of saturation below 0.85.

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6.4 GOLDEN GROVE ROAD / THE GROVE WAY INTERSECTION

The following two figures outline the estimated post development traffic movements for the Golden Grove Road / The Grove Way Intersection.

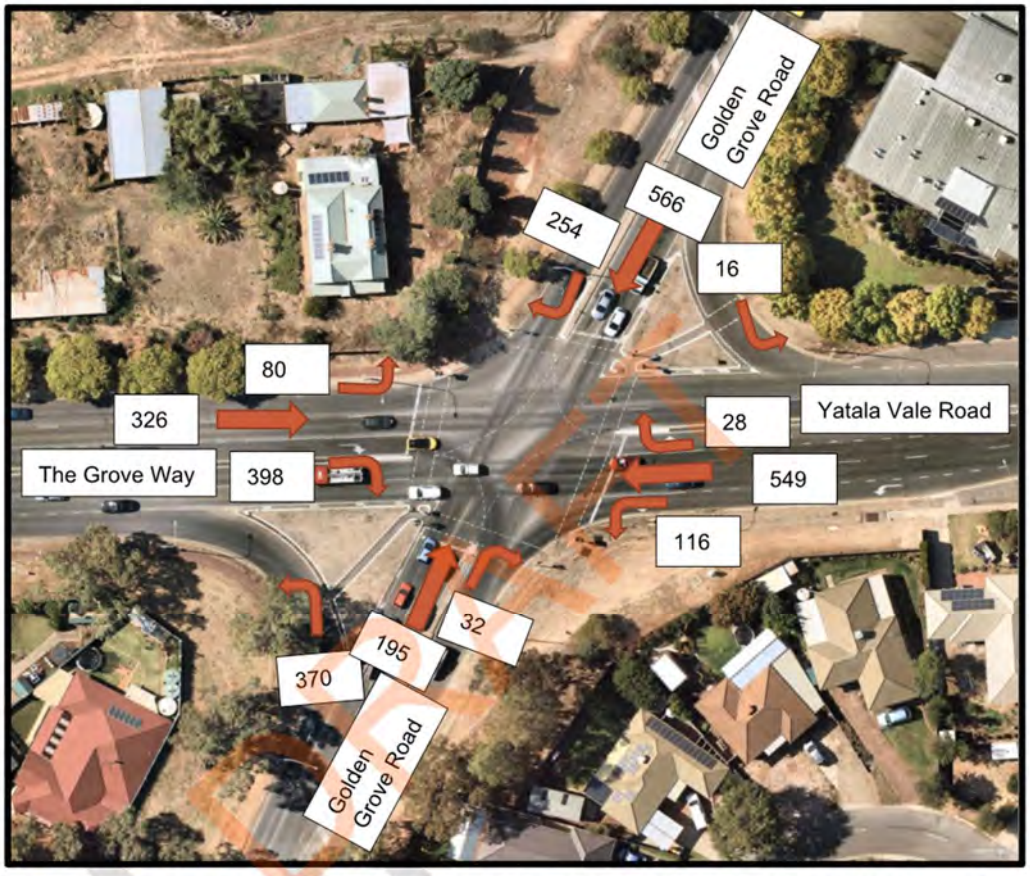


***Figure 9**: Post Development AM Peak Hour Traffic Movement, Golden Grove Road / The Grove Way / Yatala Vale Road Intersection*

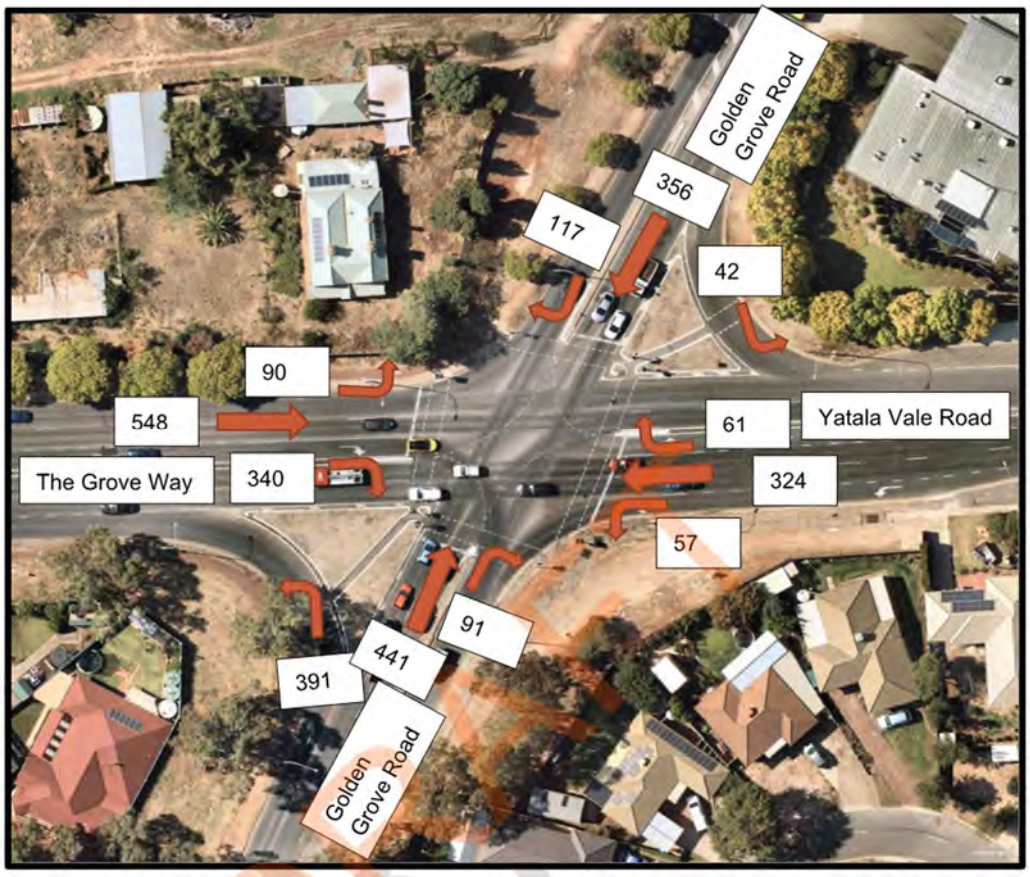


***Figure 10**: Post Development PM Peak Hour Traffic Movement, Golden Grove Road / The Grove Way / Yatala Vale Road Intersection Intersection*

An upgrade of this intersection is currently underway by DPTI, and which will increase the capacity of this intersection. Due to the forthcoming upgrade, our assessment is based on the proposed treatment rather than the current arrangement. The following **Figure 11** shows the upgrade arrangement adopted for this assessment.

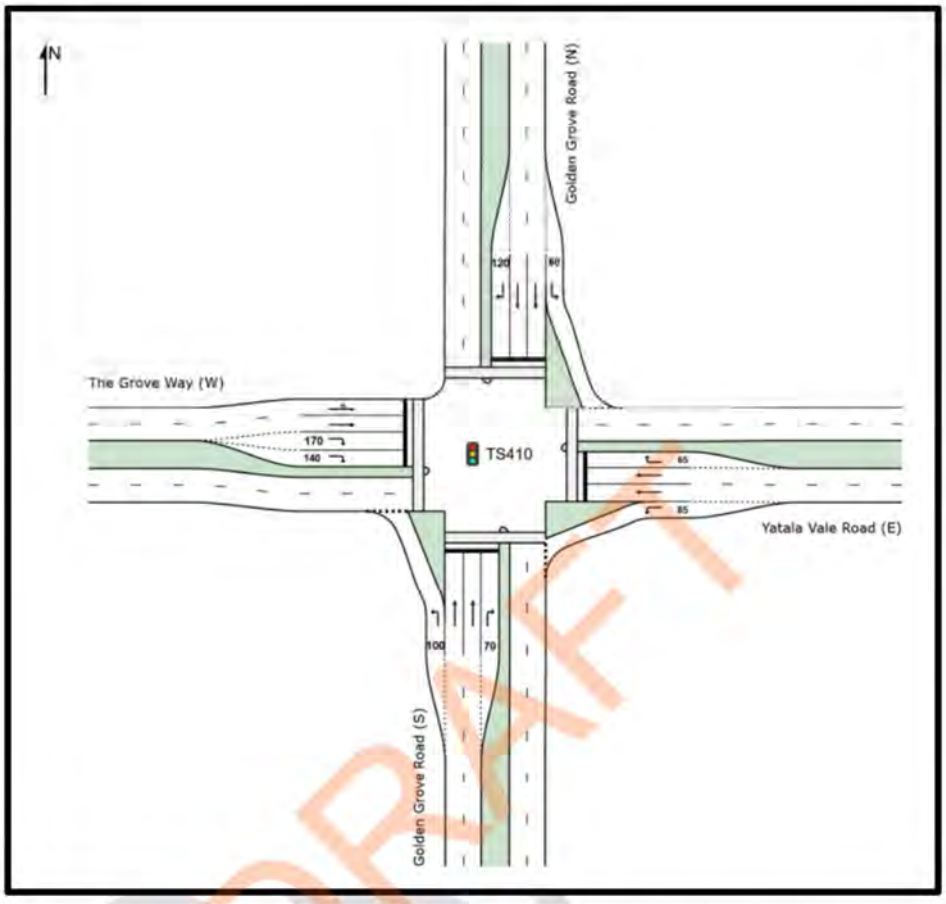


***Figure 11**: Golden Grove Road / The Grove Way Intersection, Current Upgrade Arrangement Adopted for Assessment*

Table 14 and

Table 15: Results for the PM Peak Hour

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
Golden Grove Road (S)	0.58	32	89	C
Yatala Vale Road (E)	0.29	34	54	C
Golden Grove Road (N)	0.57	46	46	D
The Grove Way (W)	0.58	45	44	D
Intersection Summary	0.58	39	39	D

Project No: WGA191349
Doc No: WGA191349-RP-TT-0001
Rev: A

Our assessment indicates that the current upgrade being undertaken by DPTI will be sufficient to cater the increased traffic movements associated with the development.

present a summary of the post-development performance for this intersection.

***Table 14**: Results for the AM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
Golden Grove Road (S)	0.35	25	74	C
Yatala Vale Road (E)	0.72	43	115	D
Golden Grove Road (N)	0.72	16	116	D
The Grove Way (W)	0.73	53	89	D
Intersection Summary	0.73	44	116	D

***Table 15**: Results for the PM Peak Hour*

Lane	Degree of Saturation	Average Delay (sec)	Queue Distance (m)	Level of Service
Golden Grove Road (S)	0.58	32	89	C
Yatala Vale Road (E)	0.29	34	54	C
Golden Grove Road (N)	0.57	46	46	D
The Grove Way (W)	0.58	45	44	D
Intersection Summary	0.58	39	39	D

Our assessment indicates that the current upgrade being undertaken by DPTI will be sufficient to cater the increased traffic movements associated with the development.

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7 POTENTIAL UPGRADE COST OPINION

WGA has developed the following cost opinions associated with upgrades that would address the deficiencies raised in our assessment.

***Table 16**: Cost Opinion and Basis*

Treatment	Cost to Install / Upgrade	Basis / Comment
One Tree Hill Road Access – New Roundabout	$750,000	Roundabout required to accommodate to safely development traffic
One Tree Hill Road, Treatment of Roadside Hazards	$500,000	High number of roadside hazards and additional risks associated with increase traffic volumes
One Tree Hill Road, Repair and Seal Shoulders	$250,000	Poor standard and unsealed shoulders pose a safety risk due to an increase in traffic volumes
One Tree Hill Road, Rideability Improvements	$300,000	Undulating road poses a safety risk due to an increase in traffic volumes
One Tree Hill Road / Crouch Road Intersection	$500,000	Poor existing arrangement that will be exacerbated by the increase in traffic volumes. Potential option for a small roundabout, however, needs to be investigated in further detail
Golden Grove Road / One Tree Hill Road Roundabout Upgrade	$300,000	Current arrangement unable to cater for the anticipated additional traffic generated by the development
Total	$2,600,000	

The above costs are predominantly due to the poor standard of One Tree Hill Road. Subsequently we would recommend a cost share arraignment between Council and the developer be discussed to progress any agreed upgrade requirements further. These costs are also initial opinions, and further investigations are required to refine the recommended treatments and the associated costs.

8 SUMMARY AND CONCLUSIONS

Our traffic assessment has provided a background on the existing conditions of the site, the likely traffic generated by the development and its impacts on the external road network. From the assessment, the following key findings and recommendations are summarised below:

- The development site occupies approximately 62 ha of land in total;
- The development will comprise of nominally 612 dwelling;
- The proposed development is expected to generate a total of 5,500 trips on a daily basis, and approximately 520 trips during a weekday peak hour;
- One Tree Hill Road is currently considered to be in relatively poor condition, with the following concerns:
  - Lack of sealed shoulders;
  - Stormwater erosion on the shoulders and existing swales;
  - Poor alignment and sight lines at the Crouch Road Intersection;
  - Poor rideability;
  - High level of roadside hazards with minimal amount of safety barriers provided;
  - On street parking close to the travel lanes at the Golden Grove Football Club.
- The Golden Grove Road / One Tree Hill Road Roundabout is not anticipated to cater for the additional traffic generated by the development, and additional approach lanes are recommended;
- No upgrade works on Golden Grove Road are considered necessary to accommodate the additional traffic generated by the development;
- No additional upgrade works to that currently underway at the Golden Grove Road / The Grove Way / Yatala Vale Road Intersection are considered necessary to accommodate the additional traffic generated by the development;
- Consultation with Council and DPTI has raised the following key items for consideration for this development:
  - Transference of Strachan Road from Council ownership to the development;
  - Pedestrian and cyclist links to adjacent developments is important;
  - A second access to the road network is considered necessary to accommodate traffic flows in an emergency.

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DRAFT

PROPOSAL TO INITIATE AN AMENDMENT TO THE PLANNING & DESIGN CODE

Golden Grove Commercial / Retail Code Amendment

By Person with Interest in the Land *(the Proponent)*

_____ (Signature Required)

YAS Property & Development (the Proponent)

Date: 6 August 2021

This Proposal to Initiate document together with conditions specified by the Minister forms the basis for the preparation of a proposed amendment to the Planning and Design Code for the purpose of section 73(2)(b) of the *Planning, Development and Infrastructure Act 2016.*

MINISTER FOR PLANNING AND LOCAL GOVERNMENT

Date:

1. INTRODUCTION 3
1.1. Designated Entity for Undertaking the Code Amendment 3
1.2 Rationale for the Code Amendment 4
2 SCOPE OF THE CODE AMENDMENT 4
2.1 Affected Area 4
2.2 Scope of Proposed Code Amendment 4
3 STRATEGIC PLANNING OUTCOMES 5
3.1 Alignment with State Planning Policies 5
3.2 Alignment with Regional Plans 8
3.3 Alignment with Other Relevant Documents 9
4 INVESTIGATIONS AND ENGAGEMENT 10
4.1 Investigations Already Undertaken 10
4.2 Further Investigations Proposed 11
4.3 Engagement Already Undertaken 12
4.4 Further Engagement Proposed 13
5 CODE AMENDMENT PROCESS 14
5.1 Engagement Plan 14
5.2 Engagement Report 14
5.3 Code Amendment Timetable 15

1. INTRODUCTION

The Proponent (YAS Property & Development – YAS P&D) is proposing to initiate an amendment to the Planning and Design Code (the Code Amendment) as it relates to land located at 53 & 99 Crouch Road, Golden Grove (the Affected Area).

The purpose of this Proposal to Initiate is to seek approval of the Minister for Planning and Local Government (the Minister) to initiate the Code Amendment under section 73(2)(b) of the *Planning, Development and Infrastructure Act 2016* (the Act).

The Proponent is the holder of a registered interest as noted on the Certificate of Titles for the whole of the Affected Area.

This Proposal to Initiate details the scope, relevant strategic and policy considerations, nature of investigations to be carried out and information to be collected for the Code Amendment. It also details the timeframes to be followed in undertaking the Code Amendment, should this Proposal to Initiate be approved by the Minister.

The Proponent acknowledges that the Minister may specify conditions on approving this Proposal to Initiate, under section 73(5) of the Act. In the event of inconsistency between this Proposal to Initiate and any conditions specified by the Minister, the conditions will apply.

1.1. Designated Entity for Undertaking the Code Amendment

In accordance with section 73(4)(a) of the Act, the Proponent will be the Designated Entity responsible for undertaking the Code Amendment process. As a result:

1.1.1 The Proponent (YAS Property & Development) acknowledges that it will be responsible for undertaking the Code Amendment in accordance with the requirements Act.

1.1.2 The Proponent's contact person responsible for managing the Code Amendment and receiving all official documents relating to this Code Amendment is:

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gmaiorano@urps.com.au
(08) 8333 7999

1.1.3 The Proponent intends to undertake the Code Amendment by:

(a) engaging URPS to provide the professional services required to undertake the Code Amendment.

The Proponent acknowledges that the Minister may, under section 73(4)(b) of the Act, determine that the Chief Executive of the Department will be the Designated Entity responsible for undertaking the Code Amendment. In this case, the Proponent acknowledges and agrees that they will be required to pay the reasonable costs of the Chief Executive in undertaking the Code Amendment.

1.2 Rationale for the Code Amendment

This Code Amendment is proposed in response to the continued development of Golden Grove and the anticipated increase in demand for commercial and retail offerings. Its progression is to occur in concurrence with a separate Master Planned Neighbourhood Code Amendment which seeks to rezone land to the north and east of the Affected Area to support the development of an additional 1500 homes over the next 15 years.

This Code Amendment will provide the land use policy setting to support development of these ancillary, non-residential activities and in turn meet the needs of both the existing and future population.

2 SCOPE OF THE CODE AMENDMENT

2.1 Affected Area

The proposal seeks to amend the Code for the Affected Area, being the land identified as 53 Crouch Road, Golden Grove (CT:5203/699) and 99 Crouch Road, Golden Grove (CT:5482/787) within the City of Tea Tree Gully as shown in the map in Attachment A.

2.2 Scope of Proposed Code Amendment

Site 1 - 53 Crouch Road, Golden Grove & 99 Crouch Road, Golden Grove

Current Policy	Zone • Rural Living Overlays • Hazards (Bushfire – Urban Interface) • Hazards (Flooding) • Hazards (Flooding – Evidence Required) • Heritage Adjacency • Local Heritage Place • Defence Aviation Area • Regulated and Significant Tree • Prescribed Wells Area • Water Resources TNV's • Minimum Site Area (4ha)
Amendment Outline	The objective of the Code Amendment is to rezone the land to support the development of commercial/retail activities to support the current and future population.

Intended Policy	The Code Amendment seeks the following amendments: • Rezone the Affected Area to facilitate the development of retail and commercial type activities. At this time the intention is to retain flexibility and there are a number of potential P&D Code zones that may be appropriate to facilitate the desired outcome of providing additional floor space to accommodate retail and bulky goods.

3 STRATEGIC PLANNING OUTCOMES

Proposed Code Amendments occur within a state, regional and local strategic setting, which includes:

- State Planning Policies (SPPs)
- Regional Plans
- Other relevant strategic documents.

3.1 Alignment with State Planning Policies

The State Planning Policies (SPPs) set out the State's overarching goals and requirements for the planning system. Under section 66(3)(f) of the Act, the Code must comply with any principle prescribed by a SPP.

The Code Amendment should be initiated because the strategic planning outcomes sought to be achieved through the Code Amendment align with or seeks to implement the following SPPs:

State Planning Policy (SPP)	Code Amendment Alignment with SPPs
SPP 1 – Integrated Planning To apply the principles of integrated planning to shape cities and regions in a way that enhances our liveability, economic prosperity and sustainable future.	
1.1 An adequate supply of land (well services by infrastructure) is available that can accommodate housing and employment growth over the relevant forecast period.	The Code Amendment seeks to deliver employment growth in a location with demonstrated demand. Current supply in the wider locality is limited, with little to no available land. It is noted that this growth will be integrated with the progression of a separate, however a concurrent Master Planned Neighbourhood Code Amendment.

1.4 Protect areas of rural, landscape character, environmental importance, mining or food production significance from the expansion of urban areas, towns and settlements.	The Code Amendment will be prepared with the knowledge that the site is located to the immediate north of the Resource Extraction Zone (P&D Code) and the *Golden Grove Extractive Industries Zone* (DEM). It is noted however that the commercial nature of the Code Amendment is not at odds with the use of neighbouring properties.
SPP 4 – Biodiversity To maintain and improve our state's biodiversity and its life supporting functions.	
4.1 Minimise impacts of development on areas with recognised natural character and values, such as native vegetation and critical habitat so that critical life-supporting functions to our state can be maintained.	It is acknowledged that the Affected Area comprises natural features in the form of a creekline and areas of native vegetation. Specific consideration will be given to this as part of the Code Amendment investigations.
SPP 5 – Climate Change To maintain and improve our state's biodiversity and its life supporting functions	
5.5 Avoid development in hazard-prone areas or, where unavoidable, ensure risks to people and property are mitigated to an acceptable or tolerable level through cost-effective measures.	The land is located in the Hazards (Bushfire – Urban Interface) Overlay. The Code Amendment does not propose to alter the application of this Overlay and future development of the Affected Area will take into account the provisions of this Overlay.
SPP 7 – Cultural Heritage To protect and conserve heritage places and areas for the benefit of our present and future generations.	
7.3 Recognise and protect places and areas of acknowledged heritage value for future generations.	53 Crouch Road, Golden Grove is recognised as a Local Heritage Place (House – Former Golden Grove School) and is included in the

	Local Heritage Place Overlay. The Code Amendment does not propose alterations to this place or Overlay.
SPP 9 – Employment Lands To provide sufficient land supply for employment generating uses that support economic growth and productivity.	
9.2 Enable opportunities for employment and encourage development of underutilised lands connected to, and integrated with, housing, infrastructure, transport and essential services.	The Code Amendment is proposed in response to the continued development of Golden Grove and the anticipated increase in demand for commercial and retail offerings arising from a concurrent Master Planned Neighbourhood Code Amendment.
9.4 Adaptable policies that allow commercial and industrial-focused employment lands to support local economies and evolve in response to changing business and community needs.	The Code Amendment is supported by detailed retail assessment to determine the locations suitability to support higher order retail and commercial activities. This report is discussed further below in Section 4. It is intended that the proposal will address shortfalls in supply to meet the needs of the current and future population.
9.8 Allow for competition within the retail sector by providing an appropriate supply of land for all retail formats in areas that are easily accessible to communities	The Code Amendment seeks to rezone 7.56ha of Rural Living zoned land for employment purposes. A high-level review of zones in the wider locality confirms that there is a shortage of available activity centre/employment land in the wider locality, and this Code Amendment seeks to address this. The rezoning proposed via this Code Amendment is not intended to lead to direct competition with the activities occurring in nearby activity centres. Rather the rezoning intends to facilitate a policy setting that provides for complimentary retail/commercial type activities

	which support the wider population, current and future.
SPP 15 – Natural Hazards To build the resilience of communities, development and infrastructure from the adverse impacts of natural hazards.	
15.1 Identify and minimise the risk to people, property and the environment from exposure to natural hazards including extreme heat events; bushfire; terrestrial and coastal flooding; soil erosion; drought; dune drift; acid sulfate soils; including taking into account the impacts of climate change	The land is located in the Hazards (Bushfire – Urban Interface) Overlay. The Code Amendment does not propose to alter the application of this Overlay and future development of the Affected Area will take into account the provisions of this Overlay.

3.2 Alignment with Regional Plans

As with the SPPs, the directions set out in Regional Plans provide the long term vision as well as setting the spatial patterns for future development in a region. This includes consideration of land use integration, transport infrastructure and the public realm.

The 30-Year Plan for Greater Adelaide – 2017 Update (30-Year Plan) volume of the Planning Strategy is relevant for this Code Amendment.

Regional Plan Identified Priorities or Targets	Code Amendment Alignment with Regional Plan
Transit corridors, growth areas and activity centres **P1** Deliver a more compact urban form by locating the majority of Greater Adelaide's urban growth within existing built-up areas by increasing density at strategic locations close to public transport.	The Code Amendment seeks to deliver employment growth within the existing built-up areas of Adelaide. The land is located within the Future Urban Growth Areas and on land within the Planned Urban Lands to 2045.
Heritage **P33** Recognise the value that communities place on heritage and ensure that new development is implemented sensitively and respectfully.	It is acknowledged that 53 Crouch Road, Golden Grove comprises a Local Heritage Place (House – Former Golden Grove School) and is included in the Local Heritage Place Overlay. The Code Amendment does

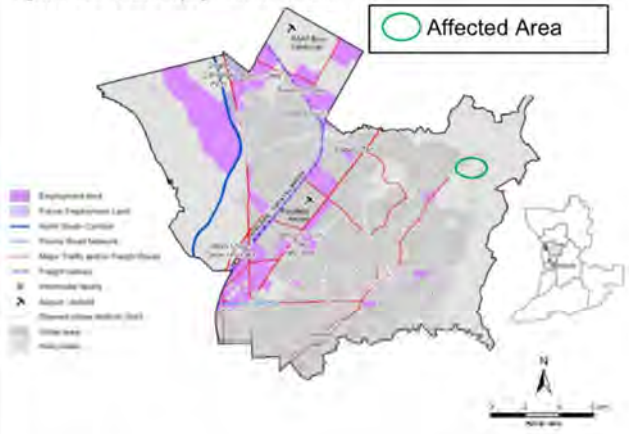
	not propose alterations to this place or Overlay

3.3 Alignment with Other Relevant Documents

Additional documents may relate to the broader land use intent within the scope of this proposed Code Amendment (or directly to the Affected Area) and therefore are identified for consideration in the preparation of the Code Amendment.

The following table identifies other documents relevant to the proposed Code Amendment:

Other Relevant Document	Code Amendment Alignment with Other Relevant Document
City of Tea Tree Gully – Strategic Plan 2025	The Code Amendment will assist in delivering on a range of key Objectives contained in the Strategic Plan, including: **Economy** • A local economy that is resilient and thrives, where businesses are supported to grow and prosper, provide local jobs and sustain our community and visitors and utilise technology to improve the liveability of our City. **Leadership** • Leadership and advocacy is focused on the long term interests of the community • Planning considers current and future community needs.

Land Supply Report for Greaer Adelaide: Employment Land Supply – Inner North	The Affected Area is located within the area defined as Inner North as identified in the recently released Land Supply Report for Greater Adelaide – Employment Land Supply (see below). Figure 18: Inner North employment land overview  As can be seen, there is very little employment zoned land in the locality. As described in this report, Employment lands are made up of a variety of activities. Whilst yet to settle on a proposed new zone for the Affected Area, the contents of this Report will be considered where necessary.

4 INVESTIGATIONS AND ENGAGEMENT

4.1 Investigations Already Undertaken

The table below identifies what investigations have already been undertaken in support of the proposed Code Amendment.

Investigation Undertaken	Summary of Scope of Investigations	Summary of Outcome of Recommendations
Retail Assessment	Property and Advisory (P&A) was engaged to prepare a retail analysis study to determine the demand for a new retail / bulky goods facility.	Based on detailed analysis, there is potential for the Affected Area to support a range of new retail and bulky good land uses in a manner that does not substantially impact existing retail land uses within the

		immediate and broader locality.

4.2 Further Investigations Proposed

In addition to the investigations already undertaken and identified above, the table below outlines what additional investigations that will be undertaken to support the Code Amendment.

It is noted that a series of reports are being prepared to inform the separate Master Planned Neighbourhood Code Amendment. The scope of these reports includes the Affected Area.

Further Investigations Proposed	Explanation of how the further investigations propose to address an identified issue or question
Traffic and Transport Assessment	Investigate the traffic and transport impacts that may arise from the proposed Code Amendment and the scope, timing and need for road upgrades to support future development.
Tree Assessment	Undertake a Significant Tree/Regulated Tree survey and investigate and identify options for retaining the maximum number of Significant/Regulated trees, for example, allocating them in reserves including road reserves.
Stormwater investigations and management strategy	Investigate the potential stormwater constraints affecting the land and identify a strategy to adequately manage stormwater quantity and quality in a manner that mitigates impacts off-site.
Infrastructure and Utility Services Analysis	Investigate the impact of the proposed Code Amendment on the existing infrastructure services available and determine whether any upgrades are required to service the Affected Area.
Site Feature Survey	Identify key features on the land which may constrain its future development.
Interface Management	Notwithstanding the intention to deliver a retail/commercial outcome, investigate the suitability of the current P&D Code Overlays to manage potential interface conflict between the existing mining activities and the Affected Area.
Infrastructure Schemes	Prior to the release of the Code Amendment for public consultation, in collaboration with Council and service

	providers, developers will determine what reasonable off-site infrastructure is required (e.g. road upgrades). Post public consultation, but prior to the final authorisation of the Code Amendment, parties will identify the costs of external infrastructure upgrades (if they are required), and determine how they should be staged and funded. Council and developers anticipate that parties will adopt the process referred to as "Basic Infrastructure Scheme" as defined by section 162 and 163 of the Planning, Development and Infrastructure Act, or the conventional approach of direct negotiations with Council and infrastructure providers that results in legal infrastructure provision and funding deeds.

4.3 Engagement Already Undertaken

In accordance with Practice Direction 2, the City of Tea Tree Gully (CTTG) has been consulted on this proposal. In summary, the following matters were raised:

- Demand for retail / commercial development needs to be clearly supported/justified

At its meeting held 27 July 2021, the CTTG resolved to provide in-principle support to this Proponent Initiated Code Amendment. It is noted that additional support was provided to initiate the separate Master Planned Neighbourhood Code Amendment as a Council initiated proposal. An extract from the Minutes of this meeting is reproduced below:

21. Other Business

21.1 Proposed Rezoning of Golden Grove Rural Living Zone for residential use (D21/49379)

Moved Cr Unger, Seconded Cr Petrie

1. That Council supports in principle the proposal to commence investigations to re-zone the Rural Living Zone at Golden Grove to enable construction of approximately 1,500 new homes.

2. That a Proposal to Initiate a Residential Code Amendment affecting the Rural Living Zone at Golden Grove be prepared and presented to Council for consideration and that Council be provided with copies of relevant investigations reports to assist with the preparation of the Proposal to Initiate a Code Amendment.

3. That a Funding Agreement that supports a privately funded Code Amendment be prepared by Council's lawyers in consultation with YAS P&D and Villawood Properties (the proponents) and that the proponents agree to reimburse the Council for the legal costs associated with preparing the funding agreement.

4. That Council's Chief Executive Officer be authorised to sign the Funding Agreement referred to in point 3 of this resolution noting it will be prepared by Council's lawyers and protecting Council's interests.

5. That a Proposal to Initiate a Code Amendment be presented to Council for consideration once the Funding Agreement has been signed by all parties and received by the Council.

6. That Council supports in principle, the proposal by YAS P&D to investigate a potential rezoning of 53 and 99 Crouch Road, Golden Grove for commercial /retail uses and requests that Council be consulted early in the preparation of the Code Amendment.

Carried (945)

Cr Rankine called a Division

The Mayor declared the vote set aside

The following members voted in the affirmative:

Crs Field, Wyld, Lintvelt, S Keane, Petrie, Coleman, B Keane and Unger.

The following members voted in the negative:

Crs Rankine, Jones and Savvas.

The Mayor declared the motion **carried**.

4.4 Further Engagement Proposed

In addition to the engagement already undertaken and identified above, the table below outlines what additional engagement will be undertaken to support the Code Amendment.

Further Engagement Proposed	Explanation of how the further engagement propose to address an identified issue or question

See Engagement Plan	

5 CODE AMENDMENT PROCESS

5.1 Engagement Plan

The Code Amendment process will occur in accordance with the Community Engagement Charter and Practice Direction 2 – Consultation on the Preparation or Amendment of a Designated Instrument.

The Designated Entity will prepare an Engagement Plan prior to the commencement of engagement on the proposed Code Amendment. The Engagement Plan will include the following mandatory consultation requirements (which may be in addition to the engagement outlined in this Proposal to Initiate):

- the Local Government Association must be notified in writing of the proposed Code Amendment;
- if the Code Amendment has a specific impact on 1 or more particular pieces of land in a particular zone on subzone (rather than more generally), the Designated Entity must take reasonable steps to give a notice in accordance with Regulation 20 of the *Planning, Development and Infrastructure (General) Regulations 2017*, to:
    - the owners or occupiers of the land; and
    - owners or occupiers of each piece of adjacent land;
- consultation must also occur with any person or body specified by the State Planning Commission under section 73(6)(e) of the Act.

5.2 Engagement Report

Once engagement on the Code Amendment is complete, the Designated Entity will prepare an Engagement Report under section 73(7) of the Act.

The Designated Entity must ensure that a copy of the Engagement Report is furnished on the Minister and also published on the SA Planning Portal. This will occur in accordance with Practice Direction 2.

The Engagement Plan and the Engagement Report will also be considered by the State Planning Commission during the final stages of the Code Amendment process. The Commission will provide a report to the Environment, Resources and Development Committee of Parliament under section 74(3) of the Act. The Commission's report will provide information about the reason for the Code Amendment, the consultation undertaken on the Code Amendment and any other information considered relevant by the Commission.

5.3 Code Amendment Timetable

The Proponent (where it is also the Designated Entity) commits to undertaking the Code Amendment in line with the timeframe outlined Attachment B. If a timeframe is exceeded (or expected to be exceeded) the Proponent agrees to provide an amended timetable to the Department with an explanation of the delay, for approval by the Minister of an extension of time for the Code Amendment.

ATTACHMENT A

Map of Affected Area



AREA AFFECTED Golden Grove

JOB REF.	21ADL-0927
PREPARED BY.	MP
DATE.	29.06.21
REVISION.	1
DATA SOURCE.	MetroMap (11.10.20)

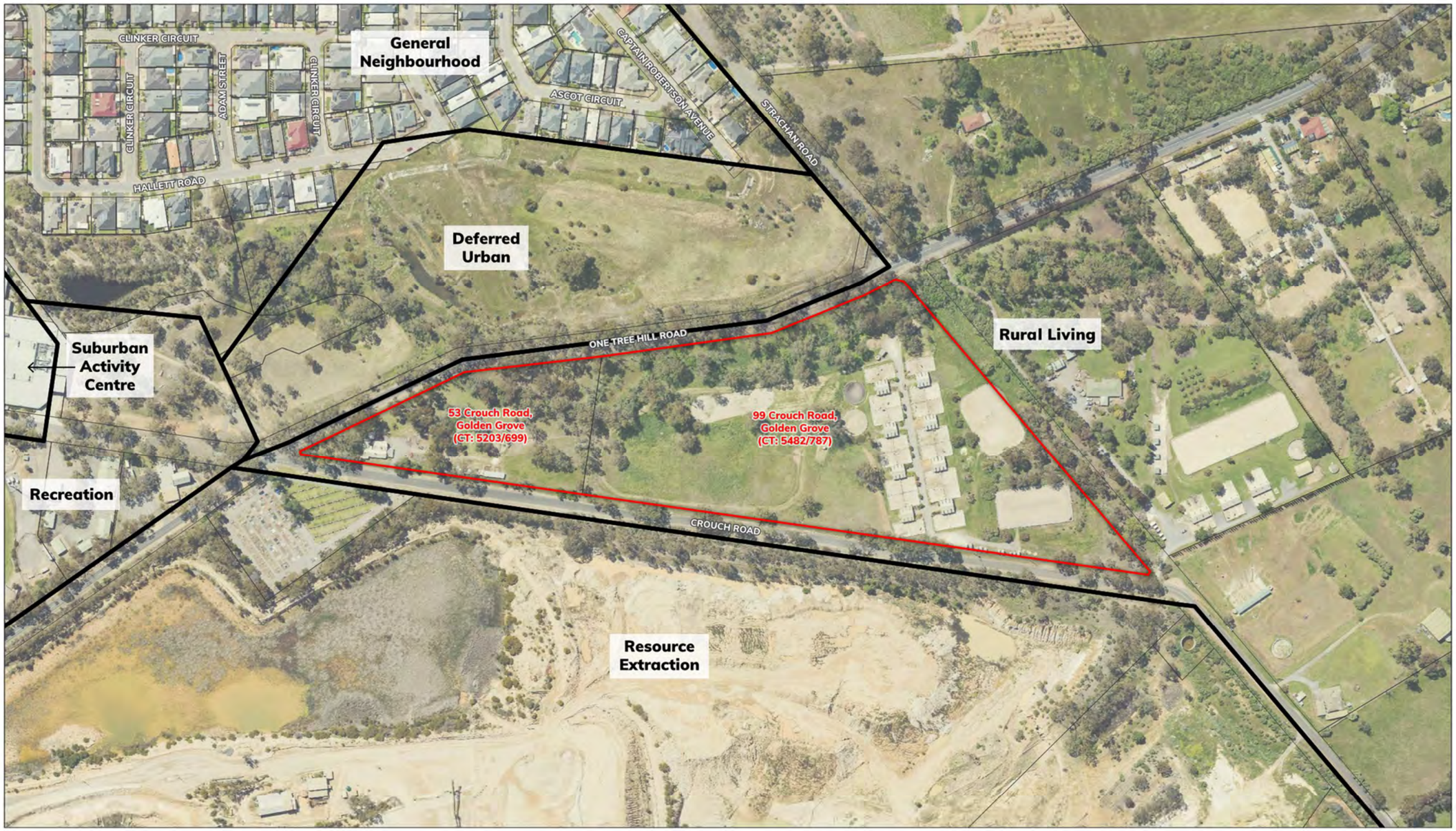
0 25 50 100m

SCALE: 1:3,000 @ A3

Legend

- Area Affected
- Watercourse
- Cadastre

URPS



CURRENT ZONING Golden Grove

JOB REF.	21ADL-0927
PREPARED BY.	MP
DATE.	29.06.21
REVISION.	1
DATA SOURCE.	MetroMap (11.10.20)

0 25 50 100m

SCALE: 1:3,000 @ A3

Legend

- Area Affected
- Zone Boundary
- Cadastre

URPS

ATTACHMENT B

Timetable for Code Amendment by Proponent

Step	Responsibility	Timeframe
Approval of the Proposal to Initiate		
Review of Proposal to Initiate to confirm all mandatory requirements are met (timeframe will be put on hold if further information is required). Referral to the Minister to request advice from the Commission	AGD	2 weeks *(includes lodgement and allocation + referral to Government Agencies within the first week)*
Minister requests advice from the Commission.	Minister	2 weeks
Referral to Government Agencies for comment (where necessary)	AGD, Relevant Government Agencies	+ 2 weeks
Consideration of Proposal to Initiate and advice to the Minister	Commission (Delegate)	3 weeks
	Commission	+ 3 weeks
Proposal to Initiate agreed to by the Minister	Minister	2 weeks
Preparation of the Code Amendment		
Engagement Plan Prepared. Investigations conducted; Code Amendment Report prepared The Drafting instructions and draft mapping provided to AGD	Designated Entity	4 weeks
AGD prepares Amendment Instructions and Mapping and provides to Council for consultation purposes	AGD	1 week
Preparation of Materials for Consultation	Designated Entity	Per Engagement Plan
Engagement on the Code Amendment		
Code Amendment Report released for public consultation in accordance with the Community Engagement Charter and the prepared Community Engagement Plan	Designated Entity	Per Engagement Plan
Consideration of Engagement and Finalisation of Amendments		
Submissions summarised; Amended drafting instructions provided, Engagement Report prepared and lodged with AGD	Designated Entity	6 Weeks
Assess the amendment and engagement. Prepare report to the Commission or delegate *Timeframe will be put on hold if further information is required, or if there are unresolved issues*	AGD	4 weeks
Consideration of Advice	Commission (Delegate)	2 weeks *(includes 1 week to process through Minister's office)*

Step	Responsibility	Timeframe
	Commission	+ 3 weeks
Decision Process		
Minister considers the Code Amendment Report and the Engagement Report and makes decision	Minister	3 weeks
[illegible]		
Go- Live- Publish on the PlanSA Portal	AGD	2-4 weeks
Parliamentary Scrutiny		
Referral of approved Code Amendment to ERDC	AGD	8 weeks

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T (08) 8397 7444 W cttg.sa.gov.au S fb.com/teatreegullycouncil ABN 69 488 562 969

CITY OF TEA TREE GULLY
Naturally Better

<Insert addressee name>
<Insert company name, if applicable>
<Insert address>
<SUBURB STATE POSTCODE>

23 August 2021
Our ref: D21/60249

Dear <insert addressee first name>

Proposal to rezone the Golden Grove Rural Living Zone to a residential zone

I am writing to advise you of a recent Council decision to take the first step in considering a proposal by YAS Property & Development and Villawood Properties (the developers) to rezone land within the Golden Grove Rural Living Zone to a residential zone, with the potential to accommodate 1,500 new houses.

The developers have requested that Council initiate and lead the rezoning process, and that they will themselves fund the process and conduct the investigations, to be overseen by Council.

Your property has been identified as land within the area proposed for the rezoning (see map below). Council is aware that the developers have a legal interest in the majority of properties within the affected area. Notwithstanding this, if Council resolves to proceed with investigations for a rezoning, all property owners in the affected area are considered to be stakeholders and they will be appropriately engaged by Council in the process.

Background

The planning rules that govern what land can be used for are contained within the Planning and Design Code (the Code) which applies to the whole of South Australia. Each portion of land is allocated a zone within the Code, which provides clear direction on the type of land use expected on that land (e.g. residential, industrial, commercial land uses), and guides how it should be designed.

The Rural Living Zone provides for a spacious residential lifestyle within a semi-rural or semi-natural environment, with opportunities for a range of low-intensity rural and business activities.

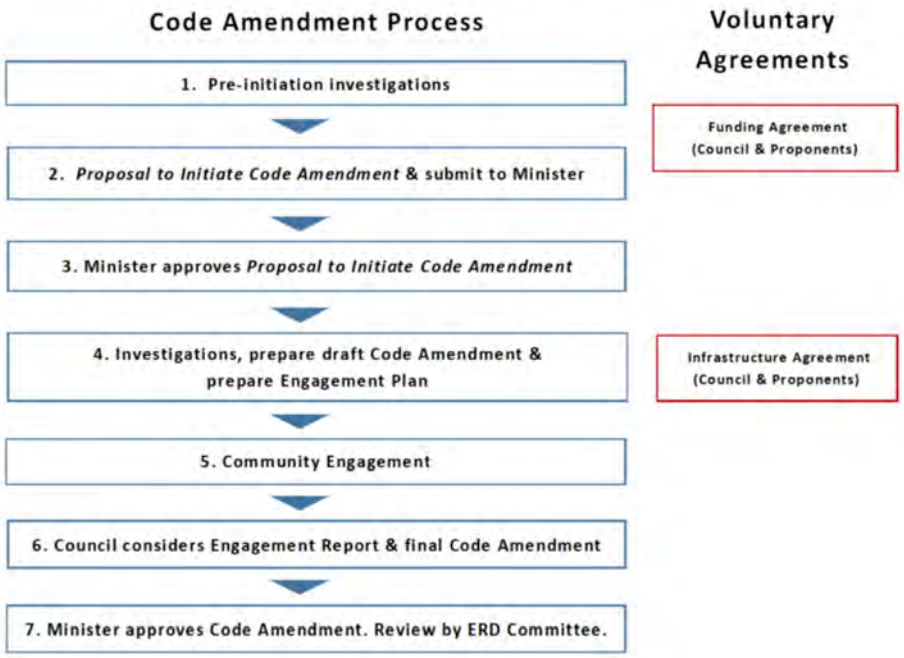
In order for the land to be rezoned to another zone that allows more housing, a Code Amendment is required, which is a legislated process under the *Planning, Development and Infrastructure Act 2016* (PDI Act).



Map 1 - Area affected by the rezoning.

The process

An overview of the Code Amendment process is as follows:



Step 1
Currently, we are at Step 1 of the process. Council staff are verifying pre-initiation investigations undertaken by the developer and, when satisfied that these investigations are adequate, will prepare a report for Council to consider whether it wishes to formally commence the process. The report will consider:

- Whether the proposal aligns with state, regional and Council strategies
- Whether current policies in the Code unnecessarily restrict appropriate development
- How the Code Amendment affects the community
- Whether the proposed policy change has considerable social, economic and /or environmental impact
- Whether the Code Amendment can be project managed by Council staff
- A funding agreement between Council and the developers.

Step 2
If Council agrees to initiate the Code Amendment, the proposal will be submitted to the Minister for Planning. If Council does not support the proposed initiation, the process ends here.

Step 3
In Step 3, the Minister will consider the Proposal to Initiate the Code Amendment and if the Minister does not support the proposed amendment, the process ends here.

Step 4
Council would lead the Code Amendment, however, the developers will fund the rezoning process and assist with the investigations. Council is under no obligation to proceed with the process or approve the Code Amendment.

Investigations will focus on the impacts and opportunities this significant proposal might have for our community, including but not limited to roads and traffic, the environment, stormwater, heritage, parks and reserves. Investigations will also look at medical services, transport, schools, mining and our local economy. From here, the most appropriate zone and planning policies are prepared to form the draft Code Amendment.

Step 5
The Code Amendment process includes an opportunity for the community to have its say on the draft Code Amendment Council will consider all feedback provided.

Steps 6 & 7
Subsequent steps involve approvals by the Council, Minister for Planning and the Environment Resource and Development Committee of the Parliament before the rezoning takes effect. Each step relies on the previous step being approved. If this does not occur, the process ends at that point. The entire process can take up to 2 years.

Next Steps

Council has not yet decided whether it will proceed to Step 2, as more information is required to make that decision.

A report will be presented to Council in the coming months when Council will formally consider the draft *Proposal to Initiate a Code Amendment* and decide whether it will seek the Minister's approval to initiate the Code Amendment.

In the meantime, if you have any questions about the proposal or the steps in the process, please do not hesitate to contact me or Council's Senior Strategy Planner, Cherie Gill on 8397 7444.

Yours sincerely



Ingrid Wilkshire
Manager City Strategy