

## HPG GENERAL PTY LTD





# Preliminary Site Investigation

13-19 Canberra Avenue, St Leonards NSW

# Document Control

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## Executive Summary

HPG General Pty Ltd engaged EI Australia Pty Ltd (EI) to undertake a Preliminary Site Investigation (PSI) of 13-19 Canberra Avenue, St Leonards NSW ('the site').

This PSI formed part of an application to Lane Cove Municipal Council for land redevelopment.

### Objectives

The primary objective of this investigation was to provide a qualitative assessment of the environmental condition of the site, by appraising the potential for contamination on the basis of field observations, historical land uses and a groundwater monitoring event (GME). A secondary objective was to make recommendations for further environmental investigation of the site, in relation to the proposed development.

### Key Findings

The key findings of this PSI were as follows:

- The site was a rectangular shaped block of land (2629.2m<sup>2</sup> in total area), comprised of four, low density residential properties.
- The site had been used for low density, residential purposes since 1930 (at least). There had been minimal change to its layout since that time. There was no evidence of a major excavation, or filling activity, taking place. There was no evidence that market gardening (orchard) activities occurred on the land.
- Surrounding areas were largely comprised of (low to high density) residential properties. Between 1948-1976 (at least), commercial activities, including service stations, dry cleaners and motor garages, had been located 160-250m to the north (up-gradient) of the subject site. The North Shore railway corridor was approximately 100m east of the site.
- The site was free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*.
- The site was not included on the *List of NSW Contaminated Sites Notified to the EPA*.
- Visual and olfactory evidences of (gross) contamination, including fragments of fibre cement sheeting (FCS) and paint chips, were not detected on any part of the site.
- There was no evidence that an underground storage tank (UST) was present on the site. No above-ground storage tank (AST) was present.
- The subsurface is likely to consist of topsoil, overlying shallow fill (<0.5m thickness), residual clay and (weathered) shale bedrock and sandstones. The potential for acid sulfate soils (ASS) to be present on the site was extremely low.
- The depth to groundwater was 7.18m below ground level (BGL), indicating that the water bearing zone does not intersect site fill materials. The local groundwater was considered to be acidic and fresh. All concentrations of the contaminants of potential concern (COPC) in the groundwater sample were either below the adopted criteria or consistent with natural (background) conditions for long standing, urban environments.

Based on the findings of this PSI, and with consideration of EI's Statement of Limitations (**Section 8**), it was concluded that the potential for contamination to exist on the site was low. The site was deemed suitable for the proposed (mixed commercial / high density residential / child care centre) land use, in accordance with Clause 7 of *State Environmental Planning Policy 55 - Remediation of Land*.

# 1. Introduction

## 1.1 Background

HPG General Pty Ltd ('the client') engaged EI Australia Pty Ltd (EI) to undertake a Preliminary Site Investigation (PSI) of 13-19 Canberra Avenue, St Leonards NSW (herein referred to as 'the site').

The site is located approximately 5km north-northwest of the Sydney central business district, within the Local Government Area (LGA) of Lane Cove Municipal Council (**Figure 1, Appendix A**). At the time of this PSI, it was comprised of four, low density, residential properties, corresponding to Lots 11-14 in Deposited Plan 7259 and covering a total area of 2629.2m<sup>2</sup> (**Figure 2, Appendix A**).

It was understood that this investigation was required to appraise the environmental (potential contamination) condition of the site, as part of an application to Lane Cove Municipal Council for its redevelopment.

## 1.2 Proposed Development

Based on the supplied architectural plans (**Appendix B**), the proposed development involved demolition of all existing structures, followed by the construction of a thirteen-storey, mixed-use building, and overlying four basement levels.

At ground level, the building will comprise a retail stores and the first level comprising of child care centre, outdoor play area and community hall. The upper floors will be comprised of residential apartments. Two landscaped, set back areas with retained (deep) soils are earmarked for the north eastern and southern boundaries.

## 1.3 Regulatory Framework

The following regulatory framework and guidelines were considered during this PSI:

- *Contaminated Land Management Act 1997* (CLM Act 1997);
- *Protection of the Environment Operations Act 1997* (POEO Act 1997);
- *NSW Environmental Planning and Assessment Act 1979* (the EP&A Act 1979); in particular
- *State Environmental Planning Policy 55 - Remediation of Land* (SEPP 55);
- *Lane Cove Local Environmental Plan 2009*;
- NEPC (2013) *National Environment Protection (Assessment of Site Contamination) Amendment Measure*;
- EPA (2017) *Guidelines for the NSW Site Auditor Scheme*; and
- EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*.

## 1.4 Project Objectives

The primary objective of this PSI was to provide a qualitative assessment of the environmental condition of the site, by appraising the potential for contamination on the basis of field observations, historical land uses and a groundwater monitoring event (GME).

A secondary objective was to make recommendations for further environmental investigation of the site, in relation to the proposed development.

## 1.5 Scope of Works

In order to achieve the above objectives, the following scope of works was completed:

- Review of relevant (hydro)geological and soil landscape maps for the project area;
- A search for groundwater bore records within close vicinity (500m radius) of the site;
- A site walkover inspection;
- Review of site history, based on land title records, aerial photographs, property files archived by Lane Cove Municipal Council and an environmental risk and planning report compiled by Lotsearch Pty Ltd;
- A search of SafeWork NSW records, for information relating to the storage of hazardous chemicals, including possible underground tank approvals and locations;
- Searches of public registers maintained by the New South Wales Environment Protection Authority (EPA) for statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*;
- A search of the *List of NSW Contaminated Sites Notified to the EPA*;
- The sampling of groundwater from an existing monitoring well, installed as part of a separate geotechnical investigation of the site, with laboratory analysis for the contaminants of potential concern (COPC); and
- Data interpretation and reporting.

This PSI report was completed with reference to the EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*. It documents the investigation works, with discussion of the findings in regards to potential exposure pathways to human health and the environment. It concludes with statements concerning the potential for contamination to exist on the land and the site's suitability for the proposed (mixed commercial / high density residential / child care centre) land use.

## 2. Site Description

### 2.1 Property Identification

The site identification details and associated information are presented in **Table 2-1**. Site locality and layout plans are shown in **Figures 1 and 2 (Appendix A)**. Refer also to **Appendix C** for site photographs.

**Table 2-1 Site Identification, Location and Zoning**

Attribute	Description
Street Address	13-19 Canberra Avenue, St Leonards NSW
Location	Approximately 5km north-northwest of the Sydney central business district. Located on the southern side of the Pacific Highway. Canberra Avenue lines the eastern boundary. Situating in a residential area, with recreational uses to the south east, south west and east. The North Shore Railway is located further east.
Site Coordinates	South-east corner (under GDA2020-MGA56): Easting: 332871.983; Northing: 6255641.335. (Source: <a href="https://maps.six.nsw.gov.au/">https://maps.six.nsw.gov.au/</a> )
Area	2,629.2m <sup>2</sup>
Lots and DPs	Lots 11-14 in Deposited Plan 7259 (19 Canberra Avenue; 677.4m <sup>2</sup> )
State Survey Marks	Two State Survey marks are situated close to the site: <ul style="list-style-type: none"><li>▪ SS86105: adjacent to 13 Canberra Avenue; and</li><li>▪ SS86106: approximately 79m north north-east, on Canberra Avenue.</li></ul> (Source: <a href="https://maps.six.nsw.gov.au/">https://maps.six.nsw.gov.au/</a> )
Parish	Willoughby
County	Cumberland
LGA	Lane Cove Municipal Council
Current Zoning	R4 – High Density Residential (Lane Cove Local Environmental Plan 2009) <b>Note:</b> B3 commercial zoning surrounds the residential island along Pacific Highway, from the northern side and along the eastern side of the railway line.
Site Description	Comprised of four, low density, residential properties (three single storey and one double storey houses, with sheds, car ports and/or garages). Non-built areas were either concrete paved, or comprised of vegetation.

### 2.2 Surrounding Land Use

The site is situated within an area of mixed use, as described in **Table 2-2**. Local residents and recreational land users represented the sensitive receptors with respect to any site contamination.

**Table 2-2 Surrounding Land Uses**

Direction	Land Use Description	Sensitive Receptors (distance from site)
North	Residential properties	Residential (immediately adjacent)
South	Residential properties	Residential (immediately adjacent)
East	Canberra Avenue then, Newlands Park	Public recreational area (about 60m south east)
West	Residential properties	Residential (immediately adjacent)

## 2.3 Regional Setting

Local topography, (hydro)geology and soil landscape information is summarised in **Table 2-3**.

**Table 2-3 Regional Setting Information**

Attribute	Description
Topography	The site generally slopes towards the south east. Relative levels (RLs) vary from 64.5m AHD in the north west corner, to 56.7m AHD in the south east corner.
Site Drainage	Likely to be consistent with the general slope of the site. Runoff expected to be collected by pit and pipe systems connected to Canberra Avenue, then released into the municipal stormwater system.
Regional Geology	Information on regional sub-surface conditions, referenced from the DMR (1983) <i>Sydney 1:100,000 Geological Map</i> , indicates the site is underlain by Ashfield ( <i>Rwa</i> ) and Bringelly ( <i>Rwb</i> ) shale formations of the Wianamatta Group. Ashfield Shale is comprised of laminite and dark grey shale. Bringelly Shale consists of shale, calcareous claystone, laminite, fine to medium grained lithic-quartz sandstone.
Soil Landscape	According to the DPIE (2020) <i>eSPADE v2.1 Portal</i> , the site overlies a Glenorie ( <i>gn</i> ) erosional landscape. This landscape is characterised by undulating to rolling low hills on Wianamatta Group shales (local relief 50-80m; slopes 5-20%; narrow ridges, hillcrests and valleys).
Acid Sulfate Soil (ASS) Risk	With reference to the <i>Prospect-Parramatta Acid Sulfate Soil Risk Map</i> (1:25,000 scale, Murphy 1997), the site lies within the class description of 'No Known Occurrence.' In such cases, ASSs are not known or expected to occur and "land management activities are not likely to be affected by ASS materials".  The site is not mapped with respect to Acid Sulfate Soils on the Lane Cove Local Environmental Plan 2009.  Given the site's elevation (64.5-56.7m AHD, it was concluded that the risk of ASS presence on-site was extremely low.
Nearest Water Feature	Berry Creek (approximately 395 metres south)
Groundwater Flow Direction	Anticipated to be south-easterly, towards Berry Creek. Berry Creek discharges into Gore Cove, Port Jackson (Sydney Harbour).

## 2.4 Groundwater Bore Records and Local Groundwater Use

An online search for groundwater bores registered with WaterNSW was conducted by EI on 8 July 2021 (Ref. <https://realtimedata.waternsw.com.au/water.stm>). The search did not identify any registered bores within a 500m radius of the site (**Appendix D**). This indicated that the local groundwater resource was not being (heavily) utilised.

## 2.5 Site Walkover Inspection

Site observations were recorded during a walkover inspection conducted on 29 June 2021. A summary of these observations is detailed below and photographs taken during the inspection are present in **Appendix C**.

- The site consisted of four, low density, residential properties (three single storey and one double storey houses, with sheds, car ports and/or garages).
- Remaining areas were vacant, covered by either concrete pavement or vegetation.
- Fibre cement sheeting (FCS) was identified on all four dwellings and their ancillary structures. All FCS was assumed to be asbestos-containing material (ACM).
- All buildings appeared in a good, well maintained condition. Whilst no major paint flaking was observed, the presence of lead-based paints (LBP) on the external surfaces was expected.
- All concrete driveway slabs on the site appeared to be in good condition.
- Yard areas were vegetated with grass, weeds, mature trees and (flowering) shrubs. The diversity of plant types suggested that phytotoxicity was not an issue for site soils (<2m BGL at least).
- No visual evidence of land contamination was observed on any part of the site at the time of the inspection (including fragments of FCS and paint chips).
- No visual evidence of infrastructure associated with an underground storage tank (UST) was observed on the site. No above-ground storage tank (AST) was present.
- No unusual odour was detected on any part of the site during the inspection.
- There was no NSW Fire and Rescue Station (or Training College) in the vicinity (<100m) of the site.

At the mid-point of the boundary separating 13 and 15 Canberra Avenue was a groundwater monitoring well (**Figure 2, Appendix A**). This well had recently been installed (<2 hours prior to the site inspection), as part of a geotechnical investigation conducted by a separate consultant. It was understood that this well could be utilised for a GME, if deemed warranted for the PSI.



## 3. Site History and Searches

### 3.1 Land Titles Information

A land titles search request was submitted to InfoTrack Pty Ltd on 17 June 2021. A response was pending at the time of report writing. Copies of relevant documents will be presented in **Appendix E** (of the final report). A summary of the previous and current registered proprietors will be presented in **Table 3-1**.

**Table 3-1 Summary of Owner History**

Period	Registered Proprietor(s) and Occupations (where documented)
<b>13 Canberra Avenue (Lot 11 Section 3 in DP 7259)</b>	
1921 to 1921	George William Richards (Builder)
	John Samuel Turner Allen (Plumber)
1921 to 1941	Lawrence George Clissold (Railway Sub Foreman)
1941 to 1949	Alexander Donaldson (Ship Master)
1949 to 1949	Mary Theresa Donaldson (Widow)
	Herbert Graham Pratten (Grazier)
	(Transmission Application not investigated)
1949 to 1965	Elsie Anne Clouston (Widow)
1965 to 1967	Arthur Mark Clouston (Clerk)
	(Section 94 Application not investigated)
1977 to 1977	Maxwell Gordon Cracknell (Administrator)
	Lorrain Ann Cracknell (Married Woman)
	Violet Dorothy Pryor (Administrator)
	Joyce Christie (Administrator)
1977 to 1982	Maxwell Cracknell (Administrator)
	David Ayliffe (Administrator)
	Peter St. John Hobson (Administrator)
	Violet Dorothy Pryor (& her deceased estate)
1982 to 1993	Joyce Christie (Administrator) (Now, Joyce Chesed)
	Maxwell Cracknell (Administrator) (Now, Maxwell Gordon Cracknell)
	David Ayliffe (Administrator) (Now, David Stephen Ayliffe)
1993 to 1999	Gerard William Sont
1999 to 2007	Christopher Michailidis
2007 to 2018	Georgia Kate Mor

Period	Registered Proprietor(s) and Occupations (where documented)
2018 to Date	# Cresco-Piety Csl Pty Ltd
<b>15 Canberra Avenue (Lot 12 Section 3 in DP 7259)</b>	
1921 to 1922	George William Richards (Builder)
	John Samuel Turner Allen (Plumber)
1922 to 1924	Harold Clarke (Railway Official)
1924 to 1925	Cuthbert Dawson (Gentleman)
1925 to 1926	Arthur C Abrahams Limited
1927 to 1932	George Arthur Charters (Grazier)
1932 to 1936	Mary Kaye (Widow)
1936 to 1957	John Arthur Mini (Telegraph Operator)
	Brian Harcourt Webb (Garage Proprietor)
1957 to 1982	Gloria Olive Webb (Married Woman)
1982 to 1996	Brian Harcourt Webb (Garage Proprietor)
	Carlo Edwin Garofali
1996 to 1999	Kathleen Heidi Garofali
	David John Simpson
1999 to 2001	Paula Anne Swan
	Dianne Elizabeth Campbell
2001 to 2010	Michael Robert Ward
2010 to 2018	Dianne Elizabeth Campbell
2018 to Date	# Cresco-Piety Csl Pty Ltd
<b>17 Canberra Avenue (Lot 13 Section 3 in DP 7259)</b>	
1924 to 1959	Alice Williamson (Married Woman)
1959 to 1970	Elizabeth Watt Williamson (Spinster)
	(Section 94 Application not investigated)
1970 to 1971	John Beneke (Medical Practitioner)
1971 to 1975	Mapik Pty. Limited
	Harry Victor Bisby (Trust Manager)
1975 to 1984	Agnes Rose Bisby (Married Woman)
1984 to 1996	Agnes Rose Bisby (Widow)
1996 to 1997	Paul Victor Bisby

Period	Registered Proprietor(s) and Occupations (where documented)
1997 to 2015	Prisca Shing Lan Fai
2015 to 2015	Jeffrey Thomas Fai (Re the Estate of Priscilla Shing Lan Fai)
2015 to Date	# Ho-Chien Hsieh
<b>19 Canberra Avenue (Lot 14 Section 3 in DP 7259)</b>	
1923 to 1951	Louisa Jones (Widow)
1951 to 1984	James Jones (Harbourer) (Transmission Application not investigated)
1984 to 1999	Kaare Rodsethol Elly Rodsethol (Transmission Application not investigated)
1999 to 2000	Mohamed Zohdy Rateb
2000 to 2004	Amelia Zoe Liddy
2004 to 2005	Sum Hung Gan Choo Lian Connie Gan Suzanne Su-Chien Gan
2005 to 2013	Charmaine Lisa England Carl James England
2013 to 2015	James Donald Garton Leslie Ann Garton
2015 to Date	# Meng-Hsuan Hsieh

# Denotes current registered proprietor

### 3.2 Historical Aerial Photographs

Information relating to potential land uses was obtained from the following aerial photographs:

- **1930:** Map 3422, Sydney, 6-3-1930, Run 4;
- **1942:** Map 3577, Sydney, 15-6-1942, Run 6;
- **1951:** 468- 83;
- **1961:** NSW 1048 5097;
- **1978:** NSW 2707/73 UAg 1025 151,45;

- **1986:** NSW 3528/54 UAGII 3057 153,10;
- **1998:** NSW 4452, Sydney, 29-9-1998, Run 10;
- **2005:** NSW 4987, Sydney, 10-12-2005, Run 9;
- **2018:** Google Earth.

A summary of the relevant information is presented in **Table 3-1**

**Table 3-2 Summary of Aerial Photograph History**

Year	Site Use	Surrounding Land Use
1930	The site was comprised of houses.	Surrounding areas consisted of residential properties. Recent B4 mixed use zoning area was predominantly and recent B3 commercial zoning area was partially (south western side) occupied located at the northern side of the subjected land. Northern Shore Railway can be visually identified. Eastern side of the railway had been well developed with structures (B3 and B4 zoning areas). Construction of streets and lot boundaries evident.
1942	Site unchanged from 1930.	Residential properties had not been changed in all cardinal directions.
1951	Site unchanged from 1942.	Commercial and industrial developments identified at northern side of Pacific highway. Commercial structures had been built southern side of Pacific highway (recent B3 commercial zoning area).
1961	Site unchanged from 1951.	Commercial and industrial development constructions at northern Pacific highway identified.
1978	Site unchanged from 1961.	Surrounding areas from the south-west to the east were largely developed with houses. Exceptions included the land at the west (corner of current Victoria and Kissing Point Roads) and four lots to the east. Southern portion had been developed into an industrial area.
1986	Site unchanged from 1978.	Surrounding areas were largely unchanged. Land at the west had structure similar to a service station, with petrol pump structure at the centre and shed at the side and concrete driveways in and out. Land use at the north-east appeared to be for market garden.
1998	Site unchanged from 1986.	Surrounding areas were largely unchanged.
2005	Site unchanged from 1998.	Surrounding areas were largely unchanged.
2018	Site unchanged from 2005.	New developments evident south and west, with similar shape as present.

In summary, the entire site had been used for residential purposes since 1930 (at least). There was minimal change to its layout during the surveyed period.

Surrounding areas largely comprised of (low to high density) residential properties throughout the surveyed period. Commercial activities were restricted to the B3 and B4 Mixed Use Zones, located 150m north of the subject site.

### 3.3 Council Information

To access property files archived by Lane Cove Municipal Council was requested on 11<sup>th</sup> June 2021. Lane Cove Council's database just allows reaching documents back to 2006. It is stated all historical files prior to 2006 had no digital copies can be reached online. Also it is mentioned that the records between 2006- 1963 were kept in Penrith City Council. Due to Covid-19

restrictions it is not allowed reach the files in person. Copies of relevant documents will be presented in **Appendix E** (of the final report).

### 3.4 LotSearch Report

Searches of historical business directories, which included previous dry cleaners, motor garages and service stations in the area, were conducted through LotSearch Pty Ltd. Copies of relevant documents are presented in **Appendix F**. A summary is presented in **Table 3-1**.

**Table 3-3 Historical Commercial Activities**

Suburb	Activity	Address	Distance	Timeline	Business Name
St Leonards	Service Station	54-56 Pacific Highway	160 north west	1948-1958	St Leonard Garage
		50 Pacific Highway		1958-1962	
St Leonards	Dry Cleaner	36 Pacific Highway	160m north	1972	Same Day Dry Cleaner
St Leonards	Motor Garage / Engineer	94 Pacific Highway	220m north west	1950-1954	Steves Filling Station
St Leonards	Service Station	Corner Herbert Street and Pacific Highway	240m north	1956-1962	K.G.A Service Station Pty Ltd
St Leonards	Dry Cleaner	552 Pacific Highway	240m north east	1948-1956	Catts & Co.
St Leonards	Service Station	100 Pacific Highway	250 north west	1953-1961	Mcintyre (Bill) W.A.

### 3.5 Safework NSW Search

A search of the *Stored Chemical Information Database* (SCID) maintained by SafeWork NSW was requested by EI for this PSI. This database contains information relating to the storage of dangerous goods, in particular the presence of (licensed) underground and above-ground storage tanks. Correspondence confirmed that SafeWork NSW did not hold any records relating to any part of the site. The correspondence is attached in **Appendix F**.

### 3.6 EPA Online Records

Searches of public registers maintained by the EPA for statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997* were conducted by EI for this PSI.

#### 3.6.1 Record of Notices under Section 58 of CLM Act 1997

An on-line search of the contaminated land public record of EPA notices was conducted on 8 February 2021. The contaminated land public record is a searchable database of:

- Orders made under Part 3 of the CLM Act 1997;
- Notices available to the public under Section 58 of the CLM Act 1997;
- Approved voluntary management proposals under the CLM Act 1997 that have not been fully carried out and where the approval of the EPA has not been revoked;
- Site audit statements provided to the EPA under Section 53B of the CLM Act 1997 that relate to significantly contaminated land;
- Where practicable, copies of anything formerly required to be part of the public record; and

- Actions taken by the EPA under Section 35 or 36 of the *Environmentally Hazardous Chemicals Act 1985* (EHC Act 1985).
- The search confirmed that the site and surrounding lands within close proximity ( $\leq 250\text{m}$ ) were not subject to any regulatory notices relevant to the above legislations.

### 3.6.2 List of NSW Contaminated Sites Notified to EPA

A search through the *List of NSW Contaminated Sites Notified to the EPA* under Section 60 of the CLM Act 1997 was conducted on 17 June 2021. This list is maintained by the EPA and includes properties on which contamination has been identified, but not deemed to be impacted significantly enough to warrant regulation under the act. The site had not been notified as contaminated to the EPA; however, two properties within 1km radius were identified (**Table 3-**).

**Table 3-4 Properties on the NSW List of Notified Sites**

Suburb	Name	Address	Distance	Activity	Management Class
St Leonards	Telstra Data Center	4A Herpert Street	730m north	Petroleum	Regulation not required
Waverton	Oyster Cove AGL	2 King Street	1000m south	Gaswork	Ongoing maintenance required to manage residual contamination

### 3.6.3 POEO Public Register

A search of the *Protection of the Environment Operations Act 1997* public register was conducted on 17 June 2021. This public register contains records related to environmental protection licences, applications, notices, audits, pollution studies and reduction programs.

The search confirmed that the site was not subject to any licensing agreements relevant to the above legislation. The nearby railway corridor was subject to licensing, however.



## 4. Conceptual Site Model

In accordance with NEPC (2013) *Schedule B2 – Guideline on Site Characterisation*, EI developed a conceptual site model (CSM) that assessed plausible linkages between potential contamination sources, migration pathways and receptors. The CSM also provides a framework for identifying gaps in the existing site characterisation.

### 4.1 Rationale

The primary purpose of this PSI was to appraise the potential for contamination to exist on the site. If it was deemed that there was such potential, the environmental and human-health risks associated with contamination were to be evaluated. These risks were defined as the probability that the utility of the site would be diminished by the presence of soil, soil vapour and/or groundwater contamination.

In the first instance, the potential for contamination was based on a desktop study, collating information from history searches and government-maintained databases, as well as a walkover inspection. Professional judgement was then applied, based on experience.

### 4.2 Summary of Site History

Based on the available historical information, the site had been used for low density, residential purposes since 1930 (at least). There had been minimal change to its layout since that time. There was no evidence of a major excavation, or filling activity, taking place. There was no evidence that market gardening (orchard) activities took place.

Surrounding areas were largely comprised of (low to high density) residential properties. Commercial activities, including service stations, dry cleaners and motor garages (with possible auto engineering), were restricted to the B3 and B4 Mixed Use Zones (1948-1976, at least). These were located 160-250m to the north, but up-gradient, of the subject site. The North Shore railway corridor was approximately 100m east of the site.

### 4.3 Predicted Subsurface Conditions

The subsurface is likely to consist of topsoil, overlying shallow fill, residual clay and (weathered) shale bedrock and sandstones.

### 4.4 Potential Contamination Sources

Sources of contamination in urbanised areas can include:

- Commercial activities involving chemical storage and usage;
- Imported fill soils of unknown origin and quality, used to grade paved and building areas;
- Application of pesticides beneath building footprints and around footings;
- Weathering of exposed building fabrics containing hazardous substances (including bonded ACM, lead-based paints and metallic surfaces) and/or deposition of such in near-surface soils;
- Leakage from vehicles in parking areas and along the driveways; and
- Off-site migration from neighbouring (up-gradient) commercial properties.

In addition to these issues, per- and poly- fluoroalkyl substances (PFAS), as well as EPA-recognised emerging chemicals, need to be considered when determining the potential for land contamination.

#### 4.4.1 Per- and Poly- Fluoroalkyl Substances

EPA (2017) requires that per- and poly- fluoroalkyl substances (PFAS) are considered when investigating land contamination. An assessment of the probability for PFAS occurrence is provided in Error! Reference source not found.. This was based on considerations outlined in the *PFAS National Environmental Management Plan* (HEPA, 2020) and EnRisk (2016) decision tree. In this instance, the potential for PFAS to be present on-site was low and subsequently PFAS sampling / analysis of soil and water was unwarranted.

**Table 4-1 PFAS Decision Tree**

Preliminary Screening	Probability of Occurrence <sup>1</sup>
Has an activity listed in NEMP (2020) <sup>2</sup> as being associated with PFAS contamination occurred on-site? If so, list activity. <i>Site likely to be used for residential during the whole life-cycle</i>	L
Has an activity listed in NEMP (2020) <sup>2</sup> as being associated with PFAS contamination occurred up-gradient or adjacent to the site? If so, list activity. <i>None.</i>	L
Did fire training involving the use of suppressants occur on-site between 1970 and 2010?	L
Did fire training occur up-gradient or adjacent to the site between 1970 and 2010? <sup>3</sup>	L
Have “fuel” fires ever occurred on-site between 1970 and 2010? (e.g. ignition of fuel (solvent, petrol, diesel, kero) tanks?)	L
Have PFAS been used in manufacturing or stored on-site? <sup>4</sup>	L
Could PFAS have been imported to the site in fill materials from a site with an activity listed in NEMP (2020)?	L
Could PFAS-contaminated groundwater or run-off have migrated on to the site?	L
Is the site or adjacent sites listed in the NSW EPA PFAS Investigation Program? <sup>5</sup>	L
If the probability is medium or high in any of the rows, does the site analytical suite need to be optimised to include preliminary sampling and testing for PFAS in soil (incl. ASLP testing) and waters?	N/A

**Notes:**

1 Probability: L – low (all necessary documentation has been reviewed and there is no recorded instance or compelling rationale); M – moderate (all necessary documentation has been reviewed and there is potential evidence of a recorded instance with compelling rationale); H – high (all necessary documentation has been reviewed and there is evidence of a recorded instance with compelling rationale).

2 Activities listed in Appendix B of the NEMP (2020).

3 ([https://www.oecd.org/env/ehs/risk-management/PFC\\_FINAL-Web.pdf](https://www.oecd.org/env/ehs/risk-management/PFC_FINAL-Web.pdf))

4 Runoff from up-gradient PFAS use may impact surface water, soil, sediment and groundwater.

5 PFAS is used wide range of industrial processes and consumer products, including in the manufacture of non-stick cookware, specialised garments and textiles, Scotchguard™ and similar products (used to protect fabric, furniture, leather and carpets from oils and stains), metal plating and in some types of fire-fighting foam.

6 (<https://www.nicnas.gov.au/chemical-information/factsheets/chemical-name/perfluorinated-chemicals-pfas>)

7 Refer to <https://www.epa.nsw.gov.au/your-environment/contaminated-land/pfas-investigation-program>.

#### 4.4.2 Emerging Chemicals

The EPA uses Chemical Control Orders (CCOs) as a primary legislative tool under the *Environmentally Hazardous Chemicals Act 1985* to control chemicals of concern and limit their potential impact on the environment. Considerations for chemicals controlled by CCOs, and other potential emerging chemicals, are outlined in **Table 4-2**. In this instance, the potential for an emerging chemical of concern to be present on-site was low, with the possible exceptions of pesticides in near surface soil (termite control at building footings).

**Table 4-2 Emerging or Controlled Chemicals**

Chemicals of Concern (CCO or emerging)	Decision
Were aluminium smelter wastes used or stored on site (CCO, 1986)?	No
Do dioxin contaminated wastes (CCO, 1986) have the potential to impact the site? <sup>1</sup>	No
Were organotin products (CCO, 1989) used or stored on site? <sup>2</sup>	No
Were polychlorinated biphenyls (PCBs) used or PCB wastes (CCO, 1997) stored on-site? <sup>3</sup>	No
Were scheduled chemical or wastes (CCO, 2004) used or stored? <sup>4</sup>	Possibility for pesticides to have been applied to footings and/or present in imported fill
Are other emerging chemicals suspected? <sup>5</sup>	No
If Yes to any questions, has site sampling suite been optimised to include sampling for these chemicals of concern?	N/A

**Notes:**

1 From burning of certain chemicals, smelting or chemical manufacturing or fire on or near the site.

2 From anti-fouling paints used or removed at boat and ship yards and marinas.

3 From older transformer oils and electrical capacitors

4 Twenty-four mostly organochlorine pesticides and industrial by-products

5 Other chemicals considered as emerging (e.g. 1,4 dioxane; associated with some CVOC).

#### 4.4.3 Likelihood for Site Contamination

Given the long-term (on-going) residential use of the site, EI considered the potential for near-surface (soil) contamination to be low. Contaminated groundwater was of concern, however, since service stations, dry cleaners and motor garages had all been north (i.e. up-gradient) of the site, within 160-250m distance.

EI thus considered it prudent to collect a representative sample from the groundwater well at the 13 / 15 Canberra Avenue property boundary, which had been installed as part of an independent geotechnical investigation (see **Section 2.5**). The COPC for local groundwater were considered to be:

- Priority Metals (PM) - arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc;
- Total Recoverable Hydrocarbons (TRH);
- Volatile Organic Compounds (VOC);
- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); and
- Chlorinated Volatile Organic Compounds (CVOC); and
- Polycyclic Aromatic Hydrocarbons (PAH).

#### 4.5 Exposure Pathways and Receptors

A qualitative assessment of the exposure pathways and associated risks to the identified human and environmental receptors relating to the potential sources of site contamination is presented in **Table 4-3**. This table thus summarised the CSM.

**Table 4-3 Summary of the Conceptual Site Model**

Potential Source	Impacted Area	COPC	Medium	Sensitive Receptor	Transport Mechanism	Exposure Pathway	Likelihood of Exposure Pathway
Imported fill soils of unknown origin and quality	Site wide	PM, TRH, BTEX, PAH, OCP, OPP, PCB and asbestos	Surface soil	Current occupiers Site workers during construction Adjacent site users Future site residents	Site earthworks Environmental erosion Surface runoff	Inhalation of asbestos fibres Dermal contact Ingestion Vapour intrusion	<b>Low</b> Minimal filling expected to be present (no evidence of a major cut/fill operation).
Historical application of pesticides		PM (arsenic and copper in particular), OCP and OPP	Surface soil (building footprint and footings)	Current occupiers Site workers during construction Adjacent site users Future site residents	Direct spraying Leaching Site earthworks Environmental erosion	Dermal contact Ingestion	<b>Low</b> If present, expected to be limited to shallow, building footing soils, due to the nature of their application. Metals and OCP are highly persistent in soils, however.
Leakage from vehicles		PM, TRH, BTEX and PAH	Surface soil	Current occupiers Site workers during construction Adjacent site users Future site residents	Direct spraying Leaching Site earthworks Environmental erosion	Dermal contact Ingestion	<b>Low</b> Contamination, if present, likely to be localised and restricted to surface (shallow) soils. The concrete driveway / parking areas on the site were in fair condition (not stained). Surface slabs would restrict vertical movement.
Hazardous building materials		PM (lead in particular) and asbestos	Soil	Current occupiers Site workers during construction Adjacent site users Future site residents	Weathering and fallout to ground surface Environmental erosion Wind dispersion	Inhalation of asbestos fibres Dermal contact Ingestion	<b>Low</b> Potential hazardous products identified in the existing structures (e.g. potential ACM and lead-based paints observed on external surfaces (e.g. walls and eaves); however, no debris identified on the ground surface. Good removal and clearance practices are recommended to avoid soil contamination.
Migration of contaminants from off-site sources		PM, TRH, VOC (including BTEX and CVOC) and PAH	Groundwater	Site workers during construction Future site residents Aquatic environment	Leaching Surface runoff Groundwater transport	Dermal contact Ingestion	<b>Moderate</b> Service stations / garages and dry cleaners existed in the vicinity (up-gradient, 160-250m). Significant chance for local contamination, although dilution and natural attenuation likely. Recommend utilisation of existing well for a GME.

## 5. Groundwater Sampling and Analysis

### 5.1 Sampling and Analytical Plan

A representative groundwater sample was collected from the groundwater well at the 13 / 15 Canberra Avenue property boundary, which had been installed as part of an independent geotechnical investigation (see **Section 2.5**). The sample was analysed for the COPC, those being:

- Priority Metals (PM) - arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc;
- Total Recoverable Hydrocarbons (TRH);
- Volatile Organic Compounds (VOC); including
- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); and
- Chlorinated Volatile Organic Compounds (CVOC); and
- Polycyclic Aromatic Hydrocarbons (PAH).

### 5.2 Sampling Methodology

The groundwater sampling works are described in **Table 5-**. The monitoring well location is illustrated in **Figure 2 (Appendix A)**.

**Table 5-1 Summary of Groundwater Sampling Methodology**

Activity/Item	Details
Well Construction	<p>The groundwater monitoring well, identified as BH01, was installed by Geosence Pty Ltd on 28 June 2021.</p> <p>Anecdotal details of construction were provided to EI, as follows:</p> <ul style="list-style-type: none"> <li>▪ BH01 installed to a depth of 18m BGL (screened from 6-18m BGL, well below the fill layer);</li> <li>▪ 50 mm, Class 18 uPVC, threaded, machine-slotted screen and casing;</li> <li>▪ Base and top of each well was sealed with a uPVC cap;</li> <li>▪ Annular, graded sand filter was applied to 300mm above top of screen interval;</li> <li>▪ Granular bentonite was applied above annular filter to seal the screened interval;</li> <li>▪ Cuttings backfill just below ground level; and</li> <li>▪ Surface completion comprised a -0.5m plastic J-cap closing the well, with a gatic cover at ground level.</li> </ul>
Well Gauging	<p>The monitoring well was gauged to determine standing water level (SWL) prior to purging at the commencement of the GME on 9 July 2021.</p> <p>Gauging was conducted with a water/oil interface probe.</p>
Well Purging and Field Testing	<p>The measurement of water quality parameters, including dissolved oxygen (DO), pH, electrical conductivity (EC), temperature (T) and reduction-oxidation potential (Redox), was conducted repeatedly during purging and the details were recorded onto field data sheets.</p> <p>Once three consecutive field measurements were recorded to within <math>\pm 10\%</math> for DO, <math>\pm 3\%</math> for EC, <math>\pm 0.2</math> units for pH, <math>\pm 0.2^\circ</math> for T and <math>\pm 20</math> millivolts (mV) for redox, this was considered to indicate that representative groundwater quality had been achieved.</p> <p>Final physio-chemical measurements are given in <b>Table 5-</b>.</p>
Groundwater Sampling and Preservation	<p>Groundwater was transferred directly into laboratory-supplied containers using a micropurge / pumping system. The containers ( with preservatives) were:</p> <ul style="list-style-type: none"> <li>▪ one, 1 litre amber glass, acid-washed and solvent-rinsed bottle;</li> <li>▪ two, 40ml glass vials, pre-preserved with dilute hydrochloric acid, Teflon-sealed; and</li> <li>▪ one, 250mL, HDPE bottle, pre-preserved with dilute nitric acid (1mL).</li> </ul>

Activity/Item	Details
	Samples for metals analysis were field-filtered using 0.45 µm pore-size membranes. All containers were filled with sample to the brim then capped and stored in insulated chests (containing ice bricks), until completion of the fieldwork and during sample transit to the laboratory.
Sample Transport	After sampling, the insulated chest (containing the samples and ice bricks) was transported to SGS Australia Pty Ltd (SGS; Alexandria laboratory) using strict chain-of-custody (COC) procedures. Sample receipt advice (SRA) was provided by the laboratory to document sample condition upon receipt. Copies of the SRA and COC certificates are presented in <b>Appendix G</b> .
Laboratory Analysis	Groundwater samples were analysed by SGS for the COPC. All analyses were conducted within the required holding period, as documented in the corresponding laboratory reports ( <b>Appendix G</b> ).

### 5.3 Assessment Criteria

The assessment criteria adopted for this investigation are identified in **Table 5-2**. These were selected from available published guidelines that are endorsed by national or state regulatory authorities.

**Table 5-2 Sources of the Adopted Groundwater Investigation Levels**

Adopted Guidelines	Rationale
ANZG (2018) GILs for Fresh Waters and NEPC (2013) Groundwater HSLs	<p><b>Groundwater Investigation Levels (GILs) for Fresh Waters</b></p> <p>ANZG (2018) provides GILs for typical, slightly-moderately disturbed aquatic ecosystems, Trigger Values (TVs) for the 95% level of protection of aquatic ecosystems; however, the 99% TVs were applied for the bio-accumulative analyte (mercury).</p> <p><b>Health-based Screening Levels (HSLs)</b></p> <p>The NEPC (2013) groundwater HSLs for vapour intrusion were used to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene impacts. The HSL-D thresholds for commercial and industrial settings were applied.</p>

### 5.4 Results

#### 5.4.1 Field Observations

The sampled groundwater was evaluated on the basis of odour and visual signs of contamination, with the following observations noted:

- Groundwater in the monitoring well was light brown - brown in colour, with low to medium turbidity;
- No olfactory or visual evidence of contamination was detected in the purged / sampled groundwater;
- No sheens were observed on the purged / sampled groundwater; and
- The observed standing water level was 7.18m.

Refer to **Table 5-3** for the final physio-chemical measurements.



**Table 5-3 Groundwater Field Data**

Well	SWL (m BGL)	DO (mg/L)	pH	EC ( $\mu\text{S}/\text{cm}$ )	T ( $^{\circ}\text{C}$ )	Redox <sup>1</sup> (mV)
BH01	7.18	2.51	5.77	3.99	20.63	84.4

**Notes:**

<sup>1</sup> Field redox reading (in mV) adjusted to Standard Hydrogen Electrode by adding potential of 205mV

## 5.4.2 Laboratory Analytical Results

Summary of the laboratory results for the groundwater sample BH01 is presented in **Table 5-4**.

**Table 5-4 Summary of Laboratory Analytical Results for Groundwater Sample BH01**

Analyte	Concentration ( $\mu\text{g}/\text{L}$ )	GIL	Compliance
<b>Priority Metals</b>			
Arsenic	<1		Yes
Cadmium	<0.1		Yes
Chromium (Total)	<1		Yes
Copper	<1		Yes
Lead	2 $\mu\text{g}/\text{L}$		Yes
Mercury	<0.1		Yes
Nickel	16	11	No
Zinc	53	8	No
<b>PAH</b>			
Naphthalene	<0.1		Yes
Benzo(a)pyrene	<0.1		Yes
Total PAH	<1		Yes
<b>BTEX</b>			
Benzene	<0.5		Yes
Toluene	<0.5		Yes
Ethyl benzene	<0.5		Yes
o-xylene	<0.5		Yes
m + p-xylene	<1		Yes
<b>TRH</b>			
F1	<50		Yes
F2	130 $\mu\text{g}/\text{L}$		No
F2 (silica gel clean-up)	<60		Yes
F3	<500		Yes
F4	<500		Yes
<b>VOC</b>			
Total VOC	<10		Yes
Chloroform	0.8		Yes

## 5.5 Local Groundwater Conditions

From the GME of 9 July 2021, the depth to groundwater was 7.18m BGL, indicating that the water bearing zone does not intersect site fill materials. Groundwater flow direction was inferred from the general topography to be south-east, towards Berry Creek.

The local groundwater was considered to be acidic (pH: 5.77) and fresh (EC: 3.99  $\mu\text{S}/\text{cm}$ ).

### ***Priority Metals Concentrations***

Elevated nickel and zinc concentrations were identified; however, the dissolved metal concentrations were consistent with natural (background) conditions for long standing, urban environments. Site soils were not considered to be the source of metal impacts, given the low levels and the likelihood that shallow filling did not intersect the groundwater table.

### ***Petroleum and Aromatic Hydrocarbon Concentrations***

All PAH, BTEX and TRH concentrations in the groundwater sample were below the corresponding practical quantitation limit (PQL), with the exception of the F2 fraction (130 $\mu\text{g}/\text{L}$ ). Following silica gel clean-up of the sample extract, the concentration was less than the PQL. This indicated that the TRH fraction was largely made up of polar compounds/metabolites (i.e. naturally occurring hydrocarbons like fats, lipids and/or petroleum hydrocarbon bio-degradation products) that are less volatile and less toxic to human health. Therefore the risk to human health and the environment was considered low.

### ***VOC Concentrations***

All VOC concentrations were less than the corresponding PQL, with the exception of chloroform (0.8  $\mu\text{g}/\text{L}$ ). This concentration was below the adopted ANGZ (2018) trigger limit.

## 6. Conclusion

The site identified as 13-19 Canberra Avenue, St Leonards NSW was the subject of a Preliminary Site Investigation, conducted in order to appraise the potential for on-site contamination. The key findings of this investigation were as follows:

- The site was a rectangular shaped block of land (2629.2m<sup>2</sup> in total area), comprised of four, low density residential properties.
- The site had been used for low density, residential purposes since 1930 (at least). There had been minimal change to its layout since that time. There was no evidence of a major excavation, or filling activity, taking place. There was no evidence that market gardening (orchard) activities occurred on the land.
- Surrounding areas were largely comprised of (low to high density) residential properties. Between 1948-1976 (at least), commercial activities, including service stations, dry cleaners and motor garages, had been located 160-250m to the north (up-gradient) of the subject site. The North Shore railway corridor was approximately 100m east of the site.
- The site was free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*.
- The site was not included on the *List of NSW Contaminated Sites Notified to the EPA*.
- Visual and olfactory evidences of (gross) contamination, including fragments of FCS and paint chips, were not detected on any part of the site.
- There was no evidence that a UST was present on the site. No AST was present.
- The subsurface is likely to consist of topsoil, overlying shallow fill (<0.5m thickness), residual clay and (weathered) shale bedrock and sandstones. The potential for ASS to be present on the site was extremely low.
- The depth to groundwater was 7.18m BGL, indicating that the water bearing zone does not intersect site fill materials. The local groundwater was considered to be acidic (pH: 5.77) and fresh (EC: 3.99 µS/cm). All COPC concentrations in the groundwater sample were either below the adopted criteria or consistent with natural (background) conditions for long standing, urban environments.

Based on the findings of this PSI, and with consideration of EI's Statement of Limitations (**Section 8**), it was concluded that the potential for contamination to exist on the site was low. The site was deemed suitable for the proposed (mixed commercial / high density residential / child care centre) land use, in accordance with Clause 7 of *State Environmental Planning Policy 55 - Remediation of Land*.

## 7. Recommendations

The following recommendations were provided in relation to the proposed development:

- Before commencement of any demolition works, all hazardous materials must be appropriately managed, to maintain worker health and safety and prevent the spread of hazardous substances
- Following demolition and removal of associated wastes, an inspection of the exposed surface should be performed by a suitably qualified environmental consultant.
- Under the proposed development (**Section 1.2** and **Appendix B**), bulk excavation of site soils will be conducted, in order to construct the lower ground / basement levels. All soil materials that are designated for off-site disposal, including any *virgin excavated natural material* (VENM), must be pre-classified in accordance the EPA (2014) *Waste Classification Guidelines*. In designing the sampling, analytical and quality plan (SAQP) for waste classification, the EPA (1995) *Sampling Design Guidelines* should be referred to and the analytical suite include the identified COPC (**Section 4.4.3**).
- Any material being imported to the site should be validated as suitable for the intended use in accordance with EPA guidelines.

EI note that these recommendations can be managed through the development application process, in accordance with *SEPP 55 – Remediation of Land*.

## 8. Statement of Limitations

This report has been prepared for the exclusive use of HPG General Pty Ltd, whom is the only intended beneficiary of EI's work. The scope of the investigation carried out for the purpose of this report was limited to that agreed with HPG General Pty Ltd.

No other party should rely on this document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

EI has used a degree of care and skill ordinarily exercised in similar investigations by reputable members of the environmental industry in Australia, as at the date of this document. No other warranty, expressed or implied, is made or intended. Each section of this report must be read in conjunction with the whole of this report, including its appendices.

The conclusions presented in this report are based on a limited assessment of historical and current uses of the site. Due to the preliminary nature of this investigation, findings are not based on actual samples collected or testing conducted. EI has relied upon information provided by the Client and other third parties to prepare this document, some of which could not be verified by EI due to the anecdotal or historical nature of the information.

EI's professional opinions are reasonable and based on its professional judgment, experience and training.

EI's professional opinions contained in this document are subject to modification if additional information is obtained through the data searches that have been initiated with government authorities.

Technical opinions may also be amended in the light of further investigation, observations, or validation testing and analysis during remedial activities. In some cases, further testing and analysis may be required, which may result in a further report with different conclusions.

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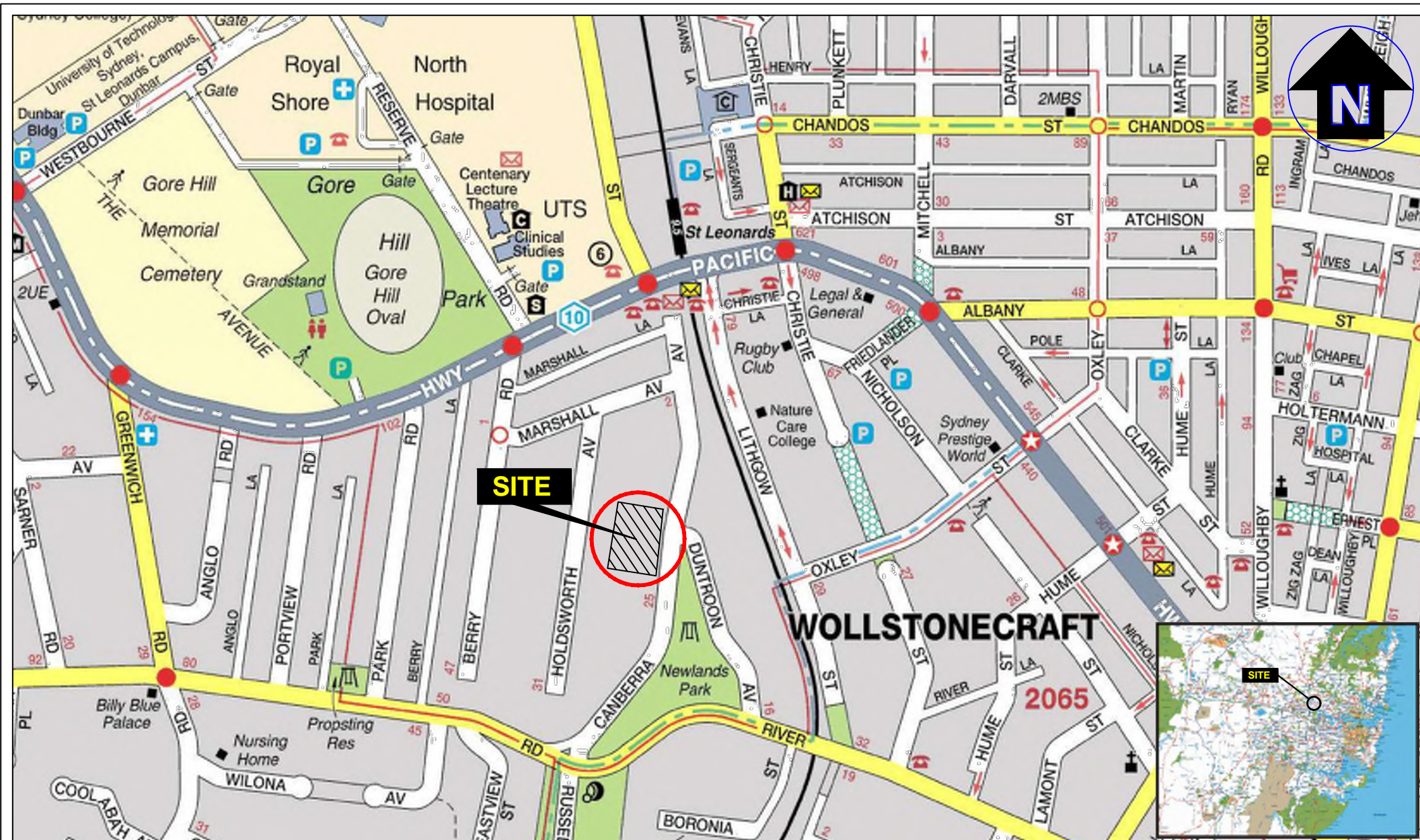
## Abbreviations

ACM	Asbestos Containing Materials
AHD	Australian Height Datum
ASS	Acid Sulfate Soil
AST	Above-ground Storage Tank
B(a)P	Benzo(a)Pyrene
BGL	Below Existing Ground Level
BTEX	Benzene, Toluene, Ethyl benzene, Xylene
CCO	Chemical Control Order
CLM	Contaminated Land Management
COC	Chain-Of-Custody
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
CVOC	Chlorinated Volatile Organic Compounds (a sub-set of the VOC suite)
DO	Dissolved Oxygen
DP	Deposited Plan
EC	Electrical Conductivity
EI	EI Australia
EPA	Environment Protection Authority (of New South Wales)
FCS	Fibre Cement Sheeting
FFL	Finished Floor Level
GME	Groundwater Monitoring Event
km	Kilometres
LEP	Local Environmental Plan
LGA	Local Government Area
m	Metres
µS/cm	Micro Siemens per Centimetre (EC unit)
mV	Millivolts
NATA	National Association of Testing Authorities, Australia
NEPC	National Environmental Protection Council
NEPM	National Environmental Protection Measure
NSW	New South Wales
OCP	Organochlorine Pesticides
OPP	Organophosphate Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PFAS	Per- and Poly- Fluoroalkyl Substances
POEO	Protection of the Environment Operations
PQL	Practical Quantitation Limit
PSI	Preliminary Site Investigation
Redox	Reduction-Oxidation Potential
RL	Relative Level
SEPP	State Environmental Planning Policy
SRA	Sample Receipt Advice
SWL	Standing Water Level
T	Temperature
TRH	Total Recoverable Hydrocarbons
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VENM	Virgin Excavated Natural Material
VOC	Volatile Organic Compounds

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## Appendix A - Figures

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Suite 6.01, 55 Miller Street, PYRMONT 2009  
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	T.M.
Approved:	-
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Scale:	Not To Scale

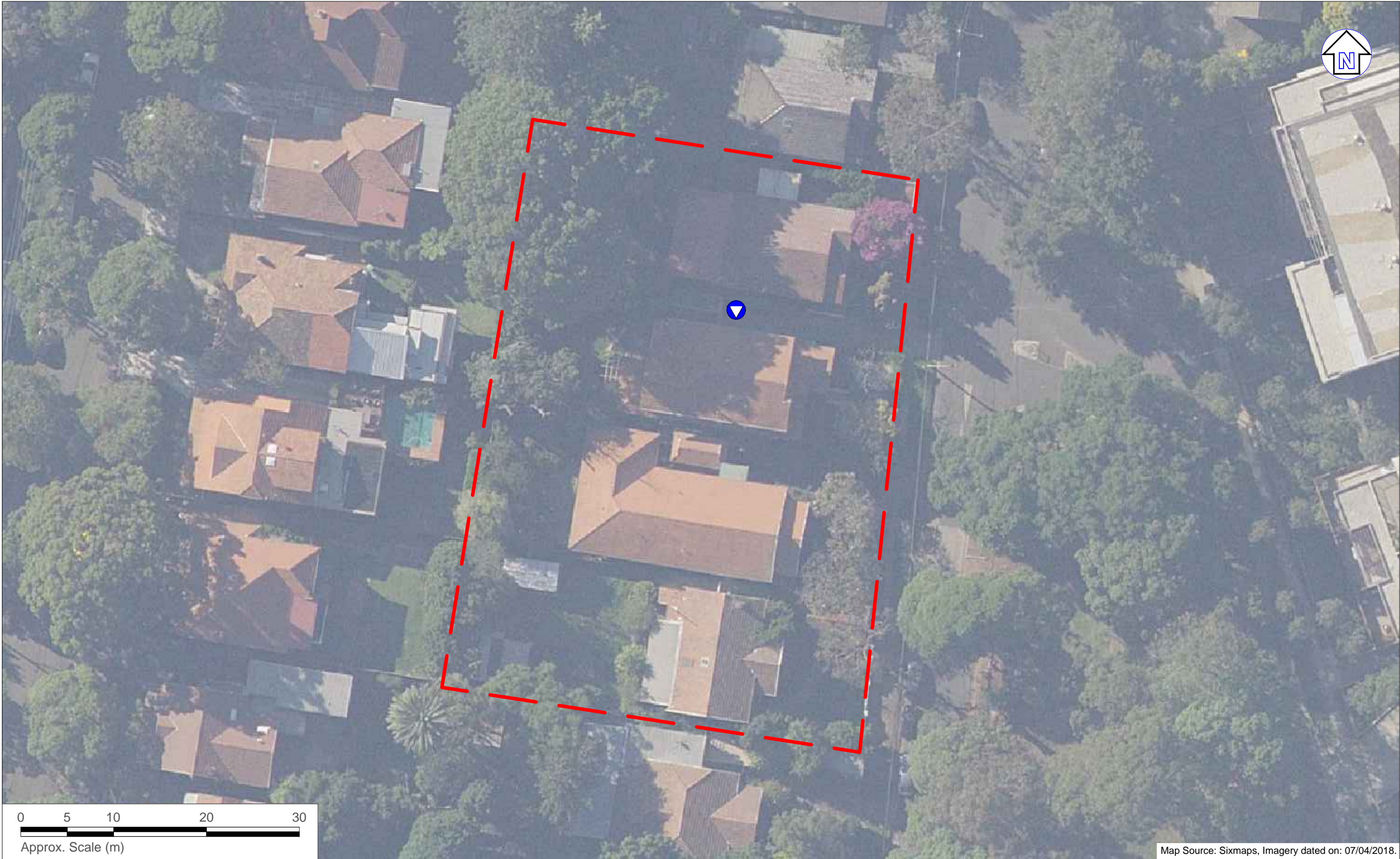
**HPG General Pty Ltd**  
Preliminary Site Investigation  
13-19 Canberra Avenue, St Leonards, NSW  
Site Locality Plan

Figure:



1

Project: E25217.E01





**LEGEND**

-  Approximate site boundary
-  BH01, Groundwater monitoring well



Suite 6.01, 55 Miller Street, PYRMONT 2009  
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn: E.S.

Approved: -

Date: 29-07-21

**HPG General Pty Ltd**  
Preliminary Site Investigations  
13-19 Canberra Avenue, St Leonards, NSW  
Sampling Location Plan

Figure:

2

Project: E25217.E01

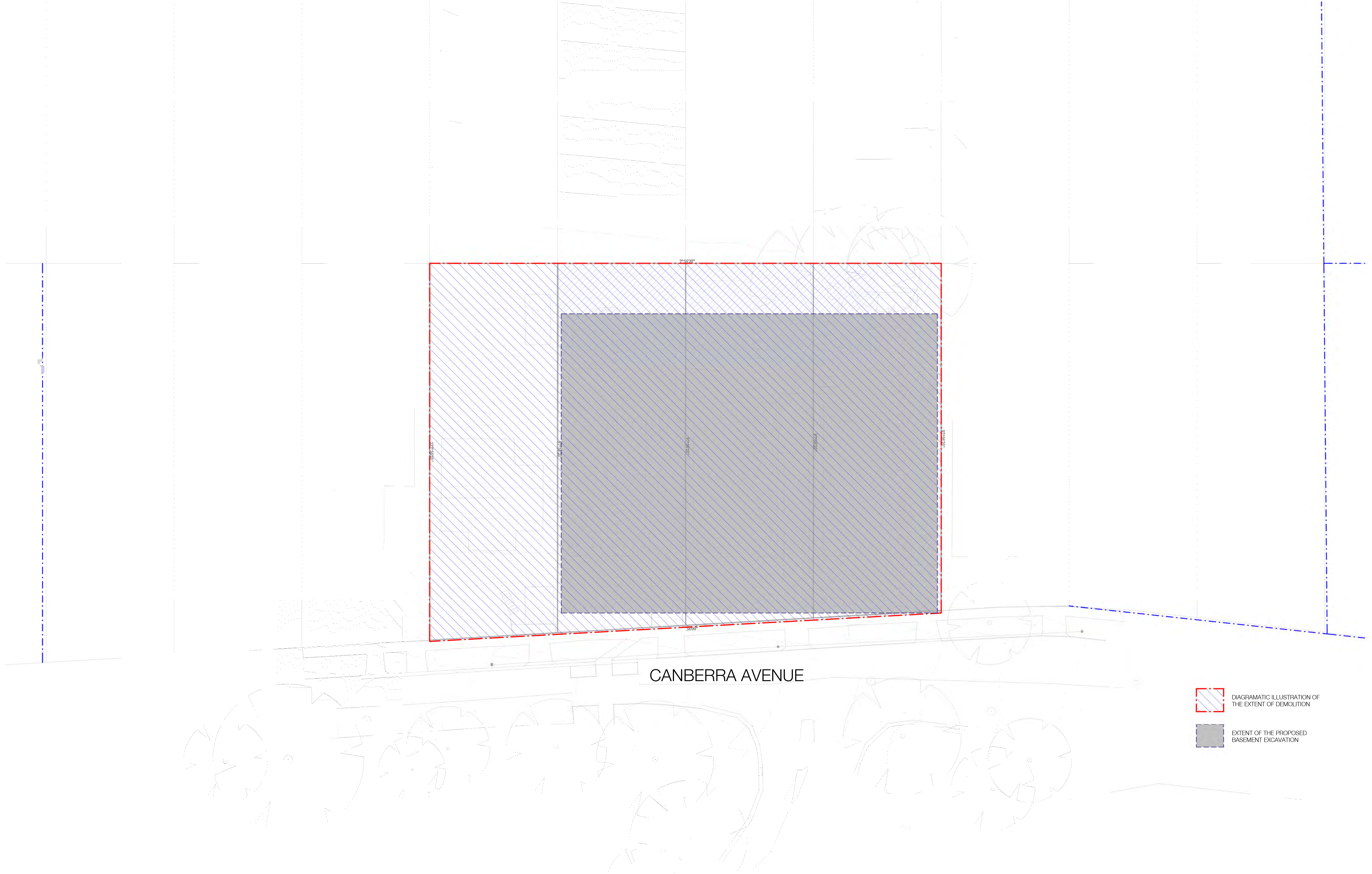


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## Appendix B – Site Development Plans

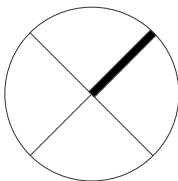
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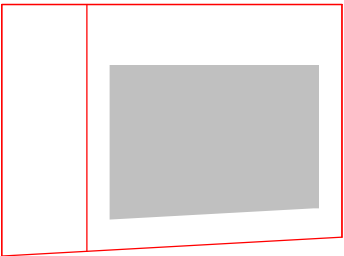
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Nominated Architects: Adam Haddow-7188 | John Pradel-7004



0 1 2 5m  
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Rev	Date	Revision	By	Chk.
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	16/08/2021	FOR COORDINATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
DEMOLITION PLAN

Date

13/10/2021 1 : 200

Drawn

LL

Drawing No.

DA-0103

Scale

Chk.

AH

Sheet Size

@ A1

Job No.

6429

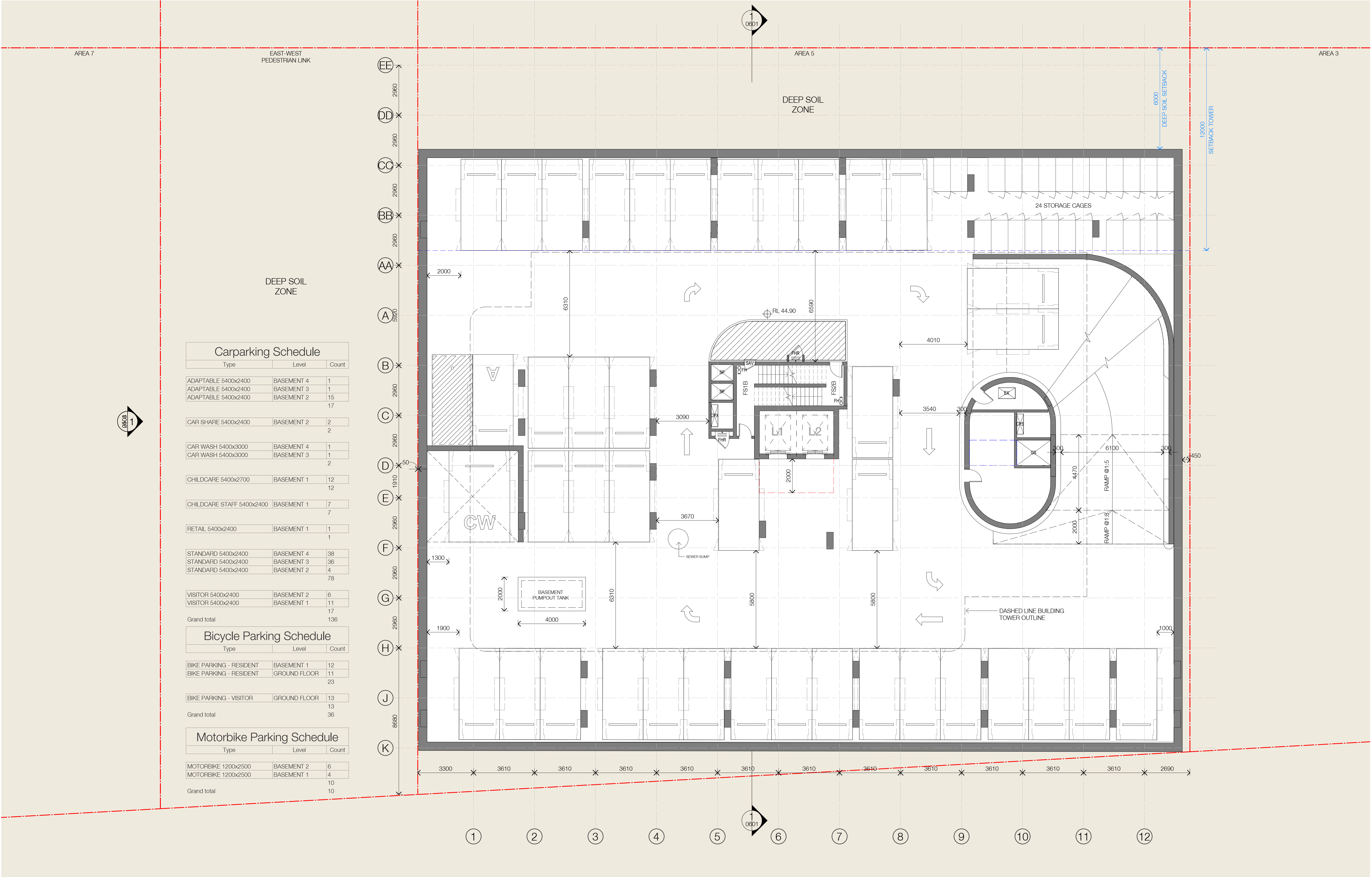
Revision

/ 42

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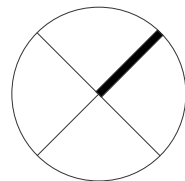






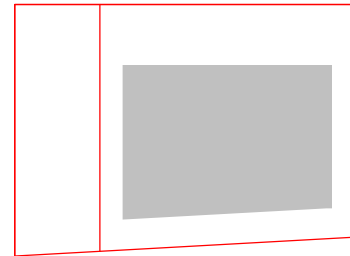
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Nominated Architects: Adam Haddow-7188 | John Pradel-7004



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1:100 @A1

Rev	Date	Revision	By	Chk.
17	12/07/2021	FOR REVIEW	ML	AH
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/08/2021	FOR COORDINATION	LL	AH
29	27/08/2021	FOR INFORMATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYEACORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
FLOOR PLAN B4

Date

13/10/2021

Scale

1 : 100

Sheet Size

@ A1

Drawn

ML

Chk.

JT

Job No.

6429

Drawing No.

DA-0201

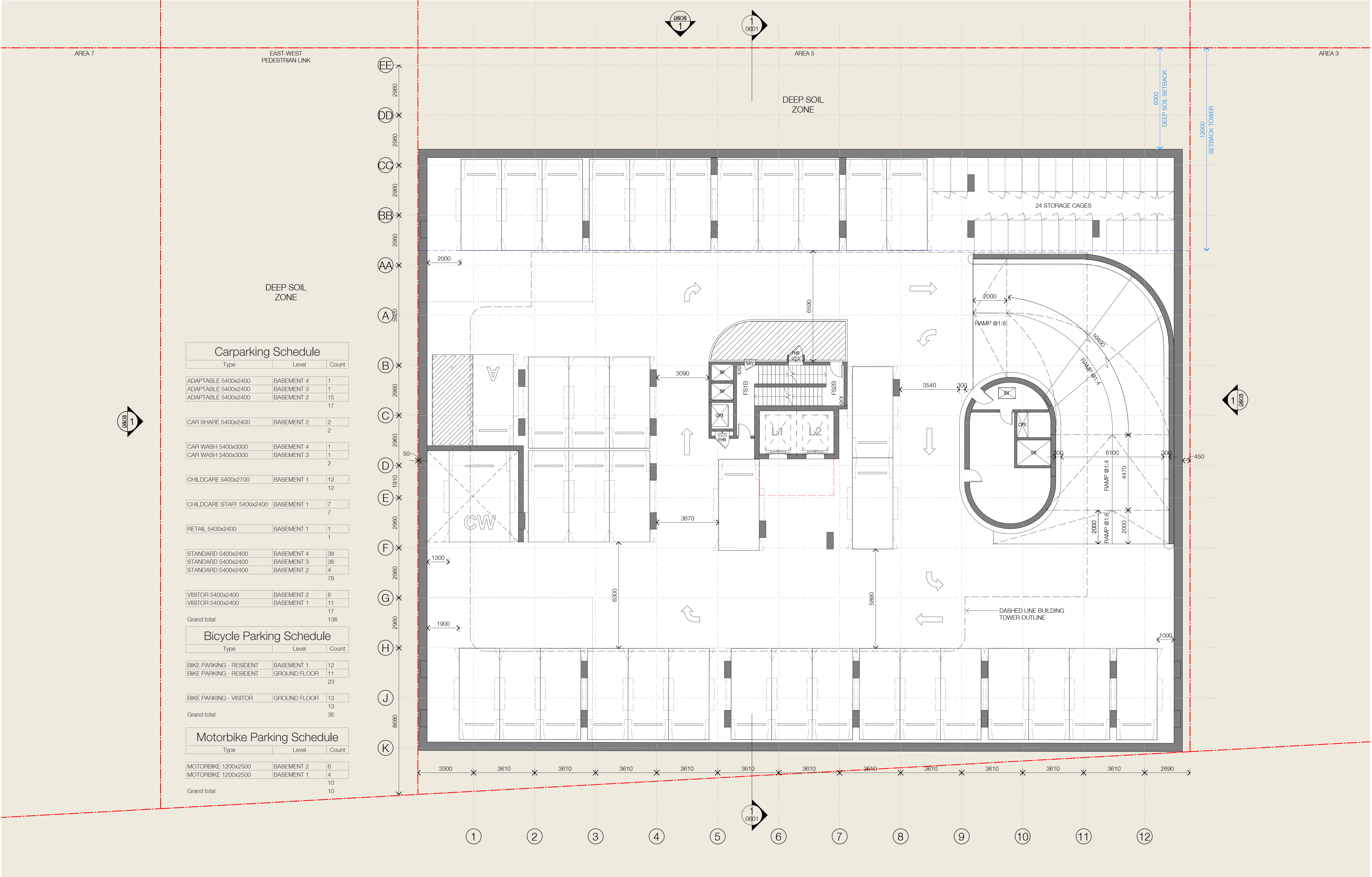
Revision

/ 42

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Carparking Schedule

Type	Level	Count
ADAPTABLE 5400x2400	BASEMENT 4	1
ADAPTABLE 5400x2400	BASEMENT 3	1
ADAPTABLE 5400x2400	BASEMENT 2	15
		17
CAR SHARE 5400x2400	BASEMENT 2	2
		2
CAR WASH 5400x3000	BASEMENT 4	1
CAR WASH 5400x3000	BASEMENT 3	1
		2
CHILDCARE 5400x2700	BASEMENT 1	12
		12
CHILDCARE STAFF 5400x2400	BASEMENT 1	7
		7
RETAIL 5400x2400	BASEMENT 1	1
		1
STANDARD 5400x2400	BASEMENT 4	38
STANDARD 5400x2400	BASEMENT 3	36
STANDARD 5400x2400	BASEMENT 2	4
		78
VISITOR 5400x2400	BASEMENT 2	6
VISITOR 5400x2400	BASEMENT 1	11
		17
Grand total		136

Bicycle Parking Schedule

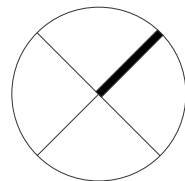
Type	Level	Count
BIKE PARKING - RESIDENT	BASEMENT 1	12
BIKE PARKING - RESIDENT	GROUND FLOOR	11
		23
BIKE PARKING - VISITOR	GROUND FLOOR	13
		13
Grand total		36

Motorbike Parking Schedule

Type	Level	Count
MOTORBIKE 1200x2500	BASEMENT 2	6
MOTORBIKE 1200x2500	BASEMENT 1	4
		10
Grand total		10

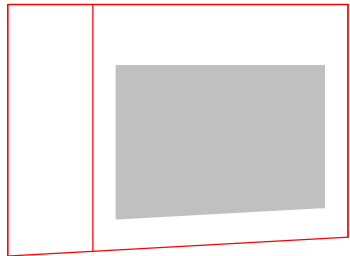
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Rev	Date	Revision	By	Chk.
17	12/07/2021	FOR REVIEW	ML	AH
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/08/2021	FOR COORDINATION	LL	AH
29	27/08/2021	FOR INFORMATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
FLOOR PLAN B3

Date

13/10/2021

Scale

1 : 100

Sheet Size

@ A1

Drawn

ML

Chk.

JT

Job No.

6429

Drawing No.

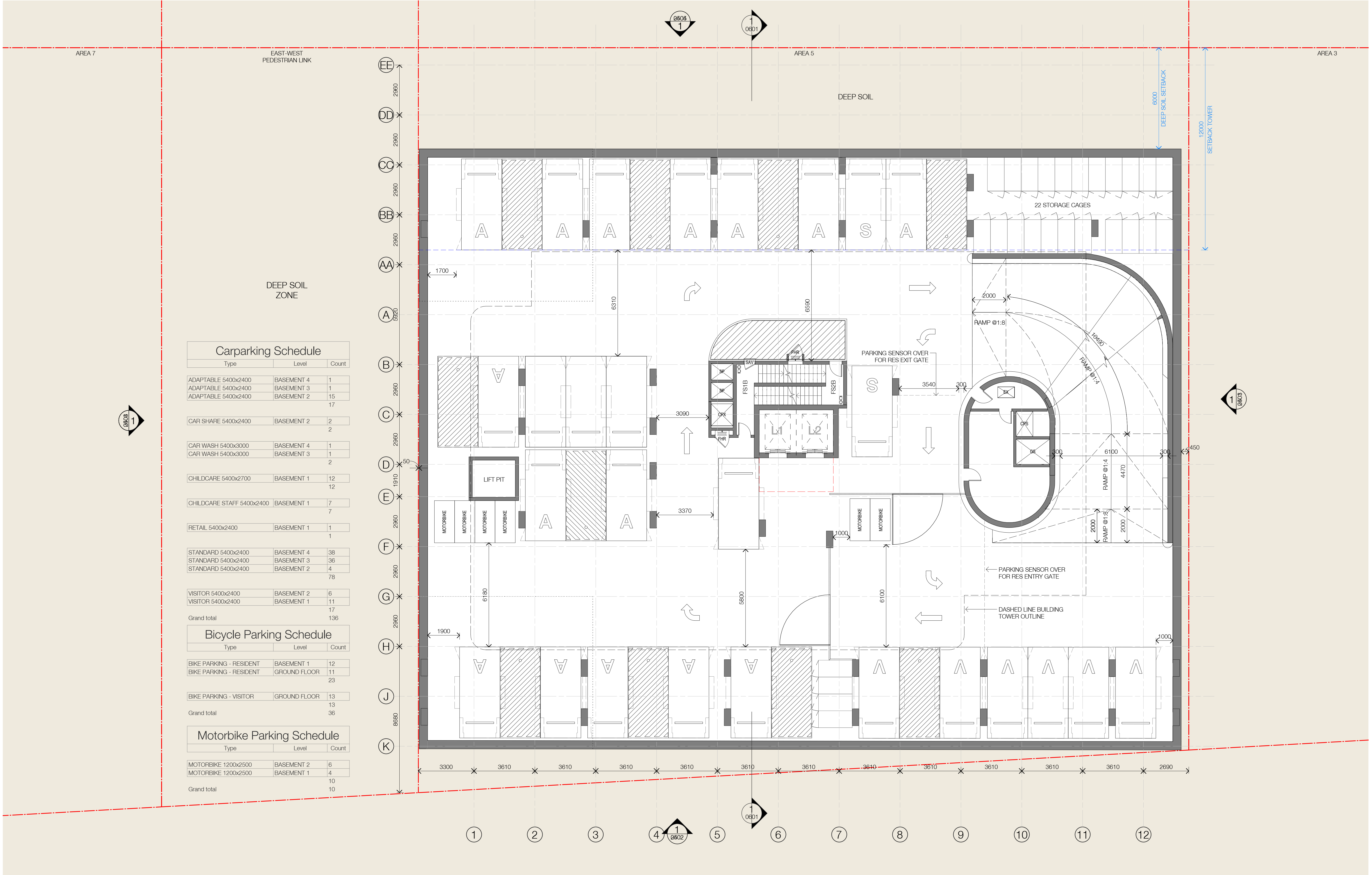
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Revision

/ 42

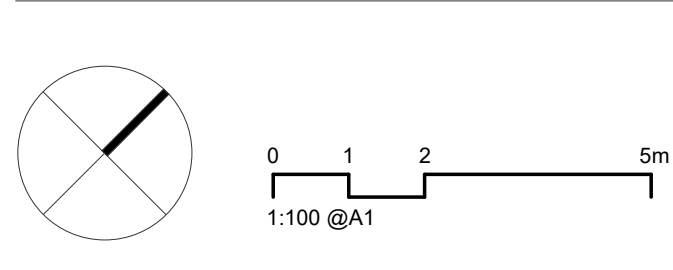
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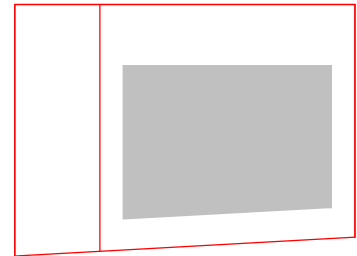


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Rev	Date	Revision	By	Chk.
17	12/07/2021	FOR REVIEW	ML	AH
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/08/2021	FOR COORDINATION	LL	AH
29	27/09/2021	FOR INFORMATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
FLOOR PLAN B2

Date

13/10/2021

Scale

1 : 100

Sheet Size

@ A1

Drawn

ML

Chk.

AH

Job No.

6429

Drawing No.

DA-0203

Revision

/ 42

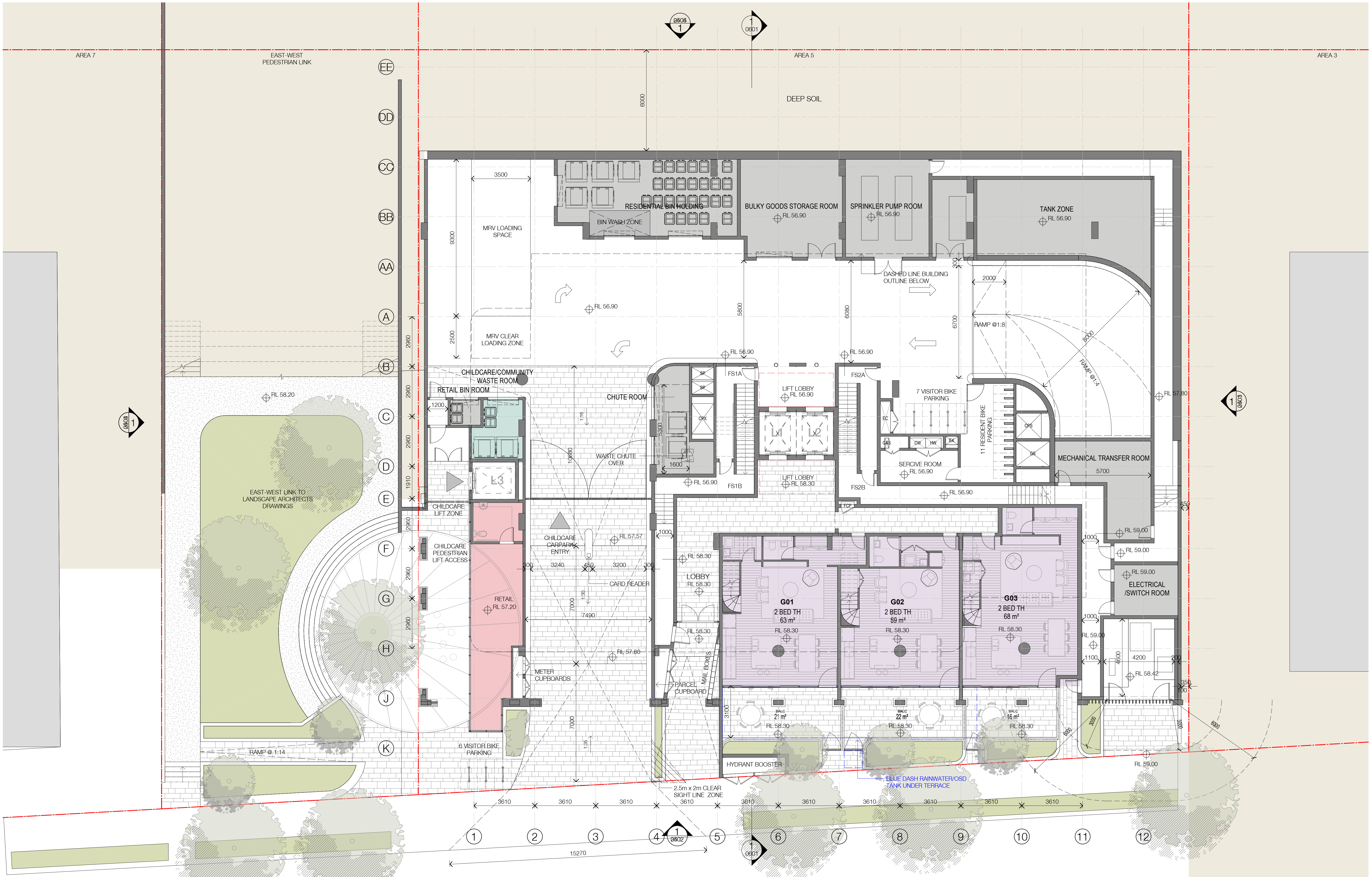
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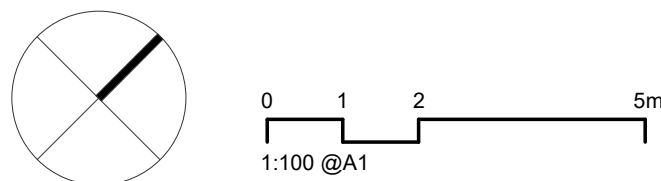




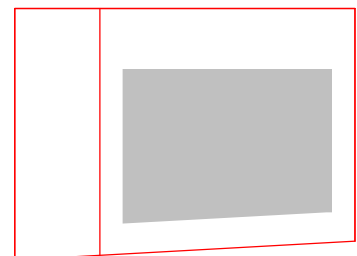


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Rev	Date	Revision	By	Chk.
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/08/2021	FOR COORDINATION	LL	AH
29	27/08/2021	FOR INFORMATION	LL	AH
35	20/09/2021	FOR INFORMATION	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
39	07/10/2021	GF UPDATE	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
FLOOR PLAN GROUND

Date

13/10/2021

Scale

1 : 100

Sheet Size

@ A1

Drawn

ML

Chk.

AH

Job No.

6429

Drawing No.

DA-0205

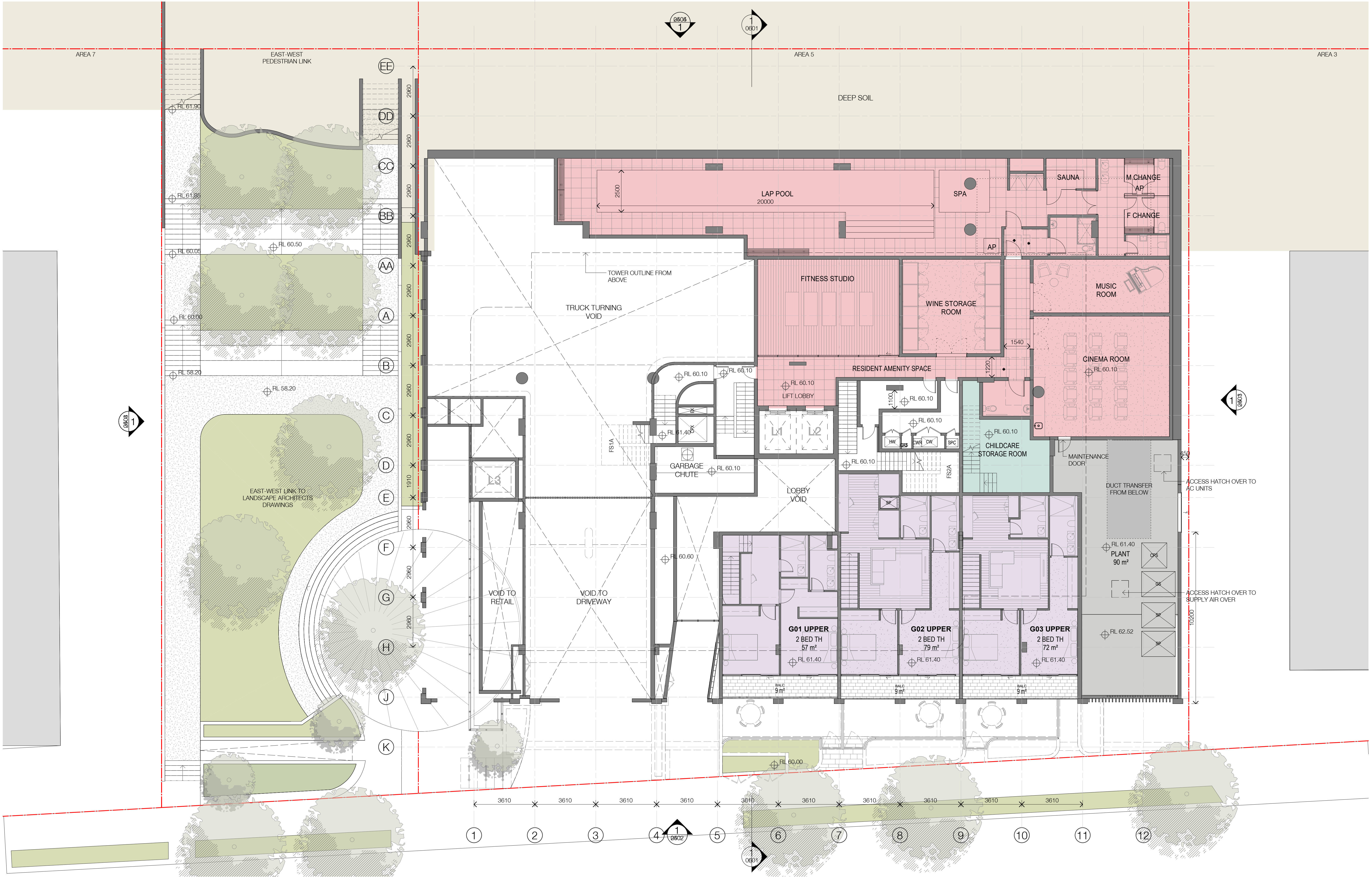
Revision

/ 42

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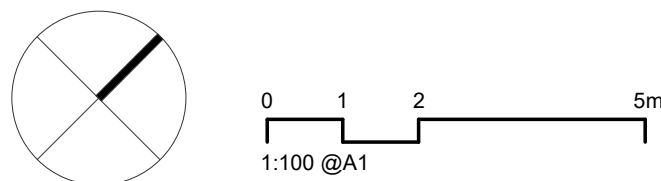




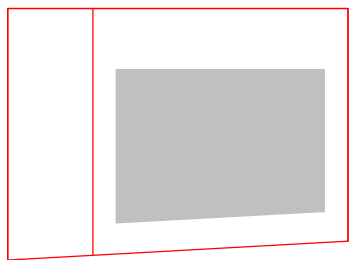


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Rev	Date	Revision	By	Chk.
14	29/06/2021	FOR CONSULTANT COORDINATION	ML	AH
15	01/07/2021	FOR CONSULTANT COORDINATION	LL	AH
17	12/07/2021	FOR REVIEW	ML	AH
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/08/2021	FOR COORDINATION	LL	AH
29	27/08/2021	FOR INFORMATION	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



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**HYEACORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
FLOOR PLAN UPPER GROUND

Date

13/10/2021

Scale

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Sheet Size

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Drawn

ML

Chk.

AH

Job No.

6429

Drawing No.

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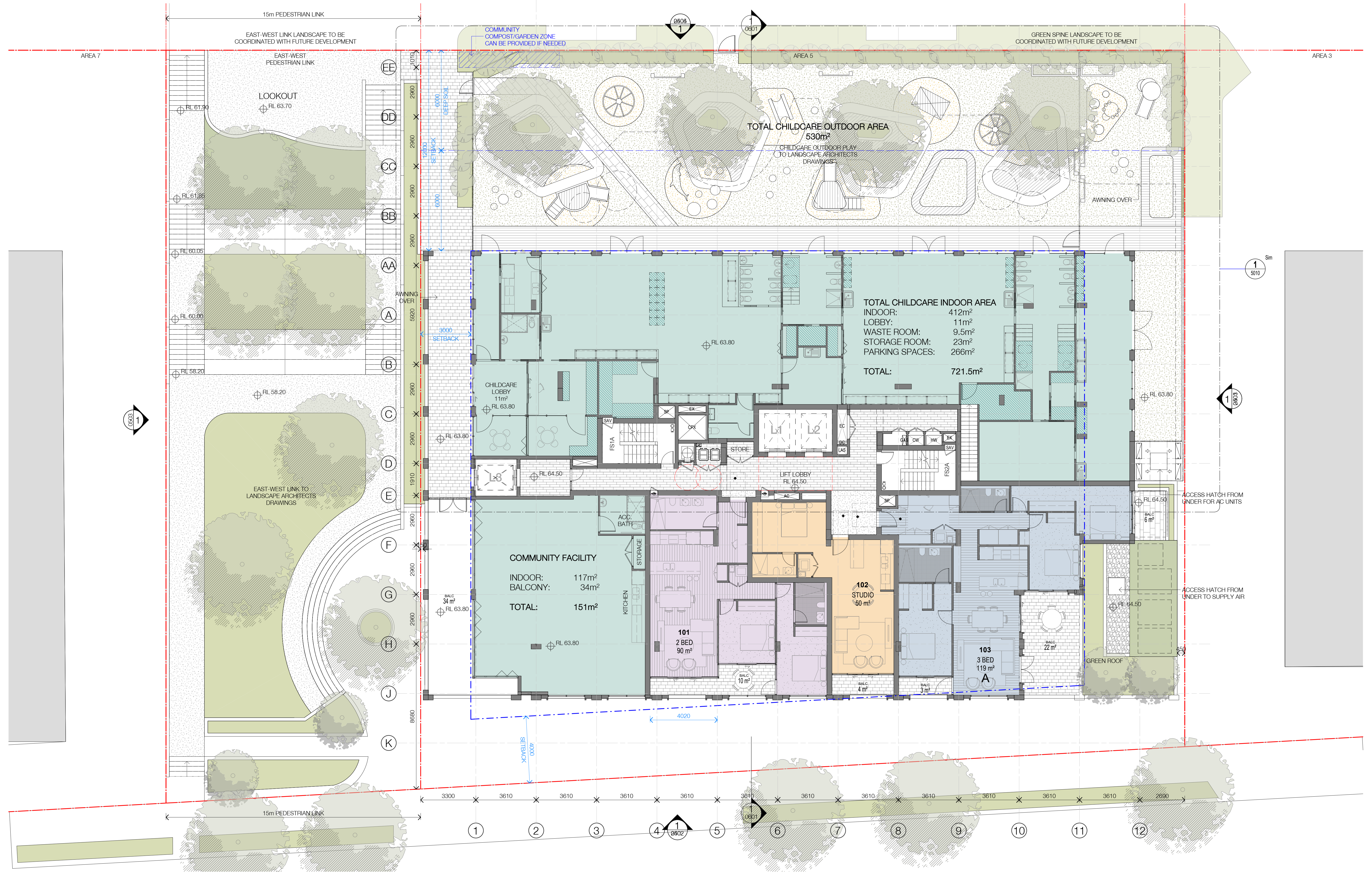
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/ 42

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Rev	Date	Revision	By	Chk.
17	12/07/2021	FOR REVIEW	ML	AH
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/08/2021	FOR COORDINATION	LL	AH
29	27/09/2021	FOR INFORMATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
35	20/09/2021	FOR INFORMATION	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH

Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
FLOOR PLAN L1

Date

13/10/2021 1 : 100

Drawn

ML

Drawing No.

DA-0207

Scale

1 : 100

Chk.

AH

Sheet Size

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Job No.

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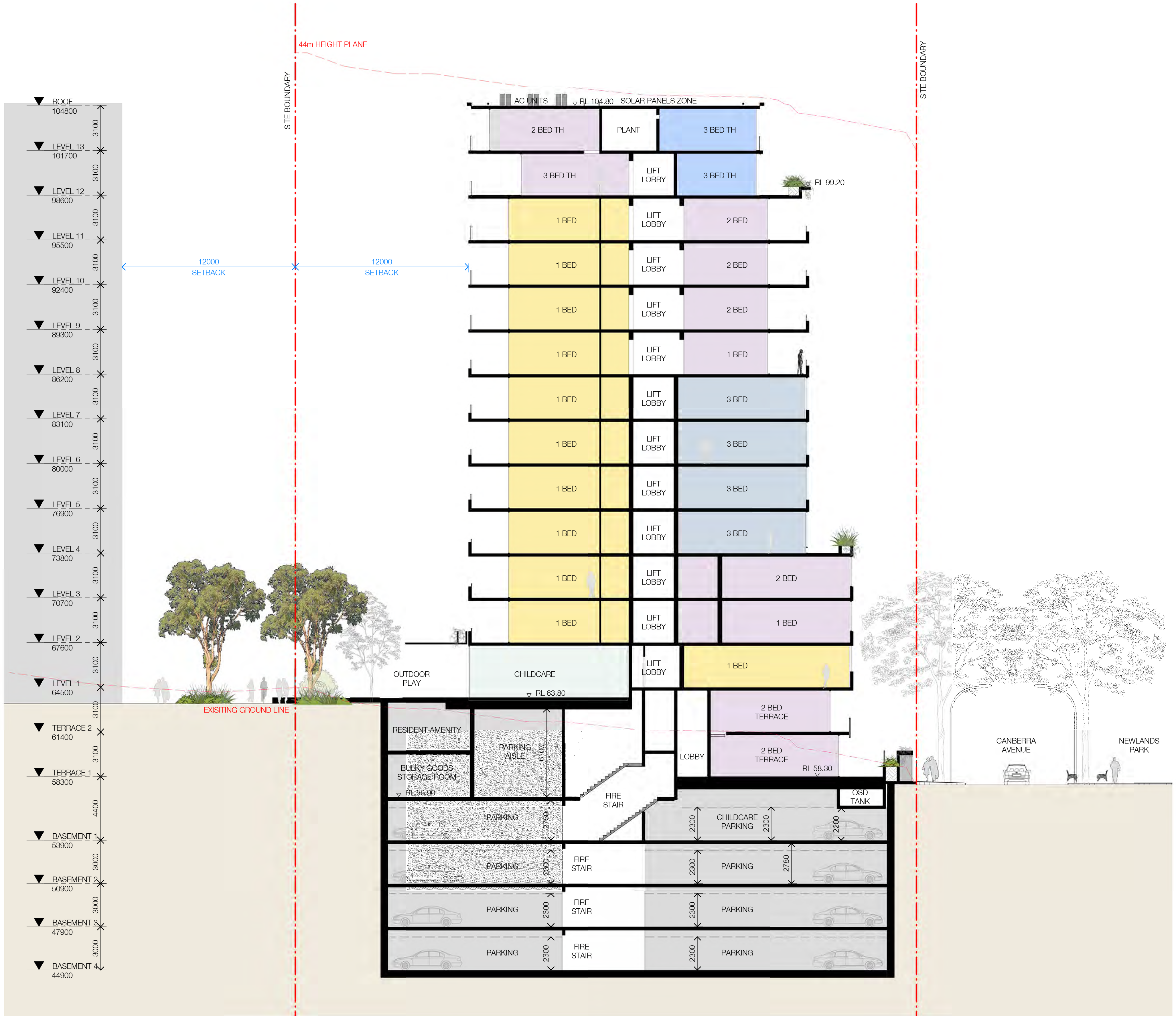
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/ 42

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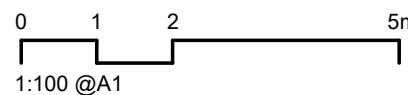




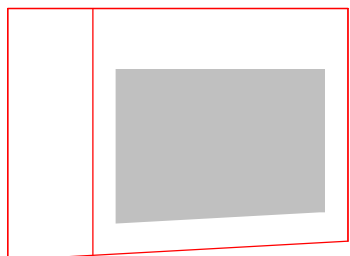


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Rev	Date	Revision	By	Chk.
7	09/06/2021	CONCEPT PLANS FOR CONSULTANT INFORMATION	ML	AH
14	29/06/2021	FOR CONSULTANT COORDINATION	ML	AH
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/09/2021	FOR COORDINATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards

Drawing Name

BUILDING SECTION 1

Date

13/10/2021

Scale

1 : 150

Sheet Size

@ A1

Drawn

LL

Chk.

AH

Job No.

6429

Revision

DA-0601

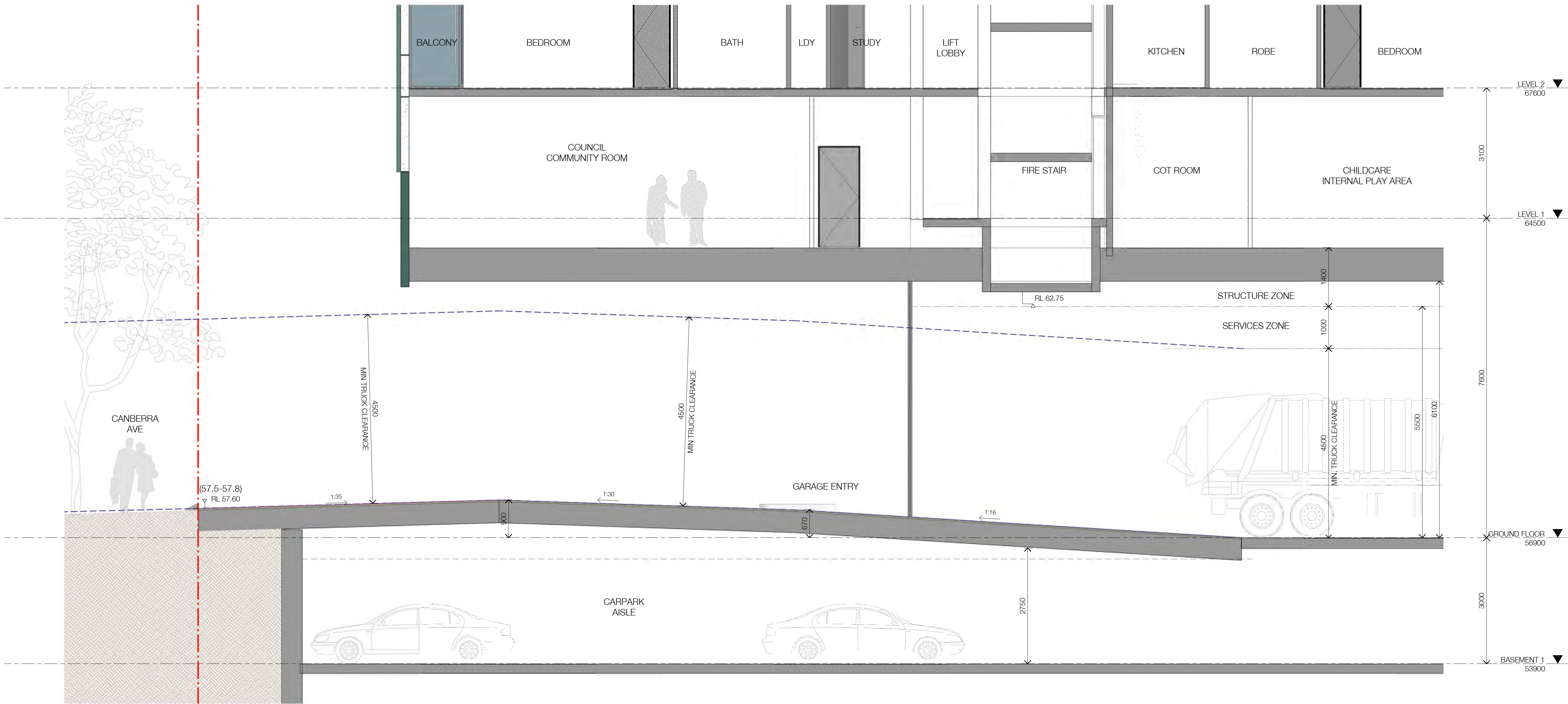
Revision

/ 42

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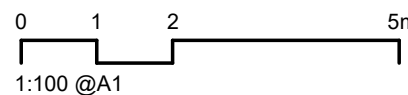




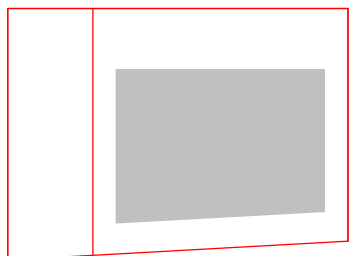


NOTE:  
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Rev	Date	Revision	By	Chk.
9	11/06/2021	DRAFT ELEVATIONS FOR CONSULTANT	LL	AH
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	18/08/2021	FOR COORDINATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards  
Drawing Name  
DETAIL SECTION - CARPARK ENTRY

Date

13/10/2021 1 : 50

Drawn

Author

Drawing No.

DA-0610

Scale

Checker

Revision

/ 42

Sheet Size

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Job No.

6429

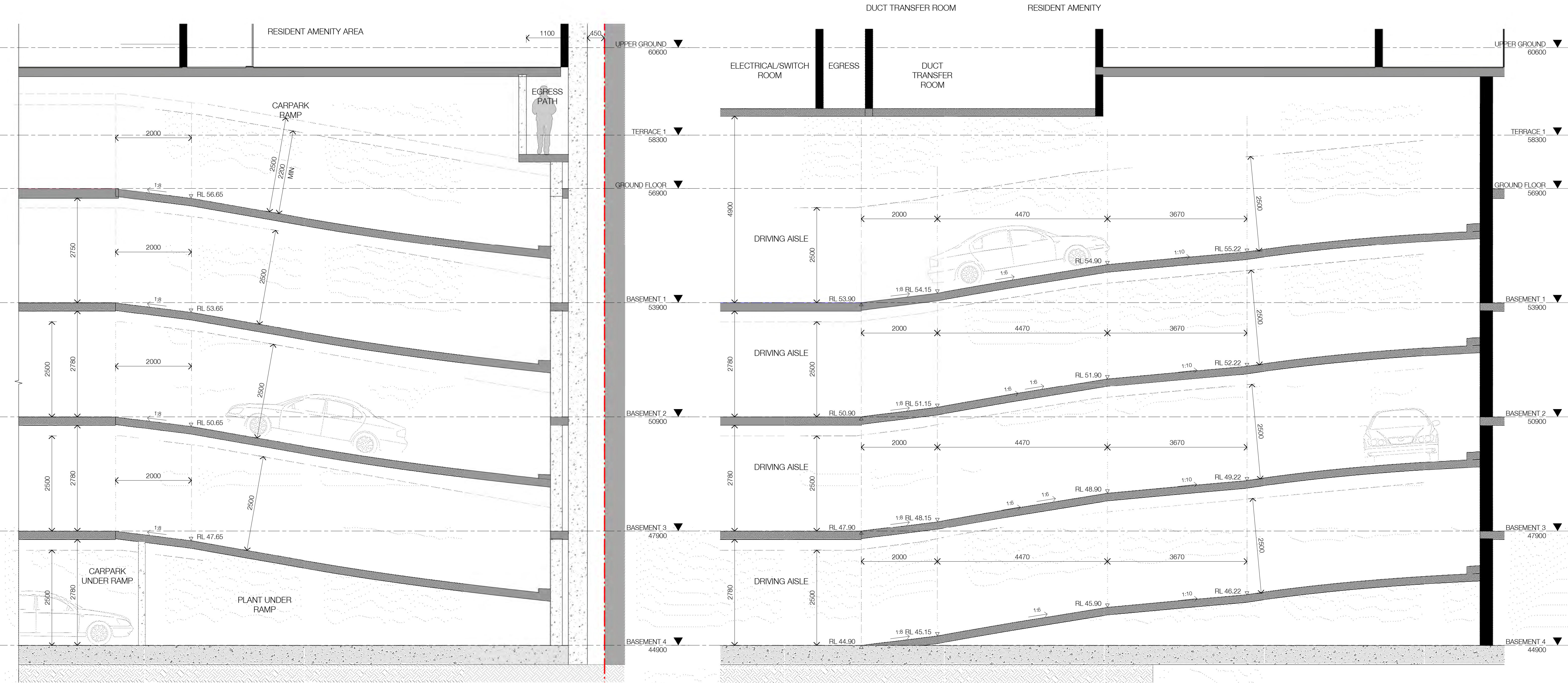
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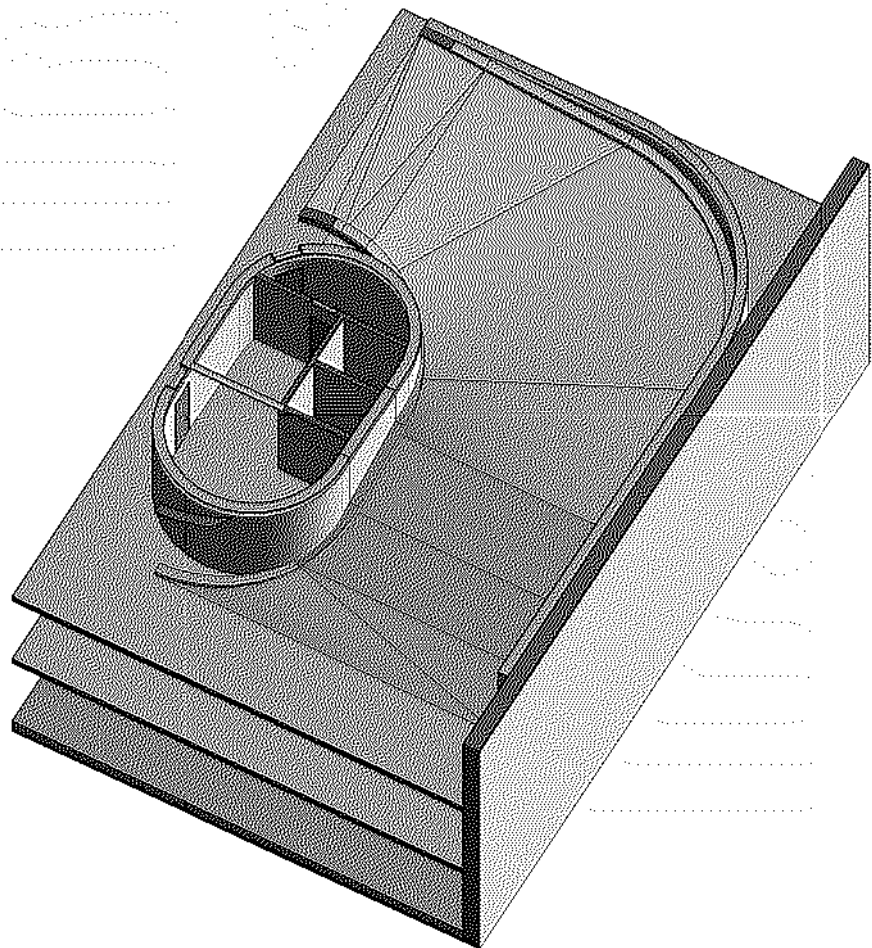




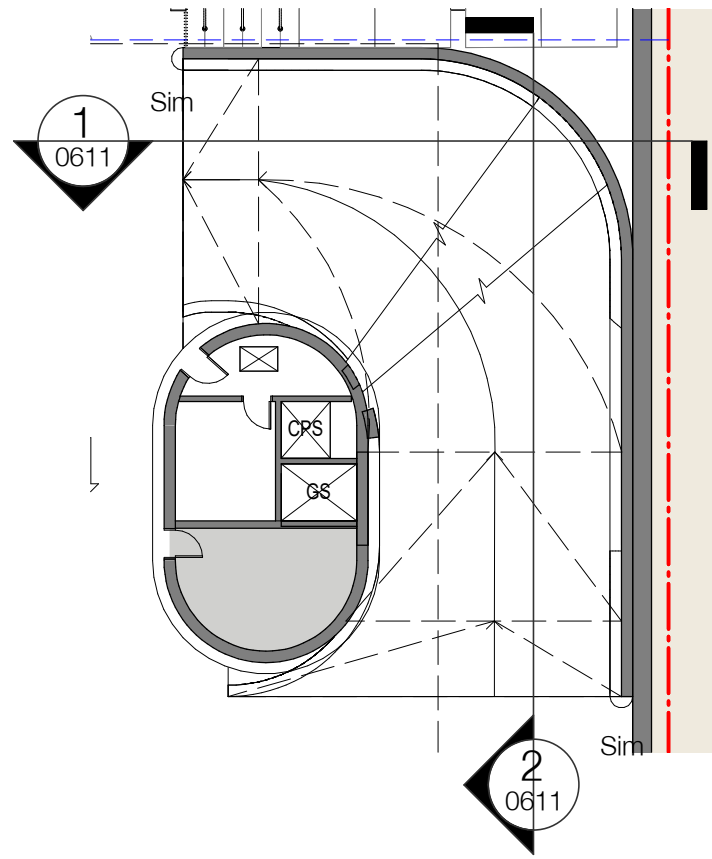


CARPARK RAMP SECTION 01

CARPARK RAMP SECTION 02

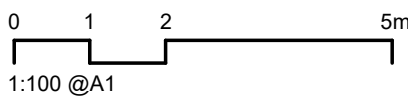


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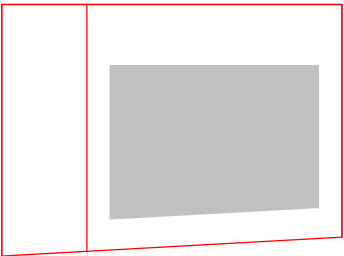


BASEMENT RAMP SECTION  
LEGEND

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Nominated Architects: Adam Haddow-7188 | John Pradel-7004



Rev	Date	Revision	By	Chk.
21	20/07/2021	FOR CONSULTANT COORDINATION	ML	AH
23	04/08/2021	DRAFT DA FOR CLIENT REVIEW	LL	AH
28	16/08/2021	FOR COORDINATION	LL	AH
32	03/09/2021	FINAL DRAFT FOR DA	LL	AH
36	24/09/2021	FINAL DRAFT FOR DA	LL	AH
37	28/09/2021	FINAL DRAFT FOR DA	LL	AH
40	08/10/2021	FINAL DRAFT FOR DA	LL	AH
42	13/10/2021	FOR DA APPLICATION	LL	AH



Client

**HYECORP**

Project

St Leonards  
13-19 Canberra Ave  
St Leonards

Drawing Name

DETAIL SECTION - BASEMENT CARPARK  
RAMP

Date

13/10/2021 As indicated

Drawn

Author

DA-0611

Scale

As indicated

Chk.

Checker

6429

Drawing No.

DA-0611

Sheet Size

@ A1

Job No.

6429

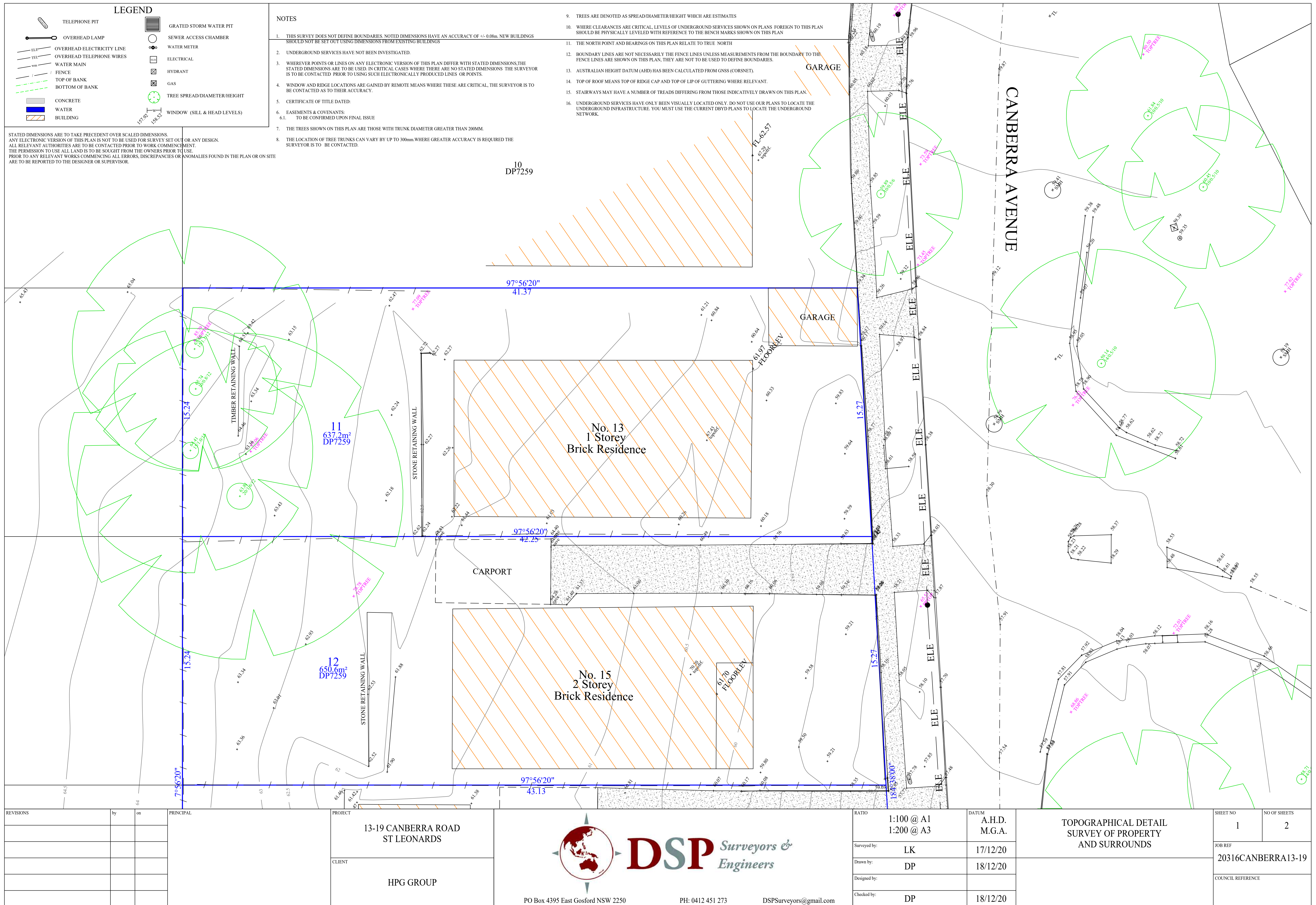
Revision

/ 42

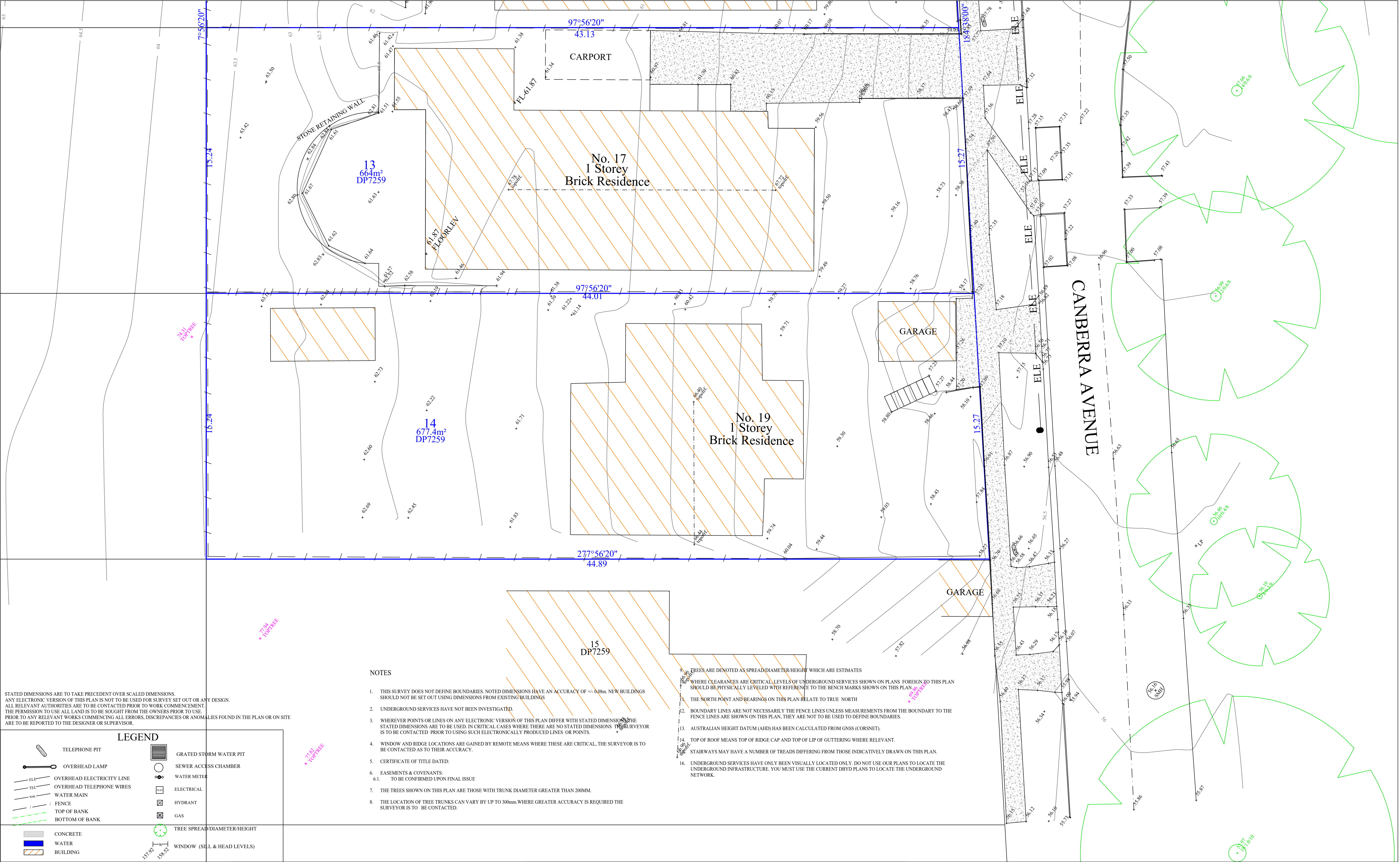
**SJB Architects**  
L2, 490 Crown St  
Surry Hills NSW  
2010 Australia  
T 611 2 9380 9911  
www.sjb.com.au











REVISIONS		by	on	PRINCIPAL	PROJECT		<div><div>DSP Surveyors &amp; Engineers</div><div>PO Box 4395 East Gosford NSW 2250      PH: 0412 451 273      DSPSurveyors@gmail.com</div></div>	RATIO		DATUM		TOPOGRAPHICAL DETAIL SURVEY OF PROPERTY AND SURROUNDS	SHEET NO		NO OF SHEETS	
					13-19 CANBERRA ROAD ST LEONARDS			1:100 @ A1 1:200 @ A3		A.H.D. M.G.A.			1		2	
					CLIENT			Surveyed by: LK		17/12/20			JOB REF			
								Drawn by: DP		18/12/20			20316CANBERRA13-19			
								Designed by:					COUNCIL REFERENCE			
								Checked by: DP		18/12/20						
				HPG GROUP												

---

## Appendix C – Photographs

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**Photograph 1:** Frontage of 19 Canberra Avenue (29/6/2021).



**Photograph 2:** Frontage of 17 Canberra Avenue (29/6/2021).



**Photograph 3:** Frontage of 15 Canberra Avenue (29/6/2021).



**Photograph 4:** Frontage of 13 Canberra Avenue (29/6/2021).



**Photograph 5:** FCS walls, ceiling and gable of 19 Canberra Avenue (29/6/2021).



**Photograph 6:** FCS ceiling of 15 Canberra Avenue (29/6/2021)





**Photograph 7:** FCS eaves at the main dwelling and gable of the car port of 13 Canberra Avenue (29/6/2021)



**Photograph 8:** FCS ceiling of 13 Canberra Avenue (29/6/2021)

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## Appendix D – Groundwater Bore Search

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#### Groundwater Bores

- Groundwater works
- Telemetered bores
- ▲ Logged bores
- Manual bores

#### Monitoring Bore Types

- ▲ Alluvial
- ▲ Coastal Sands
- ▲ Fractured Rock
- ▲ Porous Rock
- ▲ Great Artesian Basin
- Discontinued

- Roadmap
- Terrain
- Satellite
- Hybrid

#### Groundwater Works

- Monitoring Bores
- Telemetered Bores
- Coast Basin Bores
- Discontinued Bores

There are no sites within 500 metres of the selected point.

---

## Appendix E - Land Title and Council Information

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ABN: 36 092 724 251  
Ph: 02 9099 7400  
(Ph: 0413 400 020)

Level 14, 135 King Street, Sydney  
Sydney 2000  
GPO Box 4103 Sydney NSW 2001  
DX 967 Sydney

### Summary of Owners Report

**Address: - 13, 15, 17, 19 Canberra Avenue St. Leonards**

**Description: - Lots 11-14 Section 3 in D.P. 7259**

#### As regards to Lot 11 Section 3 in D.P. 7259

<u>As regards Date of Acquisition and term held</u>	<u>Registered Proprietor(s) &amp; Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
19.07.1921 (1921 to 1921)	George William Richards (Builder) John Samuel Turner Allen (Plumber)	Vol 3206 Fol 177
10.09.1921 (1921 to 1941)	Lawrence George Clissold (Railway Sub Foreman)	Vol 3206 Fol 177
08.04.1941 (1941 to 1949)	Alexander Donaldson (Ship Master)	Vol 3206 Fol 177
02.12.1949 (1949 to 1949)	Mary Theresa Donaldson (Widow) Herbert Graham Pratten (Grazier) (Transmission Application not investigated)	Vol 3206 Fol 177
29.12.1949 (1949 to 1965)	Elsie Anne Clouston (Widow)	Vol 3206 Fol 177
14.09.1965 (1965 to 1967)	Arthur Mark Clouston (Clerk) (Section 94 Application not investigated)	Vol 3206 Fol 177
12.12.1967 (1967 to 1977)	John Gannon Clouston (Scientist) Flora Mary Hodge (Married Woman)	Vol 3206 Fol 177 Now Vol 10731 Fol's 217A & B
15.11.1977 (1977 to 1977)	Maxwell Gordon Cracknell (Administrator) Lorrain Ann Cracknell (Married Woman)	Vol 10731 Fol's 217A & B
15.11.1977 (1977 to 1982)	Violet Dorothy Pryor (Administrator) Joyce Christie (Administrator) Maxwell Cracknell (Administrator) David Ayliffe (Administrator) Peter St. John Hobson (Administrator)	Vol 10731 Fol's 217A & B Now Vol 10731 Fol 217
25.02.1982 (1982 to 1993)	Violet Dorothy Pryor (& her deceased estate) Joyce Christie (Administrator) Now Joyce Chesed Maxwell Cracknell (Administrator) Now Maxwell Gordon Cracknell David Ayliffe (Administrator) Now David Stephen Ayliffe	Vol 10731 Fol 217 Now 11/3/7259
10.11.1993 (1993 to 1999)	Gerard William Sont	11/3/7259
05.10.1999 (1999 to 2007)	Christopher Michailidis	11/3/7259
18.06.2007 (2007 to 2018)	Georgia Kate Mor	11/3/7259

Email:  
harrison.byrne@infotrack.com  
mark.groll@infotrack.com.au



ABN: 36 092 724 251  
Ph: 02 9099 7400  
(Ph: 0413 400 020)

Level 14, 135 King Street, Sydney  
Sydney 2000  
GPO Box 4103 Sydney NSW 2001  
DX 967 Sydney

Continued as regards to Lot 11 Section 3 in D.P. 7259

<u>As regards Date of Acquisition and term held</u>	<u>Registered Proprietor(s) &amp; Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
02.02.2018 (2018 to Date)	# Cresco-Piety Csl Pty Ltd	11/3/7259

**# Denotes current registered proprietor**

Leases & Easements: - Nil

---

As regards to Lot 12 Section 3 in D.P. 7259

<u>As regards Date of Acquisition and term held</u>	<u>Registered Proprietor(s) &amp; Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
19.07.1921 (1921 to 1922)	George William Richards (Builder) John Samuel Turner Allen (Plumber)	Vol 3206 Fol 178
18.03.1922 (1922 to 1924)	Harold Clarke (Railway Official)	Vol 3206 Fol 178
07.07.1924 (1924 to 1925)	Cuthbert Dawson (Gentleman)	Vol 3206 Fol 178
17.06.1925 (1925 to 1926)	Arthur C Abrahams Limited	Vol 3206 Fol 178
08.04.1926 (1926 to 1927)	Alexander Young Fullerton (Medical Practitioner)	Vol 3206 Fol 178
21.11.1927 (1927 to 1932)	George Arthur Charters (Grazier)	Vol 3206 Fol 178
24.09.1932 (1932 to 1936)	Mary Kaye (Widow)	Vol 3206 Fol 178
30.07.1936 (1936 to 1957)	John Arthur Mini (Telegraph Operator)	Vol 3206 Fol 178 Now Vol 7316 Fol 57
17.04.1957 (1957 to 1982)	Brian Harcourt Webb (Garage Proprietor) Gloria Olive Webb (Married Woman)	Vol 7316 Fol 57
23.02.1982 (1982 to 1996)	Brian Harcourt Webb (Garage Proprietor)	Vol 7316 Fol 57 Now 12/3/7259
29.10.1996 (1996 to 1999)	Carlo Edwin Garofali Kathleen Heidi Garofali	12/3/7259
20.05.1999 (1999 to 2001)	David John Simpson Paula Anne Swan	12/3/7259
09.03.2001 (2001 to 2010)	Dianne Elizabeth Campbell Michael Robert Ward	12/3/7259
29.07.2010 (2010 to 2018)	Dianne Elizabeth Campbell	12/3/7259
02.02.2018 (2018 to Date)	# Cresco-Piety Csl Pty Ltd	12/3/7259

**# Denotes current registered proprietor**

Leases & Easements: - Nil

---

Email:  
harrison.byrne@infotrack.com  
mark.groll@infotrack.com.au



ABN: 36 092 724 251  
Ph: 02 9099 7400  
(Ph: 0413 400 020)

Level 14, 135 King Street, Sydney  
Sydney 2000  
GPO Box 4103 Sydney NSW 2001  
DX 967 Sydney

---

**As regards to Lot 13 Section 3 in D.P. 7259**

<b><u>As regards Date of Acquisition and term held</u></b>	<b><u>Registered Proprietor(s) &amp; Occupations where available</u></b>	<b><u>Reference to Title at Acquisition and sale</u></b>
15.05.1924 (1924 to 1959)	Alice Williamson (Married Woman)	Vol 3590 Fol 147
22.10.1959 (1959 to 1970)	Elizabeth Watt Williamson (Spinster) (Section 94 Application not investigated)	Vol 3590 Fol 147
11.12.1970 (1970 to 1971)	John Beneke (Medical Practitioner)	Vol 3590 Fol 147
22.04.1971 (1971 to 1975)	Mapik Pty. Limited	Vol 3590 Fol 147
11.08.1975 (1975 to 1984)	Harry Victor Bisby (Trust Manager) Agnes Rose Bisby (Married Woman)	Vol 3590 Fol 147
27.11.1984 (1984 to 1996)	Agnes Rose Bisby (Widow)	Vol 3590 Fol 147 Now 13/3/7259
30.08.1996 (1996 to 1997)	Paul Victor Bisby	13/3/7259
10.01.1997 (1997 to 2015)	Prisca Shing Lan Fai	13/3/7259
16.01.2015 (2015 to 2015)	Jeffrey Thomas Fai (Re the Estate of Priscilla Shing Lan Fai)	13/3/7259
06.03.2015 (2015 to Date)	# Ho-Chien Hsieh	13/3/7259

**# Denotes current registered proprietor**

**Leases & Easements: - Nil**

---

**As regards to Lot 14 Section 3 in D.P. 7259**

<b><u>As regards Date of Acquisition and term held</u></b>	<b><u>Registered Proprietor(s) &amp; Occupations where available</u></b>	<b><u>Reference to Title at Acquisition and sale</u></b>
14.04.1923 (1923 to 1951)	Louisa Jones (Widow)	Vol 3436 Fol 212
06.03.1951 (1951 to 1984)	James Jones (Harbourer) (Transmission Application not investigated)	Vol 3436 Fol 212
24.05.1984 (1984 to 1999)	Kaare Rodsethol Elly Rodsethol (Transmission Application not investigated)	Vol 3436 Fol 212 Now 14/3/7259
15.04.1999 (1999 to 2000)	Mohamed Zohdy Rateb	14/3/7259
21.01.2000 (2000 to 2004)	Amelia Zoe Liddy	14/3/7259

Email:  
harrison.byrne@infotrack.com  
mark.groll@infotrack.com.au





ABN: 36 092 724 251  
Ph: 02 9099 7400  
(Ph: 0413 400 020)

Level 14, 135 King Street, Sydney  
Sydney 2000  
GPO Box 4103 Sydney NSW 2001  
DX 967 Sydney

Continued as regards to Lot 14 Section 3 in D.P. 7259

<u>As regards Date of Acquisition and term held</u>	<u>Registered Proprietor(s) &amp; Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
30.01.2004 (2004 to 2005)	Sum Hung Gan Choo Lian Connie Gan Suzanne Su-Chien Gan	14/3/7259
16.07.2005 (2005 to 2013)	Charmaine Lisa England Carl James England	14/3/7259
04.01.2013 (2013 to 2015)	James Donald Garton Leslie Ann Garton	14/3/7259
30.03.2015 (2015 to Date)	# Meng-Hsuan Hsieh	14/3/7259

**# Denotes current registered proprietor**

**Leases & Easements: - Nil**

---

Yours Sincerely  
Harrison Byrne  
(Checked by Mark Groll)  
30 July 2021

Email:  
harrison.byrne@infotrack.com  
mark.groll@infotrack.com.au



NEW SOUTH WALES

CERTIFICATE OF TITLE  
REAL PROPERTY ACT, 1900, as amended.

TORRENS TITLE  
Register Book

Application No. 3083

Prior Title Vol. 3206 Fol. 177



Vol. 10731 Fol. 217 A  
**CANCELLED**  
MF Edition issued 8-2-1968  
K919269

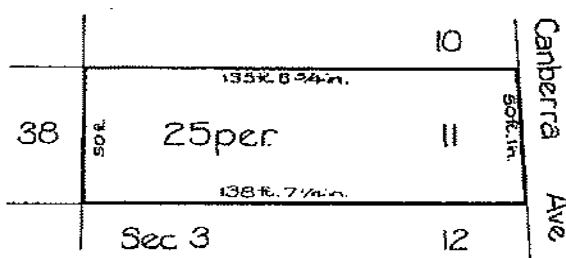
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness *M. J. Alter*

*J. Watson*  
Registrar General.



PLAN SHOWING LOCATION OF LAND



Scale: 50 feet to one inch

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in an undivided one half share in Lot 11 of Section 3 in Deposited Plan 7259 in the Municipality of Lane Cove, Parish of Willoughby and County of Cumberland being part of Portion 323 granted to Edward Wollstonecraft on 30-6-1825.

FIRST SCHEDULE (continued overleaf)

~~JOHN GANNON GLOUSTON, Parkers Park, Scientist.~~

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Covenants created by Transfers Nos. 658032 and A115775.

*J. Watson*  
Registrar General.

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE





NEW SOUTH WALES

**CERTIFICATE OF TITLE**  
REAL PROPERTY ACT, 1900, as amended.

**TORRENS TITLE**  
Register Book

Application No. 3083

Prior Title Vol. 3206 Fol. 177



Vol. **10731** Fol. **217 B**

**CANCELLED**

MF Edition issued 8-2-1968

See new edition

K919269

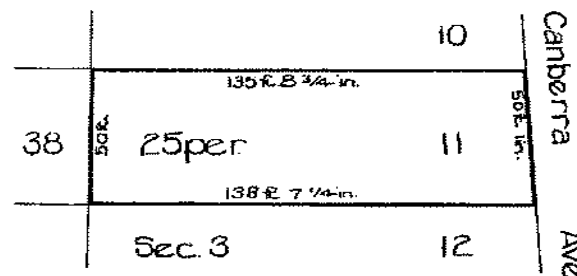
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness *M. Walter*

*J. J. J. J.*  
Registrar General.



PLAN SHOWING LOCATION OF LAND



K919269 J

Scale: 50 feet to one inch.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in an undivided one half share in Lot 11 of Section 3 in Deposited Plan 7259 in the Municipality of Lane Cove, Parish of Willoughby and County of Cumberland being part of Portion 323 granted to Edward Wollstonecraft on 30-6-1825.

FIRST SCHEDULE (continued overleaf)

**FLORA MARY HODGE**, of Lane Cove, Married Woman.

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Covenants created by Transfers Nos. 658032 and A115775.

*J. J. J. J.*  
Registrar General.





RP 13



77 AUG



SOUTH WALES

# MEMORANDUM OF TRANSFER

STAMP DUTY

REAL PROPERTY ACT, 1900

OFFICE USE ONLY

449	
18	18

Where new restrictive covenants are imposed, or covenants created, or where the form is otherwise unsuitable, Form 13a should be used.

Typewriting and handwriting should be clear, legible and in permanent black non-copying ink. No alterations should be made by erasure; the words rejected must be ruled through and verified by signature or initials in the margin.

- (A) Full name, address, and occupation of transferor.
- (B) If a less estate strike out in fee simple and add appropriate estate.
- (C) A short note will suffice. If an encumbrance is not yet registered particulars must be furnished.

- (d) Insert appropriate words. If desired, this space may be used in the case of a transfer by direction.

- (e) Full name, address, and occupation of transferee. More than one transferee (ie whether joint tenants or tenants in common). Unless otherwise stated tenants in common will be presumed to hold in equal shares.

- (f) Insert lot and plan number, portion &c. See also sections 227 and 322A Local Government Act, 1919.

- (g) Further proof of execution will not normally be required if signed or acknowledged before any of the following persons, not being a party to the dealing, to whom the transferor is known:

Where executed in New South Wales: bank manager, barrister, clerk of petty sessions, commissioned officer in the Defence Force of the Commonwealth of Australia, commissioner for taking affidavits, headmaster of a school, judge, justice of the peace, magistrate, mayor, or other chief officer of any local government corporation, medical practitioner, member of parliament of the Commonwealth or of a State, member of the police force of the Commonwealth or of a State or a Territory, minister of religion, notary public, postmaster, solicitor, town or shire clerk or other executive officer administering local government;

Where executed in any part of the Commonwealth of Australia or in Territories or in any part of the British Commonwealth—any of the persons referred to above, and in addition, an Australian or British Consular Officer exercising his functions in the part, Governor, Government Resident, Chief Secretary, Registrar of Titles of the part;

Where executed in foreign country—an Australian or British Consular Officer exercising his functions in that country, commissioned officer in the Defence Force of the Commonwealth of Australia, commissioner for taking affidavits, judge, justice of the peace, magistrate, mayor, or other chief officer of any local government corporation, officer in charge of a police station, notary public, town or shire clerk or other executive officer administering local government.

- (h) Repeat attestation clause &c., if necessary.

- (i) Section 117 Real Property Act, 1900, requires that this certificate be signed by the transferee or, where his signature cannot be obtained without difficulty and delay, by his solicitor or conveyancer by his own name, which should be typewritten or printed below his signature, and not that of his firm. Any person falsely or negligently certifying is liable to the penalties provided by section 117.

- (j) May be witnessed by any responsible person not being a party to this dealing.

(a) JOHN GANNON CLOUSTON of 24 Bunyala Street, Carss Park, Scientist and FLORA MARY HODGE of 22 Kallaroo Road, Lane Cove, Married Woman hereinafter referred to as the **TRANSFEROR**

being registered proprietor of an estate in fee simple<sup>(b)</sup>

in the land hereinafter described, subject to the following encumbrances and interests

(c) Reservations and conditions, if any, contained in the Crown Grant. Covenants contained in Transfers 658032 and A15775.

in consideration of FORTY EIGHT THOUSAND SEVEN HUNDRED AND FIFTY DOLLARS (\$ 48,750.00 )

(the receipt whereof is hereby acknowledged), paid to the transferor by<sup>(d)</sup>

hereby transfers to

(e) MAXWELL GORDON CRACKNELL of 19 Arthur Street, Surry Hills and LORRAIN ANN CRACKNELL of the same address, his wife as tenants in common hereinafter referred to as the **TRANSFEE**

an estate in fee simple<sup>(b)</sup>

in the land described in the following schedule

Reference to title		Whole or part	Description of land if part only <sup>(i)</sup>	County	Parish
Volume	Folio				
10731	217A	Whole		Cumberland	Willoughby
10731	217B	Whole		Cumberland	Willoughby

Dated at Sydney this 17<sup>th</sup> day of February 1977

(b) Signed in my presence by the transferor who is personally known to me

W.K. Cahill  
 Signature of witness  
 Name of witness (BLOCK LETTERS)  
 Qualification of witness

Flora Hodge  
 Transferor

(h)

(i) Signed in my presence by the transferee who is personally known to me

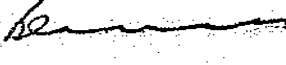

Kevin Joseph O'Hare  
 Signature of witness  
 Name of witness (BLOCK LETTERS)  
 22 Pitt Street, Sydney  
 Address of witness

(j) Accepted and certified correct for the purposes of the Real Property Act, 1900.

Maxwell Cracknell  
 Transferee

Q331449  
~~REGISTERED~~  
REJECTED

\$54. S.

DEPARTMENTAL USE ONLY		TO BE COMPLETED BY LODGING PARTY	
TRANSFER		Lodged by: E. L. Dearn & Co., Address: 72 Pitt Street, Sydney C.D.E. No.: 696 Phone No.: 233 3222 Documents lodged herewith	
Checked	REGISTERED	1. _____ 2. _____ 3. _____ 4. _____	
Passed	15-11-1977		
Signed MK	 Registrar General 	Received Documents	Receiving Clerk
		<b>AUTHORITY FOR USE OF INSTRUMENT OF TITLE<sup>(k)</sup></b> Authority is hereby given for the use of _____ (Insert reference to certificates, grants or dealings) lodged in connection with _____ (inserts number of plan or dealing) for the registration of this dealing and for delivery to _____ (BLOCK LETTERS) _____ Signature _____ Name (BLOCK LETTERS)	
		<b>MEMORANDUM AS TO NON-REVOCATION OF POWER OF ATTORNEY</b> (To be signed at the time of executing the within dealing) The undersigned states that he has no notice of the revocation of the Power of Attorney registered No. _____ Miscellaneous Register under the authority of which he has just executed the within dealing. Signed at _____ the _____ day of _____ 19_____ _____ Signature of attorney _____ Signature of witness	
		<b>CERTIFICATE OF J.P., &amp;c., TAKING DECLARATION OF ATTESTING WITNESS<sup>(l)</sup></b> I certify that _____ the attesting witness to this dealing, appeared before me at _____ the _____ day of _____ 19_____ and declared that he personally knew _____ _____ the person signing the same, and whose signature thereto he has attested, and that the name purporting to be such signature of the said _____ _____ is his own handwriting and that he was of sound mind and freely and voluntarily signed the same. _____ Signature _____ Name (BLOCK LETTERS) _____ Qualification	

(k) Unless the instrument of title has been lodged by the person lodging the dealing, or its use has been authorised previously, the authority must be furnished by the person otherwise entitled to delivery of the certificate of title, grant &c.

(l) Not required where dealing attested in accordance with note (p); in other cases to be signed by one of the persons referred to in note (p).



# CERTIFICATE OF TITLE



10731-217

NEW SOUTH WALES

REAL PROPERTY ACT, 1900

Appln. No.3083

Prior Title Vol.3206 Fol.177



Vol. 10731 Fol. 217

**CANCELLED**  
NOT FOR ISSUANCE

28 12 1977  
SEE AUTO FOLD

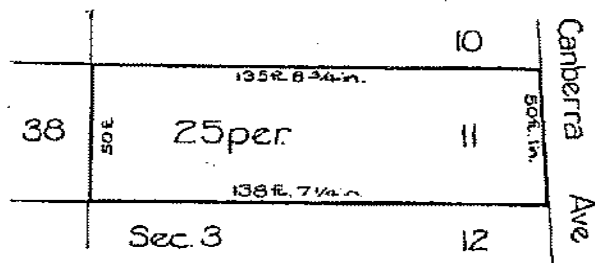
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

*[Signature]*

Registrar General.



## PLAN SHOWING LOCATION OF LAND



Scale: 50 feet to one inch.

Q331451

### ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 11 of Section 3 in Deposited Plan 7259 in the Municipality of Lane Cove Parish of Willoughby and County of Cumberland being part of Portion 323 granted to Edward Wollstonecraft on 30-6-1825.

### FIRST SCHEDULE

~~VIOLET DOROTHY PRYOR, JOYCE CHRISTIE, MAXWELL CRACKNELL, DAVID AYLIPPE and PETER ST. JOHN HOBSON, all of Surry Hills, Administrators as tenants in common in equal shares.~~

### SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Covenants created by Transfers Nos. 558032 and 115775.
3. ~~Q331451 Mortgage to Heather Lindsay Wallace Ross of Neutral Bay, Stenographer and Marie Garden of Eastlake, Teacher. 5930928~~

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

10731-217

(Page 1) Vol.

Vol. 10731 Fol. 217

6- FILED

SEE AUTO FILED

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.



SEARCH DATE

30/7/2021 3:23PM

FOLIO: 11/3/7259

First Title(s): SEE PRIOR TITLE(S)

Prior Title(s): VOL 10731 FOL 217

Recorded	Number	Type of Instrument	C.T. Issue
-----	-----	-----	-----
5/8/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
23/8/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
13/8/1993	I515203	APPLICATION FOR REPLACEMENT CERTIFICATE OF TITLE	
13/8/1993	I515204	CHANGE OF NAME	
13/8/1993	I515205	TRANSMISSION APPLICATION	EDITION 1
10/11/1993	I785367	TRANSFER	EDITION 2
7/3/1994	U85301	MORTGAGE	EDITION 3
7/3/1996	O965921	VARIATION OF MORTGAGE	EDITION 4
24/3/1998	3873798	DISCHARGE OF MORTGAGE	EDITION 5
5/10/1999	6244675	TRANSFER	
5/10/1999	6244676	MORTGAGE	EDITION 6
10/2/2004	AA400811	DISCHARGE OF MORTGAGE	
10/2/2004	AA400813	MORTGAGE	EDITION 7
13/9/2005	AB766144	DISCHARGE OF MORTGAGE	
13/9/2005	AB766145	MORTGAGE	EDITION 8
18/6/2007	AD195663	DISCHARGE OF MORTGAGE	
18/6/2007	AD195664	TRANSFER	
18/6/2007	AD195665	MORTGAGE	EDITION 9
5/8/2016	AK649764	CAVEAT	
14/11/2017	AM884258	CAVEAT	
2/2/2018	AN87814	WITHDRAWAL OF CAVEAT	
2/2/2018	AN87816	DISCHARGE OF MORTGAGE	
2/2/2018	AN87819	TRANSFER	
2/2/2018	AN87821	MORTGAGE	EDITION 10

END OF PAGE 1 - CONTINUED OVER

SEARCH DATE

30/7/2021 3:23PM

FOLIO: 11/3/7259

PAGE 2

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
1/8/2019	AP436128	DEPARTMENTAL DEALING	
28/1/2020	AP863329	DISCHARGE OF MORTGAGE	
28/1/2020	AP863333	MORTGAGE	EDITION 11
6/2/2020	AP886521	DISCHARGE OF MORTGAGE	
6/2/2020	AP886530	MORTGAGE	EDITION 12
24/12/2020	AQ692065	CAVEAT	
4/5/2021	AR11619	MORTGAGE	EDITION 13

\*\*\* END OF SEARCH \*\*\*



RP3



# TRANSMISSION APPLICATION

Section 93 Real Property Act 1900



I  
515205 H

Office of State Revenue use only

(A) **LAND**

Show no more than 20 References to Title.

Folio Identifier 11/3/7259 (formerly Volume 10731 Folio 217)  
Volume 3796 Folio 210  
~~NO~~ NOW BEING 11126780

(B) **REGISTERED DEALING**

If applicable.

(C) **LODGED BY**

L.T.O. Box

Name, Address or DX and Telephone

KEVIN O'KANE & CO  
60 PARK STREET  
SYDNEY NSW 2000  
TEL: 283-3355 D.X. 696  
REFERENCE (max. 15 characters):

(D) **DECEASED REGISTERED PROPRIETOR**

VIOLET DOROTHY PRYOR

(E) **APPLICANT**

TA

DAVID STEPHEN AYLIFFE of 32 River Road,  
Wollstonecraft and MAXWELL GORDON CRACKNELL of 13  
Canberra Avenue, Wollstonecraft

AS JT in 1/4 share

SEE OVER

(F) I, the Applicant, being entitled as **executors** of the will/estate of the Deceased Registered Proprietor (who died on between 13 & 15/11/1991) pursuant to Probate/Letters of Administration No. 102162/92 granted on March 12, 1992 to David Stephen Ayliffe and Maxwell Gordon Cracknell apply to be registered as proprietor of the estate or interest of the Deceased Registered Proprietor in the Land/Registered Dealing specified above.

(G) Certified correct for the purposes of the Real property Act 1900.  
Signed in my presence by the Applicant who is personally known to me.

DATE 30 June 1993

Heather Lindsay Wallace Ross  
Justice of the Peace for NSW.  
HEATHER LINDSAY WALLACE ROSS  
Name of Witness (BLOCK LETTERS)

14-14 Main Rd. Wollstonecraft Valley  
Address of Witness N.S.W.

EVIDENCE SIGHTED (office use only)

22

David Ayliffe  
Signature of Applicant

CHECKED BY (office use only)

DL5  
JF

log B

0620 dm  
obvs.

Application re c/w of Executors.  
& Evidence with

(H)

## CONSENT OF EXECUTOR OR ADMINISTRATOR

I, ..... **Executor of the will / Administrator of the estate**  
of the Deceased Registered Proprietor, hereby consent to this application.

.....  
Signature of Witness

.....  
Name of Witness (BLOCK LETTERS)

.....  
Address of Witness

.....  
Signature of Executor/Administrator

### INSTRUCTIONS FOR COMPLETION

**STAMP DUTY:** If the Applicant is a devisee, beneficiary, next-of-kin or otherwise beneficially entitled or if the Deceased Registered Proprietor died prior to 31 December 1981 the application must be presented to the Office of State Revenue prior to lodgment at the Land Titles Office.

1. The Application must be completed clearly and legibly in permanent, dense, black or dark blue non-copying ink. If using a dot-matrix printer the print must be letter-quality.
2. Do not use an eraser or correction fluid to make alterations: rule through rejected material. Initial each alteration in the lefthand margin.
3. If the space provided at any point is insufficient, you may annex additional pages. These must be the same size as the form; paper quality, colour, etc, must conform to the requirements set out in Land Titles Office Information Bulletin No. 19. All pages of any annexure must be signed by the person executing the Application and any attesting witness.
4. The following instructions relate to the marginal letters on the application.

**(A) LAND**

Show the relevant Reference to Title. If there are more than 20 show none in this panel. Place ALL of them on an annexure (see 3 above) with 20 per sheet.

**(B) REGISTERED DEALING**

Show the registration number of any lease, mortgage or charge in regard to which the Applicant is applying to be registered as a proprietor.

**(C) LODGED BY**

This section relates to the person or firm lodging the Application at the Land Titles Office.

**Reference (max. 15 characters)** This is optional. Any slashes, dots, blank spaces, etc, will be counted as characters.

**(D) DECEASED REGISTERED PROPRIETOR**

Show the name in full. Address and occupation need not be shown.

**(E) APPLICANT**

Show the name in full. Address and occupation need not be shown.

**(F) WILL/ESTATE, etc**

Amend "will/estate", "Probate/Letters of Administration" and "Land/Registered Dealing" as appropriate.

In the relevant spaces show the capacity (executor, devisee, etc) in which the Applicant is entitled to apply, the date of death of the Deceased Registered Proprietor, the number and date of grant of the Probate or Letters of Administration pursuant to which the Application is made, and the name of the person to whom the grant was made.

**(G) EXECUTION**

**General** The application must be executed by or on behalf of the Applicant.

**By the Applicant Personally** The application must be signed in the presence of an adult witness who is not an Applicant and who knows the party executing personally. The witness should complete the appropriate section of the application.

**By the Applicant's Attorney** The Power of Attorney must be registered in the General Register of Deeds at the Land Titles Office. The execution should take the form, "AB by her attorney XY [full name] pursuant to Power of Attorney Book 1234 Number 567".

**Under Authority** If the application is made pursuant to any statutory, judicial or other authority, except a Power of Attorney (see above), the nature of the authority should be disclosed.

**By a Corporation under Seal** The execution must include a statement that the seal has been properly affixed, for example, "... pursuant to a resolution of the board of directors ...". Alternatively, all those attesting the affixing of the seal must state their position in the corporation.

**(H) CONSENT OF EXECUTOR OR ADMINISTRATOR**

This is required only where the Applicant claims to be entitled other than as executor, administrator or trustee.

The completed Application must be lodged by hand at the LAND TITLES OFFICE, Queen's Square, Sydney, together with the Certificate of Title, the probate or letters of administration (or a copy thereof certified by a solicitor to be a true copy) and a completed Notice of Sale.

If you have any questions about filling out the form, please call 228-6666 and ask for our Customer Services Branch.

RP13



**TRANSFER**

Real Property Act, 1900



I  
**785367 T**

**B**

Office of

\$2.00

190793 6926 04 200638128/03

**(A) LAND TRANSFERRED**

Show no more than 20 References to Title.  
If appropriate, specify the share transferred.

11/3/7259

**(B) LODGED BY**

L.T.O. Box

1018X

Name, Address or DX and Telephone

P. J. Kerr & Co. Solicitors  
Suite 15, 91 Macleay St. Potts Point 2011  
DX 486 Sydney Tel. 3574422

REFERENCE (max. 15 characters): PJK:Sont

**(C) TRANSFEROR**

STEPHEN GORDON  
DAVID AYLIFFE, MAXWELL CRACKNELL and JOYCE  
CHESD

**(D)** acknowledges receipt of the consideration of \$331,000.00  
and as regards the land specified above transfers to the transferee an estate in fee simple

**(E)** subject to the following ENCUMBRANCES 1. 2. 3.

**(F) TRANSFEE**

**T**

GERARD WILLIAM SONT of 18A Castra Place, Double Bay

**(G)** as joint tenants/tenants in common

**(H)** We certify this dealing correct for the purposes of the Real Property Act, 1900. DATE 21 September 1993

Signed in my presence by the transferor who is personally known to me.  
DAVID AYLIFFE AND MAXWELL CRACKNELL

*Jan David MacKinnon*  
Signature of Witness

JAN DAVID MACKINNON

Name of Witness (BLOCK LETTERS)

Lot 182 HODGKIN ST ROBERTSON

Address of Witness

*David Ayliff*

*Maxwell Cracknell*  
Signature of Transferor

JOYCE CHESD

Signed in my presence by the transferee who is personally known to me.  
Signed in my presence by the transferee who is personally known to me.  
J. Schultz to me  
THELMA JOYCE SCHULTZ  
2/14 LORNE ST ALDERLEY

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

Solicitor for -Signature of Transferee  
PATRICK JOSEPH KERR



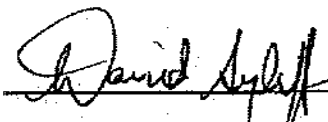

## STATUTORY DECLARATION

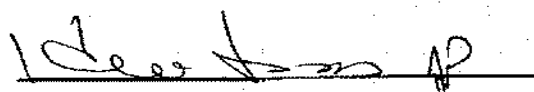
We, DAVID STEPHEN AYLIFFE and MAXWELL GORDON CRACKNELL  
of P.O. Box 16, Robertson in the State of New South Wales,  
do solemnly and sincerely declare as follows:

1. David Stephen Ayliffe, one of the registered proprietors named on Certificate of Title Folio Identifier 11/3/7259 is identical with David Ayliffe also named on the same Certificate of Title.
2. Maxwell Gordon Cracknell, one of the registered proprietors named on Certificate of Title Folio Identifier 11/3/7259 is identical with Maxwell Cracknell also named on the same Certificate of Title.
3. We are identical with the David Ayliffe and Maxwell Cracknell named as vendor in Contract for Sale of Land in relation to the above property dated June 24, 1993.

And I make this solemn declaration conscientiously believing the same to be true  
and by virtue of the provisions of the Oaths Act, 1900 (as amended).

Subscribed and declared at Robertson  
this 16<sup>th</sup> day of SEPTEMBER  
one thousand nine hundred and ninety three  
before me:

1   
] D.S. AYLIFFE  
1   
] M.G. CRACKNELL

  
Justice of the Peace  
for New South Wales

FORM: 97-011

Licence: 10V/0096/96

Edition: 9804

**TRANSFER**

New South Wales

Real Property Act 1900

6244675B

**STAMP DUTY**

Office of State Revenue use only

NEW SOUTH WALES DUTY

30-09-1999

0000113908-001

SECTION 18(2)

DUTY

\$ 22222222222222.00

**(A) TORRENS TITLE**

If appropriate, specify the part or share transferred

*Folio Identifier 11/3/7259***(B) LODGED BY**

LTO Box

Name, Address or DX and Telephone

**CODES***25G**TMC*Reference (optional): *464068134368*T  
TS (s713)  
TW (Sheriff)**(C) TRANSFEROR***GERARD WILLIAM SONT***(D)**The transferor acknowledges receipt of the consideration of \$*730,000.00* and as regards the land specified above transfers to the transferee an estate in fee simple.**(E)**

Encumbrances (if applicable): 1. 2. 3.

**(F) TRANSFEE***CHRISTOPHER MICHAELIDIS***(G)****TENANCY:****(H) We certify this dealing correct for the purposes of the Real Property Act 1900.****DATE:**

Signed in my presence by the transferor who is personally known to me.

Signature of witness:

*PAULE CLOUT*

Name of witness:

Address of witness:

*200 Railway Parade  
Kogarah 2217*

Signature of transferor:

*Gerard W. Sont*  
*GERARD W. SONT*

Signed in my presence by the transferee who is personally known to me.

Signature of witness:

Name of witness:

Address of witness:

Signature of transferee:

*David Chambers*  
*David Chambers*  
*Transferee's Solicitor*

If signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name and capacity below:

All handwriting must be in block capitals.

A set of notes on this form (97-01T-2)

is available from the Land Titles Office.

Page 1 of 1

number additional pages sequentially

Checked by (LTO use): *Rug 62*

Form: 01T  
Licence: 01-05-025  
Licensee: Porter Conveyancing

# TRANSFER



New South Wales  
Real Property Act 1900

**AD195664B**

**PRIVACY NOTE:** Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

## STAMP DUTY

Office of State Revenue use only

NEW SOUTH WALES DUTY

16-03-2007

0004127053-001

SECTION 18(2)

DUTY

\$ \*\*\*\*\*2.00

### (A) TORRENS TITLE

If appropriate, specify the part transferred  
11/3/7259

### (B) LODGED BY

Delivery  
Box

**25G**

Name, Address or DX and Telephone

EDS BPA PTY LTD  
25 PIERSON ST LOCKLEYS SA 5032  
TEL: 132550  
LLPN: 123002H

Reference (optional):

CODES

**T**

**TW**

(Sheriff)

### (C) TRANSFEROR

**CHRISTOPHER MICHAILIDIS**

### (D) CONSIDERATION

The transferor acknowledges receipt of the consideration of \$1,400,000.00 and as regards

### (E) ESTATE

The land specified above transfers to the transferee an estate in fee simple.

### (F) SHARE

TRANSFERRED

### (G)

Encumbrances (if applicable):

### (H) TRANSFEE

**GEORGIA KATE MOR**

### (I)

**TENANCY:**

## DATE

- (J) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness:

Address of witness:

*Marina Michailidis*  
Marina Michailidis  
898 Barronjoey Rd  
Palm Beach 2108

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: Michael Hamilton Porter  
Signatory's capacity: Licensed conveyancer for the Transferee





FOLIO: 11/3/7259

SEARCH DATE	TIME	EDITION NO	DATE
30/7/2021	3:25 PM	13	4/5/2021

LAND

LOT 11 OF SECTION 3 IN DEPOSITED PLAN 7259  
LOCAL GOVERNMENT AREA LANE COVE  
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND  
TITLE DIAGRAM DP7259

FIRST SCHEDULE

CRESCO-PIETY CSL PTY LTD

(T AN87819)

SECOND SCHEDULE (6 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 658032 COVENANT
- 3 A115775 COVENANT
- 4 AP886530 MORTGAGE TO HARVEST GOLD DEVELOPMENT III LIMITED
- \* 5 AQ692065 CAVEAT BY SLS FIVE PTY LTD
- \* AR11619 CAVEATOR CONSENTED
- 6 AR11619 MORTGAGE TO MAJOR CREATIVITY HOLDINGS II LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*



SEARCH DATE

30/7/2021 3:23PM

FOLIO: 12/3/7259

-----

First Title(s): SEE PRIOR TITLE(S)

Prior Title(s): VOL 7316 FOL 57

Recorded	Number	Type of Instrument	C.T. Issue
-----	-----	-----	-----
7/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
8/1/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
29/10/1996	2568718	TRANSFER	
29/10/1996	2568719	MORTGAGE	EDITION 1
20/5/1999	5838920	DISCHARGE OF MORTGAGE	
20/5/1999	5838921	TRANSFER	
20/5/1999	5838922	MORTGAGE	EDITION 2
9/3/2001	7465059	DISCHARGE OF MORTGAGE	
9/3/2001	7465060	TRANSFER	
9/3/2001	7465061	MORTGAGE	EDITION 3
15/11/2005	AB913931	TRANSFER	EDITION 4
29/7/2010	AF662383	DISCHARGE OF MORTGAGE	
29/7/2010	AF662384	TRANSFER WITHOUT MONETARY CONSIDERATION	
29/7/2010	AF662385	MORTGAGE	EDITION 5
5/8/2016	AK649765	CAVEAT	
14/11/2017	AM884264	CAVEAT	
2/2/2018	AN87815	WITHDRAWAL OF CAVEAT	
2/2/2018	AN87817	DISCHARGE OF MORTGAGE	
2/2/2018	AN87820	TRANSFER	
2/2/2018	AN87821	MORTGAGE	EDITION 6
1/8/2019	AP436128	DEPARTMENTAL DEALING	
28/1/2020	AP863329	DISCHARGE OF MORTGAGE	
28/1/2020	AP863333	MORTGAGE	EDITION 7
6/2/2020	AP886521	DISCHARGE OF MORTGAGE	
6/2/2020	AP886530	MORTGAGE	EDITION 8

END OF PAGE 1 - CONTINUED OVER

SEARCH DATE

30/7/2021 3:23PM

FOLIO: 12/3/7259

PAGE 2

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
15/9/2020	AP912711	DEPARTMENTAL DEALING	
24/12/2020	AQ692065	CAVEAT	
4/5/2021	AR11619	MORTGAGE	EDITION 9

\*\*\* END OF SEARCH \*\*\*

Form number: 97-01T  
Licence number: 10V/0096/95  
Printed: 0596LTO

① **TRANSFER**  
New South Wales  
Real Property Act 1900



2568718 C

Page 1 of .....

Office of State Revenue use only

00.24

20/25938810+ 40 2010 960181

N.S.W. STAMP DUTY

- (A) **LAND TRANSFERRED**  
Show no more than 20 references to title.  
If appropriate, specify the share transferred.

FOLIO IDENTIFIER 12/3/7259 ✓

- (B) **LODGED BY**

L.T.O. Box

Name, Address or DX and Telephone

NATIONAL AUSTRALIA BANK LIMITED  
National Australia Bank House  
255 George Street, Sydney  
237-1111 FAX 237-1284

REFERENCE (max. 15 characters):

QW.1008

- (C) **TRANSFEROR** BRIAN HARCOURT WEBB ✓

- (D) acknowledges receipt of the consideration of \$451,000.00 ✓

and as regards the land specified above transfers to the Transferee an estate in fee simple

- (E) subject to the following **ENCUMBRANCES** 1. .... 2. .... 3. ....

- (F) **TRANSFEE**

T  
TS  
(s713 LGA)  
TW  
(Sheriff)

CARLO EDWIN GAROFALI and KATHLEEN HEIDI GAROFALI

- (G) **TENANCY:** JOINT TENANTS ✓

- (H) We certify this dealing correct for the purposes of the Real Property Act 1900. DATE 21.10.96

Signed in my presence by the Transferor who is personally known to me.

*[Signature]*  
Signature of Witness

Sylvia Liddle  
Name of Witness (BLOCK LETTERS)

4 Arzio Ave Allambi NSW  
Address of Witness

BRIAN HARCOURT WEBB by  
his attorney BARRY JOHN  
O'NEILL pursuant to Power of  
Attorney Registered Book 4103  
10 482

*[Signature]*  
Signature of Transferor

Signed in my presence by the Transferee who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

ROBERT KEITH WALLER - Solicitor

For ~~Signature~~ of Transferee

NB: if applicable, indicate that the signatory is the transferee's solicitor and show the solicitor's full name in block letters.

Form: 97-01T  
Licence: 100U/230/95

**TRANSFER**  
New South Wales  
Real Property Act 1900

5838921C



**STAMP DUTY**

Office of State Revenue use only	
00.2\$	20/499775102 40 202 2602 665040
N.S.W. STAMP DUTY	
\$2	

(A) **TORRENS TITLE**

If appropriate, specify the part or share transferred 12/3/7259
--

(B) **LODGED BY**

LTO Box  23L	Name, Address or DX and Telephone  CSB 213363307 Reference (optional): G:\MHR\390.DOC	CODES  T TS (s713) TW (Sheriff)
--------------------	--	---

(C) **TRANSFEROR**

CARLO EDWIN GAROFALI and KATHLEEN HEIDI GAROFALI
--

(D) The transferor acknowledges receipt of the consideration of \$875,200.00 and as regards the land specified above transfers an estate in fee simple.

(E) Encumbrances (if applicable): 1. Nil 2. 3.

(F) **TRANSFeree**

DAVID JOHN SIMPSON and PAULA ANNE SWAN
TENANCY: JOINT

(H) We certify this dealing correct for the purposes of the Real Property Act 1900.

DATE: 11/5/99

Signed in my presence by the transferor who is personally known to me.

Signature of witness:

Name of witness:

JOHN CHAMMAN

Address of witness:

30 CAMBRIDGE ST  
ROZELLE 2059

Signature of transferor:

Signed in my presence by the transferee who is personally known to me.

Signature of witness:

Name of witness:

Address of witness:

Signature of transferee:

If signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name and capacity below:  
Solicitor for transferee's - Jeremy Neil Glass



Form: 97-01T  
Licence: 10V/0096/96  
Edition: 9804

**TRANSFER**  
New South Wales  
Real Property Act 1900



**STAMP DUTY**

Office of State Revenue use only	
<b>OFFICE OF STATE REVENUE (N.S.W. TREASURY)</b>	
CLIENT No. 3323749	STAMP No. 292
STAMP DUTY 82-	SIGNATURE <i>K. Ward</i>
TRANSACTION No. 28	DATE 22/2/01
ASSESSMENT DETAILS:	

(A) **TORRENS TITLE**

If appropriate, specify the part or share transferred  
Folio Identifier 12/3/7259

(B) **LODGED BY**

LTO Box	Name, Address or DX and Telephone	CODES
231	CSB 22278 2909	T TS (s713) TW (Sheriff)
Reference (optional):		

(C) **TRANSFEROR**

DAVID JOHN SIMPSON and PAULA ANNE SWAN

(D) The transferor acknowledges receipt of the consideration of \$ 883,300 and as regards the land specified above transfers to the transferee an estate in fee simple.

(E) Encumbrances (if applicable): 1. 2. 3.

(F) **TRANSFEE**

DIANNE ELIZABETH CAMPBELL and MICHAEL ROBERT WARD

TENANCY: Joint tenants

(H) We certify this dealing correct for the purposes of the Real Property Act 1900. DATE: 2-3-01.  
Signed in my presence by the transferor who is personally known to me.

Signature of witness: *Simone Gibson*  
Name of witness: Simone Gibson  
Address of witness: 14/55 Hunter St  
Sydney

Signature of transferor: *[Signature]*

Signed in my presence by the transferee who is personally known to me.

Signature of witness:

Signature of transferee: *[Signature]*

Name of witness:

Address of witness:

If signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name and capacity below:  
PETER JONATHAN LANDER  
- Solicitor



Form: 01T  
Release: 2.1  
www.lpi.nsw.gov.au

# TRANSFER

New South Wales  
Real Property Act 1900

AB913931G

PRIVACY NOTE: this information is legally required and will become part of the public record

## STAMP DUTY

Office of State Revenue NSW Treasury Client No: 90095159 Duty: \$0 Trans No: 388758 Assessment: EXEMPT 568(1)	1307
--	------

## (A) TORRENS TITLE

12/3/7259

## (B) LODGED BY

Delivery Box <b>124E</b>	Name, Address or DX and Telephone LLPN: 1234370 123820V Milne Berry & Berger, DX 11606 SYDNEY DOWNTOWN LEGALINK DX 1239 SYDNEY Reference: J-MPLB-058599-7066	CODES <b>T</b> <b>TW</b> (Sheriff)
-----------------------------	--	---

## (C) TRANSFEROR

Dianne Elizabeth Campbell and Michael Robert Ward

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of \$ 1.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

## (F) SHARE TRANSFERRED

(G) Encumbrances (if applicable):

## (H) TRANSFEE

Dianne Elizabeth Campbell as to 70% and Michael Robert Ward as to 30%

(I) **TENANCY:** Tenants in Common

## (J) DATE

30/06/2005

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

\*

Name of witness:

Address of witness:

M. Murrell  
MICHAEL MURRELL  
15 Beachan Place  
Cherrybrook 2126

Witness to Dianne Campbell  
DR MEGAN PHELPS  
24 The Boulevard  
Epping 2121

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Dr W  
\*  
Signature of transferor:

Certified for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Dr W  
\*  
Signature:

Signatory's name:

Signatory's capacity:

transferee's solicitor

Form: U11 WL  
Licence: 05-11-651  
Licensee: Softdocs  
Abrams Turner Whelan Family Lawyers

**TRANSFER**  
without monetary consideration  
New South Wales  
Real Property Act 1900



**AF662384F**

**PRIVACY NOTE:** Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

**STAMP DUTY**

Office of State Revenue use only

Office of State Revenue NSW Treasury	
Client No: 114874496	3318
Duty: <u>EXEMPT</u>	Trans No: <u>5858936</u>
Asst details: <u>S 68(1)</u>	

**(A) TORRENS TITLE**

12/3/7259

**(B) LODGED BY**

Document Collection Box  23L	Name, Address or DX, Telephone, and Customer Account Number if any  LLPN: 123835G CSB Reference (optional): 740704206	CODES  TZ JT  TJ
------------------------------------	---	------------------------------

**(C) TRANSFEROR**

MICHAEL ROBERT WARD

**(D) CONSIDERATION** Pursuant to order of the Family Court of Australia at Sydney dated 30/06/2005

**(E) ESTATE** and as regards the land specified above transfers to the transferee an estate in fee simple.

**(F) SHARE TRANSFERRED** 30/100 SHARE AS TENANT IN COMMON

**(G)** Encumbrances (if applicable):

**(H) TRANSFEREE**

DIANNE ELIZABETH CAMPBELL

**(I)** TENANCY:

**DATE**

.....1.....7.....10.....

**(J)** I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of witness:

Name of witness:

LEANNI LUTREE

Address of witness:

36 LARKIN ST  
WATERLOO  
NSW 2060

Signature of transferor:

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: AILEEN MARIA SLATTERY  
Capacity: Solicitor for the transferee



FOLIO: 12/3/7259

SEARCH DATE	TIME	EDITION NO	DATE
30/7/2021	3:26 PM	9	4/5/2021

LAND

LOT 12 OF SECTION 3 IN DEPOSITED PLAN 7259  
AT ST LEONARDS  
LOCAL GOVERNMENT AREA LANE COVE  
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND  
TITLE DIAGRAM DP7259

FIRST SCHEDULE

CRESCO-PIETY CSL PTY LTD

(T AN87820)

SECOND SCHEDULE (6 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 658032 COVENANT
- 3 A115775 COVENANT
- 4 AP886530 MORTGAGE TO HARVEST GOLD DEVELOPMENT III LIMITED
- \* 5 AQ692065 CAVEAT BY SLS FIVE PTY LTD
- \* AR11619 CAVEATOR CONSENTED
- 6 AR11619 MORTGAGE TO MAJOR CREATIVITY HOLDINGS II LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*



SEARCH DATE

30/7/2021 3:23PM

FOLIO: 13/3/7259

First Title(s): SEE PRIOR TITLE(S)

Prior Title(s): VOL 3590 FOL 147

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
17/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
23/7/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
26/7/1990	Z73363	MORTGAGE	EDITION 1
31/5/1994	U309524	DISCHARGE OF MORTGAGE	EDITION 2
12/9/1995	O525540	CAVEAT	
30/8/1996	2422333	WITHDRAWAL OF CAVEAT	
30/8/1996	2422334	TRANSFER	
30/8/1996	2422335	MORTGAGE	EDITION 3
10/1/1997	2752218	DISCHARGE OF MORTGAGE	
10/1/1997	2752219	TRANSFER	
10/1/1997	2752220	MORTGAGE	EDITION 4
13/1/1998	3724952	APPLICATION FOR REPLACEMENT CERTIFICATE OF TITLE	EDITION 5
11/2/1998	3792024	DISCHARGE OF MORTGAGE	
11/2/1998	3792025	MORTGAGE	EDITION 6
16/1/2015	AJ175267	TRANSMISSION APPLICATION (EXECUTOR, ADMINISTRATOR, TRUSTEE)	EDITION 7
6/3/2015	AJ312124	DISCHARGE OF MORTGAGE	
6/3/2015	AJ312125	TRANSFER	
6/3/2015	AJ312126	MORTGAGE	EDITION 8
8/9/2018	AN695391	DEPARTMENTAL DEALING	EDITION 9 CORD ISSUED
24/12/2020	AQ692088	CAVEAT	

\*\*\* END OF SEARCH \*\*\*



97-01T



**TRANSFER**

Real Property Act, 1900



**2422334 N**

nly

Office of State Revenue use only

00\*04501\$ 10/10125110Z +0 4281 948082  
ALTO JWA1 STAMP DUTY

**(A) LAND TRANSFERRED**

Show no more than 20 References to Title.  
If appropriate, specify the share transferred.

*Folio Identifier 13/3/7259*

**(B) LODGED BY**

L.T.O. Box

Name, Address or DX and Telephone

*R. HAZLETT & CO.  
BOX 391H*

REFERENCE (max. 15 characters):

**(C) TRANSFEROR**

*AGNES ROSE BISBY*

**(D) acknowledges receipt of the consideration of** *\$1-00*

and as regards the land specified above transfers to the Transferee an estate in fee simple

**(E) subject to the following ENCUMBRANCES** 1. 2. 3.

**(F) TRANSFEE**

**T**  
**TS**  
(s713 LGA)  
**TW**  
(Sheriff)

*PAUL VICTOR BISBY*

**TENANCY:**

**(G)**

**(H) We certify this dealing correct for the purposes of the Real Property Act, 1900.**

**DATED** *15/8/1996*

Signed in my presence by the Transferor who is personally known to me.

*C Turner*

Signature of Witness

*CHRISTENE TURNER*

Name of Witness (BLOCK LETTERS)

*1 KARNAK ST. EASTWOOD*

Address of Witness

*Agnes Bisby*

Signature of Transferor

Signed in my presence by the Transferee who is personally known to me.

*C. L. MEAD*

Signature of Witness

*C. L. MEAD*

Name of Witness (BLOCK LETTERS)

*372 PACIFIC HIGHWAY CROWNS NEST*

Address of Witness

*Paul Bisby*

Signature of Transferee

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only)

Form: 97-01T  
Licence: 10V/0096/95  
Printed: 0696LTO

(1)

# TRANSFER

New South Wales

Real Property Act 1900



2752219 U

Instructions for filling out  
this form are available  
from the Land Titles Office

Office of State Revenue use only

00\*2\*

FD/089600ZT0Z +0 9706 96Z190

LAND TRANSFER - S.W.S. - N

- (A) **LAND TRANSFERRED**  
Show no more than 20 titles.  
If appropriate, specify the  
share or part transferred.

FOLIO IDENTIFIER 13/3/7259 ✓

- (B) **LODGED BY**

LTO Box

Name, Address or DX and Telephone

40L

STATE BANK OF NEW SOUTH WALES LIMITED  
DX 1334 SYDNEY 841 6196

REFERENCE (15 character maximum): FAI

- (C) **TRANSFEROR** PAUL VICTOR BISBY ✓

- (D) acknowledges receipt of the consideration of \$545,000.00 ✓

and as regards the land specified above transfers to the Transferee an estate in fee simple

- (E) subject to the following **ENCUMBRANCES** 1. 2. 3.

- (F) **TRANSFEE**

T  
TS  
(s713 LGA)  
TW  
(Sheriff)

PRISCA SHING LAN FAI ✓

- (G) **TENANCY:**

- (H) We certify this dealing correct for the purposes of the Real Property Act 1900. DATE 19 DECEMBER 1996

Signed in my presence by the Transferor who is personally known to me.

Signature of Witness

C. H. MILNE  
Name of Witness (BLOCK LETTERS)

SOLICITOR, SYDNEY.  
Address of Witness

Signature of Transferor

Signed in my presence by the Transferee who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

Signature of Transferee's Solicitor  
JEFFREY THOMAS FAI

NB: if signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name in block letters.

Form: 03AE  
Release: 22

**TRANSMISSION  
APPLICATION**  
by an Executor,  
Administrator or Trustee  
New South Wales  
Section 93 Real Property Act 1900



**AJ175267A**

**PRIVACY NOTE:** Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

(A) <b>TORRENS TITLE</b>	13/3/7259		
(B) <b>REGISTERED DEALING</b>	NUMBER	TORRENS TITLE	
(C) <b>LODGED BY</b>	DOCUMENT COLLECTION BOX 85M	NAME, ADDRESS OR DX, TELEPHONE, AND CUSTOMER ACCOUNT NUMBER IF ANY Pronto 123032X REFERENCE: PDLC-LM-FAI	CODE <b>AE</b>
(D) <b>DECEASED REGISTERED PROPRIETOR</b>	PRISCA SHING LAN FAI		
(E) <b>APPLICANT</b>	JEFFREY THOMAS FAI		

- (F) The abovementioned applicant, being entitled as executor of the will of the deceased registered proprietor (who died on 26 March 2013) pursuant to probate No. 2014/88225 granted on 21 July 2014 ( a certified copy of which is lodged herewith) hereby applies to be registered as proprietor of the estate or interest of the deceased registered proprietor in the abovementioned land

DATE \_\_\_\_\_

(G)

Certified correct for the purposes of the Real Property Act 1900 on behalf of the applicant by the person whose signature appears below.

Signature:

Signatory's name:

Signatory's capacity:

Paul Denny

licensed conveyancer

- (H) This section is to be completed where a notice of sale is required and the relevant data has been forwarded through eNOS. The applicant's agent \_\_\_\_\_ certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 754607 Full name: Paul Denny Signature: \_\_\_\_\_

\* s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

Evidence sighted and returned (office use only): Ja.



FOLIO: 13/3/7259

SEARCH DATE	TIME	EDITION NO	DATE
30/7/2021	3:26 PM	9	8/9/2018

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO.  
CONTROL OF THE RIGHT TO DEAL IS HELD BY WESTPAC BANKING CORPORATION.

LAND

LOT 13 OF SECTION 3 IN DEPOSITED PLAN 7259  
AT ST LEONARDS  
LOCAL GOVERNMENT AREA LANE COVE  
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND  
TITLE DIAGRAM DP7259

FIRST SCHEDULE

HO-CHIEN HSIEH

(T AJ312125)

SECOND SCHEDULE (4 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 A115775 COVENANT
- 3 AJ312126 MORTGAGE TO WESTPAC BANKING CORPORATION
- \* 4 AQ692088 CAVEAT BY SLS FIVE PTY LTD

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*



SEARCH DATE

30/7/2021 3:23PM

FOLIO: 14/3/7259

First Title(s): SEE PRIOR TITLE(S)

Prior Title(s): VOL 3436 FOL 212

Recorded	Number	Type of Instrument	C.T. Issue
-----	-----	-----	-----
17/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
12/6/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
15/4/1999	5751301	TRANSFER	
15/4/1999	5751302	MORTGAGE	EDITION 1
21/1/2000	6504732	DISCHARGE OF MORTGAGE	
21/1/2000	6504733	TRANSFER	
21/1/2000	6504734	MORTGAGE	EDITION 2
29/10/2003	AA109758	DISCHARGE OF MORTGAGE	
29/10/2003	AA109759	MORTGAGE	EDITION 3
29/1/2004	AA365764	CAVEAT	
30/1/2004	AA368803	WITHDRAWAL OF CAVEAT	
30/1/2004	AA368804	DISCHARGE OF MORTGAGE	
30/1/2004	AA368805	TRANSFER	EDITION 4
1/7/2004	AA769146	MORTGAGE	EDITION 5
16/7/2005	AB626728	DISCHARGE OF MORTGAGE	
16/7/2005	AB626729	TRANSFER	
16/7/2005	AB626730	MORTGAGE	EDITION 6
17/12/2012	AH441436	APPLICATION FOR REPLACEMENT CERTIFICATE OF TITLE	EDITION 7
4/1/2013	AH465858	DISCHARGE OF MORTGAGE	
4/1/2013	AH465859	TRANSFER	
4/1/2013	AH465860	MORTGAGE	EDITION 8
30/3/2015	AJ351940	DISCHARGE OF MORTGAGE	
30/3/2015	AJ351941	TRANSFER	
30/3/2015	AJ351942	MORTGAGE	EDITION 9
29/1/2016	AK178932	DISCHARGE OF MORTGAGE	

END OF PAGE 1 - CONTINUED OVER



SEARCH DATE

30/7/2021 3:23PM

FOLIO: 14/3/7259

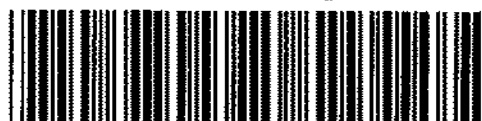
PAGE 2

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
29/1/2016	AK178933	MORTGAGE	EDITION 10
8/9/2018	AN695391	DEPARTMENTAL DEALING	EDITION 11 CORD ISSUED
24/12/2020	AQ692109	CAVEAT	

\*\*\* END OF SEARCH \*\*\*

97-01T Licence Number  
985X/0329/96

**TRANSFER**  
New South Wales  
Real Property Act 1900



OFFICE OF STATE REVENUE (N.S.W. TREASURY)

CLIENT No. 1390864

STAMP No. 214

STAMP DUTY \$2-

SIGNATURE *K. Rodseth*

TRANSACTION No. 1

DATE 26.3.99

ASSESSMENT DETAILS:

**(A) LAND TRANSFERRED**

Show no more than 20 References to Title  
If appropriate, specify the share transferred

Folio Identifier 14/3/7259

**(B) LODGED BY**

L.T.O. Box

23L

Name, Address or DX and Telephone

CSB

REFERENCE (max 15 characters) 212934809

**(C) TRANSFEROR**

Kaare Rodsethol, Elly Rodsethol

**(D)** acknowledges receipt of the consideration of \$630,000.00

and as regards the land specified above transfers to the transferee an estate in fee simple

**(E)** Encumbrances (if applicable): 1. 2. 3.

**(F) TRANSFEE**

T  
TS  
(s713 LGA)  
TW  
(Sheriff)

Mohamed Zohdy Rateb

~~TENANCY~~

**(G)**

**(H)** We certify this dealing correct for the purposes of the Real Property Act, 1900  
Signed in my presence by the Transferor who is personally known to me.

DATE 30-3rd-1999  
30/3/99

Signature of Witness

NAME MARGARET LEAHY

Name of Witness (BLOCK LETTERS)

Address of Witness

66 PACIFIC HIGHWAY ST LEONARDS NSW 2063

Signature of Transferor

*E. Rodsethol*

Signed in my presence by the Transferee who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

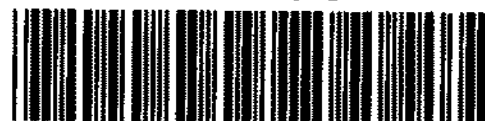
George Shad

Signature of Transferee's Solicitor

CHECKED BY (LTO use) .....

Licence: 10V/0096/96  
 Edition: 9804

**TRANSFER**  
 New South Wales  
 Real Property Act 1900



**STAMP DUTY**

Office of State Revenue use only

NEW SOUTH WALES DUTY  
 24-12-1999 0901/77156 001  
 SECTION 18(2)  
 DUTY \$ 00000000000000000000

(A) **TORRENS TITLE**

If appropriate, specify the part or share transferred  
 14/3/7259

(B) **LODGED BY**

LTO Box <b>23L</b>	Name, Address or DX and Telephone <b>CSB</b>	CODES  T TS (s713) TW (Sheriff)
Reference (optional): <b>27015502</b>		

(C) **TRANSFEROR**

MOHAMED ZOHDY RATEB

(D) The transferor acknowledges receipt of the consideration of \$769,000.00 and as regards the land specified above transfers to the transferee an estate in fee simple.

(E) Encumbrances (if applicable): 1. 2. 3.

(F) **TRANSFEE**

AMELIA ZOE LIDDY

(G) **TENANCY:**

(H) We certify this dealing correct for the purposes of the Real Property Act 1900. DATE: **10-1-00**

Signed in my presence by the transferor who is personally known to me.

Signature of witness:

*[Signature]*

Signature of transferor:

*[Signature]*

Name of witness:

**SHYAMA DOLE**

Address of witness:

**61 RICHARD ROAD  
 BANKSTOWN**

Signed in my presence by the transferee who is personally known to me.

Signature of witness:

*[Signature]*

Signature of transferee:

*[Signature]*

Name of witness:

Address of witness:

If signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name and capacity below:

**MAXWELL OTTO BROWN**

*Solicitor for the transferee 24/12/99*

*[Signature]*

Form: 01T  
Release: 2.1  
www.lpi.nsw.gov.au

1

# TRANSFER

New South Wales  
Real Property Act 1900



AA368805X

PRIVACY NOTE: this information is legally required and will become part of the public record

## STAMP DUTY

Office of State Revenue use only	NEW SOUTH WALES DUTY 22-12-2003 0001771931-002 SECTION 18(2) DUTY \$ *****22.30
----------------------------------	--

## (A) TORRENS TITLE

FOLIO IDENTIFIER 14/3/7259

## (B) LODGED BY

Delivery Box 	Name, Address or DX and Telephone LEE GAN Solicitors P.O.Box 3650 Marsfield NSW 2122 Reference:	CODES T TW (Sheriff)
---	---	-------------------------------

## (C) TRANSFEROR

AMELIA ZOE LIDDY

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of \$ 1,080,000.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

## (F) SHARE TRANSFERRED

(G) **ENCUMBRANCES** (if applicable):

## (H) TRANSFEE

SUM HUNG GAN  
CHOO LIAN CONNIE GAN  
SUZANNE SU-CHIEN GAN

(I) **TENANCY:** Joint Tenants

## (J) DATE

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:



Name of witness:

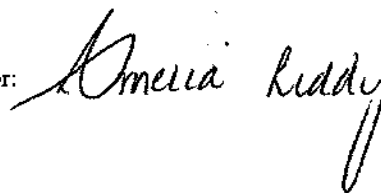
ANTHONY MACOGERON

Address of witness:

19 CANBERRA AVENUE  
GREENWICH NSW 2065

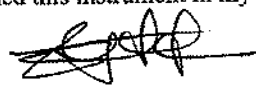
Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:



I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:



Name of witness:

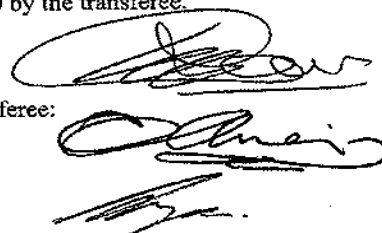
STEPHANIE TAN

Address of witness:

2/175 ROWE STREET  
EASTWOOD NSW 2122

Certified correct for the purposes of the Real Property Act 1900 by the transferee.

Signature of transferee:



TRANSFE  
New South Wales  
Real Property Act

AB626729B

PRIVACY NOTE: this information is legally required and will be provided to the State Revenue

STAMP DUTY

Office of State Revenue use Only Office of State Revenue NSW Treasury 51621 P11 VENDOR DUTY ENDORSED 2760988-01	Office of State Revenue NSW Treasury Client No: 3891316 Duty: 92-00 Trans No: 2744066 Asst details:
---	---

(A) TORRENS TITLE

Folio Identifier 14/3/7259
----------------------------

(B) LODGED BY

Delivery Box 7050	Name, Address or DX and Telephone LLPN 123576E Reference (optional): CR: 2568271	DEACONS LAWYERS GOLDFIELDS HOUSE CIRCULAR QUAY TEL: 9330 8000 SYDNEY	CODE T TW (Sheriff)
----------------------	---	--	------------------------------

(C) TRANSFEROR

SUM HUNG GAN, CHOO LIAN CONNIE GAN and SUZANNE SU-CHIEN GAN
---

(D) CONSIDERATION

The transferor acknowledges receipt of the consideration of \$ 1,015,000.00 and as regards

(E) ESTATE

the land specified above transfers to the transferee an estate in fee simple.

(F) SHARE

Whole

(G) TRANSFERRED

Encumbrances (if applicable): Nil

(H) TRANSFEREE

LISA CHARMAINE ENGLAND and CARL JAMES ENGLAND TENANCY: Joint Tenants
--

(I)

(J) DATE

30/06/05

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness:

Address of witness:

*[Signature]*

STEPHANIE TAN

4/38 ARCHER STREET  
CHATSWOOD NSW 2067

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor:

*[Signature]*  
*[Signature]*  
*[Signature]*

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: PETER JOHN STRATON  
Signatory's capacity: Solicitor for the transferee



Form: 01T  
Licence: 05-11-638  
Licensee: Softdocs  
P J Straton

## TRANSFER

New South Wales  
Real Property Act 1900



# AH465859G

**PRIVACY NOTE:** Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

### STAMP DUTY

Office of State Revenue use only

Office of State Revenue

NSW Treasury

Client No: 99424809

2289

Duty: \$10.00 Trans No: 6937573

Asst details:

### (A) TORRENS TITLE

14/3/259

### (B) LODGED BY

Document  
Collection  
Box  
1074M

Name, Address or DX, Telephone, and Customer Account Number if any  
Mortgage Settlements Australia  
PO Box 316 LLPN123862D  
CONCORD NSW 2137  
PH: (02) 8719 4000  
Reference (optional): 224 3132

CODES

T

TW

### (C) TRANSFEROR

CARL JAMES ENGLAND and CHARMAINE LISA ENGLAND

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of \$ 1,382,600.00 and as regards the land  
(E) **ESTATE** specified above transfers to the transferee an estate in fee simple.

### (F) SHARE TRANSFERRED

(G) Encumbrances (if applicable):

### (H) TRANSFEE

JAMES DONALD GARTON and LESLIE ANN GARTON

(I) **TENANCY:** Joint Tenants

DATE 19/1/2012

(J) I certify I am an eligible witness and that the transferor signed this dealing in my presence.  
[See note\* below]

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of witness:

*J.M. Davies*

Name of witness:

Address of witness:

IAN MICHAEL  
DAVIES  
6/13 HAWKS BURN RD.  
SOUTH YARRA  
VIC 3141.

Signature of transferor:

*Carl England*

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

*Emma Grimes*

Signatory's name: EMMA GRIMES

Capacity: Solicitor for the transferee

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 346198 Full Name: EMMA GRIMES Signature:

\* s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.



FOLIO: 14/3/7259

SEARCH DATE	TIME	EDITION NO	DATE
30/7/2021	3:26 PM	11	8/9/2018

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO.  
CONTROL OF THE RIGHT TO DEAL IS HELD BY WESTPAC BANKING CORPORATION.

LAND

LOT 14 OF SECTION 3 IN DEPOSITED PLAN 7259  
AT ST LEONARDS  
LOCAL GOVERNMENT AREA LANE COVE  
PARISH OF WILLOUGHBY COUNTY OF CUMBERLAND  
TITLE DIAGRAM DP7259

FIRST SCHEDULE

MENG-HSUAN HSIEH

(T AJ351941)

SECOND SCHEDULE (4 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 A115775 COVENANT
- 3 AK178933 MORTGAGE TO WESTPAC BANKING CORPORATION
- \* 4 AQ692109 CAVEAT BY SLS FIVE PTY LTD

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*

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## Appendix F – LotSearch Report and SafeWork NSW Letter

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# LOTSEARCH

LOTSEARCH ENVIRO LITE

**Date: 17 Jun 2021 10:28:13**

**Reference: LS021357 EL**

**Address: 13-19 Canberra Avenue, St Leonards, NSW 2065**

**Disclaimer:**

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.

You should obtain independent advice before you make any decision based on the information within the report.

The detailed terms applicable to use of this report are set out at the end of this report.

## Dataset Listing

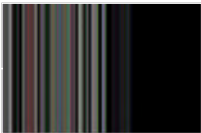
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Finance, Services & Innovation	31/05/2021	31/05/2021	Quarterly	-	-	-	-
Topographic Data	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	15/06/2021	10/06/2021	Monthly	1000m	0	0	2
Contaminated Land Records of Notice	Environment Protection Authority	10/06/2021	10/06/2021	Monthly	1000m	0	0	1
Former Gasworks	Environment Protection Authority	11/05/2021	11/10/2017	Quarterly	1000m	0	0	1
National Waste Management Facilities Database	Geoscience Australia	12/05/2021	07/03/2017	Annually	1000m	0	0	1
National Liquid Fuel Facilities	Geoscience Australia	15/02/2021	13/07/2012	Annually	1000m	0	0	1
EPA PFAS Investigation Program	Environment Protection Authority	12/05/2021	28/04/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	26/05/2021	26/05/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	26/05/2021	26/05/2021	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	26/05/2021	26/05/2021	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	11/05/2021	11/05/2021	Quarterly	2000m	0	0	1
EPA Other Sites with Contamination Issues	Environment Protection Authority	02/02/2021	13/12/2018	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	15/06/2021	15/06/2021	Monthly	1000m	0	1	10
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	15/06/2021	15/06/2021	Monthly	1000m	0	0	4
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	15/06/2021	15/06/2021	Monthly	1000m	0	0	7
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	100m	0	6	6
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	100m	-	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	250m	0	0	39
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	250m	-	0	7
Points of Interest	NSW Department of Finance, Services & Innovation	14/05/2021	14/05/2021	Quarterly	1000m	0	0	87
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	14/05/2021	14/05/2021	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	14/05/2021	14/05/2021	Quarterly	1000m	0	0	0
Major Easements	NSW Department of Finance, Services & Innovation	14/05/2021	14/05/2021	Quarterly	1000m	0	0	7
State Forest	Forestry Corporation of NSW	25/02/2021	14/02/2021	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	22/01/2021	11/12/2020	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000m	1	1	1
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Planning, Industry and Environment	26/10/2020	21/02/2018	Annually	1000m	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000m	0	0	22

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Geological Units 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	2	2	4
Geological Structures 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	19/05/2017	17/02/2011	As required	1000m	1	1	2
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	14/10/2020	27/07/2020	Annually	1000m	3	3	7
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	03/06/2021	26/02/2021	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	3
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000m	0	0	0
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	14/05/2021	28/04/2021	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	12/05/2021	12/05/2021	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	12/05/2021	12/05/2021	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	12/05/2021	12/05/2021	Monthly	1000m	10	10	12
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	03/06/2021	07/12/2018	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	03/06/2021	28/05/2021	Monthly	1000m	1	4	151
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	14/05/2021	26/03/2021	Quarterly	1000m	0	0	4
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	03/06/2021	14/05/2021	Monthly	1000m	0	0	149
Bush Fire Prone Land	NSW Rural Fire Service	14/06/2021	08/06/2021	Weekly	1000m	0	0	2
Native Vegetation of the Sydney Metropolitan Area	NSW Office of Environment & Heritage	01/03/2017	16/12/2016	As required	1000m	1	1	21
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	24/02/2021	19/03/2020	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Annually	1000m	0	0	0
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	0	0	0
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	16/06/2021	16/06/2021	Weekly	10000m	-	-	-

# Site Diagram

13-19 Canberra Avenue, St Leonards, NSW 2065

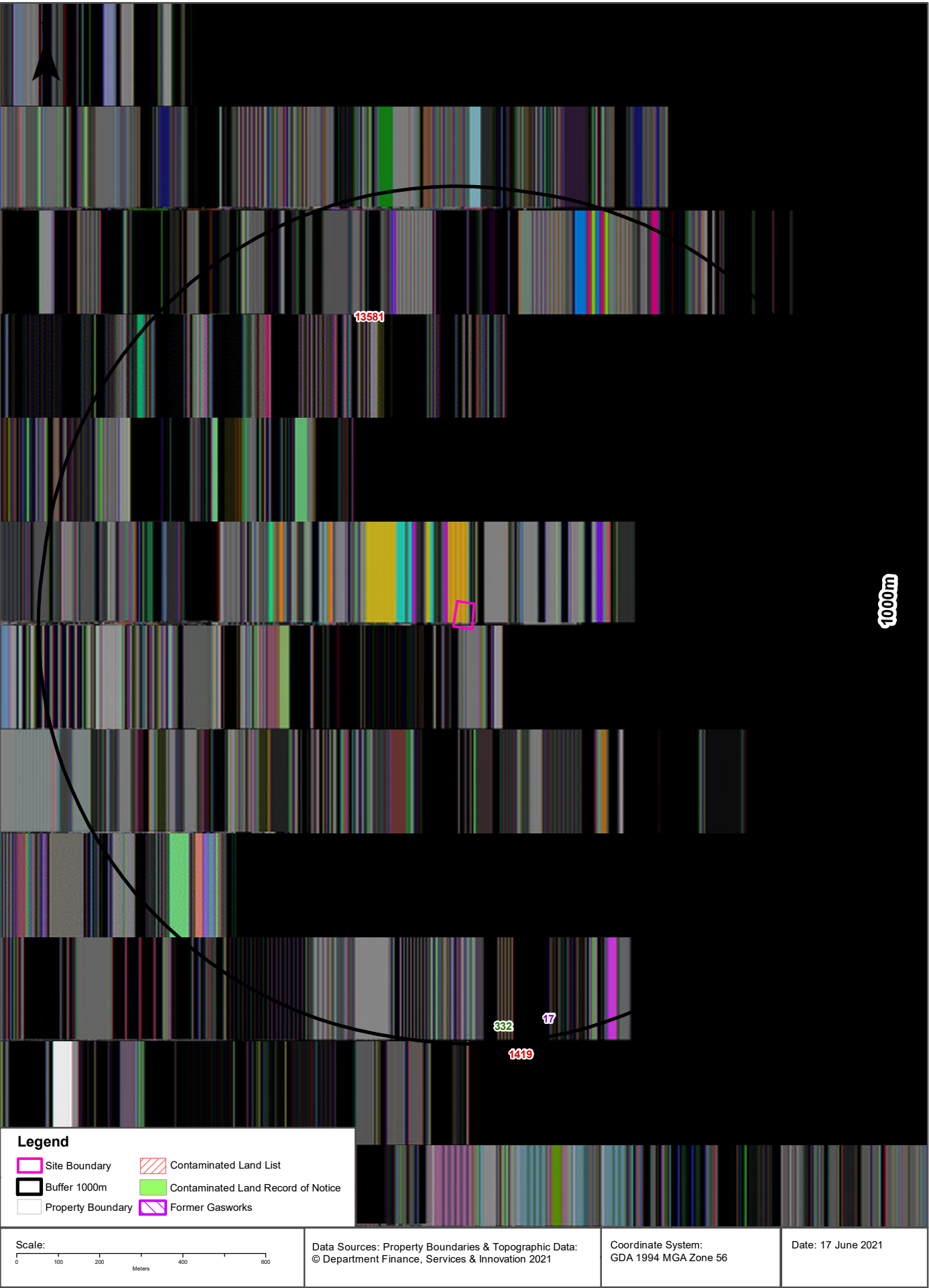


<b>Legend</b> <div><div></div> Site Boundary</div> <div><div></div> Internal Parcel Boundaries</div>	<b>Total Area:</b> 2665m <sup>2</sup> <b>Total Perimeter:</b> 210m	
	<b>Scale:</b> 0 5 10 Meters	
	Data Sources: Data Sources: Aerial Imagery: © Aerometrex Pty Ltd	
Disclaimers: Measurements are approximate only and may have been simplified or smaller lengths removed for readability.  Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.	Coordinate System: GDA 1994 MGA Zone 56	Date: 17 June 2021



# Contaminated Land

13-19 Canberra Avenue, St Leonards, NSW 2065



# Contaminated Land

13-19 Canberra Avenue, St Leonards, NSW 2065

## List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist	Direction
13581	Telstra Data Centre	4A Herbert STREET	ST LEONARDS	Other Petroleum	Regulation under CLM Act not required	Current EPA List	Premise Match	737m	North
1419	Oyster Cove AGL	2 King Street	Waverton	Gasworks	Ongoing maintenance required to manage residual contamination (CLM Act)	Current EPA List	Premise Match	988m	South

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority  
© State of New South Wales through the Environment Protection Authority

## Contaminated Land

13-19 Canberra Avenue, St Leonards, NSW 2065

### Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
332	Oyster Cove AGL	2 King Street	Waverton	1 current and 7 former	3076	Premise Match	988m	South

Contaminated Land Records of Notice Data Source: Environment Protection Authority  
© State of New South Wales through the Environment Protection Authority  
Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit  
<http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm>

### Former Gasworks

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
17	King Street, Waverton	North Sydney Council	Search record of EPA notices	Premise Match	885m	South

Former Gasworks Data Source: Environment Protection Authority  
© State of New South Wales through the Environment Protection Authority

# Waste Management & Liquid Fuel Facilities

13-19 Canberra Avenue, St Leonards, NSW 2065



**Legend**

Site Boundary

Buffer 1000m

Property Boundary

National Liquid Fuel Facilities

Waste Management Facilities

Scale:

0

100

200

400

600

Meters

Data Sources: Property Boundaries & Topographic Data:  
© Department Finance, Services & Innovation 2021

Coordinate System:  
GDA 1994 MGA Zone 56

Date: 17 June 2021

Lotsearch Pty Ltd ABN 89 600 168 018

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## Waste Management & Liquid Fuel Facilities

13-19 Canberra Avenue, St Leonards, NSW 2065

### National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist	Direction
1772	Sita Australia Pty Ltd	Artarmon Waste and Recycling Centre	Lanceley Place	Artarmon	Transfer Station			Operational		Premise Match	859m	North West

Waste Management Facilities Data Source: Geoscience Australia

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### National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
4982	BP	BP Connect Naremburn	169 Willoughby Road	Naremburn	Petrol Station	Operational		25/07/2011	Premise Match	888m	North East

National Liquid Fuel Facilities Data Source: Geoscience Australia

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# PFAS Investigation & Management Programs

13-19 Canberra Avenue, St Leonards, NSW 2065

## EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Map ID	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority  
© State of New South Wales through the Environment Protection Authority

## Defence PFAS Investigation Program

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation Program Data Custodian: Department of Defence, Australian Government

## Defence PFAS Management Program

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Management Program Data Custodian: Department of Defence, Australian Government

## Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

# Defence 3 Year Regional Contamination Investigation Program

13-19 Canberra Avenue, St Leonards, NSW 2065



<p><b>Legend</b></p> <p><span style="border: 1px solid pink; display: inline-block; width: 20px; height: 10px;"></span> Site Boundary</p> <p><span style="border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Buffer 2000m</p> <p><span style="border: 1px solid white; display: inline-block; width: 20px; height: 10px;"></span> Property Boundaries</p> <p><b>Defence 3 Year Regional Contamination Investigation Program</b></p> <p><span style="display: inline-block; width: 15px; height: 10px; background-color: red;"></span> Known Contamination</p> <p><span style="display: inline-block; width: 15px; height: 10px; background-color: blue;"></span> No Known Contamination</p>	<p>Scale:</p> <p>0 200 400 800 1,200</p> <p>Meters</p>	<p>Data Sources: Property Boundaries &amp; Topographic Data:</p> <p>© Department Finance, Services &amp; Innovation 2021</p>	<p>Coordinate System:</p> <p>GDA 1994 MGA Zone 56</p>	<p>Date: 17 June 2021</p>
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## Defence Sites

13-19 Canberra Avenue, St Leonards, NSW 2065

### Defence 3 Year Regional Contamination Investigation Program

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
58	<a href="#">HMAS Waterhen</a>	Waverton, New South Wales	YES	Premise Match	1396m	South

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government



## EPA Other Sites with Contamination Issues

13-19 Canberra Avenue, St Leonards, NSW 2065

### EPA Other Sites with Contamination Issues

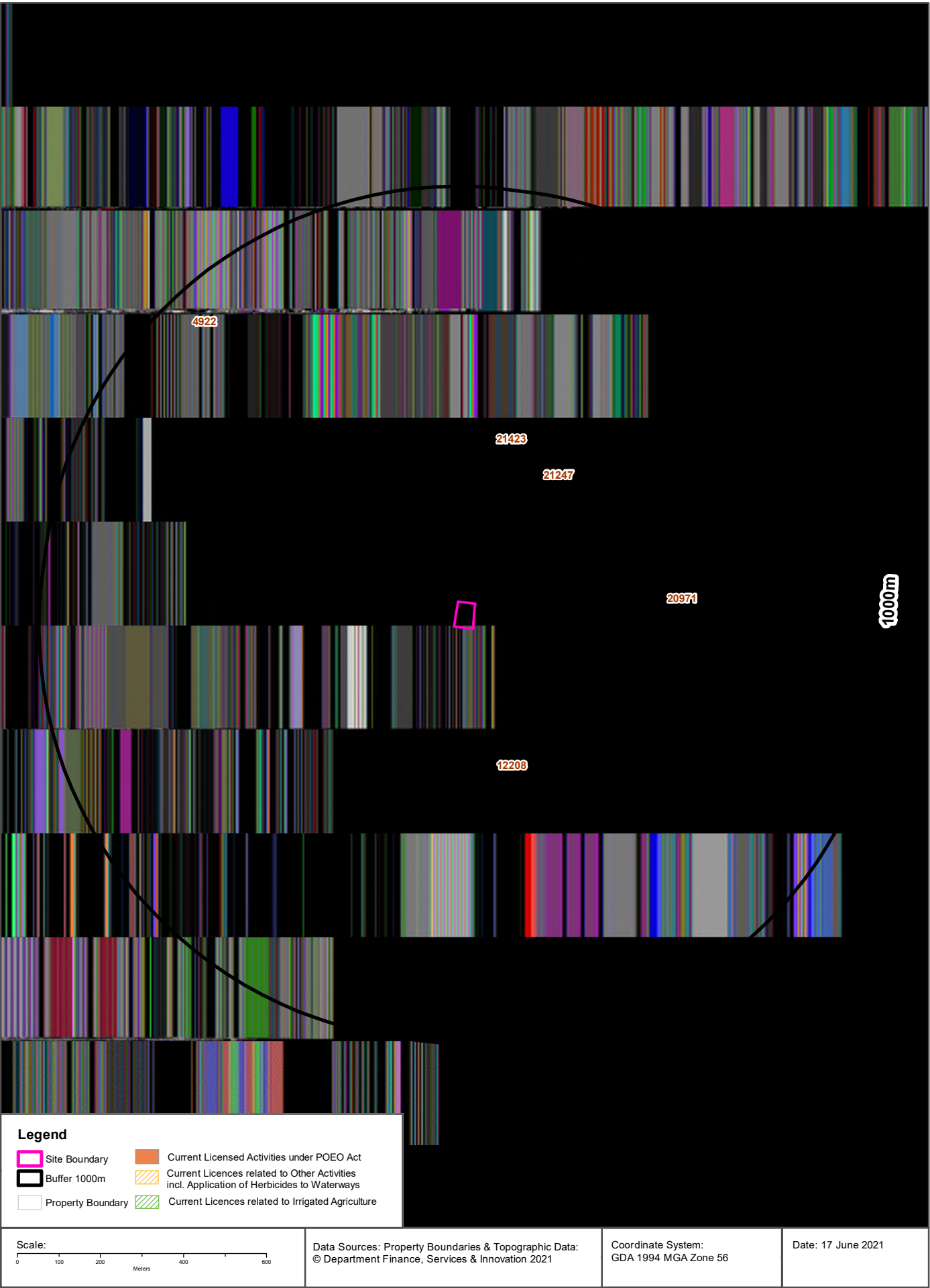
This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority  
© State of New South Wales through the Environment Protection Authority



## EPA Activities

13-19 Canberra Avenue, St Leonards, NSW 2065

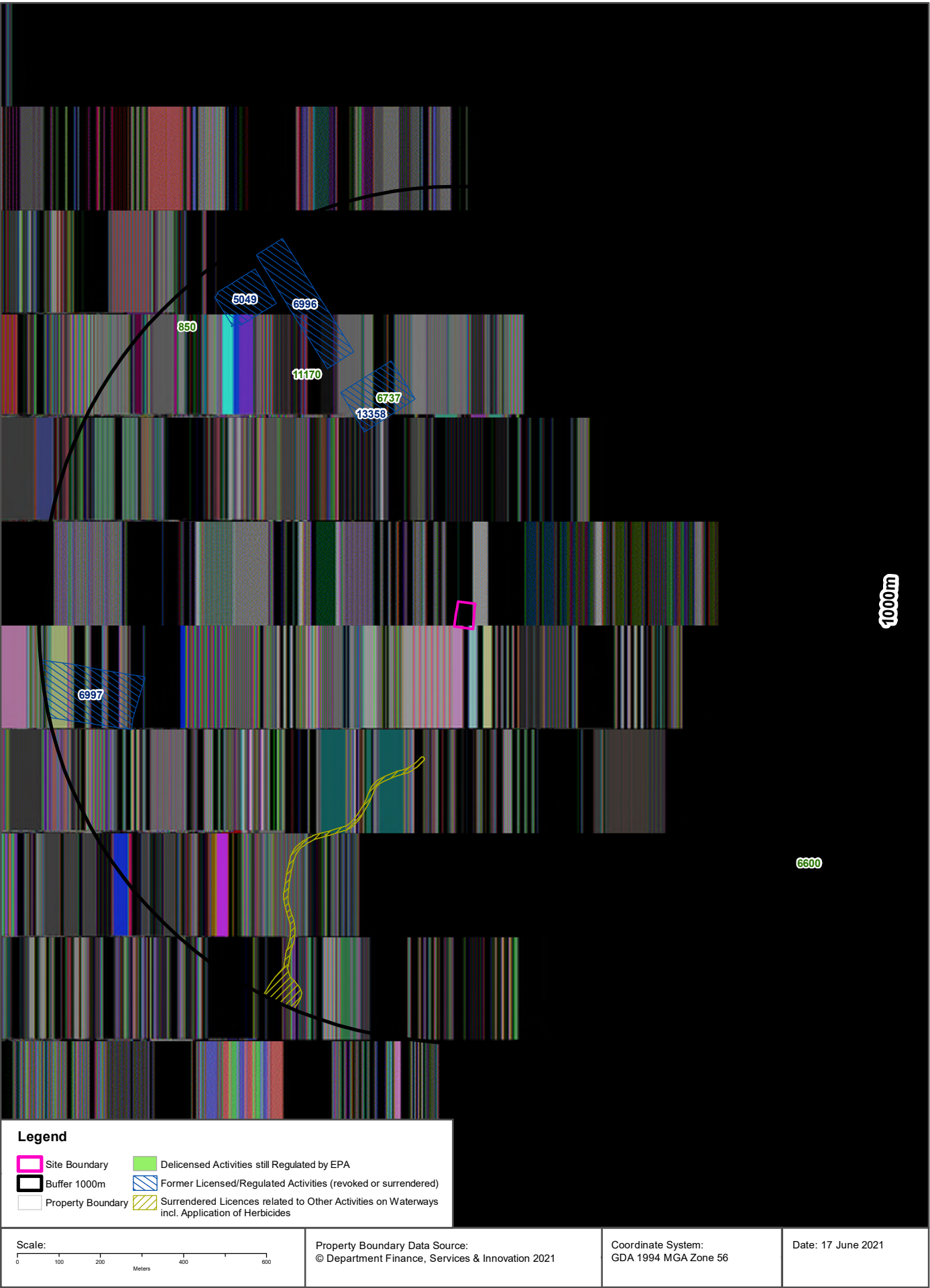
## Licensed Activities under the POEO Act 1997

Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	81m	East
21247	Metro Trains Sydney Pty Ltd		SYDNEY METRO, ROUSE HILL, NSW 2155		Railway systems activities	Network of Features	351m	North East
21423	CPB CONTRACTORS PTY LIMITED		BETWEEN CHATSWOOD DIVE SITE AND SYDENHAM DIVE SITE, SYDNEY, NSW 2000		Railway infrastructure construction (<50,000T)	Network of Features	351m	North East
20971	JOHN HOLLAND PTY LTD	Sydney Metro City & Southwest Tunnels and Excavation Works	locations between Chatswood railway station and Sydenham railway station, SYDNEY, NSW 2000	SYDNEY, NSW	Concrete works, Railway systems activities	Network of Features	411m	East
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Waste storage - other types of waste	Premise Match	859m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Non-thermal treatment of general waste	Premise Match	859m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Recovery of general waste	Premise Match	859m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Waste storage - waste tyres	Premise Match	859m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Composting	Premise Match	859m	North West
4922	SUEZ RECYCLING & RECOVERY PTY LTD	ARTARMON RESOURCE RECOVERY CENTRE	LANCELEY PLACE	ARTARMON	Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Premise Match	859m	North West

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority





## EPA Activities

13-19 Canberra Avenue, St Leonards, NSW 2065

### Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
6737	NORTHERN SYDNEY AND CENTRAL COAST AREA HEALTH SERVICE	ROYAL NORTH SHORE HOSPITAL	PACIFIC HIGHWAY	ST LEONARDS	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	279m	North West
11170	RAMSAY HEALTH CARE AUSTRALIA PTY LIMITED	NORTH SHORE PRIVATE HOSPITAL	3 Westbourne Street	ST LEONARDS	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	625m	North West
6600	ST VINCENTS & MATER HEALTH SYDNEY LIMITED	THE MATER HOSPITAL	25 - 35 ROCKLANDS ROAD	NORTH SYDNEY	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	871m	South East
850	HANSON CONSTRUCTION MATERIALS PTY LTD	HANSON CONSTRUCTION MATERIALS PTY LTD	6 LANCELEY PLACE	ARTARMON	Concrete works	Premise Match	945m	North West

Delicensed Activities Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

### Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	323m	South West
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	323m	South West
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	323m	South West
13358	VENTIA UTILITY SERVICES PTY LIMITED	Royal North Shore Hospital - Acute Services Building, Royal North Shore Hospital, Reserve Road, ST LEONARDS, NSW 2065, ST LEONARDS	Surrendered	20/04/2011	Generation of electrical power from gas	Premise Match	466m	North
6996	MOCKRIDGE BULMER PTY LTD	2/12 FREDERICK STREET, ST LEONARDS, NSW 2065	Surrendered	26/06/2000	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	643m	North West

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
6997	HOPE HEALTHCARE LIMITED	97 - 115 RIVER ROAD, GREENWICH, NSW 2065	Surrendered	07/09/2000	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	755m	West
5049	ROCK & DIRT PTY LTD	11 LANCELEY PLACE, ARTARMON, NSW 2064	Surrendered	10/08/2000	Waste Storage, Transfer, Separating or Processing; Crushing, grinding or separating	Premise Match	840m	North West

Former Licensed Activities Data Source: Environment Protection Authority  
 © State of New South Wales through the Environment Protection Authority

# Historical Business Directories

13-19 Canberra Avenue, St Leonards, NSW 2065



<b>Legend</b>		<b>Scale:</b> 0 20 40 60 80 Meters	Coordinate System: GDA 1994 MGA Zone 56
Site Boundary	Business directory records mapped to a specific premise		Date: 17 June 2021
Buffer 100m	Business directory records mapped to a road intersection	Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 Property Boundaries © NSW Department Finance, Services & Innovation 2021	
Property Boundary	Business directory records mapped to a road corridor		
Business directory records mapped to a general area			

## Historical Business Directories

13-19 Canberra Avenue, St Leonards, NSW 2065

### Business Directory Records 1950-1991 Premise or Road Intersection Matches

Universal Business Directory records from years 1991, 1986, 1982, 1978, 1975, 1970, 1965, 1961 & 1950, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	GUEST HOUSES (G665)	Canberra Guest House., 27 Canberra Ave., St. Leonards	313245	1970	Premise Match	45m	South
2	COSMETIC MANUFACTURERS & WHOLESALERS	Laird, L. J., 29 Canberra Ave., Wollstonecraft	29256	1950	Premise Match	76m	South
3	MEDICAL PRACTITIONERS.	Fevre, L., 14 Marshall Ave., St. Leonards. 2065.	54815	1986	Premise Match	94m	North West
	MEDICAL PRACTITIONERS.	Nagy, G. S., 14 Marshall Ave., St Leonards. 2065	56659	1986	Premise Match	94m	North West
	MEDICAL PRACTITIONERS. (M2020)	Nagy, G. S., 14 Marshall Ave., St. Leonards. 2065.	49545	1982	Premise Match	94m	North West
	MEDICAL PRACTITIONERS.	Nagy, G. S., 14 Marshall Ave., St. Leonards. 2065	43777	1978	Premise Match	94m	North West

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## Business Directory Records 1950-1991

### Road or Area Matches

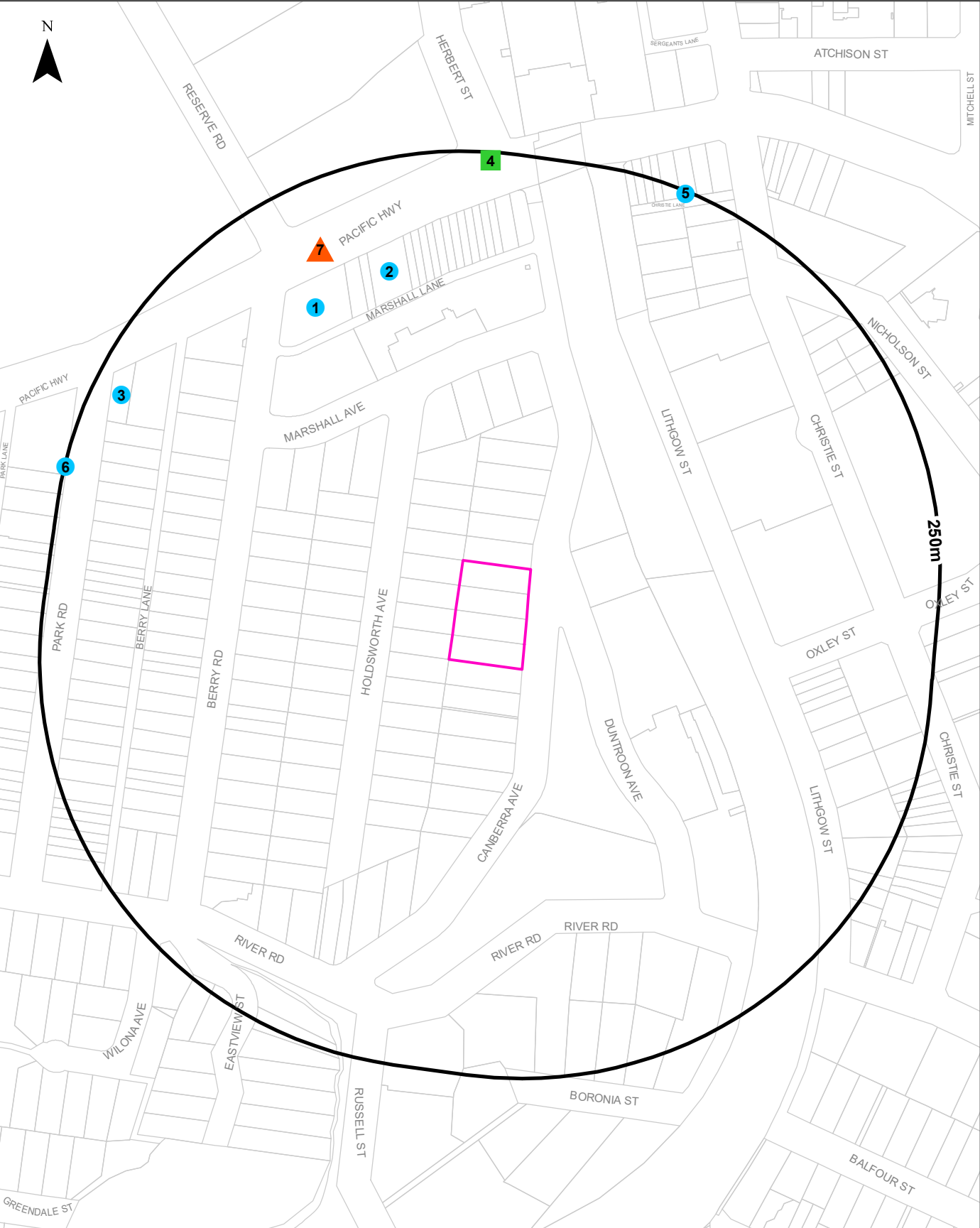
Universal Business Directory records from years 1991, 1986, 1982, 1978, 1975, 1970, 1965, 1961 & 1950, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer					

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# Dry Cleaners, Motor Garages & Service Stations

13-19 Canberra Avenue, St Leonards, NSW 2065



<b>Legend</b>		<b>Scale:</b> 0 40 80 120 160 Meters	<b>Coordinate System:</b> GDA 1994 MGA Zone 56
Site Boundary	Business directory records mapped to a specific premise		<b>Date:</b> 17 June 2021
Buffer 250m	Business directory records mapped to a road intersection	<b>Data Sources:</b> Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 Property Boundaries © NSW Department Finance, Services & Innovation 2021	
Property Boundary	Business directory records mapped to a road corridor		
Business directory records mapped to a general area			

# Historical Business Directories

13-19 Canberra Avenue, St Leonards, NSW 2065

## Dry Cleaners, Motor Garages & Service Stations 1948-1993 Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR GARAGES & ENGINEERS.	St. Leonards Garage., 50 Pacific Hghwy., St. Leonards	33414	1962	Premise Match	162m	North West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	St. Leonards Garage., 50 Pacific Hghwy., St. Leonards	38690	1962	Premise Match	162m	North West
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	St. Leonards Garage, 50 Pacific Hghwy. St. Leonards	351114	1961	Premise Match	162m	North West
	MOTOR GARAGES & ENGINEERS	St. Leonards Garage, 50 Pacific Hghwy., St Leonards	348187	1961	Premise Match	162m	North West
	MOTOR GARAGES & ENGINEERS.	St. Leonards Garage., 50 Pacific Hghwy., St. Leonards	19963	1959	Premise Match	162m	North West
	MOTOR GARAGE/ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	4925	1958	Premise Match	162m	North West
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	61446	1956	Premise Match	162m	North West
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	54061	1954	Premise Match	162m	North West
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54 Pacific Hghwy., St. Leonards	36465	1953	Premise Match	162m	North West
	MOTOR SERVICE STATIONS-PETROL, Etc.	St. Leonards Garage (A. Killorn), 54-56 Pacific Hghwy., St. Leonards	86415	1950	Premise Match	162m	North West
	MOTOR GARAGES &/OR ENGINEERS	St. Leonards Garage, 54-56 Pacific Highway., St. Leonards	84407	1950	Premise Match	162m	North West
	MOTOR GARAGES &/OR ENGINEERS.	St. Leonards Garage., 54-56 Pacific Hghwy., St. Leonards	22836	1948-49	Premise Match	162m	North West
2	DRY CLEANERS, PRESSERS &/OR DYERS.	Same Day Dry Cleaning., 36 Pacific Hghwy., St. Leonards 2065	7230	1972	Premise Match	163m	North
3	MOTOR GARAGES &/OR ENGINEERS.	Steves Filling Station., 94 Pacific Hghwy., St. Leonards	54166	1954	Premise Match	222m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Steves Filling Station., 94 Pacific Hghwy St. Leonards	40739	1953	Premise Match	222m	North West
	MOTOR GARAGES &/OR ENGINEERS.	Steves Filling Station., 94 Pacific Hghwy., St. Leonards	32293	1952	Premise Match	222m	North West
	MOTOR GARAGES &/OR ENGINEERS	Steves Filling Station, 94 Pacific Highway., St. Leonards	84429	1950	Premise Match	222m	North West
4	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	K.G.A. Service Station Pty. Ltd., Cnr Herbert St & Pacific Highway., St. Leonards	38685	1962	Road Intersection	245m	North
	MOTOR GARAGES & ENGINEERS.	K.G.A. Service Station Pty. Ltd., Cnr Herbert St. & Pacific Hghwy., St. Leonards	33411	1962	Road Intersection	245m	North
	MOTOR GARAGES & ENGINEERS	K.G.A. Service Station Pty. Ltd., Cnr. Herbert St. & Pacific Hghwy., St Leonards	347475	1961	Road Intersection	245m	North
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	K.G.A. Service Station Pty. Ltd., Cnr. Herbert St. & Pacific Hghwy., St. Leonards	350739	1961	Road Intersection	245m	North
	MOTOR GARAGES & ENGINEERS.	K.G.A. Service Station Pty. Ltd., Herbert St St Leonards	19962	1959	Road Intersection	245m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
4	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	K.G.A. Service Station Pty. Ltd., Herbert St St Leonards	24557	1959	Road Intersection	245m	North
	MOTOR SERVICE STATIONS-PETROL, ETC.	K.G.A. Service Station Pty. Ltd., Pacific Hghwy., St. Leonards	9619	1958	Road Intersection	245m	North
	MOTOR SERVICE STATIONS-PETROL, ETC.	K.G.A. Service Station Pty. Ltd., Pacific Hghwy., St. Leonards	61976	1956	Road Intersection	245m	North
5	DRY CLEANERS, PRESSERS & DYERS.	Catts & Co., 552 Pacific Hghwy., St. Leonards	54800	1956	Premise Match	245m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts & Co., 552 Pacific Hghwy., St. Leonards	44326	1954	Premise Match	245m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts & Co., 552 Pacific Hghwy., St. Leonards	36133	1953	Premise Match	245m	North East
	DRY CLEANERS, PRESSERS & DYERS	Catts and Co. 552 Pacific Highway., St. Leonards	35151	1950	Premise Match	245m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts And Co., 552 Pacific Hghwy	17099	1948-49	Premise Match	245m	North East
	DRY CLEANERS, PRESSERS & DYERS.	Catts And Co., 552 Pacific Hghwy., St. Leonards	17100	1948-49	Premise Match	245m	North East
6	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	McIntyre W. A., 100 Pacific Hghwy., St. Leonards	38687	1962	Premise Match	248m	West
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	McIntyre, W. A., 100 Pacific Hghwy., St. Leonards	350848	1961	Premise Match	248m	West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	McIntyre W. A., 100 Pacific Hghwy., St. Leonards	24559	1959	Premise Match	248m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	9663	1958	Premise Match	248m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	62013	1956	Premise Match	248m	West
	MOTOR GARAGES &/OR ENGINEERS.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	49624	1954	Premise Match	248m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Mcintyre (Bill) W. A., 100 Pacific Hghwy., St. Leonards	54563	1954	Premise Match	248m	West
	MOTOR GARAGES &/OR ENGINEERS.	Mcintyre Pty. Ltd., 100 Pacific Hghwy St. Leonards	40308	1953	Premise Match	248m	West

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## Dry Cleaners, Motor Garages & Service Stations 1948-1993 Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

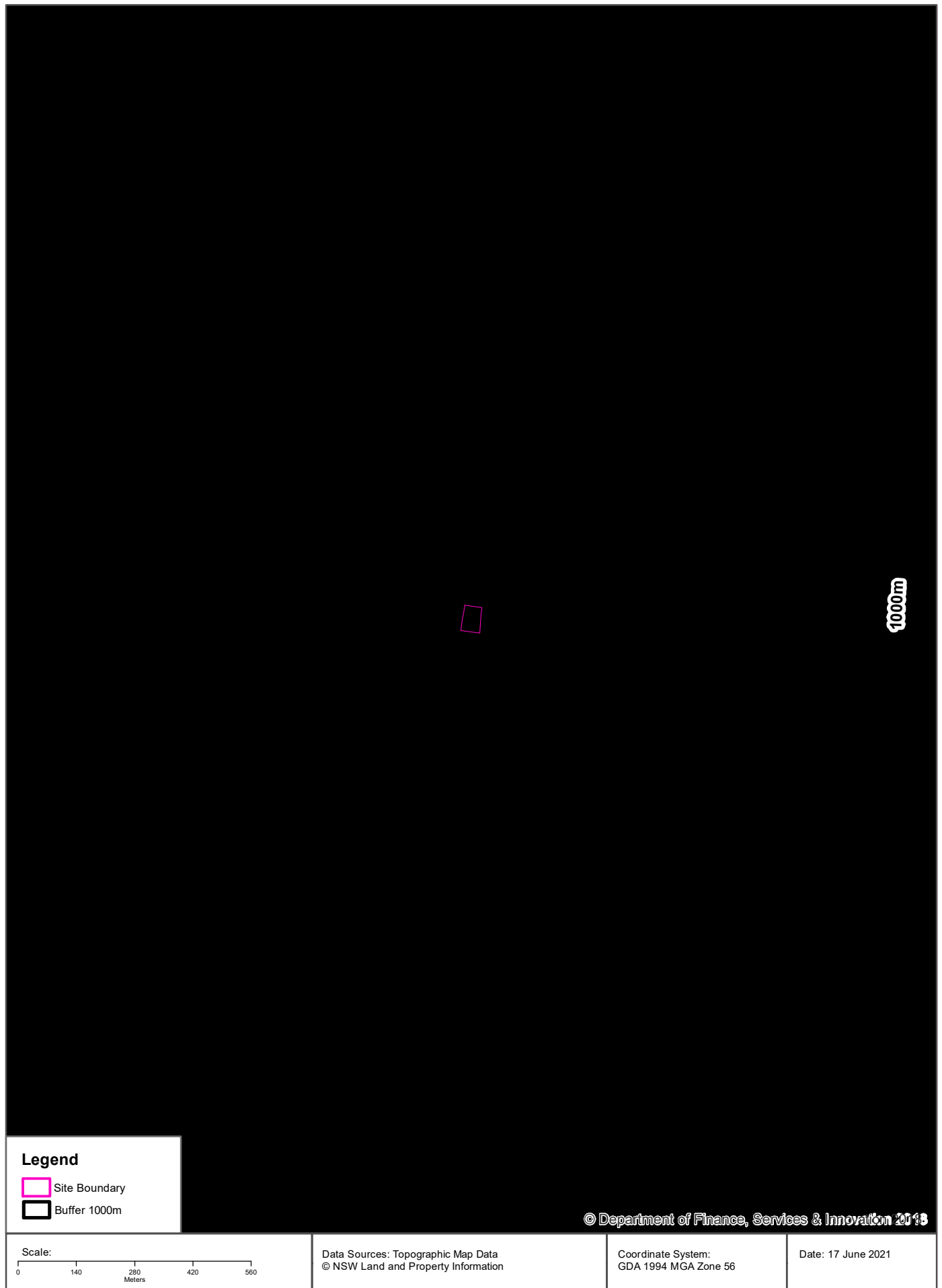
Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
7	DRY CLEANERS, PRESSERS &/OR DYERS.	Lindfield Laundry & Dry Cleaners., Pacific H'way., St. Leonards 2065	23654	1976	Road Match	195m
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lindfield Laundry & Dry Cleaners, Pacific H'way. St. Leonards. 2065	24178	1975	Road Match	195m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Koala Service Station., Cnr Pacific Hghwy & Jersey St., St. Leonards	38686	1962	Road Match	195m
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Koala Service Station., Cnr Pacific Hghwy. & Jersey St., St. Leonards	24558	1959	Road Match	195m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Horsburghs Auto Service., Pacific Hghwy., Greenwich	9594	1958	Road Match	195m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Horsburghs Auto Service., Pacific Hghwy., Greenwich	61952	1956	Road Match	195m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Horsburghs Auto Service., Pacific Hghwy., Greenwich	54509	1954	Road Match	195m

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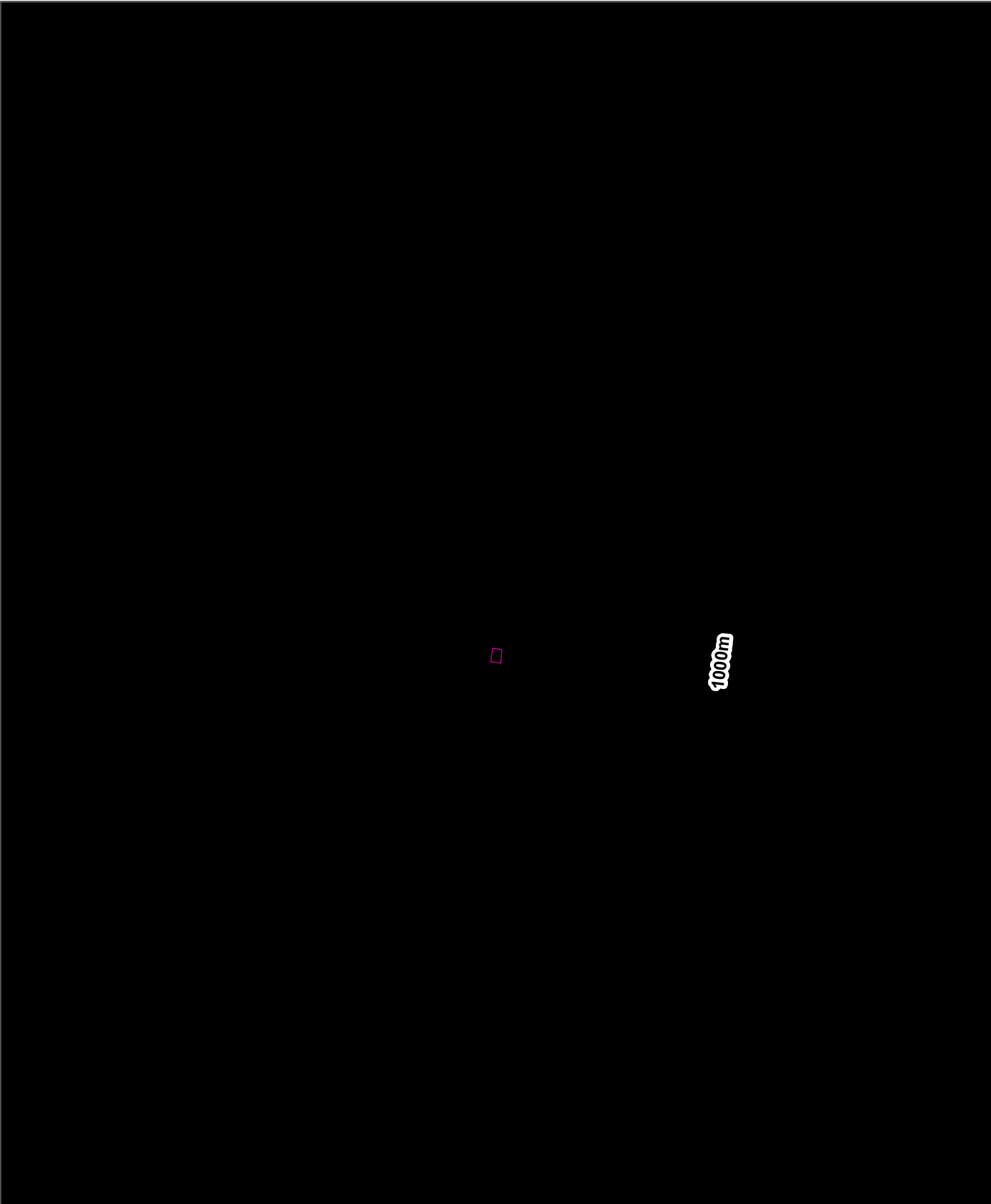
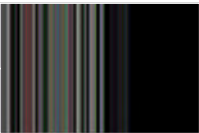
# Topographic Map 2015

13-19 Canberra Avenue, St Leonards, NSW 2065



# Historical Map 1975

13-19 Canberra Avenue, St Leonards, NSW 2065



**Legend**  

Site Boundary

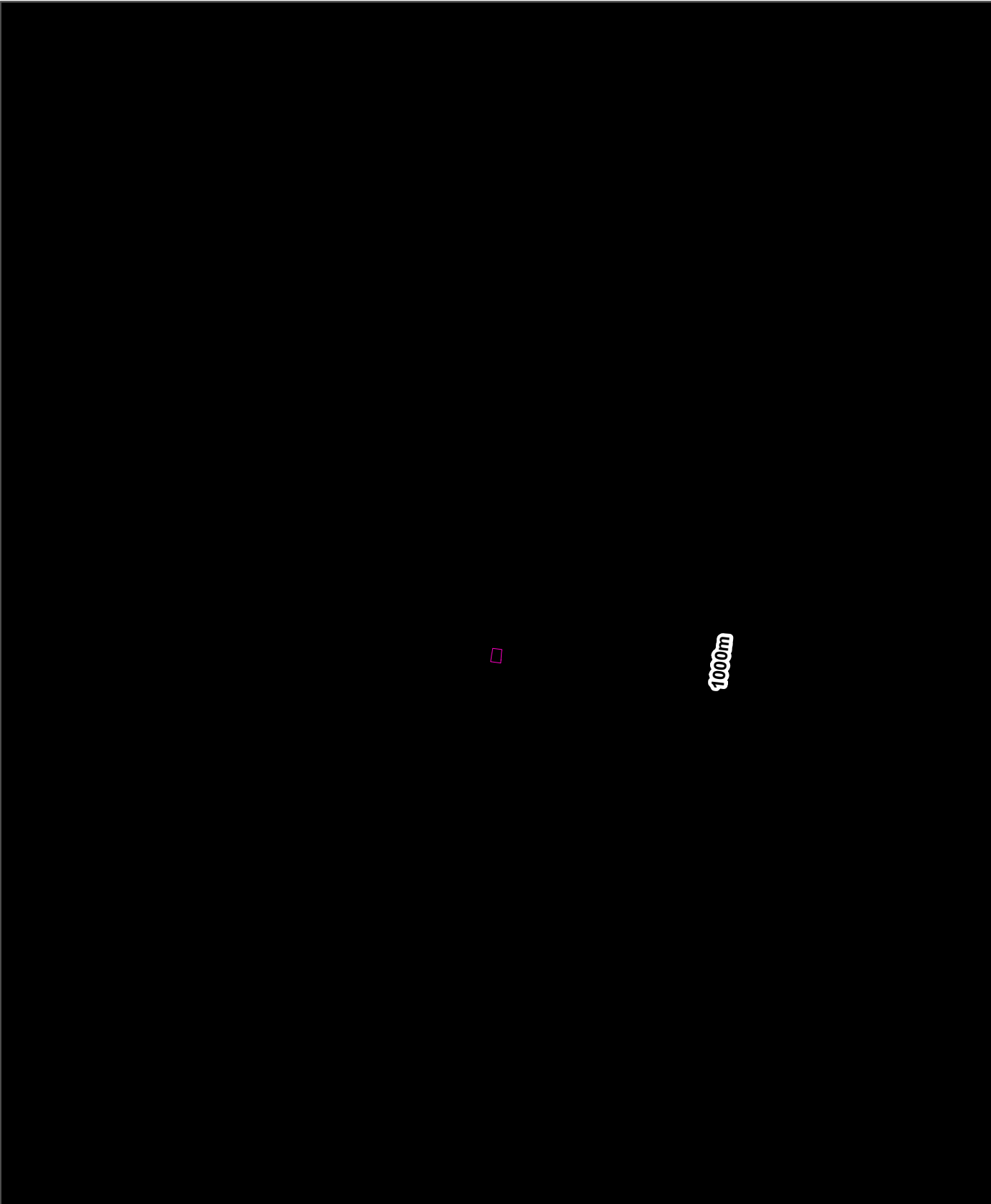
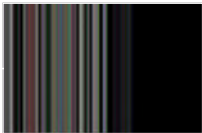
Buffer 1000m

Please note that due to the inaccuracies in the original maps, the site may not align to the map correctly.

<div>Scale:</div> <div><div>0</div><div>280</div><div>560</div><div>840</div><div>1,120</div></div> <div>Meters</div>	Data Sources: NATMAP 1:100,000 Topographic Maps Geoscience Australia	Coordinate System: GDA 1994 MGA Zone 56	Date: 17 June 2021
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# Historical Map c.1936

13-19 Canberra Avenue, St Leonards, NSW 2065



**Legend**  

Site Boundary

Buffer 1000m

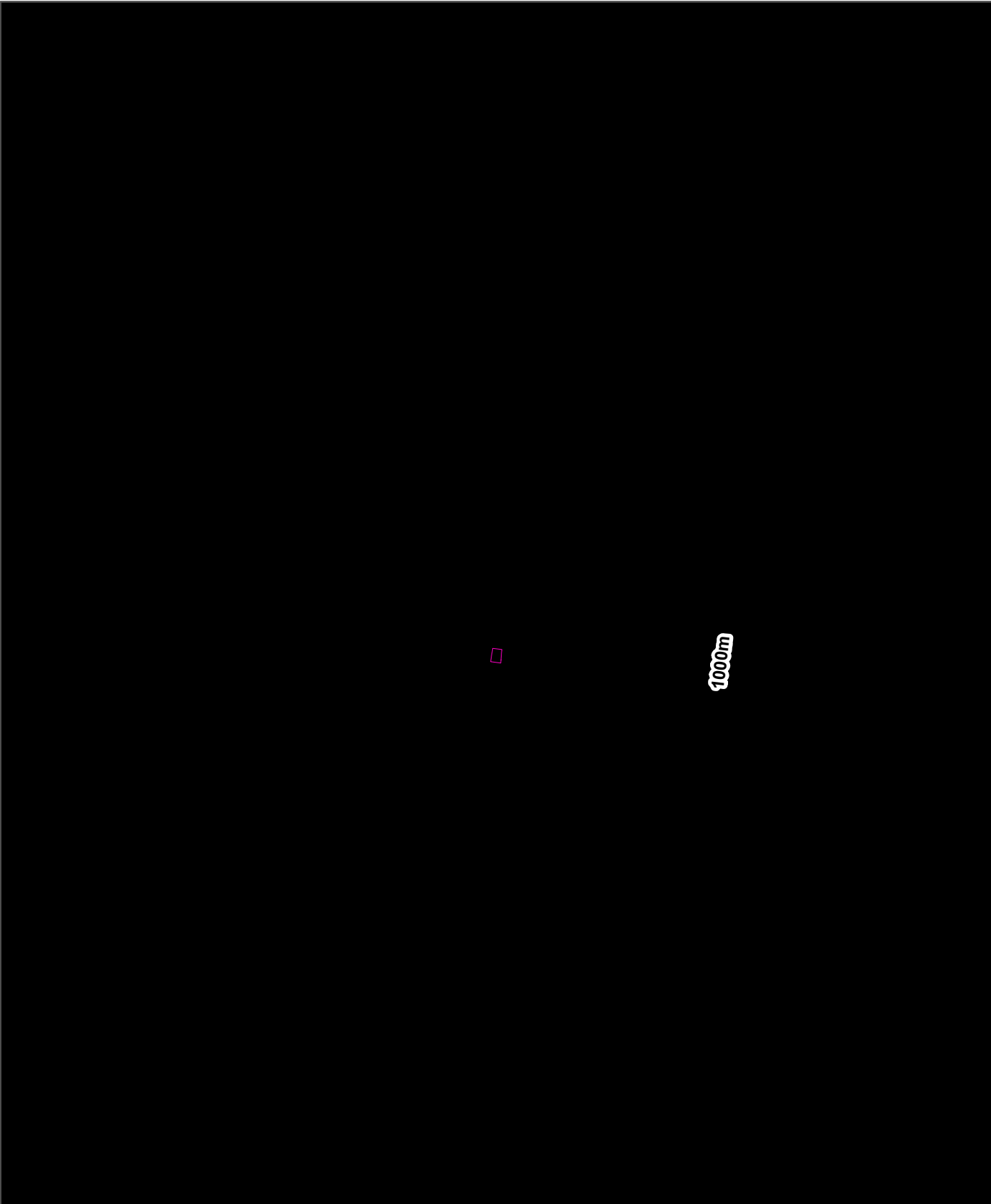
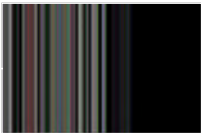
Please note that due to the inaccuracies in the original maps, the site may not align to the map correctly.

<div>Scale: 02805608401,120 Meters</div>	<div>Data Sources: Australia 1:63360 Produced by Australian Section Imperial General Staff</div>	<div>Coordinate System: GDA 1994 MGA Zone 56</div>	<div>Date: 17 June 2021</div>
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# Historical Map c.1917

13-19 Canberra Avenue, St Leonards, NSW 2065



**Legend**  

Site Boundary

Buffer 1000m

Please note that due to the inaccuracies in the original maps, the site may not align to the map correctly.

<div>Scale:</div> <div><div>0</div><div>280</div><div>560</div><div>840</div><div>1,120</div></div> <div>Meters</div>	<div>Data Sources: Australia 1:63360</div> <div>Produced by Australian Section Imperial General Staff</div>	<div>Coordinate System:</div> <div>GDA 1994 MGA Zone 56</div>	<div>Date: 17 June 2021</div>
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**13-19 Canberra Avenue, St Leonards, NSW 2065**



## Topographic Features

13-19 Canberra Avenue, St Leonards, NSW 2065

## Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
67657	Park	NEWLANDS PARK	108m	South
67616	Club	NORTHS RUGBY CLUB	197m	North East
67607	Transport Interchange	ST LEONARDS BUS INTERCHANGE	206m	North
134189	Suburb	ST LEONARDS	217m	North West
87021	Sports Field	BOWLING GREEN	286m	South
67523	Park	PROPSTING PLAYGROUND	306m	South West
86940	Club	WOLLSTONECRAFT BOWLING AND RECREATION CLUB	316m	South
134105	Railway Station	ST LEONARDS RAILWAY STATION	329m	North
134247	Sports Field	GORE HILL PARK	361m	North West
67546	Park	GREENDALE PARK	362m	South West
67647	Park	PORTVIEW RESERVE	362m	West
86984	Post Office	ST LEONARDS POST OFFICE	367m	North East
67547	Community Facility	GREENWICH WOLLSTONECRAFT SCOUT HALL	380m	South West
133983	Primary School	INTERNATIONAL CHINESE SCHOOL ST LEONARDS	387m	West
87154	Park	SMOOTHEY PARK	412m	South
133901	Sports Court	BASKETBALL	425m	North West
141052	Railway Station	CROWS NEST RAILWAY STATION	447m	East
67524	Community Home	GLENWOOD NURSING HOME	451m	South West
86986	Place Of Worship	Place Of Worship	451m	East
67659	Place Of Worship	ANGLICAN CHURCH	482m	South West
86985	Post Office	CROWS NEST POST OFFICE	507m	East
133883	Special School	ROYAL NORTH SHORE HOSPITAL SCHOOL	508m	North West
134203	Helipad	Helipad	510m	North
67658	Park	GREENDALE PARK	517m	South West
134146	General Hospital	ROYAL NORTH SHORE HOSPITAL	534m	North
86989	Place Of Worship	UNITING CHURCH	534m	South East
134179	Community Medical Centre	SYDNEY DIALYSIS CENTRE	541m	North
134180	Community Medical Centre	ROYAL NORTH SHORE COMMUNITY HEALTH CENTRE	541m	North
134178	Community Medical Centre	NORTHERN SYDNEY CENTRAL COAST ACUTE CARE FACILITY	541m	North
134177	Community Medical Centre	NORTHERN SYDNEY AREA COMMUNITY HEALTH	541m	North
134006	Historic Site	GORE HILL MEMORIAL CEMETERY	567m	North West

Map Id	Feature Type	Label	Distance	Direction
134145	Cemetery	GORE HILL CEMETERY	567m	North West
67559	Child Care Centre	KU GREENWICH COMMUNITY PRESCHOOL	581m	South West
67543	Community Facility	GREENWICH MEMORIAL COMMUNITY CENTRE	581m	South West
67631	Library	GREENWICH LIBRARY	581m	South West
87152	Fire Station	CROWS NEST FIRE STATION	590m	East
133875	Post Office	ROYAL NORTH SHORE HOSPITAL POST OFFICE	606m	North West
67532	Place Of Worship	THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS	637m	South West
87153	Place Of Worship	BAPTIST CHURCH	653m	East
87020	Railway Station	WOLLSTONECRAFT RAILWAY STATION	654m	South
87108	Suburb	WOLLSTONECRAFT	670m	South
134104	Park	TALUS STREET RESERVE	674m	North
67623	Suburb	GREENWICH	693m	West
87103	Community Medical Centre	CROWS NEST COMMUNITY HEALTH CENTRE	700m	East
86980	Place Of Worship	METHODIST CHURCH	703m	East
134248	General Hospital	NORTH SHORE PRIVATE HOSPITAL	713m	North West
133874	Post Office	ST LEONARDS POST BUSINESS CENTRE	717m	North
67646	Park	ST VINCENTS RD PLAYGROUND	726m	West
134102	Sports Court	TENNIS COURTS	741m	North
67533	Place Of Worship	UNITING CHURCH	758m	South West
134161	Embassy	ROYAL NORWEGIAN CONSULATE-GENERAL	778m	North
134103	Community Facility	NORTHERN SUBURBS TENNIS ASSOCIATION	790m	North
87118	Suburb	CROWS NEST	804m	East
86932	Park	HARRY HOWARD RESERVE	807m	South
86938	Place Of Worship	JEHOVAHS WITNESSES CHURCH	809m	East
134208	High School	BRADFIELD COLLEGE	823m	North West
134246	TAFE College	ST LEONARDS TAFE COLLEGE	833m	North West
87133	Place Of Worship	ORTHODOX CHURCH	838m	East
67529	Park	HENNINGHAM PLAYGROUND	846m	West
67664	Urban Place	GORE HILL	851m	North West
67582	Historic Site	PALLISTER	867m	West
67561	Park	GORE CREEK RESERVE	871m	South West
67518	Primary School	GREENWICH PUBLIC SCHOOL	872m	South West
67644	Post Office	GREENWICH POST OFFICE	882m	South West
133975	Park	ELLA STREET RESERVE	884m	North
86998	Park	WALLUMETTA PARK	888m	South
67603	Park	HOLLOWAY PARK	892m	South West
133978	Community Facility	BONGALONG STREET COMMUNITY GARDEN	893m	North East



Map Id	Feature Type	Label	Distance	Direction
87081	Embassy	CONSULATE-GENERAL OF MONGOLIA	894m	South
133884	Special School	NAREMBURN SCHOOL	914m	North East
133996	Rubbish Depot	ARTARMON RESOURCE RECOVERY CENTRE	930m	North West
67651	Retirement Village	WATERBROOK AT GREENWICH	930m	West
87050	General Hospital	MATER MISERICORDIAE PRIVATE HOSPITAL	935m	South East
67655	General Hospital	GREENWICH HOSPITAL	943m	West
67468	Retirement Village	CLANCY TERRACE	946m	South West
67517	Primary School	GREENWICH PUBLIC SCHOOL	948m	West
87145	Park	MILRAY RESERVE	953m	South
134101	Place Of Worship	CATHOLIC CHURCH	953m	North East
86969	Sports Centre	LOVE N DEUCE TENNIS CENTRE	953m	North East
134204	Psychiatric Hospital	NORTHSIDE GROUP ST LEONARDS CLINIC	960m	North
86946	High School	NORTH SYDNEY GIRLS HIGH SCHOOL	963m	South East
86968	Sports Court	TENNIS COURTS	973m	North East
133968	Sports Field	NAREMBURN PARK 2	973m	North
134100	Park	NAREMBURN PARK	983m	North
133969	Sports Field	NAREMBURN PARK 1	988m	North
87002	Park	THE MATER GARDENS	990m	South East
87146	Park	BADANGI RESERVE	999m	South

Topographic Data Source: © Land and Property Information (2015)

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## Topographic Features

13-19 Canberra Avenue, St Leonards, NSW 2065

### Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

### Tanks (Points)

What are the Tank Points located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)

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## Major Easements

What Major Easements exist within the dataset buffer?

Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
168101094	Primary	Right of way		503m	South
161974425	Primary	Right of way	Variable	561m	West
170680532	Primary	Right of way	Var	650m	North West
179097629	Primary	Right of way	12m & var	729m	North West
162890079	Primary	Right of way	VAR	797m	North West
120108102	Primary	Undefined		833m	South
120113676	Primary	Undefined		939m	North

Easements Data Source: © Land and Property Information (2015)

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## Topographic Features

13-19 Canberra Avenue, St Leonards, NSW 2065

### State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

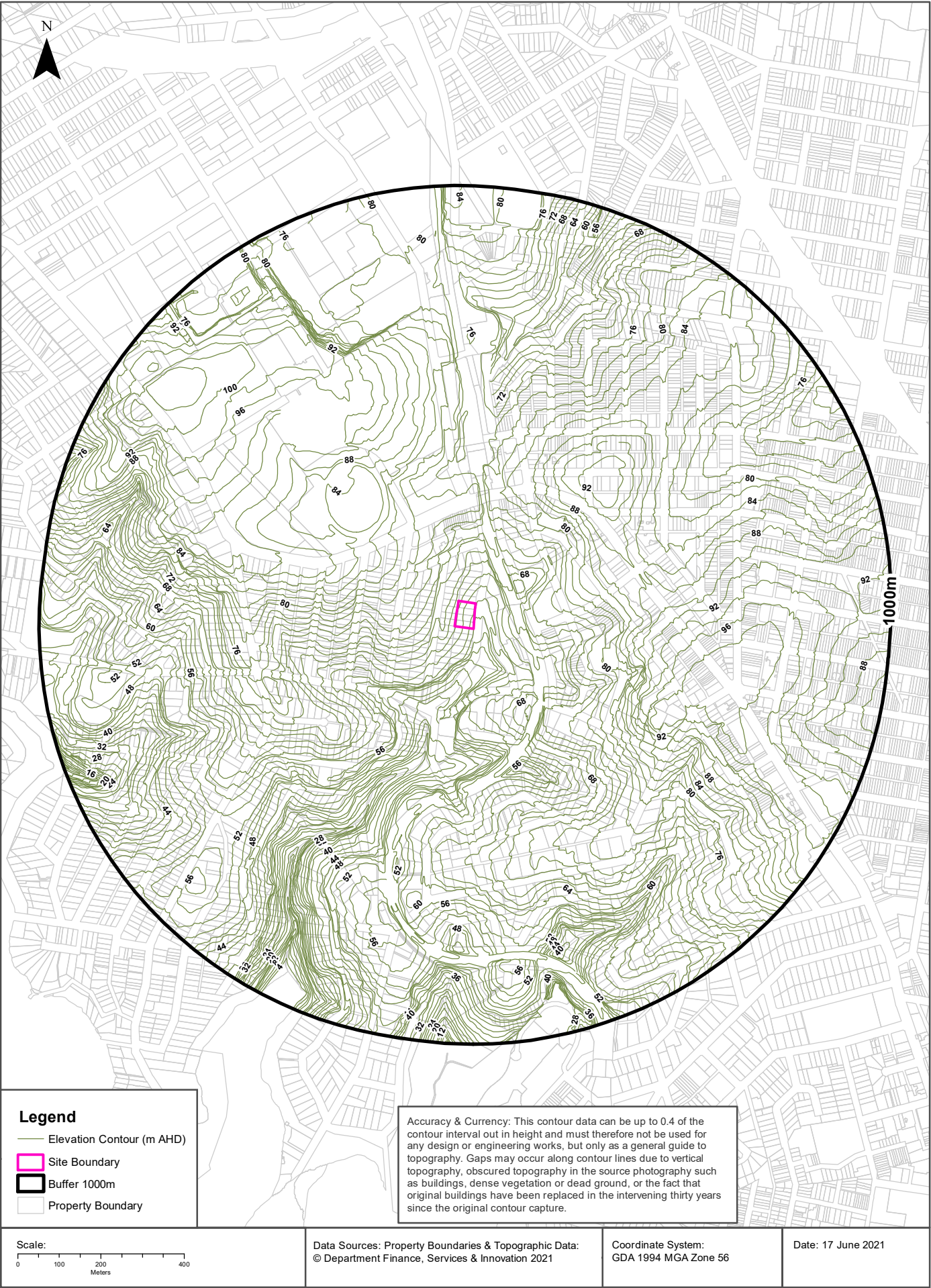
State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)  
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### National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

NPWS Data Source: © NSW Department of Finance, Services & Innovation (2018)  
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# Hydrogeology & Groundwater

13-19 Canberra Avenue, St Leonards, NSW 2065

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	On-site

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)

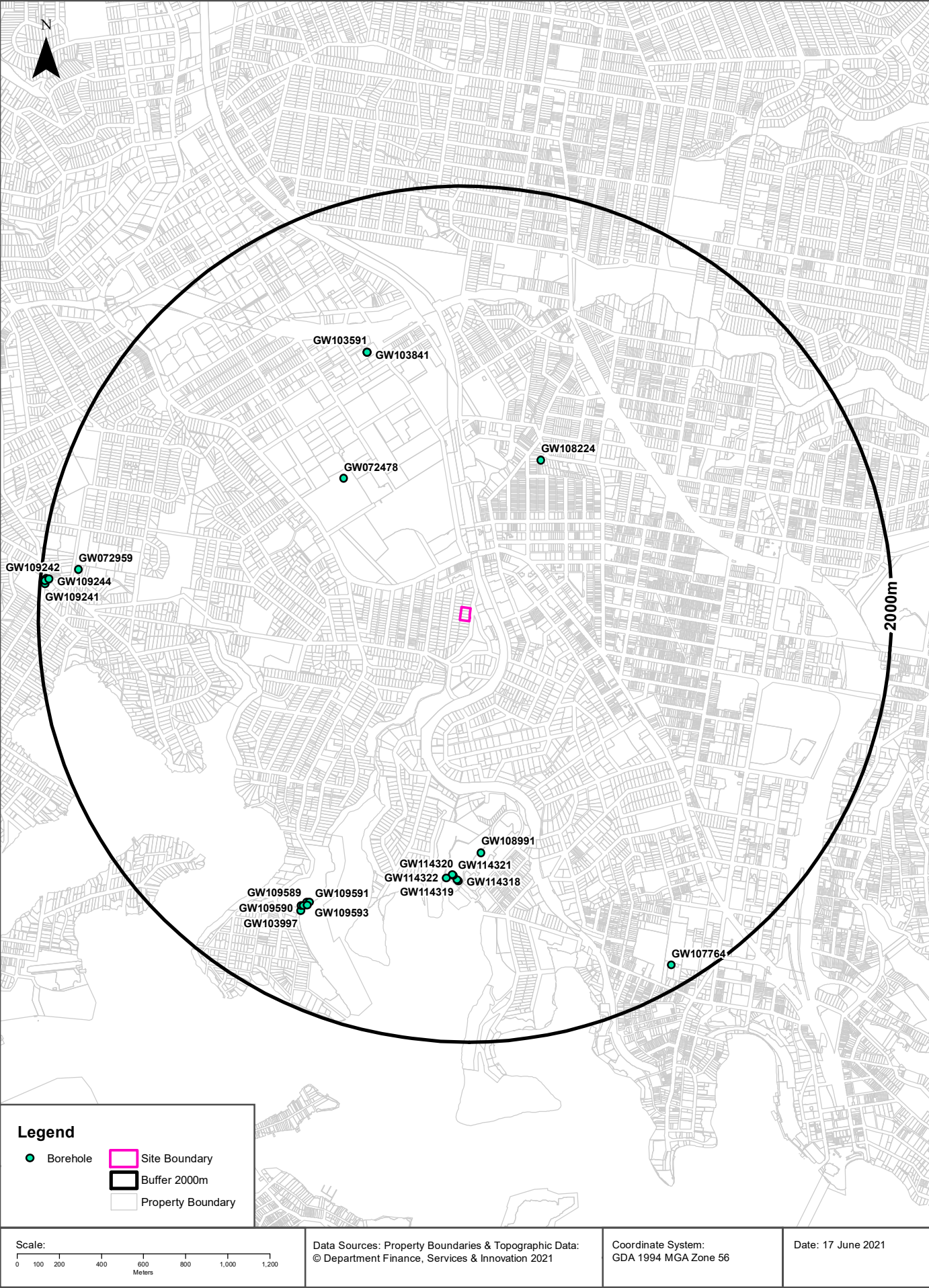
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## Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

Prohibition Area No.	Prohibition	Distance	Direction
N/A	No records in buffer		

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018 Data Source : NSW Department of Primary Industries



# Hydrogeology & Groundwater

13-19 Canberra Avenue, St Leonards, NSW 2065

## Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW108 224	10BL600 442, 10WA10 9080	Bore	Private	Domestic	Domestic		05/09/2006	132.40	132.40		35.00	0.300		779m	North East
GW072 478		Bore			Domestic		10/01/1995	180.50	180.50	270	48.00	0.700		828m	North West
GW108 991	10BL165 659, 10WA10 9008	Bore	Private	Domestic	Domestic		08/07/2008	168.00		300	13.00	0.120		1103m	South
GW114 321	10BL604 924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	11/09/1996	11.90	11.90					1208m	South
GW114 320	10BL604 924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	12/09/1996	5.00	5.00					1212m	South
GW114 322	10BL604 924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	03/09/1996	10.00	10.00					1227m	South
GW114 319	10BL604 924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	12/09/1996	5.00	5.00					1231m	South
GW114 318	10BL604 924	Bore	Private	Monitoring Bore	Monitoring Bore	North Shore Gas	12/09/1996	10.00	10.00					1237m	South
GW103 591	10BL159 969	Bore	Private	Monitoring Bore	Monitoring Bore		11/01/2001	5.80	5.80					1291m	North
GW103 841	10BL159 969	Bore		Monitoring Bore	Monitoring Bore		11/01/2001	5.80	5.80					1291m	North
GW109 591	10BL163 745	Bore	Private	Monitoring Bore	Monitoring Bore		05/09/2003	2.00	2.00					1520m	South West
GW109 589	10BL163 745	Bore	Private	Monitoring Bore	Monitoring Bore		30/04/2003	2.90	2.90					1526m	South West
GW109 593	10BL163 745	Bore	Private	Monitoring Bore	Monitoring Bore		02/05/2003	4.00	4.00					1537m	South West
GW109 592	10BL163 745	Bore	Private	Monitoring Bore	Monitoring Bore		05/09/2003	4.50	4.50					1548m	South West
GW109 590	10BL163 745	Bore	Private	Monitoring Bore	Monitoring Bore		30/04/2003	4.40	4.40					1554m	South West
GW103 997	10BL158 770	Bore		Monitoring Bore	Monitoring Bore		26/08/1998	4.50	4.50					1576m	South West
GW072 959	10BL156 425, 10BL602 137, 10CA10 9539	Bore open thru rock	Private	Irrigation, Monitoring Bore, Recreation (groundwater)	Irrigation, Monitoring Bore		03/02/1995	24.50	24.50	0-500 ppm				1825m	West
GW107 764	10BL601 165, 10WA10 9154	Bore		Domestic			22/01/2007							1895m	South East
GW109 244	10BL602 428	Bore	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1959m	West
GW109 242	10BL602 428	Bore	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1972m	West
GW109 241	10BL602 428	Well	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1975m	West
GW109 243	10BL602 428	Bore	Private	Monitoring Bore	Monitoring Bore		20/08/2008	4.50	4.50					1976m	West

Borehole Data Source : NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation for all bores prefixed with GW. All other bores © Commonwealth of Australia (Bureau of Meteorology) 2015. Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

# Hydrogeology & Groundwater

13-19 Canberra Avenue, St Leonards, NSW 2065

## Driller's Logs

Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW108224	0.00m-0.60m clay, sandy 0.60m-2.80m sandstone, weathered 2.80m-3.10m clay 3.10m-25.50m sandstone, weathered 25.50m-27.00m sandstone, grey quartz 27.00m-29.00m shale 29.00m-35.00m sandstone, quartz grey 35.00m-41.00m shale 41.00m-52.00m sandstone, grey 52.00m-54.00m sandstone, quartz grey 54.00m-61.00m sandstone, grey 61.00m-65.00m shale 65.00m-81.00m sandstone, grey 81.00m-84.00m sandstone, grey quartz siltstone 84.00m-98.00m sandstone, grey 98.00m-100.00m sandstone, grey quartz 100.00m-106.50m sandstone, grey 106.50m-109.00m sandstone, dark brown 109.00m-110.50m sandstone, grey quartz 110.50m-112.00m siltstone 112.00m-132.40m sandstone, grey	779m	North East
GW072478	0.00m-2.50m CONCRETE OVERBURDEN 2.50m-5.10m MOIST CLAY 5.10m-28.70m L/G MED. GRAIN SANDSTONE 28.70m-30.10m LIGHT GREY MED. GRAIN S/STONE QUARTZ MATRIX 30.10m-35.90m L/GREY GRAIN SANDSTONE 35.90m-37.20m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 37.20m-45.30m L/GREY MED GRAIN S/STONE 45.30m-54.30m DARK GREY SHALE 54.30m-72.40m L/GREY CEMENTED S/STONE 72.40m-75.40m DARK GREY SHALE 75.40m-109.70m L/GREY MED GRAIN S/STONE 109.70m-110.60m QUARTZ LAYER 110.60m-121.80m L/GREY MED GRAIN S/STONE 121.80m-123.30m DARK GREY SHALE 123.30m-135.40m L/GREY MED GRAIN S/STONE 135.40m-138.00m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 138.00m-139.80m WATER BEARING QUARTZ 139.80m-143.80m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 143.80m-144.40m WATER BEARING QUARTZ 144.40m-154.10m L/GREY CEMENTED SANDSTONE 154.10m-163.70m L/GREY MED GRAIN S/STONE QUARTZ MATRIX 163.70m-166.90m QUARTZ LAYER 166.90m-168.70m GREY MED GRAIN S/STONE 168.70m-180.50m L/GREY MED GRAIN SANDSTONE	828m	North West
GW103591	0.00m-2.00m ROAD BASE 2.00m-4.00m CLAY 4.00m-5.80m SANDY CLAY	1291m	North
GW103841	0.00m-0.20m ROAD BASE 0.20m-4.00m STIFF CLAY 4.00m-5.80m SANDY CLAY	1291m	North
GW109591	0.00m-0.30m CONCRETE 0.30m-0.60m BLACK AND DARK GREY LOAMY SAND WITH GRAVEL 0.60m-2.00m MIXTURE OF GREY AND LIGHT BROWN SANDY LOAM	1520m	South West
GW109589	0.00m-0.30m CONCRETE 0.30m-0.50m DARK GREY AND BLACK SANDY LOAM/GRAVEL 0.50m-1.20m DARK GREY AND BLACK SANDY LOAM 1.20m-2.90m DARK GREY SANDY CLAY	1526m	South West
GW109593	0.00m-0.20m CONCRETE 0.20m-0.60m DARK GREY AND BLACK SANDY LOAM WITH GRAVEL 0.60m-1.80m DARK GREY AND BLACK SANDY LOAM 1.80m-4.00m DARK GREY AND BLACK SANDY CLAY/GRAVEL	1537m	South West
GW109592	0.00m-0.20m CONCRETE 0.20m-0.50m BLACK AND DARK GREY LOAMY SAND/GRAVEL 0.50m-1.10m BLACK AND DARK GREY SANDY LOAM 1.10m-4.50m BLACK SANDY AND SILTY LOAM	1548m	South West

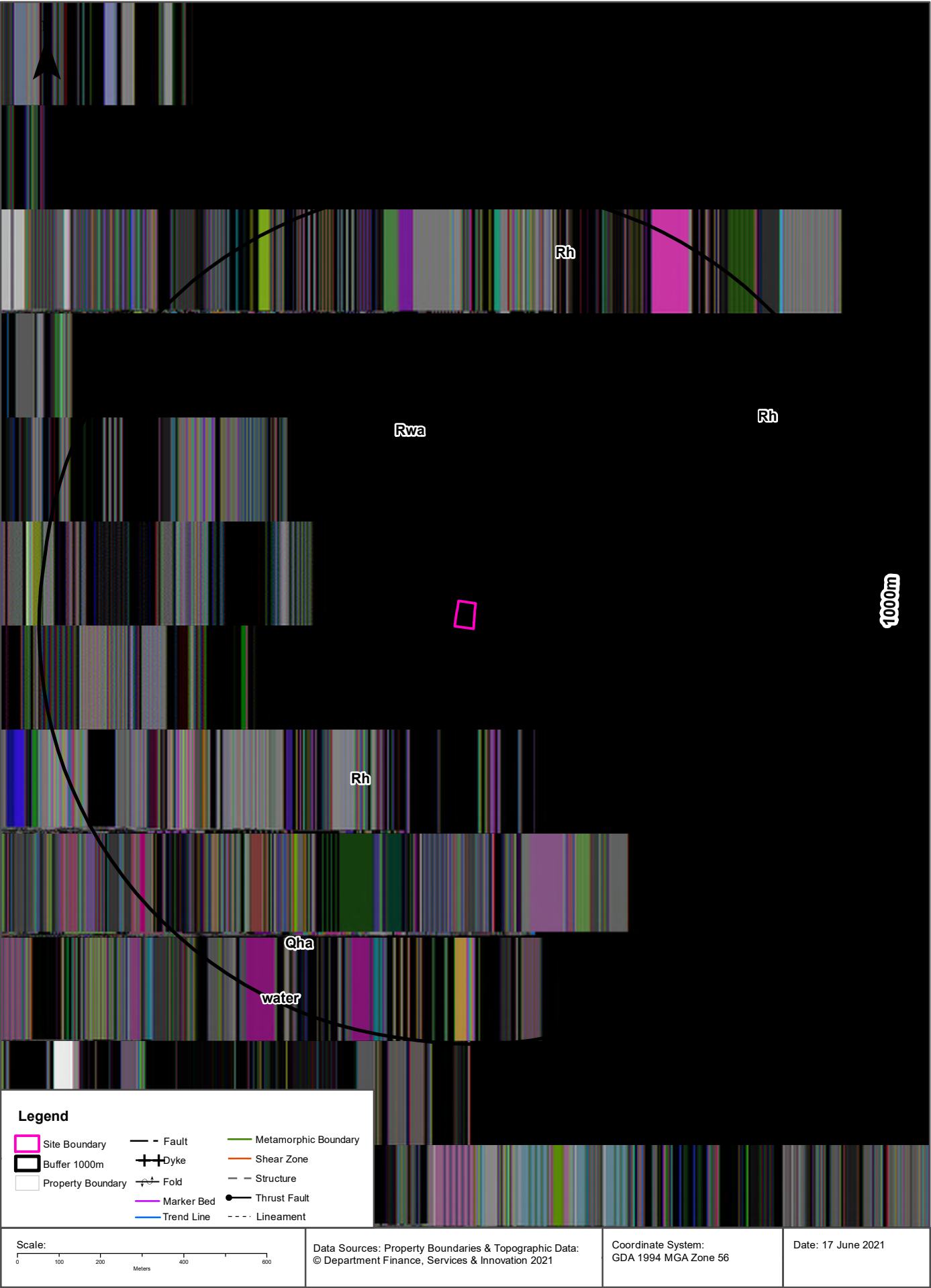


Groundwater No	Drillers Log	Distance	Direction
GW109590	0.00m-0.20m CONCRETE 0.20m-0.70m DARK GREY AND BLACK SANDY LOAM WITH SOME GRAVEL 0.70m-1.20m DARK GREY AND BLACK SANDY LOAM 1.20m-4.40m DARK GREY TO BLACK SANDY CLAY	1554m	South West
GW103997	0.00m-0.20m CONCRETE 0.20m-1.00m FILL: SANDY,DARK 1.00m-2.00m SANDY CLAY 2.00m-2.90m SANDY SILT/DARK GREY 2.90m-4.50m SANDY SILT:DARK GREY	1576m	South West
GW072959	0.00m-0.80m Sandy Loam 0.80m-6.90m 6.90m-9.20m 9.20m-16.60m L/grey Med Grain Sandstone 16.60m-18.10m Light Grey Med Grain Sandstone Fractured Watr Bearing Zones 18.10m-21.10m L/grey Med Grain Sandstone 21.10m-22.30m L/grey Med Grain Sandstone Fractured Water Bearing Zones 22.30m-24.50m Light Grey Marine Clay	1825m	West
GW109244	0.00m-1.00m CONCRETE,FILL,CLAY,SANDY,BROWN YELLOW 1.00m-2.00m WEATHERED SANDSTONE RED ORANGE 2.00m-4.50m WEATHERED SANDSTONE ,RED WHITE,DAMP,ODOUR	1959m	West
GW109242	0.00m-1.00m CONCRETE,CLAY,BROWN YELLOW 1.00m-2.00m WEATHERED SANDSTONE,WHITE,BROWN 2.00m-3.00m AS ABOVE,RED BROWN, DAMP 3.00m-4.50m AS ABOVE,WHITE GREY	1972m	West
GW109241	0.00m-1.00m CONCRETE,CLAY,WEATHERED SANDSTONE 1.00m-2.00m AS ABOVE,RED BROWN,(INCREASED DENSITY TO 1.5m) 2.00m-3.00m AS ABOVE,WHITE ORANGE,DAMP 3.00m-4.50m AS ABOVE,GREY WHITE,DAMP,BLACK LAYER3.5, 3.8m	1975m	West
GW109243	0.00m-0.50m CONCRETE,CLAY,BROWN GREY 0.50m-2.00m WEATHERED SANDSTONE,RED BROWN,DRY 2.00m-3.00m AS ABOVE,WHITE,YELLOW, DAMP 3.00m-4.50m WEATHERED SANDSTONE,BROWN,WET,DENSE	1976m	West

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp  
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Geology

13-19 Canberra Avenue, St Leonards, NSW 2065



## Geology

13-19 Canberra Avenue, St Leonards, NSW 2065

### Geological Units 1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dist	Dir
Rwa	Black to dark grey shale and laminate	Ashfield Shale	Wianamatta Group		Triassic		Sydney	0m	On-site
Rh	Medium to coarse grained quartz sandstone, very minor shale and laminate lenses				Triassic		Sydney	0m	On-site
Qha	Silty to peaty quartz sand, silt, and clay. Ferruginous and humic cementation in places. Common shell layers				Quaternary		Sydney	636m	South West
water							Sydney	984m	South West

### Geological Structures 1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Distance	Direction
N/A	No records in buffer				

Geological Data Source : NSW Department of Industry, Resources & Energy

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## Naturally Occurring Asbestos Potential

13-19 Canberra Avenue, St Leonards, NSW 2065

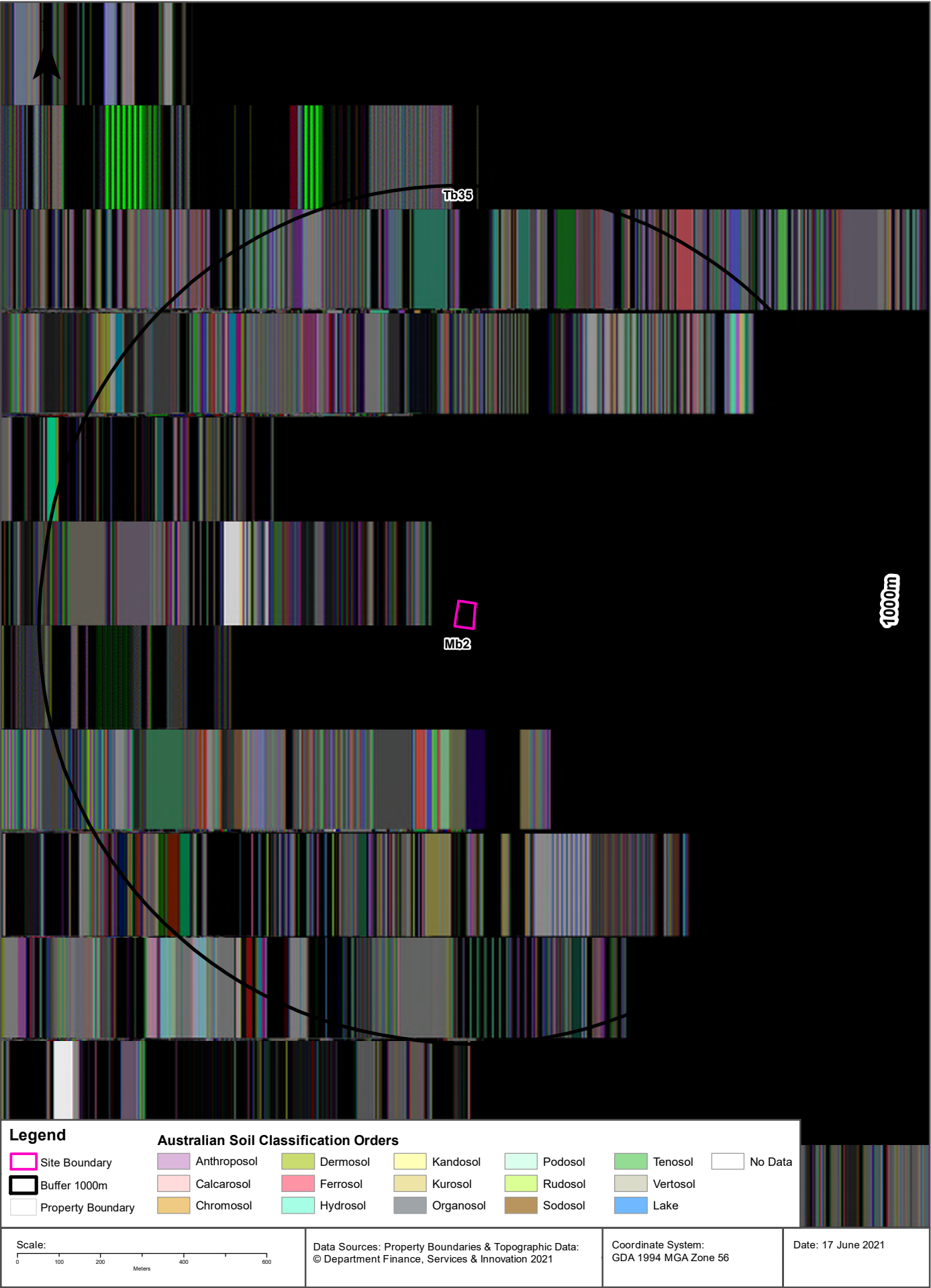
## Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Naturally Occurring Asbestos Potential Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy





## Soils

13-19 Canberra Avenue, St Leonards, NSW 2065

### Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Mb2	Kandosol	Dissected sandstone plateau of moderate to strong relief with sandstone pillars, ledges, and slabs-- level to undulating ridges, irregularly benched slopes, steep ridges, cliffs, canyons, narrow sandy valleys: chief soils are (i) on areas of gentle to moderate relief, acid yellow leached earths (Gn2.74) and (Gn2.34) and acid leached yellow earths (Gn2.24)- sometimes these soils contain ironstone gravel; and (ii) on, or adjacent to, areas of strong relief, siliceous sands (Uc1.2), leached sands (Uc2.12) and (Uc2.2), and shallow forms of the above (Gn2) soils. Associated are: (i) on flat to gently undulating remnants of the original plateau surface, leached sands (Uc2.3), siliceous sands (Uc1.2), sandy earths (Uc5.22), and (Gn2) soils as for (i) above (these areas are in part comparable with unit Cb29); (ii) on flat ironstone gravelly remnants of the original plateau surface, (Gn2) soils as for unit Mb5(i); (iii) on gently undulating ridges where interbedded shales are exposed, shallow, often stony (Dy3.41), (Dr2.21), and related soils similar to unit Tb35; (iv) narrow valleys of (Uc2.3) soils flanked by moderate slopes of (Dy3.41) soils; (v) escarpments of steep hills with shallow (Dy) and (Dr) soils between sandstone pillars; and (vi) shallow (Um) soils, such as (Um6.21) on steep hills of basic rocks. As mapped, minor areas of units Mg20, Mm1, and Mw8 are included. Data are limited.	0m	On-site
Tb35	Sodosol	Dissected plateau remnants--flat to undulating ridge tops with moderate to steep side slopes: chief soils are hard acidic yellow and yellow mottled soils (Dy3.41), (Dy2.21), and (Dy2.41) and hard acidic red soils (Dr2.21); many shallow profiles occur and profile thickness varies considerably over short distances. Associated are: (Gn3.54), (Gn3.14), and possibly other (Gn3) soils; (Db1.2) soils on some ridges; (Dy5.81) soils in areas transitional to unit Mb2; soils common to unit Mb2; and eroded lateritic remnants. Small areas of other soils are likely. Flat ferruginous shale or sandstone fragments are common on and/or in and/or below the soils of this unit.	956m	North

Atlas of Australian Soils Data Source: CSIRO

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# Soil Landscapes of Central and Eastern NSW

13-19 Canberra Avenue, St Leonards, NSW 2065



## Soils

13-19 Canberra Avenue, St Leonards, NSW 2065

### Soil Landscapes of Central and Eastern NSW

Soil Landscapes of Central and Eastern NSW within the dataset buffer:

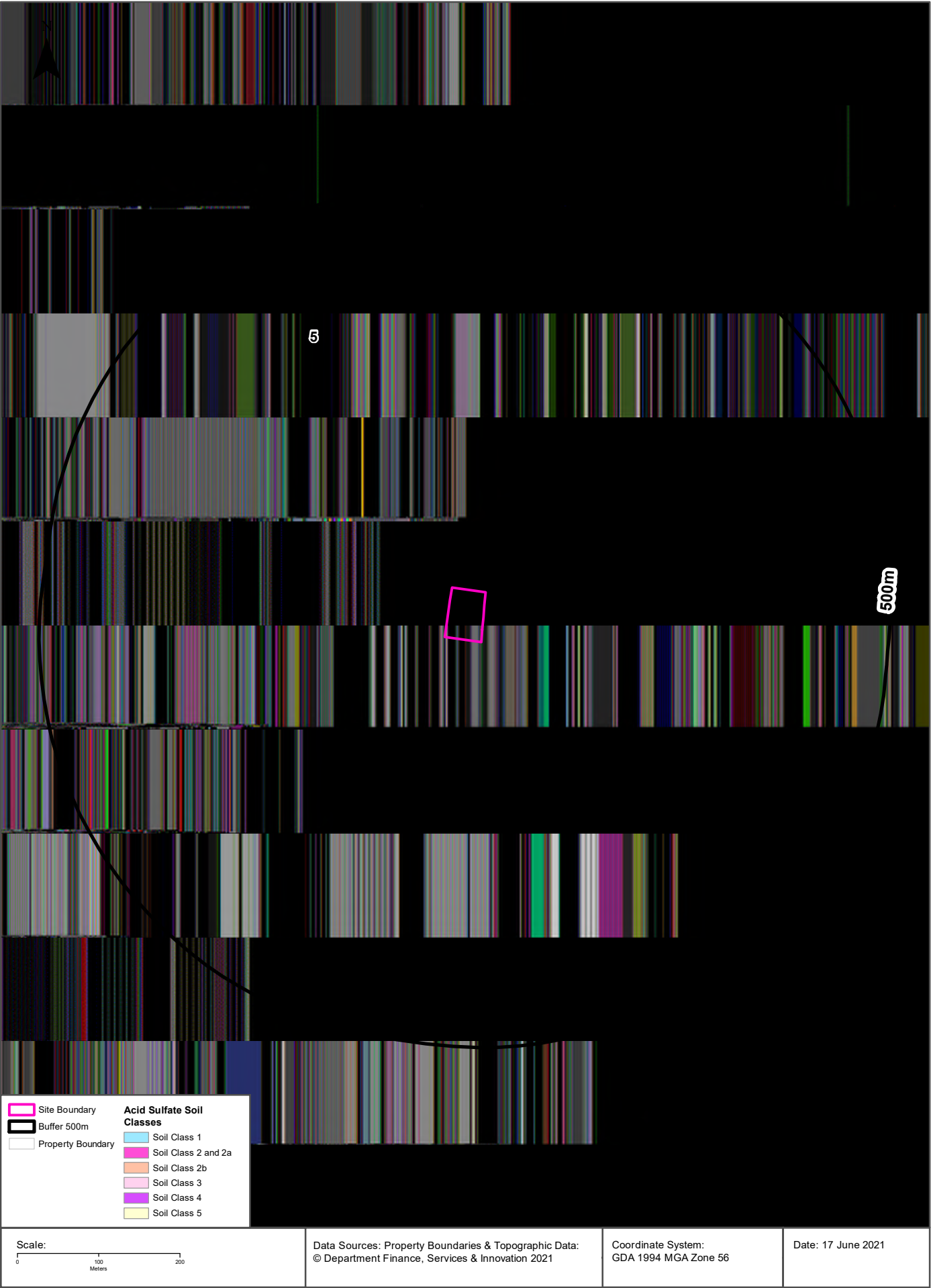
Soil Code	Name	Distance	Direction
<a href="#">9130gn</a>	Glenorie	0m	On-site
<a href="#">9130bt</a>	Blacktown	0m	On-site
<a href="#">9130gy</a>	Gymea	0m	On-site
<a href="#">9130ha</a>	Hawkesbury	185m	South West
<a href="#">9130gy*</a>	Gymea/lambert	564m	North East
<a href="#">9130xx</a>	Disturbed Terrain	669m	North West
<a href="#">9130wp</a>	West Pennant Hills	897m	North West

Soil Landscapes of Central and Eastern NSW: NSW Department of Planning, Industry and Environment  
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# Acid Sulfate Soils

13-19 Canberra Avenue, St Leonards, NSW 2065



## Acid Sulfate Soils

13-19 Canberra Avenue, St Leonards, NSW 2065

### Environmental Planning Instrument - Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI Name
N/A		

If the on-site Soil Class is 5, what other soil classes exist within 500m?

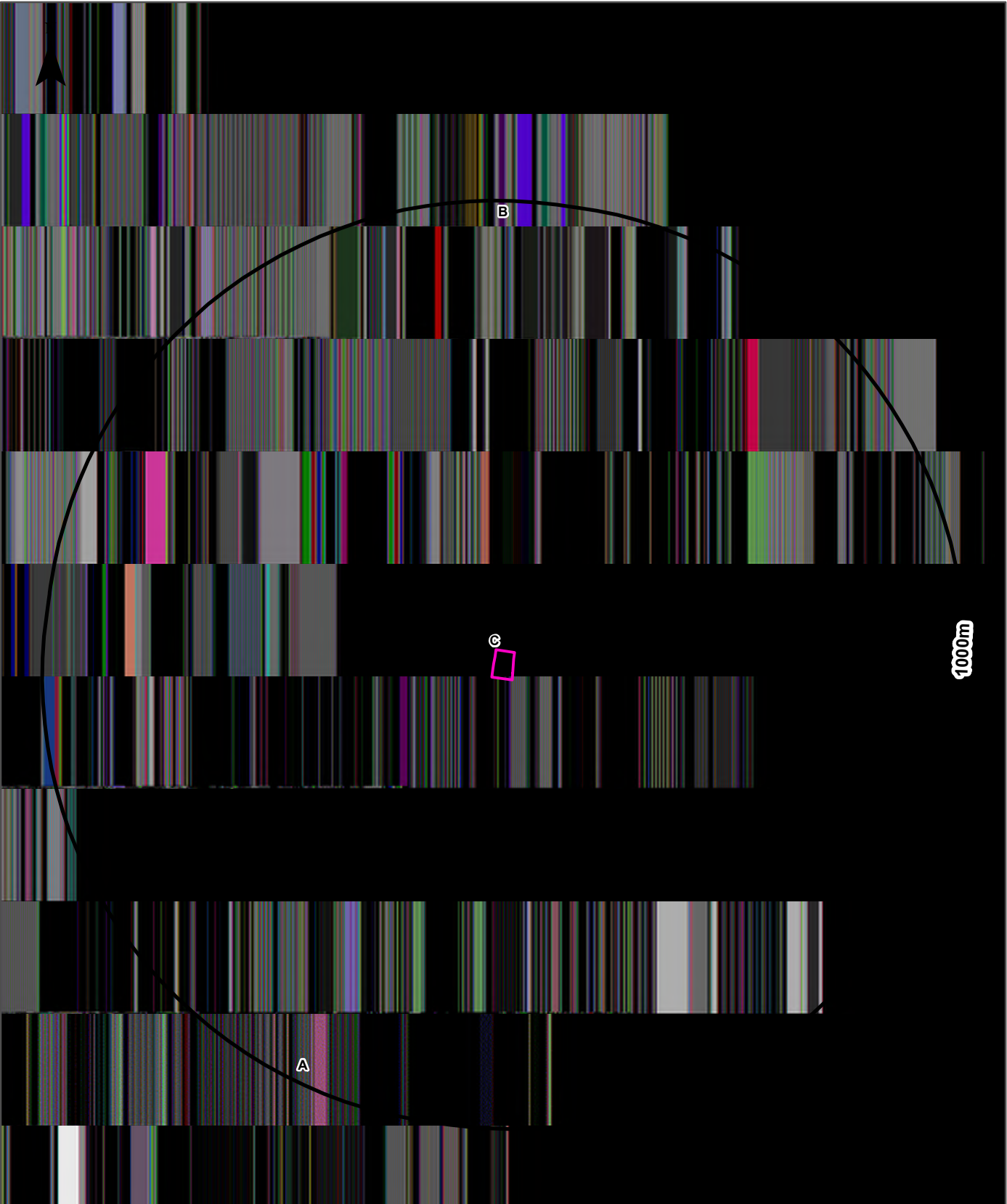
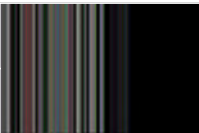
Soil Class	Description	EPI Name	Distance	Direction
N/A				

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# Atlas of Australian Acid Sulfate Soils

13-19 Canberra Avenue, St Leonards, NSW 2065



<b>Legend</b>			
Site Boundary	<b>Probability of occurrence of Acid Sulfate Soils</b>		
Buffer 1000m	A. High (>70%)	C. Extremely Low (1-5%)	No Data
Property Boundary	B. Low (6-70%)	D. No Chance (0%)	

<b>Scale:</b> 0 100 200 400 600 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2021	Coordinate System: GDA 1994 MGA Zone 56	Date: 17 June 2021
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## Acid Sulfate Soils

13-19 Canberra Avenue, St Leonards, NSW 2065

### Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
A	High Probability of occurrence. >70% chance of occurrence.	900m	South West
B	Low Probability of occurrence. 6-70% chance of occurrence.	955m	North

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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## Dryland Salinity

13-19 Canberra Avenue, St Leonards, NSW 2065

### Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

**No**

Is there Dryland Salinity - National Assessment data within the dataset buffer?

**No**

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A		

Dryland Salinity Data Source : National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

## Mining

13-19 Canberra Avenue, St Leonards, NSW 2065

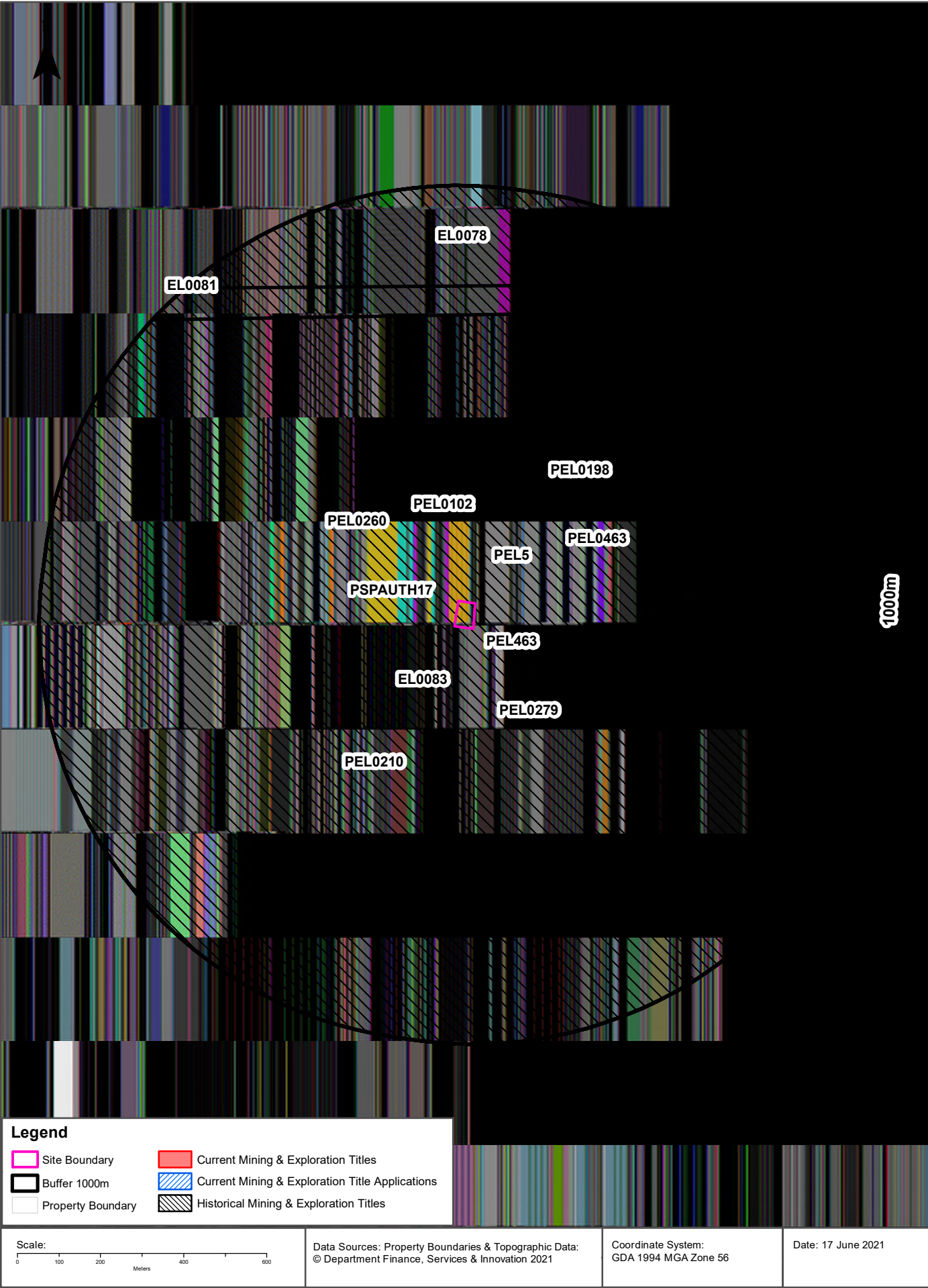
### Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)

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## Mining

13-19 Canberra Avenue, St Leonards, NSW 2065

### Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Grant Date	Expiry Date	Last Renewed	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer								

Current Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

### Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

Application Ref	Applicant	Application Date	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer						

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

## Mining

13-19 Canberra Avenue, St Leonards, NSW 2065

### Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
EL0083	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		0m	On-site
PEL463	DART ENERGY (APOLLO) PTY LTD			MINERALS		0m	On-site
PEL5	AGL UPSTREAM INVESTMENTS PTY LIMITED			MINERALS		0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL0260	NORTH BULLI COLLIERIES PTY LTD, AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT CO.	9/09/1981	8/03/1993	PETROLEUM	Petroleum	0m	On-site
PEL0463	DART ENERGY (APOLLO) PTY LTD	22/10/2008	6/03/2015	PETROLEUM	Petroleum	0m	On-site
PEL0198	JOHN STREVS (TERRIGAL) NL			PETROLEUM	Petroleum	0m	On-site
PSPAUTH17	MACQUARIE ENERGY PTY LTD	8/03/2007	7/03/2008	PETROLEUM	Petroleum	0m	On-site
PEL0279	THE ELECTRICITY COMMISSION OF NSW (TRADING AS PACIFIC POWER)	17/04/1990	11/11/1993	PETROLEUM	Petroleum	0m	On-site
EL0078	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		758m	North
EL0081	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		985m	North West

Historical Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry



# State Environmental Planning Policy

13-19 Canberra Avenue, St Leonards, NSW 2065

## State Significant Precincts

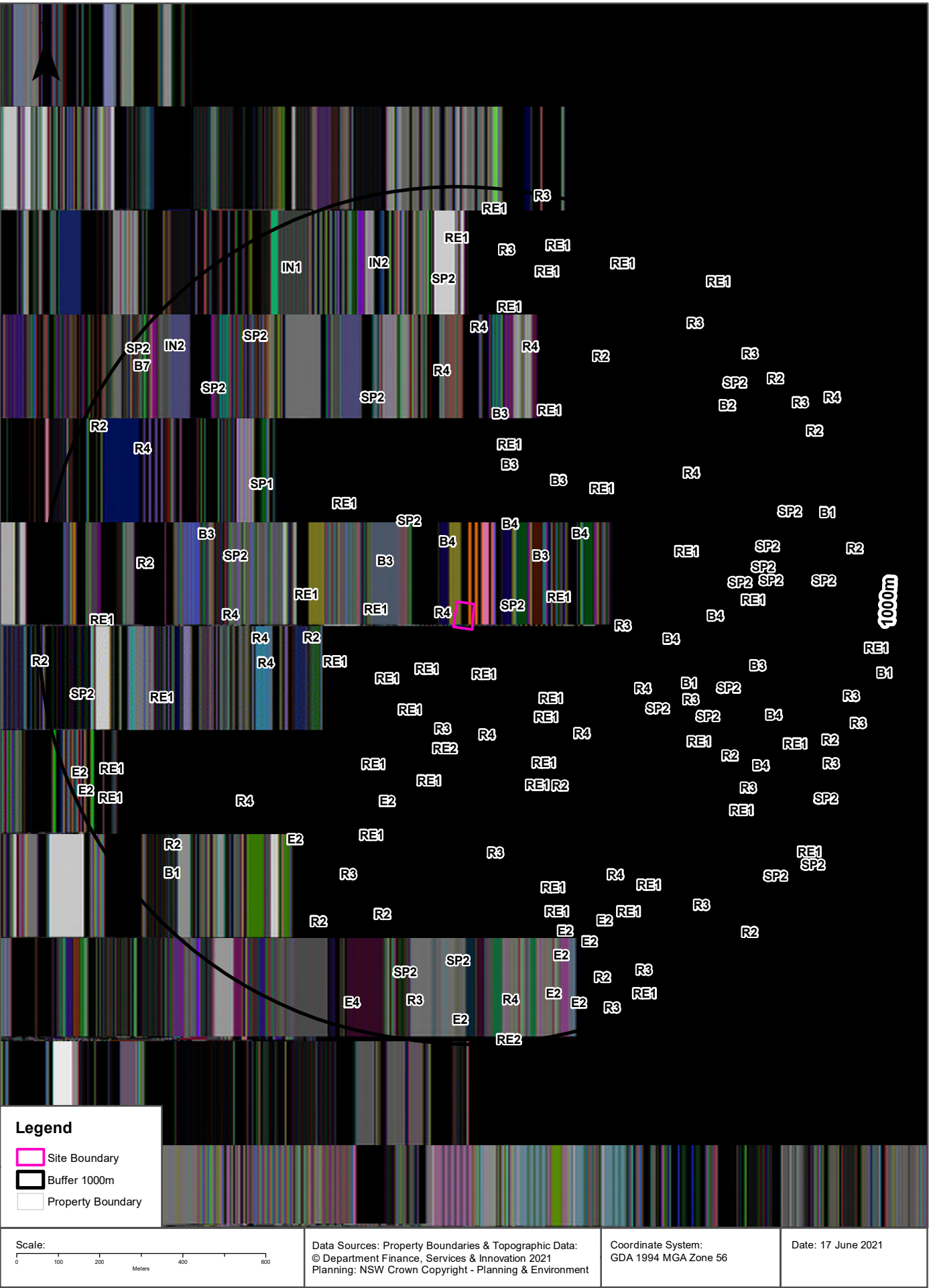
What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No records in buffer							

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment  
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# EPI Planning Zones

13-19 Canberra Avenue, St Leonards, NSW 2065



# Environmental Planning Instrument

13-19 Canberra Avenue, St Leonards, NSW 2065

## Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	0m	On-site
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		20m	South
SP2	Infrastructure	Railway	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		63m	East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	88m	South West
B3	Commercial Core		Lane Cove Local Environmental Plan 2009	01/12/2017	01/12/2017	30/10/2020	Amendment No 22	104m	North East
B4	Mixed Use		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		121m	North
SP2	Infrastructure	Road	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		141m	West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		141m	East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	150m	West
B3	Commercial Core		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		150m	North West
SP2	Infrastructure	Classified Road	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		152m	East
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		163m	South
B4	Mixed Use		Lane Cove Local Environmental Plan 2009	01/12/2017	01/12/2017	30/10/2020	Amendment No 22	169m	North East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	175m	South West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		186m	East
SP2	Infrastructure	Classified Road	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		209m	North West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		215m	South
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		220m	South West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		221m	South
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		224m	South West
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	30/10/2020	30/10/2020	30/10/2020	Amendment No 25	227m	West
B3	Commercial Core		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		228m	North
SP2	Infrastructure	Railway	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		229m	South
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		234m	North West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		235m	South East
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		239m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		262m	South East
B4	Mixed Use		Lane Cove Local Environmental Plan 2009	15/05/2015	15/05/2015	30/10/2020	Amendment No 18	263m	North East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE2	Private Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		263m	South
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		269m	South East
SP2	Infrastructure	Hospital	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		279m	North West
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		283m	South East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		285m	South West
B3	Commercial Core		North Sydney Local Environmental Plan 2013	15/05/2020	15/05/2020	15/05/2020	Amendment No 28	290m	North
E2	Environmental Conservation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		315m	South West
B3	Commercial Core		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		322m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		322m	South East
SP1	Special Activities	Cemetery	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		324m	North West
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		338m	South West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		345m	West
B4	Mixed Use		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		352m	East
B4	Mixed Use		North Sydney Local Environmental Plan 2013	24/10/2014	24/10/2014	15/05/2020	Amendment No 5	358m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		360m	North East
R4	High Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		362m	North
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		363m	South
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	23/08/2013	23/08/2013	30/10/2020	Amendment No 12	365m	South West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	15/05/2020	15/05/2020	15/05/2020	Amendment No 28	368m	North
SP2	Infrastructure	Railway	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		370m	North
SP2	Infrastructure	Classified Road	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		419m	North East
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		424m	South East
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		432m	West
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		439m	West
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		463m	South East
R2	Low Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		467m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	05/05/2017	05/05/2017	15/05/2020	Amendment No 15	483m	East
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		492m	North
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		499m	West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		503m	South
B1	Neighbourhood Centre		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		510m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		513m	South
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		519m	North East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		520m	South

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		521m	East
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		544m	West
B3	Commercial Core		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		559m	West
SP2	Infrastructure	Emergency Services Facility	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		576m	East
R4	High Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		589m	North
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		590m	North
R4	High Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		592m	North
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		592m	South West
B4	Mixed Use		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		605m	South East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		606m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		607m	South East
B3	Commercial Core		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		624m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		632m	South
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		639m	East
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		640m	East
IN1	General Industrial		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		643m	North West
SP2	Infrastructure	Educational Establishment	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		650m	North West
IN2	Light Industrial		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		652m	North
R3	Medium Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		668m	North
B4	Mixed Use		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		672m	East
SP2	Infrastructure	Community Facility	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		672m	East
R4	High Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		681m	North West
SP2	Infrastructure	Car Park	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		682m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		682m	South
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		689m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		696m	South
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		697m	South West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		711m	West
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		716m	East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		720m	South East
B2	Local Centre		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		724m	North East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		727m	South East
SP2	Infrastructure	Health Services Facilities	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		755m	West



Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		757m	South
R3	Medium Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		761m	North East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		762m	South East
R3	Medium Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		766m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		769m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		779m	South East
SP2	Infrastructure	Electricity Transmission & Distribution	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		779m	North West
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		786m	South
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		788m	East
R2	Low Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		795m	North East
SP2	Infrastructure	Health Services Facilities	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		800m	South
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		803m	South
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		811m	North
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		813m	East
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		816m	East
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		818m	West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		821m	South East
B1	Neighbourhood Centre		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		825m	East
SP2	Infrastructure	Place of Public Worship	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		826m	East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		830m	South
E4	Environmental Living		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		832m	South
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		845m	North East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		845m	South
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		848m	South
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		849m	South West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		856m	South
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		861m	North
B1	Neighbourhood Centre		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		862m	South West
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		863m	East
IN2	Light Industrial		Willoughby Local Environmental Plan 2012	20/10/2017	20/10/2017	05/03/2021	Amendment No 10	867m	North West
SP2	Infrastructure	Health Services Facilities	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		871m	South East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		873m	North East
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		877m	North

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP2	Infrastructure	Educational Establishment	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		880m	South East
E2	Environmental Conservation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		883m	South
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		884m	North East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		885m	South East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		902m	East
B7	Business Park		Willoughby Local Environmental Plan 2012	05/05/2017	05/05/2017	05/03/2021	Amendment No 9	908m	North West
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		909m	North
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		912m	East
E2	Environmental Conservation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		916m	South West
RE1	Public Recreation		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		916m	South West
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		940m	South East
R3	Medium Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		950m	South
RE1	Public Recreation		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		965m	North East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		967m	South East
RE1	Public Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		968m	East
SP2	Infrastructure	Telecommunications	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		981m	North West
R2	Low Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		984m	South East
RE2	Private Recreation		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		988m	South
B1	Neighbourhood Centre		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		988m	East
SP2	Infrastructure	Educational Establishment	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		990m	South East
R3	Medium Density Residential		Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	05/03/2021		991m	North
R4	High Density Residential		North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	15/05/2020		994m	North East
R2	Low Density Residential		Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	30/10/2020		1000m	West

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**13-19 Canberra Avenue, St Leonards, NSW 2065**



## Heritage

13-19 Canberra Avenue, St Leonards, NSW 2065

### Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch  
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### National Heritage List

What are the National Heritage List Items located within the dataset buffer?

Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch  
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### State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5051524	Gore Hill Memorial Cemetery	Pacific Highway, Gore Hill	WILLOUGHBY	25/05/2001	01491	2121	346m	North West
5051524	Gore Hill Memorial Cemetery	Pacific Highway, Gore Hill	WILLOUGHBY	25/05/2001	01491	2121	444m	North West
5045630	Electricity Power House	23 Albany Street Crows Nest	NORTH SYDNEY	02/04/1999	00931	3076	496m	North East
5045388	Pallister	95 River Road Greenwich	LANE COVE	02/04/1999	00574	1571	755m	West

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage  
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### Environmental Planning Instrument - Heritage

What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I326	House, 5 Park Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	248m	West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I327	House, 7 Park Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	248m	West
I325	Sandringham, 3 Park Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	249m	West
I40	House, 8 Eastview Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	260m	South West
I148	Gore Hill Memorial Cemetery	Item - General	State	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	324m	North West
I148	House, 18 Wilona Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	364m	South West
I1034	Former Marco Building	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	372m	North East
I242	Resident Medical Officers (RMO) Building-known as Vanderfield Building (including original interior*)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	379m	North
I1033	Commercial building	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	386m	North
I3	House, 2 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	389m	West
I4	House, 10 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	389m	West
I5	House, 12 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	389m	West
I6	House, 14 Anglo Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	390m	West
I149	House and garage, 20 Wilona Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	395m	South West
I241	Pavilion Wing Building, Block 1A (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	408m	North West
I244	Orthotics Building (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	410m	North
I1085	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	417m	South East
I70	Glenwood Nursing Home, 34-40 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	420m	South West
I243	Anstro,Body Protein Building (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	423m	North
I240	Pavilion Wing Building, Block 1B (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	433m	North
I1086	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	436m	South East
I1095	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	439m	South
I0141	St Leonards Centre	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	444m	East



Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I1094	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	450m	South
I0171	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	450m	East
I62	St. Giles Anglican Church, 6-12 Greendale Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	451m	South West
I0170	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	453m	East
I0169	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	456m	East
I0168	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	459m	East
I0167	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	463m	East
I0166	Higgins Buildings	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	466m	East
C8	Naremburn	Conservation Area - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	474m	North East
I1093	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	481m	South
I1098	'Wyagdon'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	485m	South East
I1106	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	485m	East
I0138	Electricity Powerhouse No 187	Item - General	State	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	496m	North East
I67	House, 35 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	499m	South West
I1114	Uniting Church	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	504m	South East
I1096	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	509m	South East
I0164	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	518m	East
I0163	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	522m	East
I0162	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	526m	East
I0161	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	530m	East
I0160	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	534m	East
I1099	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	537m	South East
I0159	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	543m	East
I116	Hazelhurst, 90 River Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	545m	West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I15	Streetscape elements (drain, embankment walls, sandstone retaining walls, rocky outcrop, steps), Be*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	546m	South West
I71	House, 45 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	547m	South West
I0158	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	547m	East
I1097	'Morville'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	549m	South East
I0157	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	553m	East
I0156	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	556m	East
I0155	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	559m	East
I0154	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	562m	East
I0153	Shop	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	565m	East
I1113	'Illaroo'	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	566m	South East
I1112	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	567m	South
I0173	Crows Nest Fire Station	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	576m	East
I0152	Former National Australia Bank	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	577m	East
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	593m	South East
I0150	Former North Shore Gas Co office	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	606m	South East
I0151	Bank	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	607m	East
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	609m	South
I39	House, 5 Coolabah Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	609m	West
I117	House, 92 River Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	610m	West
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	610m	East
I0172	Willoughby House, former OJ Williams store	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	618m	East
I56	House, 1 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	625m	South West
I0182	Northside Baptist Church	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	640m	East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I55	House, 3 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	30/08/2013	30/08/2013	15/12/2017	647m	South West
I52	House, 19 Glenview Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	650m	South West
I1088	Astley Bank	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	651m	South East
I0181	Crows Nest Hotel	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	655m	East
I61	House, 5 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	30/08/2013	30/08/2013	15/12/2017	658m	South West
I1120	'Tullamore'	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	664m	South West
I14	House, 14 Bellevue Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	665m	West
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	665m	East
I53	House, 21 Glenview Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	668m	South West
I57	Banksia, 7 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	668m	South West
CA25	Wollstonecraft	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	674m	South
I1118	'The Briars'	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	674m	South
I58	Ione, 9 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	679m	South West
I13	House, 8 Bellevue Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	688m	West
I0146	Crows Nest Performing Arts Centre	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	688m	East
I59	Rockleigh, 11 Gore Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	689m	South West
I0147	Uniting Church hall	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	706m	East
I16	House, 2 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	707m	South West
I17	Tewhare, 5 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	710m	South West
I29	House, 2 Chisholm Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	715m	South West
CA07	Holtermann Estate A	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	716m	East
I0148	Uniting Church parsonage	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	717m	East
I18	Marathon, 7 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	723m	South West
I19	Greenwich Uniting Church, 9 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	737m	South West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I65	Streetscape elements (sandstone gutters, steps, outcrops and kerbing), Greenwich Road, Bay Street a*	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	749m	South West
I1119	House	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	755m	South
I118	Pallister, 95 River Road	Item - General	State	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	756m	West
I20	House, 12 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	761m	South West
I1111	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	761m	South
I21	House, 13 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	764m	South West
I1117	House	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	768m	South
I0139	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	784m	East
I72	House, 70 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	789m	South West
I156	Converted Naremburn Public School and Resources Centre	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	795m	North East
CA08	Holtermann Estate B	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	796m	East
I73	Greenwich Infants School, 72A Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	798m	South West
I1108	Carpenter House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	800m	South
CA09	Holtermann Estate C	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	801m	East
I1122	Wollstonecraft foreshore reserves	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	803m	South West
I0144	Former hall	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	807m	East
I1110	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	833m	South
I149	Former stables	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	846m	North West
I1116	Former Mater Misericordiae Maternity Hospital	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	846m	South East
I1105	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	857m	South East
I154	House (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	859m	North
I1087	Mater Hospital, RMOs, residence	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	862m	South East
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	862m	South East

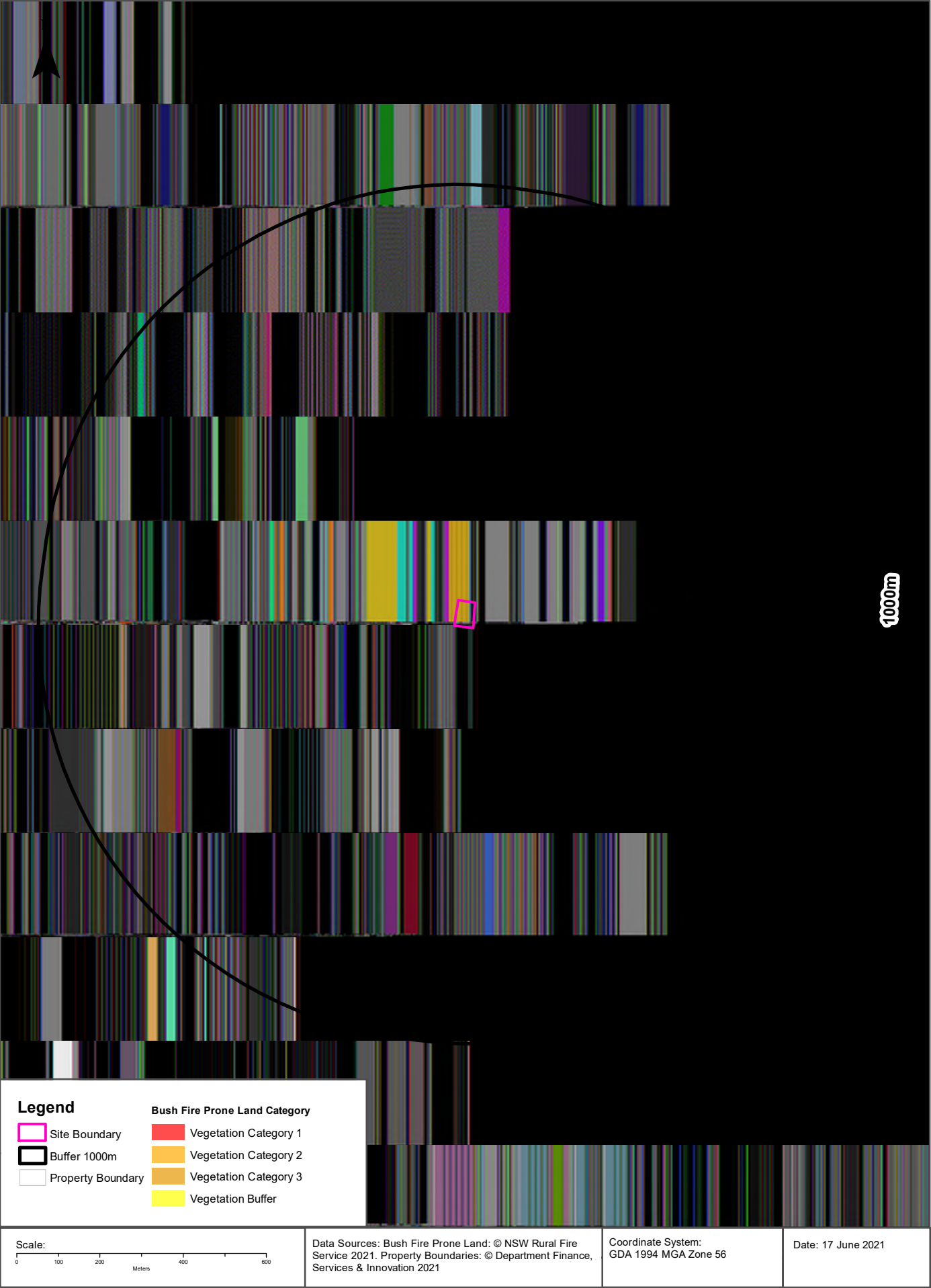
Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I173	House (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	864m	North East
I0142	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	870m	East
I1104	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	872m	South East
I0165	North Sydney Girls' High School	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	880m	South East
I156	Converted Naremburn Public School and Resources Centre	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	882m	North East
I22	House, 32 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	885m	South West
I7	Footings of the former transmission tower	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	886m	North West
I1103	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	888m	South East
I1109	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	895m	South
I1102	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	903m	South East
I1092	Gas works (including boiler house, exhaustor house, carburettor building, chimney and wharfs)	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	908m	South
I134	Mandalay, 2/4 Ulonga Avenue	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	916m	North West
I1101	House	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	918m	South East
I0140	Barn, outbuilding at rear	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	921m	East
I60	Sandstone swimming pool (associated with Pallister, 95 River Road), 51 Gore Street	Item - General	State	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	922m	West
I160	St Leonards Church (including original interiors)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	923m	North East
I6	Gateway entry pylons	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	928m	North West
I1092	Gas works (including boiler house, exhaustor house, carburettor building, chimney and wharfs)	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	929m	South
I1121	Brennan Park	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	940m	South East
I1122	Wollstonecraft foreshore reserves	Item - Landscape	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	949m	South
I0143	Former Church of Christ	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	949m	East



Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I1090	Kyneton Apartments	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	950m	South
I6	Gateway entry pylons	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	951m	North West
I0407	North Sydney bus shelters	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	957m	South East
I24	House, 50 Carlotta Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	976m	South West
I94	House, 36 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	982m	South West
CA23	Crows Nest Road	Conservation Area - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	984m	South East
I77	House, 111 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	989m	South West
I0958	Bradfield TAFE College	Item - General	Local	North Sydney Local Environmental Plan 2013	02/08/2013	13/09/2013	01/05/2020	990m	South East
I8	Communications tower (excluding all ancillary buildings and structures and tower attachments)	Item - General	Local	Willoughby Local Environmental Plan 2012	21/12/2012	31/01/2013	06/11/2020	992m	North West
I78	House, 113 Greenwich Road	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	995m	South West
I95	House, 38 King William Street	Item - General	Local	Lane Cove Local Environmental Plan 2009	19/02/2010	19/02/2010	15/12/2017	996m	South West

Heritage Data Source: NSW Crown Copyright - Planning & Environment

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## Natural Hazards

13-19 Canberra Avenue, St Leonards, NSW 2065

### Bush Fire Prone Land

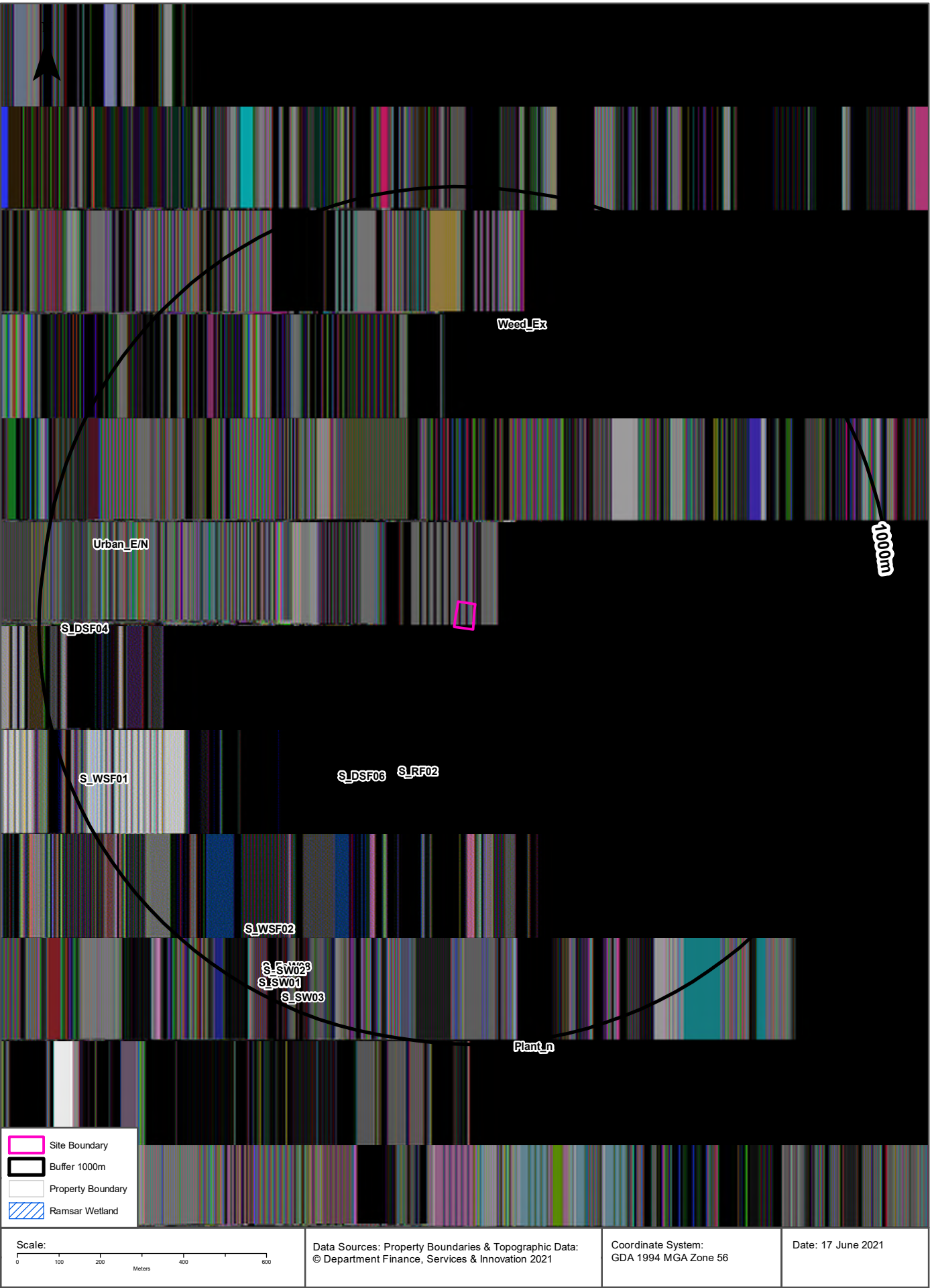
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	285m	South West
Vegetation Category 2	315m	South West

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

# Ecological Constraints - Vegetation & Ramsar Wetlands

13-19 Canberra Avenue, St Leonards, NSW 2065



# Ecological Constraints

13-19 Canberra Avenue, St Leonards, NSW 2065

## Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Map Unit Name	Threatened Ecological Community NSW	Threatened Ecological Community EPBC Act	Understorey	Disturbance	Disturbance Index	Dominant Species	Dist	Dir
Urban_E/N	Urban_E/N: Urban Exotic/Native			00: Not assessed	00: Not assessed	0: Not assessed	Urban Exotic/Native	0m	On-site
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	3: High	E.piperita/A.costa taE.pilularis	307m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	2: Moderate	E.piperita/A.costa taE.pilularis	312m	South West
S_RF02	S_RF02: Coastal Sandstone Gallery Rainforest			10: Mesic/rainfore st	13: Weeds	3: High	C.apetalum/T.lau rina/C.serratifolia	337m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	2: Moderate	E.pilularis/A.cost ata/C.gummifera E.resinifera	361m	South
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	19: Clearing/Part clearing	4: Very high	E.piperita/A.costa taE.pilularis	508m	South West
Weed_Ex	Weed_Ex: Weeds and Exotics			00: Not assessed	00: Not assessed	0: Not assessed	Exotic Species >90%cover	533m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	3: High	E.pilularis/A.cost ata/C.gummifera E.resinifera	616m	South West
S_WSF02	S_WSF02: Coastal Enriched Sandstone Moist Forest			17: Pittosporum dominant	13: Weeds	3: High	E.piperita/A.costa taE.pilularis	750m	South West
S_DSF04	S_DSF04: Coastal Enriched Sandstone Dry Forest			21: Ferns dominant	20: Previously cleared 1943	3: High	E.pilularis/A.cost ata/C.gummifera E.resinifera	757m	West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	3: High	B.integrifolia/F.ru biginosa/Kunzea spp.eucalypts	814m	South West
S_DSF04	S_DSF04: Coastal Enriched Sandstone Dry Forest			24: Urban and hard surface	24: Urban mixed use	4: Very high	E.pilularis/A.cost ata/C.gummifera E.resinifera	825m	West
S_WSF01	S_WSF01: Blue Gum High Forest	Blue Gum High Forest		10: Mesic/rainfore st	20: Previously cleared 1943	3: High	E.saligna/S.glom uliferaE.pilularis	844m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	15: Regrowth	3: High	E.piperita/A.costa taE.pilularis	885m	South
S_FoW08	S_FoW08: Estuarine Swamp Oak Forest	Swamp Oak Floodplain Forest		12: Dry xeric shrubs	99: No visible disturbance	5: No visible disturbance	C.glauca	908m	South West
S_SW02	S_SW02: Estuarine Saltmarsh	Coastal Saltmarsh	Subtropical and Temperate Coastal Saltmarsh (possible)	00: Not assessed	00: Not assessed	0: Not assessed	S.repens/S.quinq ueflora/S.virginic usJ.krausii	913m	South West
S_SW01	S_SW01: Estuarine Mangrove Forest			00: Not assessed	00: Not assessed	0: Not assessed	Mangroves	922m	South West
S_DSF06	S_DSF06: Coastal Sandstone Foreshores Forest			17: Pittosporum dominant	13: Weeds	1: Low	E.pilularis/A.cost ata/C.gummifera E.resinifera	939m	West
S_SW03	S_SW03: Seagrass Meadows			00: Not assessed	00: Not assessed	0: Not assessed	Seagrass (DPI)	989m	South West
Plant_n	Plant_n: Plantation (native and/or exotic)			00: Not assessed	00: Not assessed	0: Not assessed	Native or Exotic Plantations	996m	South



Map ID	Map Unit Name	Threatened Ecological Community NSW	Threatened Ecological Community EPBC Act	Understorey	Disturbance	Disturbance Index	Dominant Species	Dist	Dir
S_WSF01	S_WSF01: Blue Gum High Forest	Blue Gum High Forest		24: Urban and hard surface	24: Urban mixed use	4: Very high	E.saligna/S.glomuliferaE.pilularis	996m	North West

Native Vegetation of the Sydney Metropolitan Area : NSW Office of Environment and Heritage  
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## Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Agriculture, Water and the Environment

## Ecological Constraints

13-19 Canberra Avenue, St Leonards, NSW 2065

### Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology  
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## Ecological Constraints

13-19 Canberra Avenue, St Leonards, NSW 2065

### Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology  
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## Ecological Constraints

13-19 Canberra Avenue, St Leonards, NSW 2065

### NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Anous stolidus	Common Noddy	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna carneipes	Flesh-footed Shearwater	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Ardenna grisea	Sooty Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna pacifica	Wedge-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Arenaria interpres	Ruddy Turnstone	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Listed	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Endangered	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Endangered Population, Vulnerable	Category 3	Not Listed	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calyptorhynchus banksii banksii	Red-tailed Black-Cockatoo (coastal subspecies)	Critically Endangered	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Certhionyx variegatus	Pied Honeyeater	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Diomedea exulans	Wandering Albatross	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Epthianura albigrons	White-fronted Chat	Endangered Population, Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Erythroriorchis radiatus	Red Goshawk	Critically Endangered	Category 2	Vulnerable	
Animalia	Aves	Esacus magnirostris	Beach Stone-curlew	Critically Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Eudyptula minor	Little Penguin	Endangered Population	Not Sensitive	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus fuliginosus	Sooty Oystercatcher	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Macronectes giganteus	Southern Giant Petrel	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Manorina melanotis	Black-eared Miner	Critically Endangered	Not Sensitive	Endangered	
Animalia	Aves	Menura alberti	Albert's Lyrebird	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Nettapus coromandelianus	Cotton Pygmy-Goose	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Listed	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pachycephala olivacea	Olive Whistler	Vulnerable	Not Sensitive	Not Listed	



Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Phaethon lepturus	White-tailed Tropicbird	Not Listed	Not Sensitive	Not Listed	CAMBA; JAMBA
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Polytelis anthopeplus monarchoides	Regent Parrot (eastern subspecies)	Endangered	Category 3	Vulnerable	
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Pterodroma leucoptera leucoptera	Gould's Petrel	Vulnerable	Not Sensitive	Endangered	
Animalia	Aves	Pterodroma solandri	Providence Petrel	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus superbus	Superb Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stagonopleura guttata	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stercorarius longicaudus	Long-tailed Jaeger	Not Listed	Not Sensitive	Not Listed	CAMBA; JAMBA
Animalia	Aves	Stercorarius parasiticus	Arctic Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Stercorarius pomarinus	Pomarine Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Sternula albifrons	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Sula dactylatra	Masked Booby	Vulnerable	Not Sensitive	Not Listed	ROKAMBA; JAMBA
Animalia	Aves	Thalassarche chrysostoma	Grey-headed Albatross	Not Listed	Not Sensitive	Endangered	
Animalia	Aves	Thalassarche melanophris	Black-browed Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa brevipes	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Tringa incana	Wandering Tattler	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Insecta	Petalura gigantea	Giant Dragonfly	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	Aepyprymnus rufescens	Rufous Bettong	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Arctocephalus forsteri	New Zealand Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Arctocephalus pusillus doriferus	Australian Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Dasyurus viverrinus	Eastern Quoll	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Eubalaena australis	Southern Right Whale	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Isodon obesulus obesulus	Southern Brown Bandicoot (eastern)	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Megaptera novaeangliae	Humpback Whale	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Perameles nasuta	Long-nosed Bandicoot	Endangered Population	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Greater Glider	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascogale carolinensis	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pseudomys gracilicaudatus	Eastern Chestnut Mouse	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Pseudomys novaehollandiae	New Holland Mouse	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Vespadelus trossus	Eastern Cave Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aspiderhina ramsayi	Woma	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Dermochelys coriacea	Leatherback Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Eretmochelys imbricata	Hawksbill Turtle	Not Listed	Not Sensitive	Vulnerable	
Animalia	Reptilia	Myuchelys bellii	Western Sawshelled Turtle, Bell's Turtle	Endangered	Not Sensitive	Vulnerable	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Varanus rosenbergi	Rosenberg's Goanna	Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Camarophyllopsis kearneyi		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe anomala var. ianthinomarginata		Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Fungi	Flora	Hygrocybe aurantipes		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe austropratensis		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe collucera		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe griseoramosa		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe lanecovensensis		Endangered	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe reesia		Vulnerable	Not Sensitive	Not Listed	
Fungi	Flora	Hygrocybe rubronivea		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia gordonii		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Acacia terminalis subsp. Eastern Sydney	Sunshine wattle	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Allocasuarina portuensis	Nielsen Park She-oak	Endangered	Category 3	Endangered	
Plantae	Flora	Amperea xiphoclada var. pedicellata		Presumed Extinct	Not Sensitive	Extinct	
Plantae	Flora	Asterolasia buxifolia		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Baeckea kandos		Endangered	Category 3	Endangered	
Plantae	Flora	Caladenia tessellata	Thick Lip Spider Orchid	Endangered	Category 2	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Vulnerable	Category 3	Not Listed	
Plantae	Flora	Chamaesyce psammogeton	Sand Spurge	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Darwinia biflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Deyeuxia appressa		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Dichanthium setosum	Bluegrass	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Doryanthes palmeri	Giant Spear Lily	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Epacris purpurascens var. purpurascens		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus fracta	Broken Back Ironbark	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus pulverulenta	Silver-leafed Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Euphrasia collina subsp. muelleri	Mueller's Eyebright	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Genoplesium baueri	Bauer's Midge Orchid	Endangered	Category 2	Endangered	
Plantae	Flora	Grammitis stenophylla	Narrow-leaf Finger Fern	Endangered	Category 3	Not Listed	
Plantae	Flora	Grevillea caleyi	Caley's Grevillea	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Grevillea hilliana	White Yiel Yiel	Endangered	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Haloragodendron lucasii		Endangered	Not Sensitive	Endangered	
Plantae	Flora	Hibbertia puberula		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Hibbertia spanantha	Julian's Hibbertia	Critically Endangered	Category 2	Critically Endangered	
Plantae	Flora	Hibbertia superans		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Not Listed	Not Sensitive	Extinct	
Plantae	Flora	Lasiopetalum joyceae		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Leptospermum deanei		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca biconvexa	Biconvex Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Microtis angusii	Angus's Onion Orchid	Endangered	Category 2	Endangered	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Persoonia laxa		Presumed Extinct	Not Sensitive	Extinct	
Plantae	Flora	Pimelea curviflora var. curviflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Prasophyllum fuscum	Slaty Leek Orchid	Critically Endangered	Category 2	Vulnerable	
Plantae	Flora	Prostanthera marifolia	Seaforth Mintbush	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Critically Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Sarcophilus hartmannii	Hartman's Sarcophilus	Vulnerable	Category 2	Vulnerable	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Tetratheca glandulosa		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Tetratheca juncea	Black-eyed Susan	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Thesium australe	Austral Toadflax	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Triplarina imbricata	Creek Triplarina	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Wilsonia backhousei	Narrow-leafed Wilsonia	Vulnerable	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.

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## Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider



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Our Ref: D21/105810

12 October 2021

Mr Tony Morkos  
EI Australia  
[Tony.morkos@eiaustralia.com.au](mailto:Tony.morkos@eiaustralia.com.au)

Dear Mr Morkos

**RE SITE: 13-19 Canberra Ave St Leonards NSW 2065**

I refer to your site search request received by SafeWork NSW requesting information on Storage of Hazardous Chemicals for the above site.

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

For further information or if you have any questions, please call us on 13 10 50 or email [licensing@safework.nsw.gov.au](mailto:licensing@safework.nsw.gov.au)

Yours sincerely



Gabriela Draper

Licensing Representative  
Licensing and Funds, Better Regulation  
SafeWork NSW

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## Appendix G – Laboratory COC Certificate, Analytical Reports, Data Quality Objectives

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## SAMPLE RECEIPT ADVICE

SE221566

### CLIENT DETAILS

Contact Li Wei  
Client EIAUSTRALIA  
Address SUITE 6.01  
55 MILLER STREET  
PYRMONT NSW 2009  
  
Telephone 61 2 95160722  
Facsimile (Not specified)  
Email li.wei@eiaustralia.com.au  
  
Project **E25217 13-19 Canberra Avenue, St Leonard**  
Order Number **E25217**  
Samples 1

### LABORATORY DETAILS

Manager Huong Crawford  
Laboratory SGS Alexandria Environmental  
Address Unit 16, 33 Maddox St  
Alexandria NSW 2015  
  
Telephone +61 2 8594 0400  
Facsimile +61 2 8594 0499  
Email au.environmental.sydney@sgs.com  
  
Samples Received Fri 9/7/2021  
Report Due Fri 16/7/2021  
SGS Reference **SE221566**

### SUBMISSION DETAILS

This is to confirm that 1 sample was received on Friday 9/7/2021. Results are expected to be ready by COB Friday 16/7/2021. Please quote SGS reference SE221566 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	1 Water
Date documentation received	9/7/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	12°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

### COMMENTS

This document is issued by the Company under its General Conditions of Service accessible at [www.sgs.com/en/Terms-and-Conditions.aspx](http://www.sgs.com/en/Terms-and-Conditions.aspx). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



## SAMPLE RECEIPT ADVICE

SE221566

### CLIENT DETAILS

Client **EI AUSTRALIA**

Project **E25217 13-19 Canberra Avenue, St Leonard**

### SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	BH01	1	22	7	9	78	7

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.  
The numbers shown in the table indicate the number of results requested in each package.  
Please indicate as soon as possible should your request differ from these details .  
Testing as per this table shall commence immediately unless the client intervenes with a correction .



## SAMPLE RECEIPT ADVICE

SE221566A

### CLIENT DETAILS

Contact Li Wei  
Client EIAUSTRALIA  
Address SUITE 6.01  
55 MILLER STREET  
PYRMONT NSW 2009  
  
Telephone 61 2 95160722  
Facsimile (Not specified)  
Email li.wei@eiaustralia.com.au  
  
Project **E25217 13-19 Canberra Avenue, St Leonard**  
Order Number **E25217**  
Samples 1

### LABORATORY DETAILS

Manager Huong Crawford  
Laboratory SGS Alexandria Environmental  
Address Unit 16, 33 Maddox St  
Alexandria NSW 2015  
  
Telephone +61 2 8594 0400  
Facsimile +61 2 8594 0499  
Email au.environmental.sydney@sgs.com  
  
Samples Received Mon 19/7/2021  
Report Due Mon 26/7/2021  
SGS Reference **SE221566A**

### SUBMISSION DETAILS

This is to confirm that 1 sample was received on Monday 19/7/2021. Results are expected to be ready by COB Monday 26/7/2021. Please quote SGS reference SE221566A when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provided	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	1 Water
Date documentation received	19/7/2021@2:51pm	Type of documentation received	Email
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	12°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

### COMMENTS

This document is issued by the Company under its General Conditions of Service accessible at [www.sgs.com/en/Terms-and-Conditions.aspx](http://www.sgs.com/en/Terms-and-Conditions.aspx). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Yin, Emily (Sydney)

**From:** Nikolce Aleksieski - EIAustralia <nikolce.aleksieski@eiaustralia.com.au>  
**Sent:** Monday, 19 July 2021 2:51 PM  
**To:** AU.SampleReceipt.Sydney (Sydney); AU.Environmental.Sydney (Sydney)  
**Cc:** Li Wei - EIAustralia  
**Subject:** [EXTERNAL] RE: Report Job SE221566, your reference E25217 13-19 Canberra Avenue, St Leonard, order number E25217

\*\*\* WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. \*\*\*

Hi SGS,

Could you please run TRH silica gel clean up on the one water sample?

Thanks

Kind Regards

Nikolce Aleksieski  
Environmental Scientist  
Occupational Hygienist  
B. Sc. (Geology and Geophysics)  
M. Sc. (Environmental and Sustainability)  
SafeWork NSW Licensed Asbestos Assessor

T (02) 9516 0722  
E [nikolce.aleksieski@eiaustralia.com.au](mailto:nikolce.aleksieski@eiaustralia.com.au)

Suite 6.01, 55 Miller Street  
Pyrmont, NSW 2009

[www.eiaustralia.com.au](http://www.eiaustralia.com.au)

**Environmental | Geotechnical | Structural | Civil | Hazardous Materials**



SGS EHS Alexandria Laboratory



**SE221566A COC**

Received: 19-Jul-2021

FINANCIAL REVIEW

**CLIENT  
CHOICE  
AWARDS  
2019**

**WINNER**

Independently assessed by  
**beaton**

EI Australia is a proud member of the Australian Contaminated Land Consultants Association and the Australian Geomechanics Society.

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Please consider the environment before printing this email.

**From:** AU.SampleReceipt.Sydney@SGS.com [mailto:AU.SampleReceipt.Sydney@SGS.com]  
**Sent:** Thursday, 15 July 2021 5:07 PM  
**To:** Laboratory Results - EIAustralia; Li Wei - EIAustralia  
**Subject:** Report Job SE221566, your reference E25217 13-19 Canberra Avenue, St Leonard, order number E25217

Dear Valued Customer,

Please find attached the report for SGS job SE221566, your reference E25217 13-19 Canberra Avenue, St Leonard, order number E25217.



## SAMPLE RECEIPT ADVICE

SE221566A

### CLIENT DETAILS

Client **EI AUSTRALIA**

Project **E25217 13-19 Canberra Avenue, St Leonard**

### SUMMARY OF ANALYSIS

No.	Sample ID	TRH Silica Gel (Total Recoverable)
001	BH01	9

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.  
The numbers shown in the table indicate the number of results requested in each package.  
Please indicate as soon as possible should your request differ from these details .  
Testing as per this table shall commence immediately unless the client intervenes with a correction .





## STATEMENT OF QA/QC PERFORMANCE

SE221566 R0

### CLIENT DETAILS

Contact Li Wei  
Client EI AUSTRALIA  
Address SUITE 6.01  
55 MILLER STREET  
PYRMONT NSW 2009  
  
Telephone 61 2 95160722  
Facsimile (Not specified)  
Email li.wei@eiaustralia.com.au  
  
Project **E25217 13-19 Canberra Avenue, St Leonard**  
Order Number **E25217**  
Samples 1

### LABORATORY DETAILS

Manager Huong Crawford  
Laboratory SGS Alexandria Environmental  
Address Unit 16, 33 Maddox St  
Alexandria NSW 2015  
  
Telephone +61 2 8594 0400  
Facsimile +61 2 8594 0499  
Email au.environmental.sydney@sgs.com  
  
SGS Reference **SE221566 R0**  
Date Received 09 Jul 2021  
Date Reported 15 Jul 2021

### COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Matrix Spike

TRH (Total Recoverable Hydrocarbons) in Water

4 items

### SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	1 Water
Date documentation received	9/7/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	12°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		



## HOLDING TIME SUMMARY

SE221566 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

### Mercury (dissolved) in Water

Method: ME-(AU)-ENV/AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH01	SE221566.001	LB228708	09 Jul 2021	09 Jul 2021	06 Aug 2021	12 Jul 2021	06 Aug 2021	12 Jul 2021

### PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-ENV/AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH01	SE221566.001	LB228709	09 Jul 2021	09 Jul 2021	16 Jul 2021	12 Jul 2021	21 Aug 2021	15 Jul 2021

### Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-ENV/AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH01	SE221566.001	LB228681	09 Jul 2021	09 Jul 2021	05 Jan 2022	09 Jul 2021	05 Jan 2022	12 Jul 2021

### TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-ENV/AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH01	SE221566.001	LB228709	09 Jul 2021	09 Jul 2021	16 Jul 2021	12 Jul 2021	21 Aug 2021	15 Jul 2021

### VOCs in Water

Method: ME-(AU)-ENV/AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH01	SE221566.001	LB228850	09 Jul 2021	09 Jul 2021	16 Jul 2021	13 Jul 2021	22 Aug 2021	14 Jul 2021

### Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENV/AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH01	SE221566.001	LB228850	09 Jul 2021	09 Jul 2021	16 Jul 2021	13 Jul 2021	22 Aug 2021	14 Jul 2021

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN120

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH01	SE221566.001	%	40 - 130%	64
d14-p-terphenyl (Surrogate)	BH01	SE221566.001	%	40 - 130%	82
d5-nitrobenzene (Surrogate)	BH01	SE221566.001	%	40 - 130%	53

## VOCs in Water

Method: ME-(AU)-[ENV]AN133

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH01	SE221566.001	%	40 - 130%	94
d4-1,2-dichloroethane (Surrogate)	BH01	SE221566.001	%	40 - 130%	96
d8-toluene (Surrogate)	BH01	SE221566.001	%	40 - 130%	95

## Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN133

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH01	SE221566.001	%	40 - 130%	94
d4-1,2-dichloroethane (Surrogate)	BH01	SE221566.001	%	60 - 130%	96
d8-toluene (Surrogate)	BH01	SE221566.001	%	40 - 130%	95

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

## Mercury (dissolved) in Water

Method: ME-(AU)-ENV/JAN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB228708.001	Mercury	mg/L	0.0001	<0.0001

## PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-ENV/JAN420

Sample Number	Parameter	Units	LOR	Result
LB228709.001	Naphthalene	µg/L	0.1	<0.1
	2-methylnaphthalene	µg/L	0.1	<0.1
	1-methylnaphthalene	µg/L	0.1	<0.1
	Acenaphthylene	µg/L	0.1	<0.1
	Acenaphthene	µg/L	0.1	<0.1
	Fluorene	µg/L	0.1	<0.1
	Phenanthrene	µg/L	0.1	<0.1
	Anthracene	µg/L	0.1	<0.1
	Fluoranthene	µg/L	0.1	<0.1
	Pyrene	µg/L	0.1	<0.1
	Benzo(a)anthracene	µg/L	0.1	<0.1
	Chrysene	µg/L	0.1	<0.1
	Benzo(a)pyrene	µg/L	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1
	Dibenzo(ah)anthracene	µg/L	0.1	<0.1
	Benzo(ghi)perylene	µg/L	0.1	<0.1
Surrogates	d5-nitrobenzene (Surrogate)	%	-	59
	2-fluorobiphenyl (Surrogate)	%	-	70
	d14-p-terphenyl (Surrogate)	%	-	103

## Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-ENV/JAN313

Sample Number	Parameter	Units	LOR	Result
LB228681.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

## TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-ENV/JAN403

Sample Number	Parameter	Units	LOR	Result
LB228709.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

## VOCs in Water

Method: ME-(AU)-ENV/JAN433

Sample Number		Parameter	Units	LOR	Result
LB228850.001	Fumigants	2,2-dichloropropane	µg/L	0.5	<0.5
		1,2-dichloropropane	µg/L	0.5	<0.5
		cis-1,3-dichloropropene	µg/L	0.5	<0.5
		trans-1,3-dichloropropene	µg/L	0.5	<0.5
		1,2-dibromoethane (EDB)	µg/L	0.5	<0.5
	Halogenated Aliphatics	Dichlorodifluoromethane (CFC-12)	µg/L	5	<5
		Chloromethane	µg/L	5	<5
		Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3
		Bromomethane	µg/L	10	<10
		Chloroethane	µg/L	5	<5
		Trichlorofluoromethane	µg/L	1	<1
		Iodomethane	µg/L	5	<5
		1,1-dichloroethene	µg/L	0.5	<0.5
		Dichloromethane (Methylene chloride)	µg/L	5	<5
		Allyl chloride	µg/L	2	<2
		trans-1,2-dichloroethene	µg/L	0.5	<0.5
		1,1-dichloroethane	µg/L	0.5	<0.5
		cis-1,2-dichloroethene	uo/L	0.5	<0.5

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN133

Sample Number		Parameter	Units	LOR	Result
LB228850.001	Halogenated Aliphatics	Bromochloromethane	µg/L	0.5	<0.5
		1,2-dichloroethane	µg/L	0.5	<0.5
		1,1,1-trichloroethane	µg/L	0.5	<0.5
		1,1-dichloropropene	µg/L	0.5	<0.5
		Carbon tetrachloride	µg/L	0.5	<0.5
		Dibromomethane	µg/L	0.5	<0.5
		Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5
		1,1,2-trichloroethane	µg/L	0.5	<0.5
		1,3-dichloropropane	µg/L	0.5	<0.5
		Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5
		1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5
		cis-1,4-dichloro-2-butene	µg/L	1	<1
		1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5
		1,2,3-trichloropropane	µg/L	0.5	<0.5
		trans-1,4-dichloro-2-butene	µg/L	1	<1
		1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5
		Hexachlorobutadiene	µg/L	0.5	<0.5
	Halogenated Aromatics	Chlorobenzene	µg/L	0.5	<0.5
		Bromobenzene	µg/L	0.5	<0.5
		2-chlorotoluene	µg/L	0.5	<0.5
		4-chlorotoluene	µg/L	0.5	<0.5
		1,3-dichlorobenzene	µg/L	0.5	<0.5
		1,4-dichlorobenzene	µg/L	0.3	<0.3
		1,2-dichlorobenzene	µg/L	0.5	<0.5
		1,2,4-trichlorobenzene	µg/L	0.5	<0.5
	Monocyclic Aromatic Hydrocarbons	1,2,3-trichlorobenzene	µg/L	0.5	<0.5
		Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
		Styrene (Vinyl benzene)	µg/L	0.5	<0.5
		Isopropylbenzene (Cumene)	µg/L	0.5	<0.5
		n-propylbenzene	µg/L	0.5	<0.5
		1,3,5-trimethylbenzene	µg/L	0.5	<0.5
		tert-butylbenzene	µg/L	0.5	<0.5
		1,2,4-trimethylbenzene	µg/L	0.5	<0.5
		sec-butylbenzene	µg/L	0.5	<0.5
		p-isopropyltoluene	µg/L	0.5	<0.5
		n-butylbenzene	µg/L	0.5	<0.5
	Nitrogenous Compounds	Acrylonitrile	µg/L	0.5	<0.5
	Oxygenated Compounds	Acetone (2-propanone)	µg/L	10	<10
		MtBE (Methyl-tert-butyl ether)	µg/L	2	<1
		Vinyl acetate	µg/L	10	<10
		MEK (2-butanone)	µg/L	10	<10
		MIBK (4-methyl-2-pentanone)	µg/L	5	<5
		2-hexanone (MBK)	µg/L	5	<5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Sulphonated	Carbon disulfide	µg/L	2	<2
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	124
		d8-toluene (Surrogate)	%	-	104
		Bromofluorobenzene (Surrogate)	%	-	98
	Trihalomethanes	Chloroform (THM)	µg/L	0.5	<0.5
		Bromodichloromethane (THM)	µg/L	0.5	<0.5
		Dibromochloromethane (THM)	µg/L	0.5	<0.5
		Bromoform (THM)	µg/L	0.5	<0.5

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN133

Sample Number	Parameter	Units	LOR
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METHOD BLANKS

SE221566 R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Volatile Petroleum Hydrocarbons in Water (continued)

Method: ME-(AU)-ENV|AN133

Sample Number	Parameter	Units	LOR	Result
LB228850.001	TRH C6-C9	µg/L	40	<40
	Surrogates			
	d4-1,2-dichloroethane (Surrogate)	%	-	124
	d8-toluene (Surrogate)	%	-	104
	Bromofluorobenzene (Surrogate)	%	-	98

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

## Mercury (dissolved) in Water

Method: ME-(AU)-JENVJAN311(PertH)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE221570.009	LB228708.027	Mercury	µg/L	0.0001	<0.0001	<0.0001	167	0

## PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-JENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE221546.001	LB228709.028	Naphthalene	µg/L	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
		Acenaphthylene	µg/L	0.1	<0.1	<0.1	200	0
		Acenaphthene	µg/L	0.1	<0.1	<0.1	200	0
		Fluorene	µg/L	0.1	<0.1	<0.1	200	0
		Phenanthrene	µg/L	0.1	<0.1	<0.1	200	0
		Anthracene	µg/L	0.1	<0.1	<0.1	200	0
		Fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
		Pyrene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	200	0
		Chrysene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	200	0
		Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	200	0
		Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	200	0
		Surrogates						
		d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.3	30	18
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.3	30	5
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.4	30	9

## Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-JENVJAN313

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE221566.001	LB228681.009	Arsenic, As	µg/L	1	<1	<1	200	0
		Cadmium, Cd	µg/L	0.1	<0.1	<0.1	183	0
		Chromium, Cr	µg/L	1	<1	<1	148	0
		Copper, Cu	µg/L	1	<1	<1	200	0
		Lead, Pb	µg/L	1	2	<1	89	80
		Nickel, Ni	µg/L	1	16	16	21	1
		Zinc, Zn	µg/L	5	53	50	25	6

## TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-JENVJAN403

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE221546.001	LB228709.028	TRH C10-C14	µg/L	50	<50	<50	200	0
		TRH C15-C28	µg/L	200	<200	<200	200	0
		TRH C29-C36	µg/L	200	<200	<200	200	0
		TRH C37-C40	µg/L	200	<200	<200	200	0
		TRH C10-C40	µg/L	320	<320	<320	200	0
		TRH F Bands						
		TRH >C10-C16	µg/L	60	<60	<60	200	0
		TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
		TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
		TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

## VOCs in Water

Method: ME-(AU)-JENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE221559.024	LB228850.026	Monocyclic Aromatic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	12.5	9.4	30	28
			d8-toluene (Surrogate)	µg/L	-	9.9	9.6	30	3
			Bromofluorobenzene (Surrogate)	µg/L	-	9.9	9.2	30	7

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENV/JAN133

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE221559.024	LB228850.026	TRH C6-C10	µg/L	50	<50	<50	200	0
		TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates						
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	12.5	9.4	30	28
		d8-toluene (Surrogate)	µg/L	-	9.9	9.6	30	3
		Bromofluorobenzene (Surrogate)	µg/L	-	9.9	9.2	30	7
		VPH F Bands						
SE221601.001	LB228850.027	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
		TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
		TRH C6-C10	µg/L	50	<50	<50	200	0
		TRH C6-C9	µg/L	40	<50	<40	200	0
		Surrogates						
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	11.9	9.7	30	21
		d8-toluene (Surrogate)	µg/L	-	11.2	9.9	30	13
		Bromofluorobenzene (Surrogate)	µg/L	-	10.6	9.9	30	7
		VPH F Bands						
		Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
		TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

## PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-[ENV]JAN120

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB228709.002	Naphthalene	µg/L	0.1	27	40	60 - 140	67
	Acenaphthylene	µg/L	0.1	28	40	60 - 140	71
	Acenaphthene	µg/L	0.1	31	40	60 - 140	78
	Phenanthrene	µg/L	0.1	30	40	60 - 140	74
	Anthracene	µg/L	0.1	30	40	60 - 140	74
	Fluoranthene	µg/L	0.1	32	40	60 - 140	80
	Pyrene	µg/L	0.1	31	40	60 - 140	78
	Benzo(a)pyrene	µg/L	0.1	30	40	60 - 140	75
	Surrogates						
	d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.5	40 - 130	64
	2-fluorobiphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	71
	d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	88

## Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]JAN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB228681.002	Arsenic, As	µg/L	1	20	20	80 - 120	99
	Cadmium, Cd	µg/L	0.1	20	20	80 - 120	102
	Chromium, Cr	µg/L	1	19	20	80 - 120	93
	Copper, Cu	µg/L	1	18	20	80 - 120	92
	Lead, Pb	µg/L	1	20	20	80 - 120	101
	Nickel, Ni	µg/L	1	20	20	80 - 120	101
	Zinc, Zn	µg/L	5	21	20	80 - 120	104

## TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]JAN303

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB228709.002	TRH C10-C14	µg/L	50	860	1200	60 - 140	72
	TRH C15-C28	µg/L	200	1000	1200	60 - 140	84
	TRH C29-C36	µg/L	200	1200	1200	60 - 140	99
	TRH F Bands						
	TRH >C10-C16	µg/L	60	920	1200	60 - 140	77
	TRH >C16-C34 (F3)	µg/L	500	1200	1200	60 - 140	101
	TRH >C34-C40 (F4)	µg/L	500	560	600	60 - 140	93

## VOCs in Water

Method: ME-(AU)-[ENV]JAN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB228850.002	Halogenated						
	1,1-dichloroethene	µg/L	0.5	38	45.45	60 - 140	83
	Aliphatics						
	1,2-dichloroethane	µg/L	0.5	44	45.45	60 - 140	96
	Trichloroethene (Trichloroethylene, TCE)	µg/L	0.5	41	45.45	60 - 140	89
	Halogenated						
	Chlorobenzene	µg/L	0.5	48	45.45	60 - 140	106
	Monocyclic						
	Benzene	µg/L	0.5	51	45.45	60 - 140	112
	Aromatic						
	Toluene	µg/L	0.5	48	45.45	60 - 140	106
	Ethylbenzene	µg/L	0.5	50	45.45	60 - 140	110
	m/p-xylene	µg/L	1	98	90.9	60 - 140	107
	o-xylene	µg/L	0.5	49	45.45	60 - 140	107
	Surrogates						
	d4-1,2-dichloroethane (Surrogate)	µg/L	-	7.5	10	60 - 140	75
	d8-toluene (Surrogate)	µg/L	-	8.4	10	70 - 130	84
	Bromofluorobenzene (Surrogate)	µg/L	-	9.1	10	70 - 130	91
	Trihalomethan						
	Chloroform (THM)	µg/L	0.5	52	45.45	60 - 140	114

## Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]JAN433

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB228850.002	TRH C6-C10	µg/L	50	840	946.63	60 - 140	89
	TRH C6-C9	µg/L	40	740	818.71	60 - 140	91
	Surrogates						
	d4-1,2-dichloroethane (Surrogate)	µg/L	-	7.5	10	60 - 140	75
	d8-toluene (Surrogate)	µg/L	-	8.4	10	70 - 130	84
	Bromofluorobenzene (Surrogate)	µg/L	-	9.1	10	70 - 130	91
	VPH F Bands						
	TRH C6-C10 minus BTEX (F1)	µg/L	50	540	639.67	60 - 140	85

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

## Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Pert)AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE221529.001	LB228708.004	Mercury	mg/L	0.0001	0.0019	0.0688	0.008	90

## TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE221545.001	LB228709.029	TRH C10-C14	µg/L	50	14000	12195	1200	171 ☹
		TRH C15-C28	µg/L	200	8400	6546	1200	158 ☹
		TRH C29-C36	µg/L	200	3300	1747	1200	129
		TRH C37-C40	µg/L	200	570	798	-	-
		TRH C10-C40	µg/L	320	27000	21286	-	-
		TRH >C10-C16	µg/L	60	12000	10242	1200	162 ☹
		TRH >C10-C16 - Naphthalene (F2)	µg/L	60	12000	10242	-	-
		TRH >C16-C34 (F3)	µg/L	500	8400	6374	1200	166 ☹
		TRH >C34-C40 (F4)	µg/L	500	1800	1345	600	83

## VOCs in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE221556.001	LB228850.028	Monocyclic Aromatic	Benzene	µg/L	0.5	50	<0.5	45.45	111
			Toluene	µg/L	0.5	51	<0.5	45.45	111
			Ethylbenzene	µg/L	0.5	51	<0.5	45.45	111
			m/p-xylene	µg/L	1	100	<1	90.9	111
			o-xylene	µg/L	0.5	51	<0.5	45.45	111
		Polycyclic	Naphthalene	µg/L	0.5	56	<0.5	-	-
			Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11	14	-
		d8-toluene (Surrogate)		µg/L	-	10	9.6	-	102
		Bromofluorobenzene (Surrogate)		µg/L	-	10	9.6	-	101

## Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE221556.001	LB228850.028	TRH C6-C10	µg/L	50	800	<50	946.63	84	
		TRH C6-C9	µg/L	40	690	<40	818.71	84	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	11	14	-	106
			d8-toluene (Surrogate)	µg/L	-	10	9.6	-	102
			Bromofluorobenzene (Surrogate)	µg/L	-	10	9.6	-	101
		VPH F	Benzene (F0)	µg/L	0.5		<0.5	-	-
			TRH C6-C10 minus BTEX (F1)	µg/L	50	500	<50	639.67	77
		Bands							





## MATRIX SPIKE DUPLICATES

SE221566 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here : [https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022\\_QA\\_QC\\_Plan.pdf](https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022_QA_QC_Plan.pdf)

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* Indicates that both \* and \*\* apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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## STATEMENT OF QA/QC PERFORMANCE

SE221566A R0

### CLIENT DETAILS

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Order Number **E25217**  
Samples 1

### LABORATORY DETAILS

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SGS Reference **SE221566A R0**  
Date Received 19 Jul 2021  
Date Reported 23 Jul 2021

### COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.

This QA/QC Statement must be read in conjunction with the referenced Analytical Report.

The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date	TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water	1 item
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### SAMPLE SUMMARY



# HOLDING TIME SUMMARY

SE221566A R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water						Method: ME-(AU)-ENV/JAN403		
Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH01	SE221566A.001	LB229371	09 Jul 2021	19 Jul 2021	16 Jul 2021	21 Jul 2021†	30 Aug 2021	22 Jul 2021



## SURROGATES

SE221566A R0

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.





METHOD BLANKS

SE221566A R0

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water Method: ME-(AU)-ENV|AN103

Sample Number	Parameter	Units	LOR	Result
LB229371.001	TRH C10-C14-Silica	µg/L	50	<50
	TRH C15-C28-Silica	µg/L	200	<200
	TRH C29-C36-Silica	µg/L	200	<200
	TRH C37-C40-Silica	µg/L	200	<200

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

No duplicates were required for this job.



## LABORATORY CONTROL SAMPLES

SE221566A R0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB229371.002	TRH C10-C14-Silica	µg/L	50	850	1200	60 - 140	71
	TRH C15-C28-Silica	µg/L	200	990	1200	60 - 140	83
	TRH C29-C36-Silica	µg/L	200	1000	1200	60 - 140	84
	TRH >C10-C16-Silica	µg/L	60	910	1200	60 - 140	76
	TRH >C16-C34-Silica	µg/L	500	1100	1200	60 - 140	88
	TRH >C34-C40-Silica	µg/L	500	<500	600	60 - 140	82



## MATRIX SPIKES

SE221566A R0

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.



## MATRIX SPIKE DUPLICATES

SE221566A R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula:  $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here : [https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022\\_QA\\_QC\\_Plan.pdf](https://www.sgs.com.au/~media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022_QA_QC_Plan.pdf)

- \* NATA accreditation does not cover the performance of this service.
- \*\* Indicative data, theoretical holding time exceeded.
- \*\*\* Indicates that both \* and \*\* apply.
- Sample not analysed for this analyte.
- IS Insufficient sample for analysis.
- LNR Sample listed, but not received.
- LOR Limit of reporting.
- QFH QC result is above the upper tolerance.
- QFL QC result is below the lower tolerance.
- ① At least 2 of 3 surrogates are within acceptance criteria.
- ② RPD failed acceptance criteria due to sample heterogeneity.
- ③ Results less than 5 times LOR preclude acceptance criteria for RPD.
- ④ Recovery failed acceptance criteria due to matrix interference.
- ⑤ Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
- ⑥ LOR was raised due to sample matrix interference.
- ⑦ LOR was raised due to dilution of significantly high concentration of analyte in sample.
- ⑧ Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
- ⑨ Recovery failed acceptance criteria due to sample heterogeneity.
- ⑩ LOR was raised due to high conductivity of the sample (required dilution).
- † Refer to relevant report comments for further information.

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This test report shall not be reproduced, except in full.



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**Project** **E25217 13-19 Canberra Avenue, St Leonard**  
**Order Number** **E25217**  
**Samples** 1

## LABORATORY DETAILS

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**Email** au.environmental.sydney@sgs.com  
  
**SGS Reference** **SE221566 R0**  
**Date Received** 9/7/2021  
**Date Reported** 15/7/2021

## COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

## SIGNATORIES



**Dong LIANG**  
 Metals/Inorganics Team Leader



**Kamrul AHSAN**  
 Senior Chemist



**Ly Kim HA**  
 Organic Section Head



**Teresa NGUYEN**  
 Organic Chemist

VOCs in Water [AN433] Tested: 13/7/2021

			BH01
			WATER
			-
			9/7/2021
PARAMETER	UOM	LOR	SE221566.001
Benzene	µg/L	0.5	<0.5
Toluene	µg/L	0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5
m/p-xylene	µg/L	1	<1
o-xylene	µg/L	0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5
Total BTEX	µg/L	3	<3
Naphthalene	µg/L	0.5	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	<5
Chloromethane	µg/L	5	<5
Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3
Bromomethane	µg/L	10	<10
Chloroethane	µg/L	5	<5
Trichlorofluoromethane	µg/L	1	<1
Acetone (2-propanone)	µg/L	10	<10
Iodomethane	µg/L	5	<5
1,1-dichloroethene	µg/L	0.5	<0.5
Acrylonitrile	µg/L	0.5	<0.5
Dichloromethane (Methylene chloride)	µg/L	5	<5
Allyl chloride	µg/L	2	<2
Carbon disulfide	µg/L	2	<2
trans-1,2-dichloroethene	µg/L	0.5	<0.5
MtBE (Methyl-tert-butyl ether)	µg/L	2	<2
1,1-dichloroethane	µg/L	0.5	<0.5
Vinyl acetate	µg/L	10	<10
MEK (2-butanone)	µg/L	10	<10
cis-1,2-dichloroethene	µg/L	0.5	<0.5
Bromochloromethane	µg/L	0.5	<0.5
Chloroform (THM)	µg/L	0.5	<b>0.8</b>
2,2-dichloropropane	µg/L	0.5	<0.5
1,2-dichloroethane	µg/L	0.5	<0.5
1,1,1-trichloroethane	µg/L	0.5	<0.5
1,1-dichloropropene	µg/L	0.5	<0.5
Carbon tetrachloride	µg/L	0.5	<0.5
Dibromomethane	µg/L	0.5	<0.5
1,2-dichloropropane	µg/L	0.5	<0.5
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5
2-nitropropane	µg/L	100	<100
Bromodichloromethane (THM)	µg/L	0.5	<0.5
MIBK (4-methyl-2-pentanone)	µg/L	5	<5
cis-1,3-dichloropropene	µg/L	0.5	<0.5
trans-1,3-dichloropropene	µg/L	0.5	<0.5
1,1,2-trichloroethane	µg/L	0.5	<0.5
1,3-dichloropropane	µg/L	0.5	<0.5
Dibromochloromethane (THM)	µg/L	0.5	<0.5
2-hexanone (MBK)	µg/L	5	<5
1,2-dibromoethane (EDB)	µg/L	0.5	<0.5
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5
1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5
Chlorobenzene	µg/L	0.5	<0.5
Bromoform (THM)	µg/L	0.5	<0.5
cis-1,4-dichloro-2-butene	µg/L	1	<1
Styrene (Vinyl benzene)	µg/L	0.5	<0.5
1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5
1,2,3-trichloropropane	µg/L	0.5	<0.5
trans-1,4-dichloro-2-butene	µg/L	1	<1

## VOCs in Water [AN433] Tested: 13/7/2021 (continued)

			BH01
			WATER
			-
			9/7/2021
			SE221566.001
PARAMETER	UOM	LOR	
Isopropylbenzene (Cumene)	µg/L	0.5	<0.5
Bromobenzene	µg/L	0.5	<0.5
n-propylbenzene	µg/L	0.5	<0.5
2-chlorotoluene	µg/L	0.5	<0.5
4-chlorotoluene	µg/L	0.5	<0.5
1,3,5-trimethylbenzene	µg/L	0.5	<0.5
tert-butylbenzene	µg/L	0.5	<0.5
1,2,4-trimethylbenzene	µg/L	0.5	<0.5
sec-butylbenzene	µg/L	0.5	<0.5
1,3-dichlorobenzene	µg/L	0.5	<0.5
1,4-dichlorobenzene	µg/L	0.3	<0.3
p-isopropyltoluene	µg/L	0.5	<0.5
1,2-dichlorobenzene	µg/L	0.5	<0.5
n-butylbenzene	µg/L	0.5	<0.5
1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5
1,2,4-trichlorobenzene	µg/L	0.5	<0.5
Hexachlorobutadiene	µg/L	0.5	<0.5
1,2,3-trichlorobenzene	µg/L	0.5	<0.5
Total VOC	µg/L	10	<10



ANALYTICAL RESULTS

SE221566 R0

Volatile Petroleum Hydrocarbons in Water [AN433]    Tested: 13/7/2021

			BH01
			WATER
			-
			9/7/2021
PARAMETER	UOM	LOR	SE221566.001
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50



ANALYTICAL RESULTS

SE221566 R0

TRH (Total Recoverable Hydrocarbons) in Water [AN403]    Tested: 12/7/2021

			BH01
			WATER
			-
			9/7/2021
PARAMETER	UOM	LOR	SE221566.001
TRH C10-C14	µg/L	50	<b>110</b>
TRH C15-C28	µg/L	200	<b>200</b>
TRH C29-C36	µg/L	200	<200
TRH C37-C40	µg/L	200	<200
TRH >C10-C16	µg/L	60	<b>130</b>
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<b>130</b>
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320

## PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 12/7/2021

			BH01
			WATER
			-
			9/7/2021
PARAMETER	UOM	LOR	SE221566.001
Naphthalene	µg/L	0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1
Acenaphthylene	µg/L	0.1	<0.1
Acenaphthene	µg/L	0.1	<0.1
Fluorene	µg/L	0.1	<0.1
Phenanthrene	µg/L	0.1	<0.1
Anthracene	µg/L	0.1	<0.1
Fluoranthene	µg/L	0.1	<0.1
Pyrene	µg/L	0.1	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1
Chrysene	µg/L	0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1
Total PAH (18)	µg/L	1	<1





ANALYTICAL RESULTS

SE221566 R0

Trace Metals (Dissolved) in Water by ICPMS [AN318]    Tested: 9/7/2021

			BH01
			WATER
			-
			9/7/2021
PARAMETER	UOM	LOR	SE221566.001
Arsenic, As	µg/L	1	<1
Cadmium, Cd	µg/L	0.1	<0.1
Chromium, Cr	µg/L	1	<1
Copper, Cu	µg/L	1	<1
Lead, Pb	µg/L	1	<b>2</b>
Nickel, Ni	µg/L	1	<b>16</b>
Zinc, Zn	µg/L	5	<b>53</b>



ANALYTICAL RESULTS

SE221566 R0

Mercury (dissolved) in Water [AN311(Perth)/AN312]    Tested: 12/7/2021

			BH01
			WATER
			-
			9/7/2021
			SE221566.001
PARAMETER	UOM	LOR	
Mercury	mg/L	0.0001	<0.0001

## METHOD

## METHODOLOGY SUMMARY

### AN020

Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.

### AN311(Perth)/AN312

Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.

### AN318

Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).

### AN403

Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.

### AN403

Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Silica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.

### AN403

The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.

### AN420

(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).

### AN433

VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
		IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
***	Indicates that both * and ** apply.	LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.  
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be  $1.6 / 2$  (0.8 mg/kg). Where only 2 analytes are being summed, the "Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the  $\pm$  sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- 1 Bq is equivalent to 27 pCi
- 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: [www.sgs.com.au/en-gb/environment-health-and-safety](http://www.sgs.com.au/en-gb/environment-health-and-safety).

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## CLIENT DETAILS

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**Project** **E25217 13-19 Canberra Avenue, St Leonard**  
**Order Number** **E25217**  
**Samples** 1

## LABORATORY DETAILS

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**SGS Reference** **SE221566A R0**  
**Date Received** 19/7/2021  
**Date Reported** 23/7/2021

## COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

## SIGNATORIES



**Ly Kim HA**  
 Organic Section Head



ANALYTICAL RESULTS

SE221566A R0

TRH Silica Gel (Total Recoverable Hydrocarbons - Silica Gel) in Water [AN403]    Tested: 21/7/2021

			BH01
			WATER
			-
			9/7/2021
PARAMETER	UOM	LOR	SE221566A.001
TRH C10-C14-Silica	µg/L	50	<50
TRH C15-C28-Silica	µg/L	200	<200
TRH C29-C36-Silica	µg/L	200	<200
TRH C37-C40-Silica	µg/L	200	<200
TRH >C10-C16-Silica	µg/L	60	<60
TRH >C16-C34-Silica	µg/L	500	<500
TRH >C34-C40-Silica	µg/L	500	<500
TRH Sum C10-C36-Silica	µg/L	450	<450
TRH Sum C10-C40-Silica	µg/L	650	<650



## METHOD

## METHODOLOGY SUMMARY

### AN403

Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36.

### AN403

Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRHisilica) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.

### AN403

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## FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
		IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
***	Indicates that both * and ** apply.	LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

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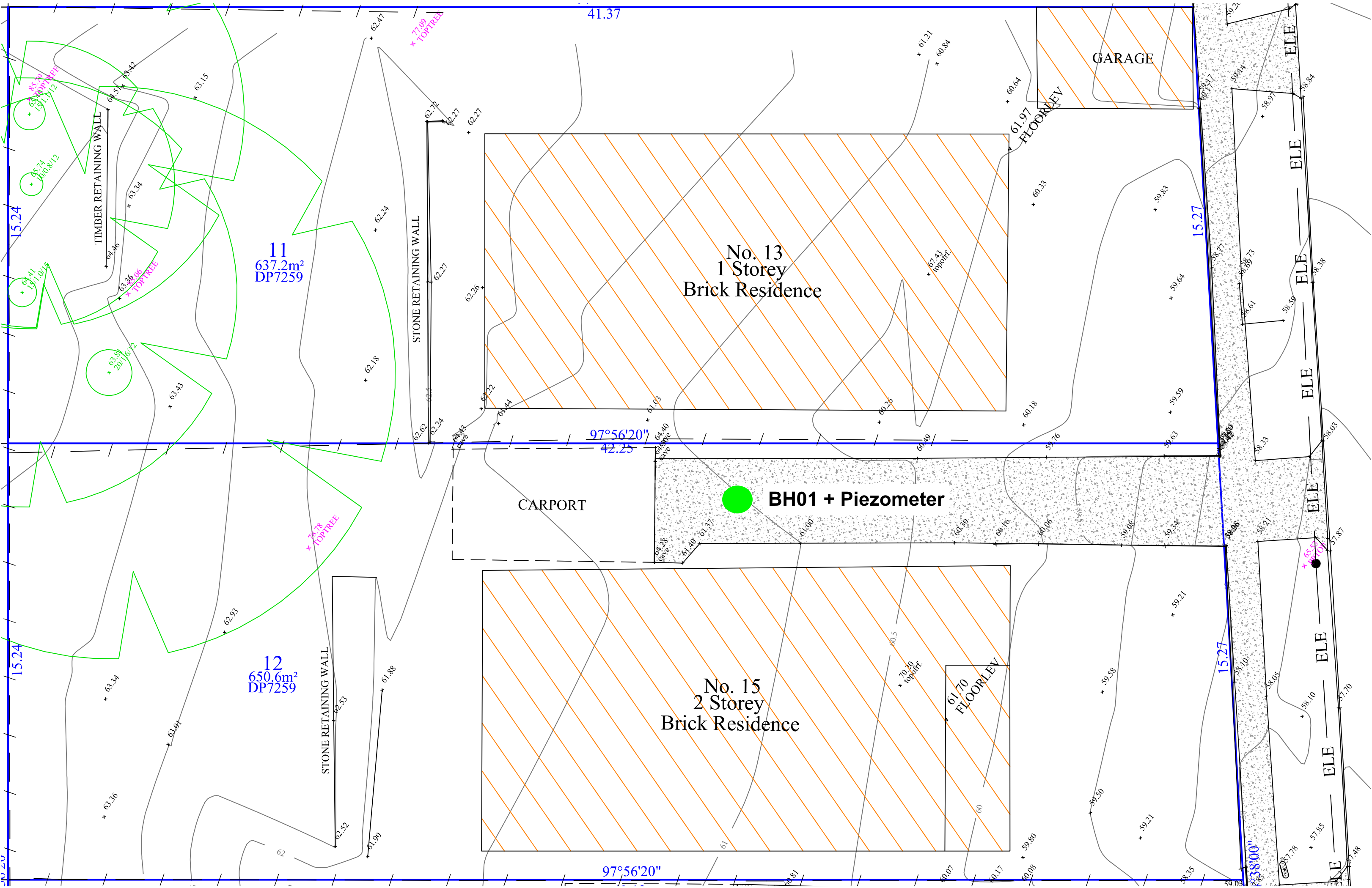
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## Appendix H –Field Notes

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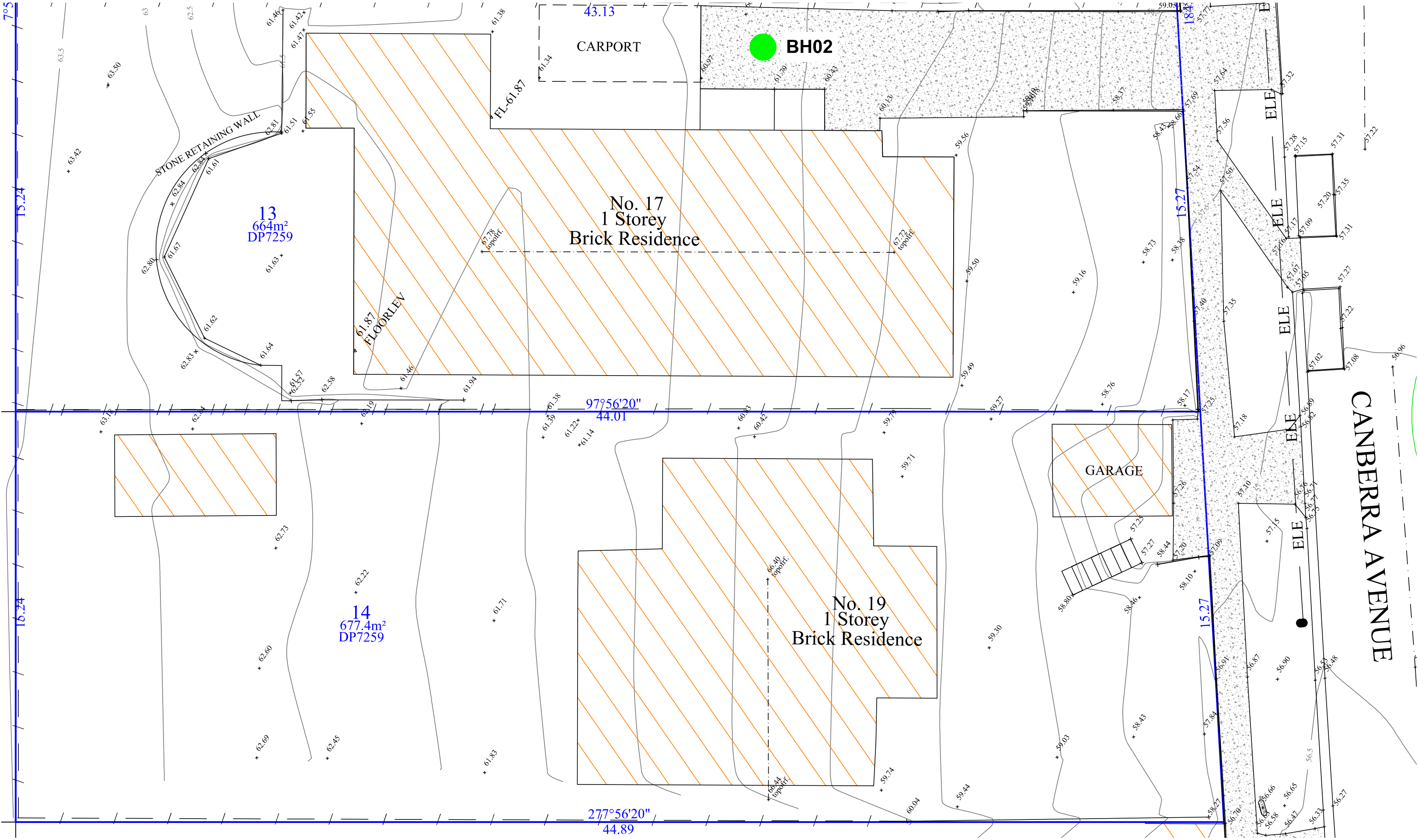




7°5

15.24

16.24



CANBERRA AVENUE

This borehole log should be read in conjunction with GeoSense's accompanying explanatory notes.



This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.

# CORED BOREHOLE LOG

**BH NO. BH01**

<b>Project</b> Proposed Development										<b>Sheet</b> 3 OF 4			
<b>Location</b> 13-19 Canberra Avenue, St Leonards NSW										<b>Date Started</b> 28/06/2021			
<b>Position</b> Refer to attached location plan										<b>Date Completed</b> 29/06/2021			
<b>Job No.</b>										<b>Logged By</b> JZ <b>Date</b> 29/06/2021			
<b>Client</b> PTC Consulting Engineers										<b>Reviewed By</b> MK <b>Date</b> 08/07/2021			
<b>Drilling Contactor</b> GeoSense Drilling & Engineering <b>RL</b> 61.0m AHD													
<b>Drill Rig</b> Comacchio GEO205 <b>Inclination</b> -90°													
Drilling					Field Material Description					Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH $I_{s(50)}$ MPa	DEFECT DESCRIPTION & Additional Observations		Average Defect Spacing (mm)	
									$I_{s(50)}$ V <sub>L</sub> 0.1 L 0.3 M 1 H 3 VH 10 EH			30 100 300 1000 3000	
NMLC				10	51.0m		SANDSTONE; fine grained, pale grey	SW		10.00-10.05 DB 10.25 DB			
			3.04m				10.78-10.88m: SHALE; dark grey			10.59-10.60 DS/CS 10.78 BP 0-5 UN RF CN 10.87-10.88 DS			
			2.93m (96%)							11.18 BP 0 PR RF CN			
										12.77 BP 0 PR RF CN			
										13.00-13.02 DB 13.08 BP 5 PR RF CN 13.29 DB			
			3.04m							14.54 BP 0 PR RF CN 14.78 BP 0 PR RF CN			
			3.04m (100%)										
											16.33 DB		
							16.73m						
				17	44.27m		SHALE, interbedded with SANDSTONE, dark grey, well developed	SW		16.73 BP 0 PR SM CN 16.98 DB			
										17.85 DB 18.02 DB 18.22 BP 0 PR SM CN 18.38 BP 0 PR SM CN			
							18.38m						
					42.62m		SANDSTONE; fine grained, pale grey	SW					
										19.29 DB			
					41.0m								
				20									

This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.

This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.

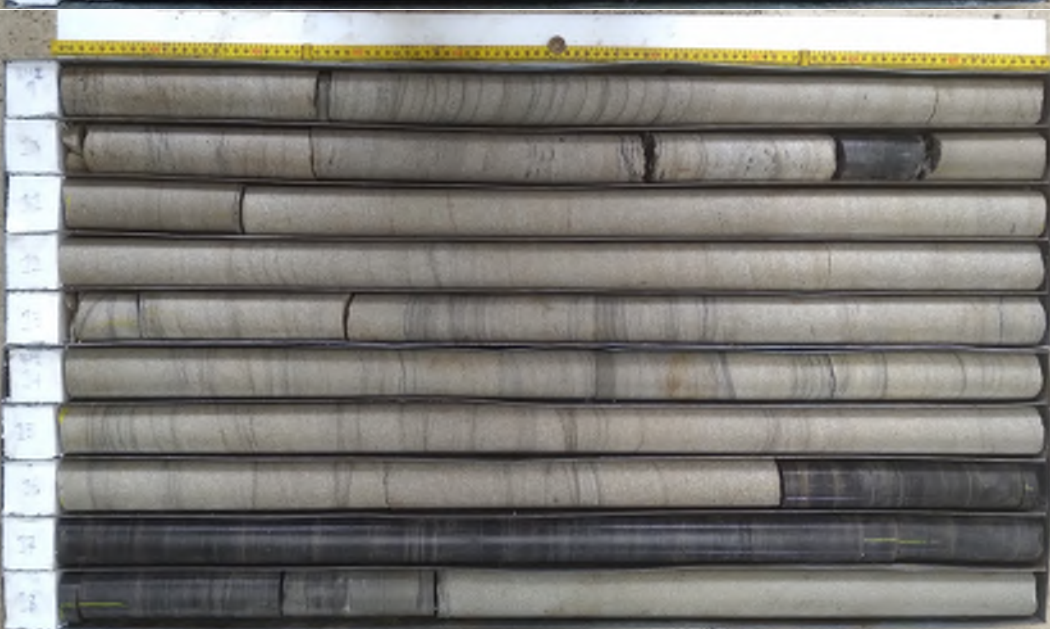
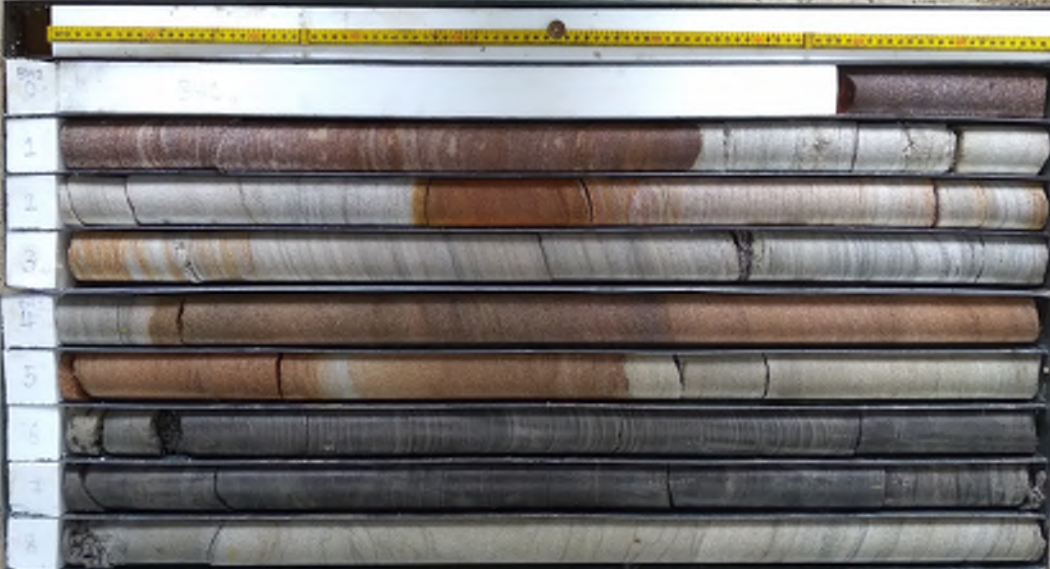
# CORED BOREHOLE LOG

**BH NO. BH01**

<b>Project</b>		Proposed Development				<b>Sheet</b>		4 OF 4	
<b>Location</b>		13-19 Canberra Avenue, St Leonards NSW				<b>Date Started</b>		28/06/2021	
<b>Position</b>		Refer to attached location plan				<b>Date Completed</b>		29/06/2021	
<b>Job No.</b>						<b>Logged By</b>		JZ	
<b>Client</b>		PTC Consulting Engineers				<b>Reviewed By</b>		MK	
<b>Drilling Contactor</b>		GeoSense Drilling & Engineering				<b>RL</b>		61.0m AHD	
<b>Drill Rig</b>		Comacchio GEO205				<b>Inclination</b>		-90°	

Drilling				Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH $I_{s(60)}$ MPa	DEFECT DESCRIPTION & Additional Observations	Average Defect Spacing (mm)
								VL L L M H H VH EH			20 100 200 1000 3000
NMLC				20	41.0m		SANDSTONE; fine grained, pale grey	SW			
				21						20.70 DB	
				22						21.98 DB	
				23						22.37 DB	
				24						24.05 BP 0 PR RF CN 24.28 BP 0 PR RF CN	
				25						25.37 DB	
				26			26.2m: interbedded with SHALE laminite			26.26 JT 15 PR RF CN 26.71 BP 10 UN RF CN	
				27						27.34 BP 5 PR RF CN 27.50-27.51 DS, clay infill 27.53-27.66 CS/JTs 27.66-27.78 DS, clay infill	
				28						28.14 DB 28.24-28.25 DS 28.41 DB	
				29						28.65 DB 28.95 DB 29.12 BP 10 UN RF CN	
				30	31.0m		Hole Terminated at 30.5m				

This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.





**BH01 Location**



<b>Project</b>		Proposed Development						<b>Sheet</b>		1 of 4		
<b>Location</b>		13-19 Canberra Avenue, St Leonards NSW						<b>Date Started</b>		28/06/2021		
<b>Position</b>		Refer to attached location plan						<b>Date Completed</b>		29/06/2021		
<b>Job No.</b>								<b>Logged By</b>		JZ	<b>Date</b> 29/06/2021	
<b>Client</b>		PTC Consulting Engineers						<b>Reviewed By</b>		MK	<b>Date</b> 08/07/2021	
<b>Drilling Contactor</b>		GeoSense Drilling & Engineering				<b>RL</b>	60.6m AHD					
<b>Drill Rig</b>		Comacchio GEO205				<b>Inclination</b>	-90°					
<b>Drilling</b>			<b>Sampling</b>			<b>Field Material Description</b>						
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	GROUP SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY REL DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
AD/T	L-M	GWNE	0	60.6m				GP	BRICK PAVER/CONCRETE, 150mm Fill; Gravelly SAND; fine to medium grained, dark brown	M	-	PAVEMENT / FILL
									0.3m			
			60.3m					CL	Silty CLAY; low to medium plasticity, mottled grey, red-brown and orange brown	w > Pl		RESIDUAL
			0.5									
			59.93m									
									Start coring at 0.67m			TC-bit refusal on bedrock
			1									
											</	



# CORED BOREHOLE LOG

**BH NO. BH02**

<b>Project</b>		Proposed Development						<b>Sheet</b>		2 OF 4			
<b>Location</b>		13-19 Canberra Avenue, St Leonards NSW						<b>Date Started</b>		28/06/2021			
<b>Position</b>		Refer to attached location plan						<b>Date Completed</b>		29/06/2021			
<b>Job No.</b>								<b>Logged By</b> JZ		<b>Date</b> 29/06/2021			
<b>Client</b>		PTC Consulting Engineers						<b>Reviewed By</b> MK		<b>Date</b> 08/07/2021			
<b>Drilling Contactor</b>		GeoSense Drilling & Engineering				<b>RL</b> 60.6m AHD							
<b>Drill Rig</b>		Comacchio GEO205				<b>Inclination</b> -90°							
Drilling						Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH $I_{s(50)}$ MPa	DEFECT DESCRIPTION & Additional Observations		Average Defect Spacing (mm)	
									VL 0.1 L 0.3 M 0.5 H 1 VH 3 EH 10			30 100 300 1000 3000	
0													
							Start coring at 0.67m						
NMLC			1.27m	1.07m (85%)	59.93m		SANDSTONE; fine grained, mottled pale grey, red-brown and orange-brown	MW		0.82-0.85 DS, clay infill 0.90 BP 0 UN RF CN 0.95 JT 10 CU RF CN 1.18 BP 10 PR RF CN 1.35 BP 10 PR RF CN 1.46-1.47 DS, clay infill 1.59 BP 0 UN RF CN			
			2.31m	2.12m (92%)						2.25 BP 10 PR RF CN 2.34 BP 10 PR RF CN  2.44-2.45 DS, clay infill 2.49 BP 10 PR RF CN  2.70-2.71 DS  3.09-3.12 DS  3.37 DB			
			3.06m	2.45m (80%)						4.25 DB  4.55-4.60 CS 4.67 JT 30 UN RF CN  5.06 JT 5 UN RF CN 5.12-5.13 DS			
					55.19m		5.41m SHALE, interbedded with SANDSTONE, dark grey, well developed	SW		5.41 BP 0-5 UN RF CN 5.43 BP 0-5 UN RF CN 5.47 BP 5 UN RF CN 5.65 DB 5.75 BP 10 PR RF CN 5.91-5.95 JT/DS, 45 CU RF CN 6.02 JT 30 UN RF CN 6.12 JT 30 UN RF CN			
					54.2m		6.40m SANDSTONE; fine grained, pale grey	SW		6.50 BP 0 UN RF CN 6.56-6.58 JT/DS 30 UN RF CN 6.66-6.67 DS 6.88 DB  7.12 DB 7.23 BP 5 UN RF CN 7.31 DB  7.77 JT 5 UN RF CN 7.93 JT 5 UN RF CN 8.05 JT 5 UN RF CN 8.09-8.12 DS, clay infill			
			2.86m	2.62m (92%)						9.97 JT 10 UN RF CN			
This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.													

This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.

# CORED BOREHOLE LOG

**BH NO. BH02**

<b>Project</b> Proposed Development										<b>Sheet</b> 3 OF 4			
<b>Location</b> 13-19 Canberra Avenue, St Leonards NSW										<b>Date Started</b> 28/06/2021			
<b>Position</b> Refer to attached location plan										<b>Date Completed</b> 29/06/2021			
<b>Job No.</b>										<b>Logged By</b> JZ			
<b>Client</b> PTC Consulting Engineers										<b>Date</b> 29/06/2021			
<b>Drilling Contactor</b> GeoSense Drilling & Engineering										<b>RL</b> 60.6m AHD			
<b>Drill Rig</b> Comacchio GEO205										<b>Inclination</b> -90°			
Drilling						Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH $I_{s(50)}$ MPa	DEFECT DESCRIPTION & Additional Observations		Average Defect Spacing (mm)	
								VL L M H VH EH				30 100 300 1000 3000	
NMLC				10	50.6m		SANDSTONE; fine grained, pale grey	SW		10.96 JT 0-10 CN RF CN			
							10.06-10.17m: SHALE; dark grey, with frequent joints			11.08 DB			
			2.98m							11.85 JT 5 UN RF ST			
			2.98m (100%)							11.96 DB			
										12.14 DB			
										13.15 DB			
										13.56 BP 10 UN RF CN			
										13.93 DB			
										14.05 DB			
								14.51m			14.49 JT 30 CU RF CN		
					46.09m		SHALE, interbedded with SANDSTONE, dark grey, well developed	SW		14.66 BP 0 PR RF CN			
										15.18 BP 0 PR RF CN			
										15.88 BP 0 PR RF CN			
										15.96 BP 0 PR RF CN			
							16.50m			16.25 DB			
					44.1m		SANDSTONE; fine grained, pale grey	SW		16.47-16.49 DS, clay infill			
										17.12 DB			
										19.36 DB			
				20	40.6m								

This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.

# CORED BOREHOLE LOG

**BH NO. BH02**

<b>Project</b> Proposed Development						<b>Sheet</b> 4 OF 4					
<b>Location</b> 13-19 Canberra Avenue, St Leonards NSW						<b>Date Started</b> 28/06/2021					
<b>Position</b> Refer to attached location plan						<b>Date Completed</b> 29/06/2021					
<b>Job No.</b>						<b>Logged By</b> JZ <b>Date</b> 29/06/2021					
<b>Client</b> PTC Consulting Engineers						<b>Reviewed By</b> MK <b>Date</b> 08/07/2021					
<b>Drilling Contactor</b> GeoSense Drilling & Engineering <b>RL</b> 60.6m AHD											
<b>Drill Rig</b> Comacchio GEO205 <b>Inclination</b> -90°											

Drilling				Field Material Description				Defect Information			
METHOD	WATER	TCR	RQD	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH $I_{s(60)}$ MPa	DEFECT DESCRIPTION & Additional Observations	Average Defect Spacing (mm)
								VL 0.1 L 0.3 M 0.5 H 1 VH 3 EH 10			20 100 300 1000 3000
NMLC				20	40.6m		SANDSTONE; fine grained, pale grey	SW		20.02 DB 20.18 DB	
		2.99m		21							
			2.99m (100%)	22							
		3.10m		23						22.35 DB 22.56 BP 0 PR RF CN	
			3.10m (100%)	24						23.26 BP 10 PR RF CN 23.58 BP 10 PR RF CN	
		3.05m		25						24.16 BP 10 PR RF CN 24.54 JT 0-10 UN RF CN	
			2.75m (90%)	26						25.45 DB 25.54 JT 5 UN RF CN 25.57-25.60 DS, clay infill	
		0.90m		27						25.85 BP 10 PR RF CN 26.12 JT 0-5 CU RF CN 26.16-26.18 DS, clay infill 26.27 BP 0 UN RF CN	
			0.90m (100%)	28						27.23 BP 0 UN RF CN 27.86-27.91 DS	
				29	31.2m					28.27 BP 0-5 UN RF CN 28.33 BP 0-5 UN RF CN 28.50 DB 28.73 BP 10 PR RF CN	
				30			Hole Terminated at 29.4m				

This borehole log should be read in conjunction with Geosense's accompanying explanatory notes.





**BH02 Location**



**DRILLING/EXCAVATION METHOD**

<b>HA</b>	Hand Augering	<b>PT</b>	Push Tube	<b>NQ</b>	Diamond Core - 47 mm
<b>DT</b>	Diatube Coring	<b>RC</b>	Reverse Circulation	<b>NMLC</b>	Diamond Core - 52 mm
<b>NDD</b>	Non-destructive digging	<b>JET</b>	Jetting	<b>HQ</b>	Diamond Core - 63 mm
<b>ADS</b>	Solid Flight Auger	<b>V</b>	V-Bit	<b>HMLC</b>	Diamond Core - 63 mm
<b>ADH</b>	Hollow Flight Auger	<b>TC</b>	Tungsten Carbide Bit	<b>EX</b>	Tracked Hydraulic Excavator
<b>RM</b>	Rotary Mud	<b>T</b>	Tricone Bit	<b>EE</b>	Existing Excavation
<b>RA</b>	Rotary Air	<b>DTH</b>	Rock Hammer	<b>HAND</b>	Excavated by Hand Methods

**PENETRATION RESISTANCE**

<b>L</b>	<b>Low Resistance</b>	Rapid penetration/ excavation possible with little effort from equipment used.
<b>M</b>	<b>Medium Resistance</b>	Penetration/ excavation possible at an acceptable rate with moderate effort from equipment used.
<b>H</b>	<b>High Resistance</b>	Penetration/ excavation is possible but at a slow rate and requires significant effort from equipment used.
<b>R</b>	<b>Refusal/Practical Refusal</b>	No further progress possible without risk of damage or unacceptable wear to equipment used.

These assessments are subjective and are dependent on many factors, including equipment power and weight, condition of excavation or drilling tools and experience of the operator.

**WATER**

**Water level at date shown**

**Partial water loss**

**Water inflow**

**Complete Water Loss**

<b>GWNO</b>	GROUNDWATER NOT OBSERVED - Observation of groundwater, whether present or not, was not possible due to drilling water, surface seepage or cave-in of the borehole/ test pit.
<b>GWNE</b>	GROUNDWATER NOT ENCOUNTERED - Borehole/ test pit was dry soon after excavation. However, groundwater could be present in less permeable strata. Inflow may have been observed had the borehole/ test pit been left open for a longer period.

**SAMPLING AND TESTING**

<b>SPT</b>	Standard Penetration Test to AS1289.6.3.1-2004
6,8,8 N=16	6,8,8 = Blows per 150mm. N = Blows per 300mm penetration following a 150mm seating drive
30/80mm	Where practical refusal occurs, the blows and penetration for that interval are reported
<b>RW</b>	Penetration occurred under the rod weight only
<b>HW</b>	Penetration occurred under the hammer and rod weight only
<b>HB</b>	Hammer double bouncing on anvil
<b>Sampling</b>	
<b>DS</b>	Disturbed Sample
<b>ES</b>	Sample for environmental testing
<b>CBR</b>	Bulk disturbed Sample used for Californian Bearing Ratio testing
<b>GS</b>	Gas Sample
<b>WS</b>	Water Sample
<b>U50</b>	Thin walled tube sample - number indicates nominal sample diameter in millimetres
<b>In-situ Testing</b>	
<b>FP</b>	Field Permeability test over section noted
<b>FVS</b>	Field Vane Shear test expressed as uncorrected shear strength (sv= peak value, sr= residual value)
<b>PID</b>	Photoionisation Detector reading in ppm
<b>PP</b>	Pocket Penetrometer test expressed as instrument reading in kPa
<b>WPT</b>	Water Pressure tests
<b>DCP</b>	Dynamic Cone Penetrometer test
<b>CPT</b>	Static Cone Penetration test
<b>CPTu</b>	Static Cone Penetration test with pore pressure (u) measurement

**ROCK CORE RECOVERY**
**TCR=Total Core Recovery (%)**
**SCR=Solid Core Recovery (%)**
**RQD = Rock Quality Designation (%)**

$$= \frac{\text{Length of core recovered}}{\text{Length of core run}} \times 100$$

$$= \frac{\sum \text{Length of cylindrical core recovered}}{\text{Length of core run}} \times 100$$

$$= \frac{\sum \text{Axial lengths of core} > 100\text{mm}}{\text{Length of core run}} \times 100$$

**GEOLOGICAL BOUNDARIES**

 ————— = Observed Boundary  
(position known)

 - - - - - = Observed Boundary  
(position approximate)

 - - ? - - ? - - ? - - = Boundary  
(interpreted or inferred)





FILL



COUBLES or  
BOULDERS



GRAVEL (GP or GW)



ORGANIC SOILS  
(OL, OH or Pt)



SILT (ML or MH)



CLAY (CL, CI or CH)

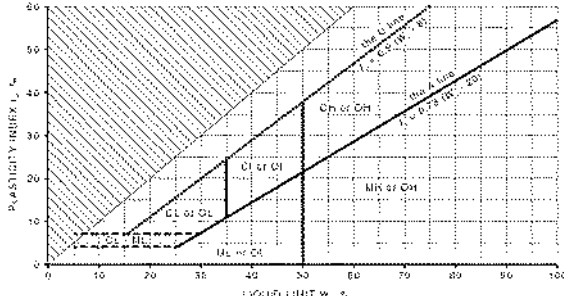


SAND (SP or SW)

Combinations of these basic symbols may be used to indicate mixed materials

## CLASSIFICATION AND INFERRED STRATIGRAPHY

Soil is broadly classified and described in Borehole Logs using the preferred method given in AS 1726:2017, Section 6.1 – Soil description and classification.

PARTICLE SIZE CHARACTERISTICS				GROUP SYMBOLS			
Fraction	Components	Sub Division	Size mm	Major Divisions		Symbol	Description
Oversize	BOULDERS		>200	COARSE GRAINED SOILS More than 65% of soil excluding oversize fraction is greater than 0.075mm	GRAVEL More than 50% of coarse fraction is >2.36mm	GW	Well graded gravel and gravel-sand mixtures, little or no fines.
	COBBLES		63 to 200			GP	Poorly graded gravel and gravel-sand mixtures, little or no fines.
Coarse grained soil	GRAVEL	Coarse	19 to 63			GM	Silty gravel, gravel-sand-silt mixtures.
		Medium	6.7 to 19			GC	Clayey gravel, gravel-sand-clay mixtures.
		Fine	2.36 to 6.7				
	SAND	Coarse	0.6 to 2.36		SAND More than 50% of coarse fraction is <2.36 mm	SW	Well graded sand and gravelly sand, little or no fines.
		Medium	0.21 to 0.6			SP	Poorly graded sand and gravelly sand, little or no fines.
		Fine	0.075 to 0.21			SM	Silty sand, sand-silt mixtures.
Fine grained soil	SILT		0.002 to 0.075			SC	Clayey sand, sandy-clay mixtures.
	CLAY		<0.002				
PLASTICITY PROPERTIES				FINE GRAINED SOILS More than 35% of soil excluding oversized fraction is less than 0.075mm	Liquid Limit less < 50%	ML	Inorganic silts of low plasticity, very fine sands, rock flour, silty or clayey fine sands.
						CL, CI	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays.
						OL	Organic silts and organic silty clays of low plasticity.
					MH	Inorganic silts of high plasticity.	
					OH	Organic clays of medium to high plasticity.	
					Highly Organic soil	PT	Peat muck and other highly organic soils.

## MOISTURE CONDITION

Symbol	Term	Description
D	Dry	Non-cohesive and free-running.
M	Moist	Soils feel cool, darkened in colour. Soil tends to stick together.
W	Wet	Soils feel cool, darkened in colour. Soil tends to stick together, free water forms when handling.

Moisture content of cohesive soils shall be described in relation to plastic limit (PL) or liquid limit (LL) for soils with higher moisture content as follows: Moist, dry of plastic limit ( $w < PL$ ); Moist, near plastic limit ( $w \approx PL$ ); Moist, wet of plastic limit ( $w > PL$ ); Wet, near liquid limit ( $w \approx LL$ ); Wet, wet of liquid limit ( $w > LL$ ).

CONSISTENCY				DENSITY			
Symbol	Term	Undrained Shear Strength (kPa)	SPT "N" #	Symbol	Term	Density Index %	SPT "N" #
VS	Very Soft	$\leq 12$	$\leq 2$	VL	Very Loose	$\leq 15$	0 to 4
S	Soft	$> 12$ to $\leq 25$	$> 2$ to $\leq 4$	L	Loose	$> 15$ to $\leq 35$	4 to 10
F	Firm	$> 25$ to $\leq 50$	$> 4$ to 8	MD	Medium Dense	$> 35$ to $\leq 65$	10 to 30
St	Stiff	$> 50$ to $\leq 100$	$> 8$ to 15	D	Dense	$> 65$ to $\leq 85$	30 to 50
VSt	Very Stiff	$> 100$ to $\leq 200$	$> 15$ to 30	VD	Very Dense	$> 85$	Above 50
H	Hard	$> 200$	$> 30$				
Fr	Friable	-					

In the absence of test results, consistency and density may be assessed from correlations with the observed behaviour of the material. # SPT correlations are not stated in AS1726:2017, and may be subject to corrections for overburden pressure and equipment type.

## MINOR COMPONENTS

Term	Assessment Guide	Proportion by Mass
Trace	Presence just detectable by feel or eye but soil properties little or no different to general properties of primary component	Coarse grained soils: $\leq 5\%$ Fine grained soil: $\leq 15\%$
With	Presence easily detectable by feel or eye but soil properties little or no different to general properties of primary component	Coarse grained soils: 5 - 12% Fine grained soil: 15 - 30%
Prefix	Presence easily detectable by feel or eye in conjunction with the general properties of primary component	Coarse grained soils: $> 12\%$ Fine grained soil: $> 30\%$

**CLASSIFICATION AND INFERRED STRATIGRAPHY**

Rock is broadly classified and described in Borehole and Test Pit Logs using the preferred method given in AS1726 – 2017, Section 6.2 – Rock identification, description and classification.

**ROCK MATERIAL STRENGTH CLASSIFICATION**

Symbol	Term	Point Load Index, $Is_{(50)}$ (MPa) #	Field Guide
VL	Very Low	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30 mm can be broken by finger pressure.
L	Low	0.1 to 0.3	Easily scored with a knife; indentations 1 mm to 3 mm show in the specimen with firm blows of pick point; has dull sound under hammer. A piece of core 150 mm long by 50 mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
M	Medium	0.3 to 1	Readily scored with a knife; a piece of core 150 mm long by 50 mm diameter can be broken by hand with difficulty.
H	High	1 to 3	A piece of core 150 mm long by 50 mm diameter cannot be broken by hand but can be broken with pick with a single firm blow; rock rings under hammer.
VH	Very High	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
EH	Extremely High	>10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.

**# Rock Strength Test Results**


Point Load Strength Index,  $Is_{(50)}$ , Axial test (MPa)



Point Load Strength Index,  $Is_{(50)}$ , Diametral test (MPa)

Relationship between rock strength test result ( $Is_{(50)}$ ) and unconfined compressive strength (UCS) will vary with rock type and strength, and should be determined on a site-specific basis. However UCS is typically 20 x  $Is_{(50)}$ .

**ROCK MATERIAL WEATHERING CLASSIFICATION**

Symbol	Term	Field Guide
RS	Residual Soil	Soil developed on extremely weathered rock; the mass structure and substance fabric are no longer evident; there is a large change in volume but the soil has not been significantly transported.
XW	Extremely Weathered	Rock is weathered to such an extent that it has soil properties - i.e. it either disintegrates or can be remoulded, in water.
DW	HW	Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores. In some environments it is convenient to subdivide into Highly Weathered and Moderately Weathered, with the degree of alteration typically less for MW.
	MW	
SW	Slightly Weathered	Rock slightly discoloured but shows little or no change of strength relative to fresh rock.
FR	Fresh	Rock shows no sign of decomposition or staining.

## CLASSIFICATION AND INFERRED STRATIGRAPHY

Rock is broadly classified and described in Borehole and Test Pit Logs using the preferred method given in AS1726 – 2017, Section 6.2 – Rock identification, description and classification.

## ROCK MATERIAL DESCRIPTION

Layering		Structure	
Term	Description	Term	Spacing (mm)
Massive	No layering apparent	Thinly laminated	<6
Poorly Developed	Layering just visible; little effect on properties	Laminated	6 – 20
Well Developed	Layering (bedding, foliation, cleavage) distinct; rock breaks more easily parallel to layering	Very thinly bedded	20 – 60
		Thinly bedded	60 – 200
		Medium bedded	200 – 600
		Thickly bedded	600 – 2,000
		Very thickly bedded	> 2,000

## ABBREVIATIONS AND DESCRIPTIONS FOR DEFECT TYPES

Defect Type	Abbr.	Description
Joint	JT	Surface of a fracture or parting, formed without displacement, across which the rock has little or no tensile strength. May be closed or filled by air, water or soil or rock substance, which acts as cement.
Bedding Parting	BP	Surface of fracture or parting, across which the rock has little or no tensile strength, parallel or sub-parallel to layering/ bedding. Bedding refers to the layering or stratification of a rock, indicating orientation during deposition, resulting in planar anisotropy in the rock material.
Foliation	FL	Repetitive planar structure parallel to the shear direction or perpendicular to the direction of higher pressure, especially in metamorphic rock, e.g. Schistosity (SH) and Gneissosity.
Contact	CO	The surface between two types or ages of rock.
Cleavage	CL	Cleavage planes appear as parallel, closely spaced and planar surfaces resulting from mechanical fracturing of rock through deformation or metamorphism, independent of bedding.
Sheared Seam/ Zone (Fault)	SS/SZ	Seam or zone with roughly parallel almost planar boundaries of rock substance cut by closely spaced (often <50 mm) parallel and usually smooth or slickensided joints or cleavage planes.
Crushed Seam/ Zone (Fault)	CS/CZ	Seam or zone composed of disoriented usually angular fragments of the host rock substance, with roughly parallel near-planar boundaries. The brecciated fragments may be of clay, silt, sand or gravel sizes or mixtures of these.
Decomposed Seam/ Zone	DS/DZ	Seam of soil substance, often with gradational boundaries, formed by weathering of the rock material in places.
Infilled Seam	IS	Seam of soil substance, usually clay or clayey, with very distinct roughly parallel boundaries, formed by soil migrating into joint or open cavity.
Schistosity	SH	The foliation in schist or other coarse grained crystalline rock due to the parallel arrangement of platy or prismatic mineral grains, such as mica.
Vein	VN	Distinct sheet-like body of minerals crystallised within rock through typically open-space filling or crack-seal growth.

## ABBREVIATIONS AND DESCRIPTIONS FOR DEFECT SHAPE AND ROUGHNESS

Shape	Abbr.	Description	Roughness	Abbr.	Description
Planar	PI	Consistent orientation	Polished	Pol	Shiny smooth surface
Curved	Cu	Gradual change in orientation	Slickensided	SL	Grooved or striated surface, usually polished
Undulating	Un	Wavy surface	Smooth	S	Smooth to touch. Few or no surface irregularities
Stepped	St	One or more well defined steps	Rough	RF	Many small surface irregularities (amplitude generally <1mm). Feels like fine to coarse sandpaper
Irregular	Ir	Many sharp changes in orientation	Very Rough	VR	Many large surface irregularities, amplitude generally >1mm. Feels like very coarse sandpaper

### Orientation:

**Vertical Boreholes** – The dip (inclination from horizontal) of the defect.

**Inclined Boreholes** – The inclination is measured as the acute angle to the core axis.

## ABBREVIATIONS AND DESCRIPTIONS FOR DEFECT COATING

## DEFECT APERTURE

Coating	Abbr.	Description	Aperture	Abbr.	Description
Clean	CN	No visible coating or infilling	Closed	CL	Closed.
Stain	SN	No visible coating but surfaces are discoloured by staining, often limonite (orange-brown)	Open	O	Without any infill material.
Veneer	VNR	A visible coating of soil or mineral substance, usually too thin to measure (< 1 mm); may be patchy	Infilled	-	Soil or rock i.e. clay, talc, pyrite, quartz, etc.

## Point Load Strength Index Report

Project: Canberra Avenue, St Leonards, NSW

Client: GEOSENSE DRILLING AND ENGINEERING

Address: 32 THIRD AVENUE, BERALA

Test Method: AS4133.4.1

Project No.: 31302/5317D-L

Report No.: 21/2064

Report Date: 8/07/2021

Page: 1 of 2

Sampling Procedure: Samples Supplied By Client (Not covered under NATA Scope of Accreditation)

Date Samples Drilled / Taken: 05/07/2021

Borehole No. 1

Sampling Procedure: Samples Supplied By Client (Not covered under NATA Scope of Accreditation)

Date Samples Drilled / Taken: 05/07/2021

Borehole No. 1

Depth	Test Type	Is(50) (Mpa)	Rock Type	Failure Type	Moisture	Depth	Test Type	Is(50) (Mpa)	Rock Type	Failure Type	Moisture
1.43	A	1.80	SS	3	M	16.52	A	1.40	SS	3	M
2.64	A	0.56	SS	3	M	17.50	A	1.10	SH	3	M
3.32	A	1.00	SS	3	M	18.51	A	0.96	SS	3	M
4.33	A	0.85	SS	3	M	19.40	A	1.00	SS	3	M
5.47	A	0.87	SS	3	M	20.32	A	1.30	SS	3	M
6.61	A	0.68	SH	3	M	21.57	A	1.30	SS	3	M
7.41	A	0.48	SH	3	M	22.44	A	1.30	SS	3	M
8.46	A	1.90	SS	3	M	23.53	A	1.50	SS	3	M
9.42	A	1.50	SS	3	M	24.48	A	1.20	SS	3	M
10.71	A	2.50	SS	3	M	25.66	A	1.10	SS	3	M
11.32	A	2.00	SS	3	M	26.41	A	2.20	SS	3	M
12.58	A	2.10	SS	3	M	27.35	A	1.90	SS	3	M
13.43	A	1.90	SS	3	M	28.51	A	1.30	SS	3	M
14.32	A	1.80	SS	3	M	29.37	A	1.30	SS	3	M
15.60	A	1.50	SS	3	M	30.14	A	1.30	SS	3	M

### FAILURE TYPE

- 1= FRACTURE THROUGH BEDDING OR WEAK PLANE
- 2= FRACTURE ALONG BEDDING
- 3= FRACTURE THROUGH ROCK MASS
- 4= FRACTURE INFLUENCED BY NATURAL DEFECT OR DRILLING
- 5= PARTIAL FRACTURE OR CHIP (INVALID RESULT)

### TEST TYPE

- A= AXIAL
- D= DIAMETRAL
- I= IRREGULAR
- C= CUBE

### MOISTURE CONDITION

- W= WET
- M= MOIST
- D= DRY

### ROCK TYPE

- SS= SANDSTONE
- ST= SILTSTONE
- SH= SHALE
- YS= CLAYSTONE
- IG= IGNEOUS

Remarks:

Approved Signatory.....

Technician: FV

## Point Load Strength Index Report

Project: Canberra Av, St Leonards, NSW

Client: GEOSENSE DRILLING AND ENGINEERING

Address: 32 THIRD AVENUE, BERALA

Test Method: AS4133.4.1

Project No.: 31302/5317D-L

Report No.: 21/2064

Report Date: 8/07/2021

Page: 2 of 2

Sampling Procedure: Samples Supplied By Client (Not covered under NATA Scope of Accreditation)

Date Samples Drilled / Taken: 05/07/2021

Borehole No. 2

Sampling Procedure: Samples Supplied By Client (Not covered under NATA Scope of Accreditation)

Date Samples Drilled / Taken: 05/07/2021

Borehole No. 2

Depth	Test Type	Is(50) (Mpa)	Rock Type	Failure Type	Moisture	Depth	Test Type	Is(50) (Mpa)	Rock Type	Failure Type	Moisture
0.70	A	1.70	SS	3	M	15.39	A	1.10	SH	3	W
1.77	A	0.78	SS	3	M	16.70	A	1.10	SS	3	W
2.60	A	0.59	SS	3	M	17.12	A	1.20	SS	3	W
3.50	A	1.10	SS	3	M	18.50	A	1.40	SS	3	W
4.20	A	0.66	SS	3	M	19.50	A	1.50	SS	3	W
5.51	A	0.76	TS	3	M	20.50	A	1.40	SS	3	W
6.46	A	2.00	SH	3	M	21.50	A	1.40	SS	3	M
7.50	A	1.30	SS	3	M	22.52	A	1.40	SS	3	W
8.50	A	1.70	SS	3	M	23.58	A	1.40	SS	3	W
9.50	A	2.40	SS	3	M	24.60	A	1.30	SS	3	W
10.50	A	1.90	SS	3	M	25.20	A	1.70	SS	3	W
11.05	A	2.40	SS	3	M	26.50	A	1.80	SS	3	W
12.50	A	2.50	SS	3	M	27.60	A	1.50	SS	3	W
13.15	A	2.40	SS	3	M	28.32	A	1.50	SS	3	M
14.63	A	0.96	SH	3	M	29.00	A	1.50	SS	3	M

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Remarks:

Approved Signatory.....

Technician: ZW

