CEC Geotechnical

FRAMEWORK REMEDIATION ACTION PLAN (FRAP)

Client – Anglican Community Services (Anglicare)
Project Title – 215, 229-239 Pitt St, Merrylands, NSW 2160
Project Type – Proposed Multi-Storey Mixed-Use Development
Project No. – ER24029B
Date Issued – 30/06/2025
Description of Services – Framework Remediation Action Plan (FRAP)

Document Control

Report Title: Framework Remediation Action Plan

Report No: ER24029B

Copies	Recipient
1. Final Copy (PDF – Sent via email)	Anglican Community Services (Anglicare)

Author	Technical Reviewer	External Reviewer
Diego Espinosa Moreno *Environmental Engineer*	**Dr. Zuhaib Siddiqui** *Associate Environmental Engineer*	**Dr. Dawit Bekele** *Certified Site Contamination Specialist CEnvP-SC (ID. SC41149) – EIANZ*

Revision	Details	Date	Amended By
	Original	30/06/2025	DE

T: (02) 9630 0121 **Email:** info@cec-au.com

M: (+61) 493 473 621 **Address:** 4/83 Grose St, North Parramatta NSW 2151

Table of Contents

Executive Summary 8
1. Introduction 10
1.1 Objectives 11
1.2 Scope of Works 11
1.3 Limitations 12
2. Environmental Guidelines 13
3. Site Description 14
4. Proposed Development 14
5. Environmental Setting 14
5.1 Regional Geology 14
5.2 Regional and Site Hydrogeology 14
5.3 Site Drainage and Surface Water 15
5.4 Acid Sulphate Soils 15
6. Site History 16
6.1 Historical Information Services 16
6.2 Certificates of Title Review 16
6.3 Historical Aerial Photographs 16
6.4 Council Planning Certificates Review 16
6.5 Review of Historical Council Records 17
6.6 EPA Records Search 17
6.6.1 EPA Records Search Contaminated Land Management Register 17
6.6.2 Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises 17
6.6.3 PFAS 17
6.6.4 Safework NSW 17
7. Review of Previous Investigations 18
7.1 Construction Sciences (2020a) 18
7.2 Construction Sciences (2020b) 18
7.3 CEC Geotechnical (2025) 19
8. Revised Conceptual Site Model 21
8.1 Identified Data Gaps 23
9. Remediation Works 24
9.1 Extent of Remediation 24
9.2 Remediation Acceptance Criteria 25
9.3 Soil and Groundwater Remediation Options 26
9.4 Preferred Soil Remediation Strategy 31

9.4.1 Scenario 1 - The concentration of Hydrocarbons TPH/TRH in soil material exceeds the HSL 31
9.4.2 Scenario 2 - The concentration of Heavy metals, Carcinogenic PAH, VOCs in soil material exceeds the HIL limits 31
9.4.3 Scenario 3 - The concentration of Hydrocarbons TPH/TRH or Heavy metals in groundwater material exceeds the HSL/GIL 31
9.4.4 Scenario 4 - UPSS present under the existing structure 32
10. Data Gap Assessment 33
10.1 Delineation of Hotspots and Additional Sampling of Previous Restricted Areas 33
10.2 Groundwater Well Installation and Sampling 33
10.3 Additional Soil Vapour Sampling (if required) 33
10.4 UPSS Detection Survey 33
10.5 Additional Asbestos Sampling 33
10.6 Additional PFAS Sampling 34
10.7 Data Gap Assessment Report 34
10.8 Review and Update the FRAP 34
11. Scope of Remediation Strategy 35
11.1 Roles and Responsibilities 35
11.2 Category of Works 35
11.3 Preliminaries, Notifications and Permitting 36
11.4 Safety and Environmental Controls 36
11.5 Marking of Remediation Areas 36
11.6 Excavations of Material 36
11.7 Materials Segregation and Stockpiling 37
11.8 Offsite Removal of Contaminated Soil 37
11.9 Soil Validation 37
11.10 Backfilling of Excavations and Site Reinstatement 37
11.11 Site Demobilisation 38
11.12 Remediation Schedule 38
12. Soil Validation Plan 39
12.1 Soil Validation Methodology 39
12.2 Sampling Plan for Validation of Hotspot Excavations 39
12.3 Number of Validation Samples for Analysis 39
12.4 Sample Handling 39
12.5 Laboratory and Sample Analysis 40
12.6 Soil Validation Criteria 40
12.7 Non-Compliance of Validation Criteria 40
12.8 Material for Offsite Disposal 40
12.9 Imported Backfill 40

12.10 Validation Reporting 41
13. Regulatory Approvals / Licensing Required 42
13.1 Resilience and Hazards SEPP 42
13.2 Protection of the Environment Operations (POEO) Act 1997 42
13.3 Protection of the Environment Operations (Waste) Regulation 2014 42
13.4 Duty to Report 43
13.5 Waste classification Guidelines, Part 1: Classifying Waste (EPA 2014) 43
13.6 Transportation of Material and Equipment 43
14. Contingency Plan 44
14.1 Unexpected Material Encountered 44
14.2 Target Excavation Depth Not Achieved 44
14.3 Residual Impact at Site Boundaries 44
15. Site Management Plan 45
15.1 Remediation Schedule 45
15.2 Hours of Operation 45
15.3 Site Access 45
15.4 Imported Fill Materials 45
15.5 Material Tracking Procedure 46
15.6 Stockpile Management 47
15.7 Site Stormwater Management Plan 47
15.8 Noise Control Plan 48
15.9 Air and Odour Control 48
15.10 Soil Management Plan 48
15.11 Work, Health and Safety 49
15.11.1 Health and Safety Plan 49
15.11.2 Hazard Assessment 49
15.11.3 Safe Work Practices 49
15.12 Disposal of Contaminated Soil 49
15.13 Contingency Plan for Site Incidents 50
16. Conclusions 51
17. Limitations and Reliance Statement 52
18. References 53

List of Appendices

APPENDIX A – Figures 55
APPENDIX B – Proposed Development Plan 68
APPENDIX C – PSI (CEC Geotechnical, 2025) 69
APPENDIX D – Search of the NSW EPA Contaminated Land Management Record 70
APPENDIX E – Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises 71
APPENDIX F – Search for NSW Government PFAS Investigation Programme 72
APPENDIX G – Safework Outcome 73
APPENDIX H – DQOs: SAQP & DQIs 74

List of Tables

Table 1: Summary of site details 14
Table 2: Regional and Site Hydrogeology 15
Table 3: Historical and background information sources 16
Table 4: Summary of key findings for CSM 21
Table 5: Updated conceptual site model 22
Table 6: Identified Data Gaps 23
Table 7: Remediation Summary 24
Table 8: Contaminant Assessment Criteria 25
Table 9: Asbestos Screening Criteria 25
Table 10: Remediation Options Assessment for Contaminated Soil and Groundwater 27
Table 12: Roles and Responsibilities 35
Table 13: Category Determination for Remediation 36
Table 15: Material Tracking Documentation 46

List of Figures

Figure 1: Site Location and Work Zone Area 56
Figure 2: Geological Map of Penrith Region 57
Figure 3: Type of Soil on Site 58
Figure 4: Groundwater/Bores Close to the Site 59
Figure 5: Extract of Groundwater/Bores Information Close to the Site 63
Figure 6: Acid Sulphate Soils Map Showing Subject Site 64
Figure 7: Sample Locations from Previous Investigations 65
Figure 8: Preliminary Remediation Area 66
Figure 9: Proposed DGA Sampling Location 67

List of Abbreviations and Acronyms

AEC	Area of Environmental Concerns
ALS	Australian Laboratory Services
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CND	Central Business District
CEnvP	Certified Environmental Professional
CLM	Contaminated Land Management
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DA	Development Application
DDD	dichlorodiphenyldichloroethane
DDE	Dichloro-diphenyl-dichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DEC	Environment and Conservation
DECCW	Department of Environment, Climate Change and Water
DSI	Detailed Site Investigation
EIL	Ecological Investigation Levels (EIL)
ESL	Ecological Screening Levels
GW	Groundwater
HAZMAT	Hazardous Material
HCB	Hexachlorobenzene
HILs	Health Investigation Levels
HSL	Health Screening Levels
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
LCS	Laboratory Control Standard
LOR	Level of Reporting
MW	Monitoring Well
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NSW LPI	New South Wales Land and Property Information
NSWEPA	New South Wales Environmental Protection Agency
QA/QC	Quality assurance and quality control
OCP	Organochlorine Pesticide
OPP	Organophosphorus Pesticide
PAHs	Poly Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
POEO	Protection of the Environment Operations
PQL	Practical quantitation limits
PSI	Preliminary Site Assessment
RPD	Relative Percentage Difference
TC	Tungsten Carbide
TCA	Trichloroethane
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
VENM	Virgin Excavated Natural Material
VOCs	Volatile Organics

Units

ha	Hectare
km	Kilometre
m	Metre
m^2	Square metres
mm	Millimetre
mg/kg	Milligram per kilogram

Executive Summary

CEC Geotechnical Pty Ltd (CEC Geotechnical) was commissioned by Anglican Community Services (Anglicare) to prepare a Framework Remedial Action Plan (FRAP) for the properties located at 215, 229-239 Pitt St, Merrylands, NSW 2160 (herein after referred to as 'the site'). The site is rectangular in shape, comprising Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031, and covers an area of approximately 2,106 m^2. The site location and boundary are located on **Figure 1** in **Appendix A**.

It is understood that the proposed development will comprise the demolition of the existing building structures and the construction of a multi-storey mixed-use development with four levels of basement car park. The objective of this FRAP is to provide details of the work that will be required at the site to meet the remediation objectives and to support the State Significant Development Application (SSDA).

Several site investigations have been conducted at the site by others and CEC Geotechnical, indicating the data gaps and recommending further investigation to delineate the extent of soil and groundwater contamination at the site and the preparation of RAP. The recent site investigation conducted by CEC Geotechnical comprised a desktop review of the site's history and limited soil sampling from six boreholes installed across the site. The investigation identified the presence of a former petrol station within Lot 2 DP501597. Laboratory analysis of the collected soil samples revealed exceedances of applicable assessment criteria. Specifically, sample BH1-0.5 recorded Total Recoverable Hydrocarbons (TRH) in the C6–C10 range at concentrations 2.4 to 2.88 times higher than the adopted Human Health Screening Level (HSL-D). In addition, exceedances of the Ecological Screening Levels (ESL) were observed in sample BH1-0.5 for TRH fractions C6–C10, C10–C16, and C16–C34. Samples BH5-0.3 and BH5-1.0 also recorded TRH C10–C16 concentrations exceeding the ecological screen level (ESL). The PSI concluded the contamination was associated with the potential presence of a historical underground petrol storage system (UPSS) from a former service station at the site.

The site is currently tenanted for commercial use and is largely covered by concrete pavement. Due to restricted access, a detailed site investigation (DSI) to address existing data gaps could not be undertaken. CEC Geotechnical has recommended that the DSI be conducted following the demolition of existing building structures. The proposed DSI would include assessment of the potential underground petroleum storage system (UPSS), delineation of soil and groundwater contamination, and, if warranted by the findings, a vapour intrusion assessment. However, given the current access constraints, these investigations cannot be completed prior to the submission of the State Significant Development Application (SSDA). As such, a FRAP is presented in support of the development application. This FRAP is based on current site investigation data and will be updated and finalised following completion of the DSI once full site access is available.

The objectives of this RAP are to:

- Outline the remediation works and procedures required to remove asbestos-impacted soils and make the site suitable for the proposed residential redevelopment;
- Prepare FRAP based on the current understanding of the site contaminations, subject to updating site information based on the additional detailed site investigation to be conducted;

- Outline appropriate environmental and occupational health and safety controls to be implemented during the remediation works;
- Assess that remediation is carried out in accordance with relevant legislation, guidelines and good practice standards;
- Develop the validation assessment and reporting requirements to demonstrate successful remediation and provide evidence that the site is suitable for its intended land use; and
- Provide a basis for communication with relevant stakeholders, including the client, council, and regulatory agencies, regarding the remediation approach and outcomes.

It is considered that the site can be made suitable for the proposed multi-storey mixed-use development, subject to after implementation of this FRAP.

1. Introduction

CEC Geotechnical Pty Ltd (CEC Geotechnical) has been engaged by Anglican Community Services (Anglicare) to prepare this Framework Remedial Action Plan (FRAP) for remediation of potential contamination f at the property located at 215, 229-239 Pitt Street, Merrylands, NSW 2160 (herein referred to as 'the site'). The property is identified as Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031, and is located within the Cumberland City Council Local Government Area (LGA). The site is rectangular in shape and covers an approximate area of 2,106 m^2. The site location and boundary are shown on **Figure 1** in **Appendix A.**

It is understood that the proposed development comprises demolition of the existing building structures and construction of a multi-storey mixed-use residential building and commercial shops with a four-level basement car park. A copy of the proposed development plan is presented in **Appendix B.**

Several site investigations have been conducted at the site by others and CEC Geotechnical, indicating the data gaps and recommending further investigation to delineate the extent of soil and groundwater contamination at the site and the preparation of RAP. The recent site investigation conducted by CEC Geotechnical (CEC Geotechnical, 2025) comprised a desktop review of the previous site investigation conducted by others and limited soil sampling from six boreholes installed across the site. The investigation identified the presence of a former petrol station within Lot 2 DP501597. Laboratory analysis of the collected soil samples identified exceedances of adopted site assessment criteria for the proposed development. CEC Geotechnical concluded that the contamination was associated with the potential presence of a historical underground petrol storage system (UPSS) from a former service station at the site.

The site is currently tenanted for commercial use and is largely covered by concrete pavement. Due to restricted site access, a detailed site investigation (DSI) to address existing data gaps could not be undertaken. CEC Geotechnical has recommended that the DSI be conducted following the demolition of existing building structures. The proposed DSI would include assessment of the potential underground petroleum storage system (UPSS), delineation of soil and groundwater contamination, and, if warranted by the findings, a vapour intrusion assessment. However, given the current access constraints, these investigations cannot be completed prior to the submission of the State Significant Development Application (SSDA). As such, a FRAP is presented in support of the development application. This FRAP is based on current site investigation data and will be updated and finalised following completion of the DSI once full site access is available.

This FRAP includes an evaluation of remediation options in accordance with the National Remediation Framework (NRF) as per CRC CARE (2019) to:

- Address potentially unacceptable risks to relevant environmental values from contamination; and
- Remove contamination from the site, such that it is suitable for unrestricted use.

This RAP provides details of the work that will be required at the site to meet the remediation objectives.

1.1 Objectives

The objectives of this FRAP are to:

- Outline the remediation works and procedures required to remove impacted soils, UPSS, and make the site suitable for the proposed redevelopment;
- Prepare FRAP based on the current understanding of the site contaminations, subject to updating site information based on the additional detailed site investigation to be conducted;
- Outline appropriate environmental and occupational health and safety controls to be implemented during the remediation works;
- Assess that remediation is carried out in accordance with relevant legislation, guidelines and good practice standards;
- Develop the validation assessment and reporting requirements to demonstrate successful remediation and provide evidence that the site is suitable for its intended land use; and
- Provide a basis for communication with relevant stakeholders, including the client, council, and regulatory agencies, regarding the remediation approach and outcomes.

The FRAP will be revised and updated following the completion of the data gap assessment, once additional site information becomes available.

1.2 Scope of Works

The scope of work for this FRAP includes the following:

- Review of previous environmental investigations undertaken at the site, including reports prepared by CEC Geotechnical (CEC Geotechnical, 2025), and Construction Sciences (Construction Sciences, 2020a & 2020b);
- Review and update conceptual site model (CSM);
- Assess, select, and justify a preferred approach to remediation to render the site suitable for its proposed use, and which will minimise potentially unacceptable risk to human health and/or the environment;
- Select an appropriate remediation strategy to render the site suitable for the proposed development;
- Outline occupational health and safety (OHS) measures to be implemented during remediation activities in accordance with SafeWork NSW requirements;
- Outline waste classification and transport requirements in accordance with the NSW EPA Waste Classification Guidelines (2014);
- Post-remediation validation sampling and analysis to confirm that remediation goals have been achieved;
- Unexpected finds procedure to address any additional contamination identified during site works; and
- Reporting and documentation, including preparation of validation report summarising remediation activities, waste disposal, and validation results.

1.3 Limitations

The limitations of this FRAP are as follows:

- CEC Geotechnical prepared this FRAP in accordance with regulatory criteria, practices, and standards, and the level of skill and care ordinarily exercised by members of the profession;
- This FRAP report is prepared based on a previous soil and groundwater site investigation conducted by CEC Geotechnical (CEC Geotechnical, 2025), and Construction Sciences (Construction Sciences, 2020a & 2020b). Due to restricted site access, a detailed site investigation, including delineation of soil and groundwater contamination, UPSS assessment, and vapour risk evaluation, could not be completed. As such, this FRAP is considered preliminary and will be updated upon completion of the DSI following demolition of existing structures;
- Site conditions may vary spatially and temporally. The conditions identified during the previous and current investigations reflect those observed at specific locations and times. As such, no guarantee is provided that all contamination has been identified, and the presence of unidentified contamination cannot be ruled out;
- This FRAP is based on the information made available at the time of reporting. CEC Geotechnical accepts no liability for any errors or omissions in data or information provided by third parties or regulatory agencies; and
- All conclusions regarding the property area are the professional opinions of CEC Geotechnical, subject to the qualifications in the report. While normal assessments of data reliability have been made, CEC Geotechnical assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of CEC Geotechnical, or developments resulting from situations outside the scope of this project.

2. Environmental Guidelines

The following guidelines were referred to in preparing this:

- WA DOH, 2021. Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites. Western Australia Department of Health, Perth.
- CRC CARE, 2019. Remediation Action Plan: Implementation – Guideline on Documentation, Record Keeping and Reporting. National Remediation Framework, Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE), Adelaide.
- CRC CARE, 2019a. Remediation Action Plan: Implementation – Guideline on Health and Safety. National Remediation Framework, CRC CARE, Adelaide.
- NSW EPA, 2014. Waste Classification Guidelines, Part 1: Classifying Waste. New South Wales Environment Protection Authority, Sydney.
- NSW EPA, 2014. Excavated Natural Material Order and Excavated Natural Material Exemption. New South Wales Environment Protection Authority, Sydney.
- NSW EPA, 2022. Sampling Design Part 1 – Application. Contaminated Land Guidelines. New South Wales Environment Protection Authority, Sydney.
- NSW EPA, 2020. Guidelines for Consultants Reporting on Contaminated Sites. New South Wales Environment Protection Authority, Sydney.
- NEPC, 2013. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013). National Environment Protection Council, Canberra.
- NSW Government, 2021. State Environmental Planning Policy (Resilience and Hazards) 2021. NSW Department of Planning and Environment, Sydney.
- NSW Government, 1997. Contaminated Land Management Act 1997. NSW Government, Sydney.
- NSW Government, 2023. Protection of the Environment Operations Act 1997 (as amended). NSW Government, Sydney.
- SafeWork NSW, 2021. Code of Practice: How to Safely Remove Asbestos. SafeWork NSW, Sydney.
- NSW Government, 2017. Work Health and Safety Regulation 2017. NSW Government, Sydney.
- Standards Australia, 2004. AS 4964:2004 – Method for the Qualitative Identification of Asbestos in Bulk Samples. Standards Australia, Sydney.

3. Site Description

The site is located approximately 20.4 km Northwest of Sydney CBD, NSW. The site is located at the corner of Pitt Street and McFarlane Street, Merrylands. The planning certificate shows that the site is situated within Zone E2–C. The site is rectangular in shape, with an area of approximately 2,102 m^2, measuring approximately 49.5 m frontage along Pitt Street and 42.6 m frontage along McFarlane Street. The site location and boundary are shown on **Figure 1** in **Appendix A**, and site details are summarised in Error! Reference source not found..

Table 1: Summary of site details

Items	Details
Site Address	215, 229-239 Pitt Street, Merrylands
Approximate Site Area (m^2)	2,106
Title Details (Coordinates)	Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031 (-33.836094, 150.991152)
Council Area	Cumberland City Council
Surrounding Land Use and Environmental Conditions	West: Asphalt two-lane Reyes Lane appeared clean East: Asphalt three-lane Pitt Street appeared clean North: Asphalt two-lane McFarlane Street appeared clean South: Asphalt two-lane Short Lane appeared clean

4. Proposed Development

It is understood that the proposed development comprises demolition of the existing building structures and construction of a multi-storey mixed-use residential building and commercial shops with a four-level basement car park. A copy proposed development plan is presented in **Appendix B**

5. Environmental Setting

5.1 Regional Geology

The 1:100,000 scale Geological Series Map of the Sydney region indicates that the subject site is underlain by Bringelly SHALE **(Rwb)** of the Wianamatta group, which consists of shale, carbonaceous claystone, claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff dating back to the Mesozoic Period, as shown in **Figure 2** in **Appendix A**.

Soil profile and soil map information were collected from the NSW Department of Planning, Industry, and Environment. As shown in **Figure 3** in **Appendix A.** The subject site consists of soil, shallow to moderately deep (<100 cm) Red and Brown Podzolic Soils (Dr3.21, Dr3.11, Db2.11) on crests, upper slopes, and well-drained areas; deep (150–300 cm) Yellow Podzolic Soils and Soloths (Dy2.11, Dy3.11) on lower slopes and in areas of poor drainage. Dominant soils comprise bt1(Friable brownish-black loam), bt2 (Hardsetting brown clay loam), bt3 (Strongly pedal, mottled brown light clay), and bt4 (Light grey plastic mottled clay).

5.2 Regional and Site Hydrogeology

A search for registered well was performed through the WaterNSW database to identify wells in the vicinity of the site. 4 registered groundwater bores were detected within a 500m radius of the site;

records of the search are summarised in **Table 2**. The groundwater (GW) search map and bore information is given in **Figure 4-5** in **Appendix A**. The regional groundwater depth is expected to be below 2.1 m bgl.

Additionally, CEC Geotechnical targeted 3 groundwater wells in order to monitor the presence of any groundwater for a Geotechnical Investigation reference GR24220, issued 10/06/2025, as shown in **Figure 7**, **Appendix A**. The water levels in monitoring wells (GW1-GW3) were recorded, as shown in **Table 2**. based on the previous site investigation at the site, the groundwater level ranges between 12.3 m and 14.0 m bgl.

Table 2: Regional and Site Hydrogeology

Bore Identification	Bore Location (Approximate distance in m)	Standing Water Level (m bgl)	Intended Purpose
GW105490	N (201m)	2.45	Monitoring Bore
GW105491	N (202m)	2.3	Monitoring Bore
GW105489	N (212m)	2.45	Monitoring Bore
GW105488	N (213m)	2.1	Monitoring Bore

Site Hydrogeology			
Monitoring Well from Geotechnical Investigation Ref. GR24220	Groundwater Level (m bgl)		Approximate Depth of Rock Level Encountered (m bgl)
	13/05/2025	06/06/2025	
GW1	12.90	13.27	6.7
GW2	12.28	13.47	6.3
GW3	12.43	13.98	6.0

5.3 Site Drainage and Surface Water

Stormwater flow is likely to be towards the northeast, consistent with topography, draining via the municipal stormwater system to A'becketts Creek, located approximately 346m to the northeast of the site, as shown in **Figure 4** in **Appendix A**.

5.4 Acid Sulphate Soils

The Department of Land and Water Conservation Acid Sulphate Soils Map indicates that the site is in an area of no known acid sulphate soils, as shown in **Figure 6** in **Appendix B**.

6. Site History

6.1 Historical Information Services

The historical information sources listed in **Table 3** were obtained and reviewed.

Table 3: Historical and background information sources

Information	Source	Details
Title Search	Info Track	Historical Title Search for the site
Aerial Photographs	NSW Land and Property Information (LPI) and Nearmaps	Aerial Photographs were obtained in 1943, 1965, 1978, 1986, 1998, 2009, 2019 and 2024
Council Records	Cumberland City Council	Historical Council records and Planning certificate

6.2 Certificates of Title Review

The historical title searches (1914-recent) were undertaken for the site and used to obtain the land use scenarios and occupancy information details of the site. A summary of the site owner reports compiled by InfoTrack and the title certificate results of the search are provided in the PSI (CEC Geotechnical, 2025) in **Appendix C**. From the report, it was observed that the site was owned by Amoco Australia Pty Ltd between 1962 to 1986, which is one of the oil distributors during this period.

6.3 Historical Aerial Photographs

A detailed review of historical aerial photographs is presented in the PSI (CEC Geotechnical, 2025), **Appendix C**. The key observation from the aerial images is summarised as follows:

- A residential dwelling and shed structures different from the existing dwellings were observed in Lot 2 DP501597, since 1943, and demolished before 1965;
- Since 1965, a petrol station was observed in Lot 2 DP501597, and it was demolished before 1998. Moreover, it was predicted that this structure would be abandoned in 1986;
- Since 1965, 2 residential structures were observed in blocks Lot 2 DP537031, Lot J DP10354, and Lot 1 DP1079960, expected to be demolished before 1978;
- The existing commercial structure in blocks Lot 2 DP537031, Lot J DP10354, and Lot 1 DP1079960 has been present on the site since 1978; and
- The existing commercial structure in Lot 2 DP501597has been present on the site since 1998.

6.4 Council Planning Certificates Review

A review of the Council Planning Certificates indicates that:

- The site is not affected by Mine Subsidence;
- The site is not affected by Acid Sulphate Soil;.
- The site is not significantly affected by Contaminated Land as part of the Contaminated Land Management Act (1997);
- The land is not identified on the Council's Bush Fire Prone Land Map; and
- The land is not affected by Loose-Fill Asbestos Insulation.

Full planning certificates are present in the PSI (CEC Geotechnical, 2025) in **Appendix C**.

6.5 Review of Historical Council Records

CEC Geotechnical contacted the Cumberland City Council for the requirement of Government Information Public Access (GIPA). The Council did not locate records related to previous site assessments or records of contamination (fires, oil spills, etc.) However, a search in the Cumberland City Council DA tracker showed two previous environmental reports issued for the subject site.

- Stage 1 and 2 – Preliminary and Detailed Site Investigation (PSI-DSI), reference No. 5046200053-R01, dated 07/05/2020, was prepared by Construction Sciences Pty Ltd (Construction Sciences, 2020a); and
- Stage 3 – Remedial Action Plan (RAP), reference No. 10791EV.P55-R03d1, dated 27/11/2020, was also prepared by Construction Sciences Pty Ltd (Construction Sciences, 2020b).

The results of the searches are provided in the PSI (CEC Geotechnical, 2025) in **Appendix C.**

6.6 EPA Records Search

6.6.1 EPA Records Search Contaminated Land Management Register

A search was conducted on the NSW EPA CLM Act Record of Notices within the Merrylands suburb on 16 June 2025. The results indicated that the site was not the subject of any notifications under Section 58 of the Contaminated Land Management Act 1997, as shown in **Appendix D**. A search of the publicly available online was also completed on 16th June 2025 for EPA under Section 60 CLM Act 1997. The updated data up to 10 June 2025 of the EPA database of properties that have been notified to the EPA under Section 60 CLM Act 1997 was searched. 6 records for 'regulation under CLM Act not required' were observed in Merrylands. Based on the location, distance, and review of the environmental setting at the surrounding site, contamination from this off-site source is considered highly unlikely.

6.6.2 Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises

A search was conducted on the NSW EPA Record of Notices on 16 June 2025. The results indicated that 6 records were retrieved for a license, license variation, POEO license, cleanup notice, and variation of cleanup notice for premises located within the suburb of Merrylands, and the search result is presented in **Appendix E**. The site was not subject to any of these notices. Out of 6 retrieved, 1 penalty notice was issued to Amigos Civil Group Pty Ltd (19 Badham Street, Merrylands, 1.37km from the subject site).

6.6.3 PFAS

A search of the NSW EPA records for the PFAS investigation program provided details of 50 sites in NSW. Out of 50 sites, no site with PFAS contamination was located in Merrylands, as shown in **Appendix F**.

6.6.4 Safework NSW

CEC Geotechnical has submitted an application to Safework NSW for the requirement of License for dangerous goods from Safework NSW. Safework NSW did not allocate any records pertaining to hazardous chemicals storage within the site. A copy of the Safework NSW record is presented in **Appendix G**.

7. Review of Previous Investigations

The FRAP is based on the findings of the previous environmental site investigations conducted at the site includes:

- Stage 1 and 2 – Preliminary and Detailed Site Investigation (PSI-DSI), reference No. 5046200053-R01, dated 07/05/2020, was prepared by Construction Sciences Pty Ltd (Construction Sciences, 2020a);
- Stage 3 – Remedial Action Plan (RAP), reference No. 10791EV.P55-R03d1, dated 27/11/2020, was also prepared by Construction Sciences Pty Ltd, (Construction Sciences, 2020b); and
- Stage 1 Preliminary Site Investigation (PSI) CEC Geotechnical Pty Ltd conducted, Reference No. ER24029, Dated 28/04/2025 (CEC Geotechnical, 2025).

Previous investigations undertaken on the site are summarised in the section below.

7.1 Construction Sciences (2020a)

Construction Sciences was engaged by Anglican Community Services ('Anglicare' or the 'Client'), to undertake a combined stage 1 preliminary site investigation (PSI) and stage 2 detailed site investigation (DSI) at the site located at Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031. The key outcomes of the PSI and DSI reports are summarised as follows:

- A previous contamination assessment was conducted by Network Geotechnics Pty Ltd (Network Geotechnics, 2017) titled *Due Diligence Contamination Assessment*, 215-239 Pitt Street, Merrylands, dated 5 December 2017, ref: G09-2639.7. The report included the collection and analysis of soil and groundwater samples from readily accessible areas. It concluded that widespread soil contamination was unlikely; however, one sample (BH3-NG-1.0-1.1m bgl) exceeded TRH C6-C10 for HSL D;
- Network Geotechnics (2017) reported a thick concrete structure at 1.1 m bgl adjacent to BH3-NG, which was assumed to be pavement from previous structures;
- Drilling of five soil bores was conducted (four shallow hand auger bores HA103 to HA106 and one deep borehole BH104 which was converted into a groundwater monitoring well) within the building footprints;
- No exceedance above the adopted site assessment criteria of CoPC was identified in all soil and groundwater samples;
- The potential for unacceptable soil and groundwater contamination to be present on the site, as a result of the former service station at No.215-239 Pitt Street, Merrylands, was assessed to be low;
- The potential for off-site migration of contamination was also considered to be low; and
- From a contamination perspective, the site was assessed as suitable for the proposed development, in accordance with the requirements of SEPP55 and NEPM (2013).

7.2 Construction Sciences (2020b)

Construction Sciences was engaged by Anglican Community Services (Anglicare), to prepare a RAP for the part of the site located at Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031.

In response, the Cumberland City Council requested additional information regarding the potential presence of former UPSS infrastructure and associated contamination that may be encountered during the proposed earthworks. The Council recommended that a Remedial Action Plan (RAP) be prepared to ensure the site could be made suitable for the proposed land use, particularly if UPSS infrastructure is encountered during construction. Additionally, concerns were raised about the possibility of such infrastructure and contamination being present beneath existing buildings and pavements, potentially posing an unacceptable risk to construction workers.

Based on its review of the historical contamination reports, Construction Sciences concluded that the remedial goal is achievable and the site can be rendered suitable for the proposed development, subject to the following conditions:

- If remediation of UPSS infrastructure is required, the recommended strategy involves excavation and off-site disposal of the impacted infrastructure and associated contaminated materials;
- Upon completion of all demolition activities—including the removal of existing slabs, hardstand pavements, and off-site disposal of all demolition waste—the exposed ground surface will be assessed using a detailed ground-penetrating radar (GPR) survey to detect the presence of any former UPSS infrastructure;
- If the GPR survey does not identify former UPSS infrastructure, then the remediation strategies outlined in the RAP will not be required. In this case, a report will be prepared by the environmental consultant summarising the GPR survey findings and the results of a SafeWork NSW records search. This report will be submitted to the Council for review;
- If the GPR survey does identify the presence of former UPSS infrastructure, the infrastructure will be marked on the ground and in the report, and its approximate depth will be estimated to allow for safe removal by qualified contractors; and
- A Site Validation Report (SVR) will be prepared following completion of all remediation works..

7.3 CEC Geotechnical (2025)

CEC Geotechnical Pty Ltd conducted a Stage 1 Preliminary Site Investigation (PSI) at 215, 229-239 Pitt Street, Merrylands, as referenced in document ER24029, issued 28/03/2025. The key outcomes of the PSI are listed below:

- Aerial photographs showed that structures in Lot 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031, were built before 1978, and in Lot 2 DP501597 before 1998. Consequently, there is a potential risk of asbestos contamination at the site;
- A previous DSI and RAP completed by Construction Sciences identified a former petrol station within Lot 2 DP501597, but no soil contamination was reported in the DSI report. However, the RAP report observed a potential UPSS-related contamination beneath existing buildings and pavements;
- A total of 12 discrete soil samples were collected from six accessible locations across the site, including one soil sample for intra-lab duplicate, two for QA/QC, and two samples at depth. Samples were analysed for CoPC including heavy metals such as arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc, polycyclic aromatic hydrocarbons (PAHs), benzene, toluene, ethylbenzene, and xylene (BTEX), total recoverable hydrocarbons (TRH),

glycols, cyanide, acids, volatile organic compounds (VOCs), and asbestos. The laboratory results for the soil samples indicated that:

- BH1-0.5 recorded TRH C6–C10 concentrations exceeding the adopted human health assessment criteria (HSL-D) by factors of 2.4 and 3.88;
- Exceedances of the Ecological Screening Levels (ESLs) were observed in BH1-0.5 for TRH fractions C6–C10, C10–C16, and C16–C34;
- BH5-0.3 and BH5-1.0 showed exceedances of TRH C10–C16 for the ecological ESL.
- The sampling locations for soil and groundwater samples are presented in **Figure 7**, **Appendix A.**

Based on the findings of PSI a Detailed Site Investigation (DSI) was recommended to evaluate the potential presence of an underground petroleum storage system (UPSS) and associate pipe systems, assess soil and groundwater contamination, and if necessary, conduct a vapour intrusion assessment. The large portion of the site is covered with built structures and the remaining areas are covered with asphalt and concrete pavements, limiting site access to undertake a DSI, therefore A DSI is proposed to be undertaken post demolishing existing structures. The UPSS also presents drilling risks since records of decommissioning of the UST is not available. Therefore, CEC Geotechnical recommends that the DSI be undertaken only after demolition and site clearance. In addition, a Framework Remedial Action Plan (FRAP) was recommended, including the need for a Data Gap Assessment (DGA) to confirm the extent of contamination and ensure the site can be made suitable for the proposed land use. The DGA is recommended to be conducted following demolition of existing structures, to allow access for further sampling and to delineate potentially contaminated areas.

8. Revised Conceptual Site Model

This conceptual site model (CSM) has been updated following the findings of the PSI (CEC Geotechnical, 2025) to determine the potential complete exposure pathways between potential contamination sources to receptors such as humans and/or the environment. It also assesses the potential migration of the COPC relative to site-specific subsurface conditions with regard to their potential risk to human health and the environment. A CSM provides an assessment for identifying the following:

- Sources of contamination;
- COPC according to the site history and present site conditions;
- Potential pathways;
- Potential receptors and
- Potential exposure pathways.

Table 4: Summary of key findings for CSM

Item	Description
Site History/ Potential Contaminant Source	• Hydrocarbon-contaminated soil and groundwater from the former petrol station at Lot 2 DP501597; • Potential presence of UPSS under existing structures at Lot 2 DP501597; • Asbestos materials and lead-based paint present within the existing structures at Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, and Lot 1 DP1079960; and • Asbestos and lead-contaminated soil at the location of the footings of former structures demolished at Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, and Lot 1 DP1079960.
Current and Future Use of the Site	• The current use comprises commercial shops; and • The proposed future use comprises the construction of a multi-storey mixed-use building, including commercial shops, residential flats, and a 4-level basement.
Site Geology	• According to the interpretation of the sub-surface soil profile comprises podzolic soils. This material would provide a relatively medium permeable layer and may limit the migration of contamination into deeper soils or groundwater.
Site Hydrogeology	• The groundwater level is expected to vary between 12.28 m - 13.98 m bgl.
COPCs within the Site	• Heavy metals, hydrocarbons, BTEX, phenols, VOCs, and asbestos
COPCs from neighbouring sites	• There were no records of registered contaminated land in the immediate surroundings of the site. Therefore, no off-site source of contamination is considered.

Table 5: Updated conceptual site model

Potential Contamination Source	COPCs	Secondary Contamination Source	Potential Exposure Pathways	Potential Receptors	Risk	Description
Potential presence of an Underground petroleum storage system (UPSS) from a previous service station in the site	Heavy metals, Hydrocarbons (TPH/TRH), PAHs, BTEX, Phenols, VOCs	Soil Groundwater	• Direct dermal contact, • Inhalation of vapours/dust • Ingestion	• Future demolition/construction workers, maintenance workers including builders, council workers etc	**Medium to high**	The contaminants concentration observed in the PSI results showed exceedance compared to HSL criteria. Additionally, the probability of exposure was considered moderate.
				• Current site users • Future tenants and visitors	**Medium to high**	Considering the reported groundwater level is above the proposed basement level. The presence of hydrocarbons in groundwater can potentially cause vapour infiltration through the concrete slab.
				• Groundwater aquifer • Aquatic ecosystems	**Medium to high**	The reported groundwater contamination may migrate and impact aquatic ecosystems by migration through the local stormwater system.
HAZMAT materials in buildings	Asbestos and lead	Soil	• Direct dermal contact, • Inhalation of dust • Ingestion	• Current site users • Future demolition/construction workers, maintenance workers including builders, council workers etc	**Medium**	The aerial photographs showed the current structures were built before 1998. If present, the contamination is expected to be limited to surface soils within previous building footprints and footings.
HAZMAT materials in soil	Asbestos and lead	Soil	• Direct dermal contact, • Inhalation of vapours/dust • Ingestion	• Future demolition/construction workers, maintenance workers including builders, council workers etc • Current site users • Future tenants and visitors	**Medium to Low**	The aerial photographs showed previous structures demolished before 1978. If present, the contamination is expected to be limited to surface soils within previous building footprints and footings.

8.1 Identified Data Gaps

Based on the findings of the PSI (CEC Geotechnical, 2025), a number of data gaps were identified that require further assessment. The identified data gaps are outlined in **Table 6** below

Table 6: Identified Data Gaps

COPCs	Potential Contamination Source	Data Gap	Potential Outcomes
Metals, TRH, BTEX, PAH, PFAS	Soil	Further soil sampling is necessary to determine the extent of contamination under the existing structures and to compare it against the HSL D assessment criteria	The concentration of TRH and BTEX in the soil is greater than the HSL.
	Groundwater	Further groundwater assessment is necessary to evaluate the vertical and horizontal extent of the groundwater contamination.	Hydrocarbon contamination levels are greater than the adopted Groundwater Investigation Levels. Potential off-site impacts from the contaminated groundwater
	Soil vapour	Soil vapour concentration assessment to evaluate the site-specific risk assessment for the identified TRH groundwater contamination	The hydrocarbon concentration of soil vapours is greater than the HSL
COPCs	Presence of UPSS	The potential presence of an Underground Petroleum Storage System (UPSS) needs to be confirmed using a scanning radar	The underground services clearance using GPR scanning results shows the presence of a UPSS under the existing commercial structure

9. Remediation Works

The remediation works are proposed to be carried out in the following stages:

- **Stage 1**: Demolition and Site Clearance - Demolition of the existing buildings and removal of surface infrastructure and pavements to allow full access to the site;
- **Stage 2:** Detailed Site Investigation (DSI) - Undertake a detailed site investigation in accordance with the Sampling Analysis and Quality Plan (SAQP) outlined in this Framework Remedial Action Plan (FRAP), to further characterise the extent and nature of contamination;
- **Stage 3:** FRAP Review and Update - Review and update the FRAP based on the results of the DSI to refine remediation strategies and ensure they are appropriate for site conditions; and
- **Stage 4:** Validation Assessment - Conduct a validation assessment following completion of remediation works to confirm that the site meets the required criteria for its intended land use.

9.1 Extent of Remediation

Based on the results of previous investigations (**Section 7**), a preliminary remediation area has been delineated and is presented in **Figure 8**, **Appendix A**. This area is located in the vicinity of BH1, BH5, and BH3-NG, where hydrocarbon concentrations was identified above the adopted site assessment criteria. The estimated remediation footprint covers approximately 270 m², with a proposed initial remediation depth of 1.5 m below the concrete slab.

This results in an estimated in-situ soil volume of approximately 405 m³, which equates to around 648 m³ when adjusted for the bulk density factor (1.6). It is important to note that this volume is indicative only and will be refined following completion of the Data Gap Assessment (DGA).

The excavated soil should be classified as hazardous waste in accordance with the NSW EPA (2014) Waste Classification Guidelines. The preliminary horizontal and vertical extent of contamination has been inferred from borehole logs and sample results from previous investigations and is currently understood to be confined within the site boundaries shown in **Figure 7, Appendix A**.

Table 7: Remediation Summary

Location	Material	Approximate Area (m^2) and depth of excavations	Approximate in-situ Volume (m^3)	Approximate ex-situ Volume (m^3) and tonnage
BH1, BH5 and BH3-NG	Hydrocarbon-impacted soil	The volume is based on an area of 270 m^2 x 1.5 m bgl (depth of investigation)	405	648 m^3 or 1,036 tonnes

Notes: 1 Based on an assumed bulk density of Silty Clay 1.6 tonnes/m^3 and a soil bulking factor of 1.6 post excavation.

9.2 Remediation Acceptance Criteria

The remediation acceptance criteria (RAC) for the remediation are listed in

Table 8 and **Table 9**. These criteria were chosen from established guidelines approved by national and/or state regulatory authorities, considering the expected site exposure scenario, potential exposure pathways, and identified receptors. Additionally, the criteria were chosen considering the COPCs identified in the previous investigation reports.

Table 8: Contaminant Assessment Criteria

Type of Contaminant	Potential Contamination Source	Assessment Criteria
Heavy Metals, PAHs, Phenols, VOCs	Soil	• Health-based Criteria for the current land use: NEPM (2013) Schedule B1 HIL-B for Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space, such as high-rise buildings and flats • Ecological Criteria for the current land use: Ecological Investigation Levels (EILS) for urban residential and public open space
	Groundwater	• Groundwater Investigation Levels (GILs) as per ASC NEPM (2013) Schedule B1
Hydrocarbons (TPH/TRH), BTEX	Soil	• Health screening levels Criteria NEPM (2013) Schedule B1 Soil HSL-D for commercial/industrial land use. According to NEPM Schedule B1 (Section 2.2.3.2), the HSL-D is applicable for high-density residential developments with a basement. • Ecological Criteria for the current land use: Ecological Screening Levels (ESL) for urban residential and public open space
	Groundwater	• Health screening levels Criteria NEPM (2013) Schedule B1 Groundwater HSL-D for commercial/industrial land use • Groundwater Investigation Levels (GILs) as per ASC NEPM (2013) Schedule B1
	Soil-vapor	• Health screening levels Criteria NEPM (2013) Schedule B1 Soil Vapor HSL-D for commercial/industrial land use

Remediated Soil should not have Asbestos Containing Materials (ACM) exceeding 0.04% by weight, and visible ACM, Asbestos Fines (AF), and Fibrous Asbestos (FA) must be absent from the surface soil within the site. As the site is intended for residential purposes, the most sensitive standards have been used (HSL-B) following NEPC (2013) Soil HILs.

Table 9: Asbestos Screening Criteria

Type of Contaminant	Health Screening Level Residential-A (HSL-A)
Fibrous Asbestos (FA)	10 mg/kg (0.001 %) w/w asbestos
Asbestos Fines (AF)	10 mg/kg (0.001%) w/w asbestos
Asbestos Containing Material (Bonded ACM)	400 mg/kg (0.04 %) w/w asbestos
All forms of asbestos	No visible asbestos in surface soils

9.3 Soil and Groundwater Remediation Options

The NSW EPA follows the hierarchy set out in NEPM (2013) for the remediation and/or management of contaminated sites. The following is the recommended order for soil remediation and management:

1. On-site treatment of soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level; and
2. Off-site treatment of excavated material so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site; or

If either of the above options is not practicable, then the following alternatives should be considered:

3. Consolidation and isolation of the soil by on-site containment within a properly designed barrier; and
4. Removal of contaminated material to an approved site or facility, followed where necessary by replacement with material meeting the resource recovery criteria or VENM/ENM criteria; or
5. If the assessment indicates that remediation would not result in an overall environmental benefit or would have a negative impact on the environment, then an appropriate management strategy should be put into place.

Additionally, the NSW EPA Contaminated Land Management Guidelines for the NSW Site Auditor Scheme (2017) provide the following additional requirements to be taken into consideration:

- During the selection of a remediation strategy, sustainability (environmental, economic, and social) must be considered when deciding which remediation option to choose, in terms of achieving an appropriate balance between the benefits and effects of undertaking the option.

- Where it is not viable to remediate large quantities of soil with low levels of contamination, alternative strategies should be considered or developed.

- In cases where not readily available or economically feasible method is available for remediation, it may be possible to adopt appropriate regulatory controls or develop other forms of remediation.

Finally, considering the hierarchy set out in NEPM (2013) for the remediation of contaminated sites and NSW EPA Contaminated Land Management Guidelines for the NSW Site Auditor Scheme (2013). A suitability evaluation of feasible soil and groundwater remediation options is outlined in **Table 10**. The evaluation options were developed considering the potential outcomes of the data gap investigation.

Table 10: Remediation Options Assessment for Contaminated Soil and Groundwater

Scenario/Remediation Requirement	Remedial Option	Benefits	Limitations	Acceptability	Cost Estimate (Comparative)	On-going Liability
Soil Contamination						
1. The concentration of Hydrocarbons TPH/TRH in soil material exceeds the HSL-D	**Option 1: No Action is Required**	Nil cost	Not suitable as the proposed development involves bulk excavation	Does not meet EPA requirements and does not meet the remedial objectives for the property	Nil cost outlay	Yes
	Option 2: On-site Treatment of Contaminated Soil	Removes contamination	Requires a physicochemical treatment that involves external machinery or specialised equipment	Acceptable approach and meets EPA requirements for remediation	High - due to ongoing requirements associated with the long-term environmental management plan (LTEMP)	Ongoing liability
	Option 3: Off-site Treatment of Contaminated Soil	Removes contamination	Requires an external licensed treatment facility and additional assessment of the treated soil for reuse	Acceptable approach and meets EPA requirements for remediation	High	No ongoing liability
	Option 4: Excavation and Off-site Disposal	Removes contamination	Requires waste classification of excavated fill material prior to disposal and validation works post-remediation	Acceptable approach and meets EPA requirements for remediation	High	No ongoing liability

Scenario/Remediation Requirement	Remedial Option	Benefits	Limitations	Acceptability	Cost Estimate (Comparative)	On-going Liability
	Option 5: Capping and Containment	Eliminates the requirement for off-site disposal	Not suitable as the proposed development involves bulk excavation	Acceptable approach and meets EPA requirements for remediation	Low to Medium – due to ongoing requirements associated with environmental management plan (EMP)	Yes
2. The concentration of Heavy metals, B(a)P, and VOCs in soil material exceeds the HIL-B limits	**Option 1: No Action is Required**	Nil cost	Not suitable as the proposed development involves bulk excavation	Does not meet EPA requirements and does not meet the remedial objectives for the property	Nil cost outlay	Yes
	Option 2: On-site Treatment of Contaminated Soil	Removes contamination	Requires a physicochemical treatment that involves external machinery or specialised equipment	Acceptable approach and meets EPA requirements for remediation	High - due to on-going requirements associated with LTEMP	Ongoing liability
	Option 3: Off-site Treatment of Contaminated Soil	Removes contamination	Requires an external licensed treatment facility and additional assessment of the treated soil for reuse	Acceptable approach and meets EPA requirements for remediation	Very high	No ongoing liability
	Option 4: Excavation and Off-site Disposal	Removes contamination	Requires waste classification of excavated fill material prior to disposal and validation works post-remediation	Acceptable approach and meets EPA requirements for remediation	High	No ongoing liability
	Option 5: Capping and Containment	Eliminates the requirement for offsite disposal	The site is not considered suitable for residential use.	Acceptable approach and meets EPA requirements for remediation	Low to Medium – due to on-going requirements associated with EMP	Yes

Scenario/Remediation Requirement	Remedial Option	Benefits	Limitations	Acceptability	Cost Estimate (Comparative)	On-going Liability
Groundwater Contamination						
3. The concentration of Hydrocarbons TPH/TRH or Heavy metals in groundwater material exceeds the HSL-D/GIL	**Option 1: No Action is Required**	Nil cost	The site is not deemed appropriate for residential use. This may result in a contamination plume that affects the local human health and environment.	Does not meet EPA requirements and does not meet the remedial objectives for the property	Nil cost outlay	Yes
	Option 2: On-site Treatment of Contaminated Groundwater and Dewatering	Removes contamination, and dewatering may be required for basement excavation works	Requires a physicochemical treatment that involves external machinery or specialised equipment	Acceptable approach and meets EPA requirements for remediation.	High	No ongoing liability
	Option 3: Monitoring Natural Attenuation (MNA)	Biological breakdown and natural dilution process	The site is not deemed appropriate for residential use. This may result in a contamination of the plume, which affects the local human health and environment.	Acceptable approach and meets EPA requirements for remediation, conditioned on the implementation of a LTEMP	Very high	Yes
	Option 4: Containment	Eliminates the requirement for off-site disposal	Not suitable as the proposed development involves bulk excavation	Acceptable approach and meets EPA requirements for remediation	Low to Medium – due to ongoing requirements associated with EMP	Yes

Scenario/Remediation Requirement	Remedial Option	Benefits	Limitations	Acceptability	Cost Estimate (Comparative)	On-going Liability
Presence of UPSS						
4. UPSS is present under the existing structure	**Option 1: No Action is Required**	Nil cost	Not suitable as the proposed development involves bulk excavation	Does not meet EPA requirements and does not meet the remedial objectives for the property	Nil cost outlay	Yes
	Option 2: Excavation, Decommissioning, and Off-site Disposal	Eliminates the hazard	Requires accurate scanning to determine the location and depths of any tanks, pipelines, pits, etc.	Acceptable approach and meets EPA requirements for remediation	High	No ongoing liability
	Option 3: Capping and Containment	Eliminates the requirement for off-site disposal	Not suitable as the proposed development involves bulk excavation	Does not meet EPA requirements and does not meet the remedial objectives for the property	Low to Medium – due to ongoing requirements associated with EMP	Yes

This FRAP does not currently include a detailed vapour intrusion assessment or mitigation strategy, due to limited access and the absence of soil vapour data at this stage. If the results of the forthcoming detailed site investigation (DSI)—including soil, groundwater, or soil vapour assessments—identify exceedances of relevant vapour screening criteria, a site-specific vapour intrusion risk assessment will be undertaken. Where necessary, appropriate mitigation measures will be developed and incorporated into the revised Remedial Action Plan (RAP).

9.4 Preferred Soil Remediation Strategy

CEC Geotechnical recommends a preferred remediation approach that balances cost-effectiveness with the need to avoid unacceptable long-term liabilities or unreasonable constraints on future site development. The strategy is designed to meet the project's technical, environmental, sustainability, and economic objectives.

The remediation strategies outlined below are to be implemented based on the specific scenarios and remediation requirements identified following the completion of further investigations.

9.4.1 Scenario 1 - The concentration of Hydrocarbons TPH/TRH in soil material exceeds the HSL

CEC Geotechnical's preferred remediation approach is **Option 4: Excavation and off-site disposal** of soils exceeding the adopted criteria.

- Advantages: No ongoing liability and unrestricted future land use following remediation and validation.
- This strategy is appropriate given the proposed bulk excavation for a four-level basement.
- Contaminated soil and fill will be excavated and transported off-site for disposal after classification according to NSW EPA (2014) Waste Classification Guidelines.
- A validation assessment will confirm successful remediation.

Implementation requires a Construction Environmental Management Plan (CEMP) to mitigate exposure risks to workers and nearby residents during remediation.

9.4.2 Scenario 2 - The concentration of Heavy metals, Carcinogenic PAH, VOCs in soil material exceeds the HIL limits

CEC Geotechnical also recommends **Option 4: Excavation and off-site disposal** for soils exceeding the relevant criteria.

- This approach shares the same advantages and implementation considerations as Scenario 1.
- It is suitable due to the nature of contaminants and the excavation scope for the proposed basement.

9.4.3 Scenario 3 - The concentration of Hydrocarbons TPH/TRH or Heavy metals in groundwater material exceeds the HSL/GIL

CEC Geotechnical recommends **Option 2: Extraction, treatment, and off-site disposal** of contaminated groundwater.

- Advantages: No ongoing liability, low operational and maintenance costs, relatively low capital costs, and unrestricted land use post-remediation.

- The process involves the extraction and treatment of contaminated groundwater via a Construction Dewatering, Monitoring and Management Plan.
- A Dewatering Management Plan (DMP) will be implemented to control risks to workers and the community during groundwater remediation.

9.4.4 Scenario 4 - UPSS present under the existing structure

CEC Geotechnical considers that the preferred remediation approach is **Option 2: excavation, decommissioning, and off-site disposal of UPSS**.

Advantages: No ongoing liability and unrestricted land use after remediation and validation.

A qualified contractor is required for the removal, decommissioning, and disposal of the Underground Petroleum Storage System (UPSS). All work must be carried out in accordance with current regulations reference to the NSW EPA Guidelines for implementing the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019.

- Removal must be conducted by a qualified contractor, in accordance with:
    - NSW EPA Guidelines for implementing the *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019*;
    - Australian Standard AS 1940–2017 (Storage and Handling of Flammable and Combustible Liquids);
    - Australian Standard AS 4976–2008 (Removal and Disposal of Underground Petroleum Storage Tanks); and
    - SafeWork NSW safety alert WC01188 (Risks when removing underground tanks).

Contractor responsibilities include:

- Safe removal and disposal of flammable/combustible liquids and vapours, if present; and
- Excavation and removal of tanks and associated pipework.

Notification requirements include:

- Advising the relevant local council at least 30 days prior to decommissioning (or as soon as possible in urgent cases);
- Consulting with the council regarding approvals or requirements for tank removal and remediation;
- Submitting a report within 60 days post-decommissioning to the council or EPA, meeting the requirements of Appendix 6 of the NSW EPA UPSS Guidelines; and
- A Construction Environmental Management Plan (CEMP) should be implemented to minimise risks of exposure to contaminated soil and groundwater during these activities.

10. Data Gap Assessment

Subsequent to demolition of the building structures, the remediation area will be subject to further sampling and investigation in accordance with regulations and standards indicated in Section 2.

10.1 Delineation of Hotspots and Additional Sampling of Previous Restricted Areas

Additional stratified soil sampling will be conducted at 12 borehole locations within the former petrol station area, as identified by the PSI (CEC Geotechnical, 2025). Samples will be collected from depths ranging between 0.15 m and 4.0 m. Should contamination be detected, further sampling will extend 0.5 m below the last uncontaminated sample depth, determined by olfactory and visual indicators such as odours, PID readings, discoloration, or staining. Soil samples will be analysed for heavy metals, BTEX compounds, PAHs, and TRH. An example of the proposed hotspot sampling locations is shown in Figure 9, Appendix A**.**

For soils exceeding Health Investigation Levels (HIL) for heavy metals, Toxicity Characteristic Leaching Procedure (TCLP) leachability testing will also be performed. Samples will be collected from both fill material and natural soils to compare contaminant mobility between strata.

10.2 Groundwater Well Installation and Sampling

Two additional groundwater monitoring wells will be installed to the rock interface: one downgradient and one laterally positioned relative to the former petrol station, as shown in **Figure 9, Appendix A**. Well installation will comply with the Minimum Construction Requirements for Water Bores in Australia (4th Edition, 2020). Groundwater flow direction will be confirmed through monitoring, with samples analysed for heavy metals, BTEX, PAHs, TRH, and VOCs.

10.3 Additional Soil Vapour Sampling (if required)

Following soil and groundwater analysis, soil vapour sampling may be necessary. Samples will be collected and analysed for BTEX, and TRH using methods consistent with NEPM (2013) Schedule B2.

10.4 UPSS Detection Survey

A comprehensive Ground Penetrating Radar (GPR) survey will be conducted by a qualified contractor to detect any remaining UPSS infrastructure. This survey will take place after the removal of slabs and hardstand pavement and off-site disposal of demolished materials from the former petrol station area. A detailed report outlining the findings will be provided.

10.5 Additional Asbestos Sampling

Asbestos sampling will include the collection of 500 mL samples from beneath the footprints of existing structures and a minimum of four 10 L bulk samples from fill material. Samples will be screened and tested for asbestos-containing materials (ACM) and asbestos fibres (AF/FA) at a NATA-accredited laboratory. On-site screening may also be performed.

10.6 Additional PFAS Sampling

Additional Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) soil sampling will be conducted at 8 borehole locations within the former petrol station area. Samples will be collected from depths ranging between 1.0 m and 4.0 m. Should contamination be detected, further sampling will extend 0.5 m below the last uncontaminated sample depth.

10.7 Data Gap Assessment Report

A DSI report will be prepared to summarise and interpret the site methodologies and results of all additional investigations undertaken.

10.8 Review and Update the FRAP

Upon completion of the DSI, the FRAP will be reviewed and revised. A detailed RAP will then be developed, incorporating the new data and selecting the most appropriate remediation options from those outlined in Section 5. The remediation works will proceed in accordance with the approved RAP.

11. Scope of Remediation Strategy

11.1 Roles and Responsibilities

Roles and responsibilities are shown in **Table 11**.

Table 11: Roles and Responsibilities

Role	Stakeholder (Contact)	Responsibilities
Principal/Owner	Anglican Community Services (Anglicare)	To engage the consultants and contractors.
Project Management	Impact Group	To engage the consultants, and contractors.
Environmental Consultant for Further Site Investigation	CEC Geotechnical Pty. Ltd.	To undertake the required further site investigation according to the framework RAP
Environmental Consultant for Remediation Action Plan Update	CEC Geotechnical Pty. Ltd.	To update the framework RAP and provide a detailed RAP according to the results of the further site investigation
Environmental Consultant for Validation	TBC	To prepare a validation report according to the validation strategy presented in the detailed RAP.
Soil Remediation Contractor	TBC	To carry out the excavation, remediation, and off-site disposal work in accordance with the Detailed RAP.
Dewatering Contractors	TBC	To carry out the groundwater remediation strategy according to the detailed RAP during the dewatering process (if required)

11.2 Category of Works

The category of works is defined in accordance with Resilience and Hazards SEPP Section 4.8. The site analysis of the category of works is presented in **Table 12**. Therefore, the category determination for the remediation works is considered Category 2 and will not require development consent. Nevertheless, CEC Geotechnical recommends that the developer consult a council planner to confirm the remediation category prior to commencement of works.

Table 12: Category Determination for Remediation

Site Description	Yes/No	Category
Designated Development	No	2
Significant Impact on Critical Habitat	No	2
State or Regional Consent Requirement for Development	No	2
Declared Area of the Following Planning Maps: Coastal Protection, Heritage, Habitat Protection, Environmental Protection, Escarpment Protection, Floodway, Littoral Rainforest, Nature Reserve, Scenic Protection or Wetland	No	2
Not Comply With a Policy Made Under the Contaminated Land Planning Guidelines by the Council	No	2

11.3 Preliminaries, Notifications and Permitting

In accordance with the State Environmental Planning Policy (Resilience and Hazards) 2021, the soil remediation works are considered category 2 remediation works as the site will be subject to development consent. The RAP will be submitted with the development application.

The remediation contractor is required to collect all documentation associated with the remediation activities and forward this documentation to the principal contractor, client, and project manager as it becomes available.

11.4 Safety and Environmental Controls

Prior to remedial works, safety and environmental controls shall be established in accordance with approved safety and environmental management plans. Safety and environmental controls must include, at a minimum:

- Safety barriers and temporary fencing surrounding work areas / Site boundaries;
- Signage indicating personal protective equipment (PPE) requirements for the Site;
- Remediation Contractor signage, contact name and phone numbers, emergency phone numbers; and
- Sediment and erosion control around the periphery of the Site.

11.5 Marking of Remediation Areas

It is recommended to mark the lateral and vertical extent of the soils requiring removal as indicated in **Section 9.2.**

11.6 Excavations of Material

Excavation shall be conducted using an appropriately sized excavator (or similar), based on the depth of excavation, site conditions, slopes, and site access constraints. It is understood that all soils within the proposed redevelopment excavation footprint will be removed and disposed of off-site to facilitate the proposed redevelopment. A water system must be in place to spray the excavated soil during excavation/remediation works and to decontaminate trucks entering the work area. The general site

area should be kept damp during remediation works to minimize the generation of dust. All other provisions outlined in the construction environmental management plan (CEMP) must also be implemented.

Where required to facilitate remediation, impacted fill material will be excavated in the vicinity of the identified contamination to the necessary depths. Once the target extent of soil removal has been reached, an appropriately qualified consultant should conduct field screening to assess whether any contamination remains within the excavation area. If necessary, the consultant may direct further excavation to chase out residual contamination, subject to safety, geotechnical, and time constraints.

11.7 Materials Segregation and Stockpiling

Impacted soil shall be excavated first in each remediation area indicated in **Section 9.2** to minimise the potential for re-contaminating the excavated area. All impacted material can be scheduled to be excavated and disposed of off-site as part of the redevelopment of the site. However, prior to undertaking this, a waste classification letter will need to be compiled, which can be supplied to the receiving landfill registered to receive this waste.
Where feasible, if any stockpiling is to occur, the stockpiling area will be adjacent to excavations to minimise tracking of material across the Site. Stockpiles shall:

- Not be placed on footpaths or nature strips without prior Council approval;
- Be placed away from drainage lines, gutters, and stormwater pits/inlets;
- Be covered and secured; and
- Be placed on a level area as a low, elongated mound.

11.8 Offsite Removal of Contaminated Soil

All excavated soil exhibiting concentrations of contaminants exceeding adopted land use criteria will be disposed of at an appropriately licensed waste-receiving facility in accordance with the waste classification. Records of tipping dockets, volumes, and landfill licenses will be required in the validation report for the site and must be provided by the remediation contractor to the council and the nominated environmental consultant. All documents, including landfill disposal dockets, should be retained by the remediation contractor/asbestos removal contractor and forwarded to the client and validation consultant. This documentation forms a key part of the validation process and is to be included in the validation report.

11.9 Soil Validation

Validation soil sampling and analyses of the excavation in the vicinity of the contaminated area shall be conducted in accordance with the validation plan (refer to **Section 12**). If validation objectives are not achieved, additional excavation and waste disposal works may be required.

11.10 Backfilling of Excavations and Site Reinstatement

CEC Geotechnical assumes remediation will occur in conjunction with the proposed redevelopment; however, if required and at the direction of the nominated environmental consultant, remediation excavations shall be backfilled (after successful soil validation) using either validated VENM or ENM imported to the Site. The backfill material shall be compatible with previous and adjacent soil

characteristics for Site drainage purposes. No sulfidic soils such as acid sulphate soils (ASS) shall be imported to the Site. The imported material should be accompanied by a waste classification certificate and should be approved by the consultant prior to importation.

The remediation contractor (and/or their nominated construction contractor) is to maintain, for the duration of the project, an imported material register. This must include a register with details of each imported material type, supplier details, a summary record of where the imported materials were placed on site, importation docket numbers, and a tally of quantities. The mentioned register records should be included in the validation report.

11.11 Site Demobilisation

On completion of the remediation works, all plant/equipment and safety/environmental controls shall be removed from the Site. The site must be left in a safe and secure manner to exclude public access.

11.12 Remediation Schedule

The timing of the remedial works program will be subject to discussions with the Council and other project stakeholders, including any requirements of the Council for permitting.

A window of time should take into consideration weather events, which may cause a slowing of progress due to wet soils.

12. Soil Validation Plan

12.1 Soil Validation Methodology

The remediation area will be sampled and validated in accordance with the regulations and standards in **section 2**.

12.2 Sampling Plan for Validation of Hotspot Excavations

Soil samples will be taken from the base and the walls of the remediation area mentioned in **section 9.2**. Samples will be collected using appropriate PPE and RPE. For sample integrity, gloves will be replaced for each sampling event. Samples will be placed in 250g laboratory-prepared glass jars capped using Teflon-sealed screw caps. The samples must be labelled, including the sample name, the job number, the date of the sample, and the sample depth. Samples will then be stored in an ice-filled esky to cool. The samples will then be couriered to a NATA-accredited laboratory with the signed chain of custody form filled out with the required analysis.

12.3 Number of Validation Samples for Analysis

All validation samples will be submitted for analysis. The following sampling frequency will be undertaken after the remediation of the site:

- A grid sampling implementation with 1 wall sample per 10 linear meters, with a minimum of 1 per wall for walls less than 10m long. The samples should have a depth between 0.15 – 4.0m; and
- Base samples in accordance with NSW EPA (2022) *Contaminated Land Management: Sampling Design Guidelines.*

12.4 Sample Handling

After the collection of the samples, the bags will be secured in insulated containers and chilled with ice. This will be under the control of the environmental scientist.

Samples will be labelled, using waterproof ink on the jar and the lid, with the following:

- Job Number;
- Sample Number (located on the site drawing);
- Samplers' initials; and
- Sampling date.

Chain of Custody (COC) documentation will be used. The COC will be completed immediately after the sample has been labelled and stored, as described.

Sampling equipment will be cleaned before the collection of each sample, as follows:

- Brush off any adhering soil using a nylon brush in potable water;
- Rinse in a stream of potable tap water;
- Wash in a solution of phosphate-free detergent and distilled water; and
- Rinse with demineralised water.

12.5 Laboratory and Sample Analysis

The primary laboratory to be used will be NATA-accredited. Quality assurance will comprise the collection of field duplicates (1:20) and trip blanks. Laboratory quality assurance will comprise analysis of control spikes, lab blanks, lab duplicates, and surrogates, as well as detailed reporting of recoveries.

A secondary laboratory, also NATA-accredited, will be used for quality assurance. Samples to the secondary laboratory will be submitted at a frequency of 1 in 20 samples.

Samples analysis will comprise the following:

- Validation samples for 8 priority heavy metals, TPH, BTEX, PAHs, and asbestos;
- Validation samples for PFAS must be collected if any PFAS contamination is detected following the data gap assessment;
- For imported fill material, samples will be analysed for 8 priority heavy metals (including hexavalent chromium), organochlorine (including PCBs), and organophosphate- pesticides (OCP/OPPs) if required, TPH, BTEX, and PAHs; and
- If any material requires classification for off-site disposal will be analysed for the site constituents of concern.

12.6 Soil Validation Criteria

The soil validation criteria should follow the guidelines presented in **section 9.2**.

12.7 Non-Compliance of Validation Criteria

If the validation results show an exceedance of the validation criteria, additional remedial excavation and disposal are required. The excavation should be extended until the excavation surface and base samples indicate that the location meets the criteria for each respective contaminant. Additional validation sampling should be implemented after additional remedial excavation to validate residual contamination. The number of additional validation samples should follow the NSW EPA (2022) Contaminated Land Management: Sampling Design Guidelines.

If samples collected contain insufficient soil material for chemical analysis or if the sample location cannot be confidently identified, re-sampling procedures are required. This resampling procedure will follow the original sampling plan for both test pit samples and stockpile samples.

12.8 Material for Offsite Disposal

Material from remediation hot spots is required to be classified in accordance with the NSW (2014) Waste Classification Guidelines prior to disposal.

12.9 Imported Backfill

If required, excavations shall be backfilled (after successful soil validation) using validated VENM or ENM imported to the Site. The source Site must be inspected to confirm the suitability of the material

if it is not from a commercial supplier of soil / subgrade with periodic chemical analysis undertaken and certified as suitable.

If the imported backfill requires testing to validate it as VENM, samples will require analysis for Total Recoverable Hydrocarbons (TRH), Benzene / Toluene / Ethylbenzene / Xylene (BTEX), Polycyclic Aromatic Hydrocarbons (PAH), organochlorine pesticides (OCP), polychlorinated biphenyls (PCB), heavy metals (HM8) and asbestos (presence/absence). The backfill shall also be compatible with the site soil characteristics for site drainage purposes.

A minimum of two soil samples of imported backfill must be analysed. If more than 100 m^3 is imported to the Site, one additional sample shall be obtained per 100 m^3.

If ENM is to be used to backfill the excavations, the material will be tested in accordance with the NSW EPA general resource recovery exemption for ENM (*The Excavated Natural Material Exemption,* October 2012).

12.10 Validation Reporting

At the completion of the remedial works, a validation report will be prepared, documenting the works as completed in accordance with the NSWEPA (2020) *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*. The validation report will include:

- Any variations or deviations to the RAP methodology undertaken during the implementation of the remedial works;
- A statement from the consultant on site suitability;
- Results of all soil validation undertaken during the course of the remedial works, including visual assessment and sampling, and analysis;
- QA/QC and data acceptance evaluation;
- Waste tracking documentation including the volume of soil excavated and disposed of off-site, evidenced by waste disposal dockets;
- Waste classification and landfill licences for the receiving facility;
- Details of any environmental incidents occurring during the course of the remedial works and the actions undertaken in response to these incidents; and
- Other information as appropriate.

13. Regulatory Approvals / Licensing Required

The remedial program will be undertaken with due regard to NSW legislative requirements, Local Government Policies, and any relevant environmental planning instruments that apply to the Site.

13.1 Resilience and Hazards SEPP

Under the Resilience and Hazards SEPP, site remediation is determined as category 2 and does not require development consent. However, a notice of start of remediation work is to be given to the council within 30 days before the start of the work, and a notice of completion after 30 days of remediation work. The notice of competition for remediation works must be in accordance with clauses 4.14 and 4.15.

13.2 Protection of the Environment Operations (POEO) Act 1997

Under Section 48 of the Act, Schedule 1; Clause 48, the transporting of waste which includes hazardous waste, restricted solid waste, liquid waste, clinical and related waste, or friable asbestos waste (or any combination of them) a license is required if it involves the transport of more than 200 kilograms in any load. If more than 200 kilograms of restricted solid is required to be transported from the site, the transporter of waste will require a license.

Clause 79 of the POEO Waste Regulation requires waste transporters to provide information to the NSW EPA regarding the movement of any load in NSW of more than 10m^2 of asbestos sheeting, or 100 kilograms of asbestos waste.

Clause 78 of the POEO Waste Regulation requires that a person who transports asbestos waste must ensure
that:

- Any part of any vehicle in which the person transports the waste is covered, and leak-proof, during the transportation;
- If the waste consists of bonded asbestos material, it is securely packaged during transportation;
- If the waste consists of friable asbestos material, it is kept in a sealed container during transportation; and
- If the waste consists of asbestos-contaminated soils, it is wetted down. Asbestos waste cannot be reused or recycled.

13.3 Protection of the Environment Operations (Waste) Regulation 2014

The regulations define a “non-paying landfill” as any premise that is carried on for business or other commercial purposes, and involves the generation or storage of waste, and is not licensed under the Act, or landfill sites that receive virgin excavated natural material only (and not any other type of waste).

Part 6 of the waste regulations applies to non-paying landfill sites and transportation. These require:

- Certain reporting requirements for non-licensed landfill sites (Reg 47);
- The waste must be stored in an environmentally safe manner (Reg 48);
- Certain transport requirements relating to the transportation of waste (Reg 49);

- If the waste is transported from the premises, the waste generator must ensure that the waste is transported:
- to a waste facility that is licensed under the Act; or
- to a person carrying on mobile waste processing that is licensed under the Act; or
- to a place that can otherwise lawfully be used as a waste facility for that waste.
- Under the POEO (Waste) regulation 2005, Reg 32 (Record keeping requirements relating to occupiers of waste facilities): An occupier of a waste facility (which includes the storage, treatment, processing or sorting of waste) who is not a consignor of the waste must retain the following records for at least 4 years:
  - (a) copies of each waste transport certificate given to the occupier of a waste facility by the consignor of the waste;
  - (b) copies of each agreement evidencing the appointment of an authorised agent as referred to in clause 27 (2) (b); and
  - an authorised agent under the regulations, means a person appointed as an authorised agent for the transportation of the waste.

As part of the validation report, waste disposal and tipping dockets must be provided to confirm compliance with POEO Regulations.

13.4 Duty to Report

Under Section 2.3.1 of the NSW EPA (2015) Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997, notification of contamination is required where the 95 % upper confidence limit on the arithmetic average concentration of a contaminant in or on soil is equal to or above the HILs and/or Health Screening Levels (HSLs) for that contaminant for the current or approved use of the respective on-site land. Additionally, a notification of contamination is required if a person has been or foreseeably will be exposed to the contaminant or a by-product of the contaminant.

CEC Geotechnical considers that the duty to report contamination should be assessed after completion of the additional assessment works. A recommendation to the duty to report will be given in the detailed RAP.

13.5 Waste classification Guidelines, Part 1: Classifying Waste (EPA 2014)

The NSW 2014 Waste Guidelines: Classifying Waste (EPA 2014) provides guidance to waste generators to classify the wastes they produce and ensure the environmental and human health risks associated with them are managed appropriately and in accordance with the POEO Act 1997.

13.6 Transportation of Material and Equipment

All haulage routes for trucks transporting soil, materials, equipment, or machinery to and from the site must:

- Comply with all road and traffic rules;
- Aim to minimise noise, vibration, and odour to adjacent premises; and
- Utilise State roads and minimise the use of local roads.

14. Contingency Plan

14.1 Unexpected Material Encountered

If visual or olfactory evidence of potentially impacted soil (not consistent with that previously documented by CEC Geotechnical, or other unexpected material is encountered during the excavation works, the soil or material should be segregated, stockpiled, and appropriately sampled for laboratory analysis. Furthermore, additional groundwater sampling should be analysed in the vicinity of the unexpected material. Samples should be analysed for an appropriate suite of contaminants based on the physical and chemical properties of the material encountered. An appropriate management strategy for the material shall be developed in consultation with the Environmental consultant.

14.2 Target Excavation Depth Not Achieved

Where the excavation must be terminated at shallower depths within the 'building material' fill material (due to safety or site-specific constraints), validation sampling and analysis shall be completed from the base of the excavation surface. One sample shall be completed for each area. Where the area is greater than 50 m^2, one sample per 50 m^2 shall be obtained. The depth of material and the results of the sampling and analysis shall be used to determine specific recommendations or controls for the affected area.

14.3 Residual Impact at Site Boundaries

Where residual impact is identified at the Site boundary, consideration should be given to contaminant leachability (potential for recontamination of the remediated Sites) and residual risks to human health and the environment. A qualitative assessment should be undertaken in this regard, with additional management strategies developed where required in consultation with the Environmental consultant.

15. Environmental Management Plan

The work shall be undertaken with all due regard to the minimisation of environmental effects and to meet all statutory requirements. The contractor shall have in place and Construction Environmental Management Plan (CEMP) such that work on the site complies with the requirements of relevant occupational and environmental legislation. In particular, the CEMP will provide documented procedures for control of the following:

15.1 Remediation Schedule

The remediation schedule is anticipated to be undertaken in the following succession:

- Assigning roles and responsibilities.
- Preparation of WHS documents, CEMP, regulatory approval, licensing, and notifications.
- Site establishment.
- Remediation and associated tasks
    - Asbestos Air Monitoring
    - Additional in-situ waste classification sampling (if required)
    - Excavation and Capping Works
    - Importation of clean ENM/VENM or material classified under a suitable resource recovery order or exemption (if required).
- Validation of AOCs and ASS prior to off-site disposal in accordance with the ASSMP (to be prepared).

15.2 Hours of Operation

Remediation works shall be undertaken as per CEMP.

15.3 Site Access

During remediation works, the work area will need to be secured around the perimeter of the remediation area, which will restrict access to the Site. Only authorised persons will be able to enter the Site.

15.4 Imported Fill Materials

Prior to the importation of fill materials onto the Site, the following must be undertaken:

- Material characterisation reports/certification showing the material being supplied is virgin excavated natural material (VENM) / excavated natural material (ENM) must be provided.
- Any imported VENM/ENM will need to be inspected at the source site and at the Site by a suitably qualified environmental consultant.
- Each truck entry will be visually checked and documented to confirm that only approved materials consistent with the environmental approvals are allowed to enter the site. Only fully tarped loads are to be accepted by the gatekeeper. Environmental assurance of imported fill material will be conducted to confirm the materials comply with NSW EPA Waste Classification Guidelines and the Earthworks Specification for the Site.

15.5 Material Tracking Procedure

The excavated soil will be subject to a strict waste segregation protocol (detailed in a CEMP) and tracked in a waste tracking spreadsheet.

If any materials from the basement excavation are proposed to be retained on-site, the materials will need to meet the human health and environmental requirements specified in NEPM 2013.

All material handled during the construction of the proposed development will be tracked in accordance with the CEMP to be prepared by the Contractor. Materials are to be tracked from excavation, treatment (if required), to off-site disposal in accordance with all applicable standards. All waste removed from the Site will be tracked using the NSW EPA online waste tracking system and provided by the Contractor. Information/documentation required for the waste classification, off-site disposal, and importation of material is outlined in **Table 13**.

Table 13: Material Tracking Documentation

Material Tracking	Documentation/Information
Waste classification	• Material source and description, • Sampling density, pattern, CoPCs, • Results summary, incl. appropriate table with comparison to acceptance criteria, • Waste classification.
Off-site disposal	• Source location, • Estimated volume (based on excavation size), • Actual volume of disposal, • Waste classification, • Transporter, • Final destination, POEO license, • Reconcile of waste dockets with actual disposal volume, • Reconciliation of actual disposal volume and the estimated volume of disposal (based on excavation size).
Importation of material	• Volume of imported material, • Source Site, • VENM certificate applicable for NSW EPA exemptions, • Placement location, • Transporter.

A Materials Tracking Plan (MTP) will be implemented during the development works. The aim of the MTP is to identify the source and destination of all materials on the Site at any time and requires the following tasks:

- Establish and maintain a nomenclature system for identification of all source and destination areas for soil both on and off the Site. This includes excavations, stockpiles (both clean and potentially contaminated), soils for treatment or disposal (including final destination) and off-site sources of material;

- Use appropriate signage to identify the classification of the material and area number for each excavation prior to soil movement using the project documentation or in consultation with the Contract Administrator, prior to work being undertaken;
- Complete a 'Record of Soil Movement' sheet identifying the source of the materials, classification, volume and destination area of each load of material moved on or off-site;
- Place the soil in an approved location for the material based on its soil classification;
- Maintain the location of the soil without mixing with other soil classes;
- induction to all operators on the requirements of working at contaminated site; and
- Check 10% of waste dockets being supplied to ensure validity.

15.6 Stockpile Management

All stockpiles will be managed in accordance with the Contractors, CEMP, the ASSMP, and with relevant standards and regulations. Batters would be formed with sloped angles that are appropriate to prevent the collapse or sliding of the stockpiled materials.

Stockpiles shall be maintained to eliminate risk to workers and other people due to exposure to contaminants in dust and risk to the environment as a result of silt or contamination of stormwater in accordance with a Site Materials Management and Tracking Plan as part of the CEMP.

If assessment by the Environmental Consultant identifies contamination, or a stockpile is observed to be contaminated, then the Environmental Consultant will assess the stockpile in accordance with Section 10 to delineate the contamination and assess the extent of remediation, if required. In the event the stockpile contains asbestos, the stockpile will be covered to minimise dust and potential asbestos release.

In the event that covers are required, they shall extend beyond the perimeter of the stockpiles and shall be secured to prevent being blown away by wind.

Stockpiles must be placed in secure, designated locations on-site and covered if they are to remain in place for more than 24 hours to prevent dust generation and stormwater ingress. All stockpiles will be located in approved areas that minimise potential environmental impacts while accommodating material handling and logistical requirements. Contaminated or potentially contaminated materials will only be stockpiled within unremediated areas of the site or in locations that do not present a risk of environmental harm to the stockpile area or surrounding environment, such as impermeable hardstand surfaces.

15.7 Site Stormwater Management Plan

The following steps should be taken to prevent contaminated sediment and water from leaving the site:

- If possible, avoid stormwater flowing through the site and divert it away
- Construct stormwater diversion channels and linear drainage sumps with catch pits in the affected area to separate stormwater from contaminated areas

- Ensure that any discharge of groundwater and surface water complies with relevant Australian standards and guidelines ANZG (2018)
- Install sediment traps, such as sediment fencing, in areas where stormwater might flow off-site

15.8 Noise Control Plan

The site is located in a residential area. The nearest receptors are residents living almost adjacent to the area of remediation. No excessively noisy operations (e.g. rock hammering, piling) will be required for the remedial work. Noise and vibration will be restricted to reasonable levels. Remedial works will be undertaken between the hours of 7 a.m. and 6 p.m. Monday to Saturday in accordance with the NSW regulations unless otherwise stated in the relevant conditions of the development approval. It is not proposed to employ any specific noise mitigation measures.

15.9 Air and Odour Control

Given the nature of the identified contaminants and the observations made during the contamination assessment, no odour issues are envisaged as a result of the remediation of this site.
Dust emissions should be confined within the Site boundary. The following dust control procedures will be employed to comply with this requirement as necessary:

- Erection of dust screens around the perimeter of the Site.
- Securely covering all loads entering or exiting the Site.
- Use of water sprays across the Site to suppress dust.
- Covering of all stockpiles of contaminated soil remaining on-site more than 72 hours.
- Keeping excavation and stockpile surfaces moist.

Asbestos fibre air monitoring should also be undertaken during ASBINS remedial works. Air monitoring should be undertaken in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres. 2nd Edition [NOHSC: 3003 (2005)] and Australian Standard AS ISO/IEC 17025 – 2005, General requirements for the competence of testing and calibration laboratories.

Air monitoring reports will be issued in accordance with NATA's accreditation requirements and kept on file.

15.10 Soil Management Plan

The contractor will prepare a Safe Work Method Statement (SWMS). All personnel on site should be required to wear the following protection at all times:

- Steel-capped boots;
- Safety glasses or safety goggles with side shields meeting AS1337-1992 requirements (as necessary, particularly during demolition);
- Hard hat meeting AS1801-1981 requirements; and
- Hearing protection meeting AS1270-1988 requirements when working around machinery or plant equipment if noise levels exceed exposure standards.

15.11 Work, Health and Safety

Health and safety during the remediation works will be the responsibility of the contractor, including the preparation of a Health and Safety Plan and a hazard assessment.

15.11.1 Health and Safety Plan

A Work Health and Safety Plan (WHSP) will be prepared for the remedial works by the contractor. The purpose of the WHSP is to provide all relevant information to all Site personnel to ensure that they are aware of the hazards and the protective measures adopted to mitigate the identified hazards.

15.11.2 Hazard Assessment

All hazards associated with the remedial works should be identified by the contractors and incorporated into the WHSP.

15.11.3 Safe Work Practices

The WHSP will document all safe work practices required to protect personnel at the Site involved in the remedial works.
All workers undertaking remedial works on site are required to wear the following personal protective equipment:

- Disposable nitrile or cut resistant gloves, when in direct contact with the soil;
- Long pants;
- Long-sleeved shirt;
- Hard hat (when plant and machinery are in operation);
- High visibility fluorescent vest; and
- Steel-capped boots.

For workers working within the designated asbestos work zones the following PPE is also mandatory:

- Type 5 & 6 disposable coveralls;
- Half face respirator with P2 particulate filter or P2 disposable mask;
- Gloves; and
- Footwear that can be easily decontaminated (i.e. gumboots).

Respirators with appropriate organic vapour cartridges should be made available on site. As part of the WorkCover permitting process, additional PPE may be required in the event that friable asbestos is identified at the Site and will be upgraded to reflect WorkCover NSW requirements. Further information regarding PPE to be worn at the site should be outlined in the CEMP.

15.12 Disposal of Contaminated Soil

Soil within the excavation footprint needs to be classified in accordance with the NSW EPA (2014) Waste Classification Guidelines, and properly disposed of at a waste facility lawfully able to accept the waste.

15.13 Contingency Plan for Site Incidents

Should Site operations or conditions result in an environmental or safety incident where the outlined health and safety requirements are not considered effective or have not been adequately followed, the following shall be implemented:

- Isolation of the affected area via the placement of temporary barriers or other appropriate measures (i.e. plastic sheeting, geotextile fabric covers, polymer dust suppressant spray, etc) to prevent exposure to site personnel and/or off-site airborne dust migration;
- Appropriate PPE must be obtained/worn at all times;
- The Site Owner should be informed immediately, and
- Implementation of applicable procedures with respect to personnel and site management, or where appropriate, the Unexpected Finds Protocol included in this RAP, and subsequent appropriate removal/management of the identified impacted material or reinstatement of appropriate PPE / safety practices.

Following this, a formal review of the incident by an appropriately qualified person appointed by the Site Owner with the objective of identifying the cause of the incident and providing recommendations on alternative procedures or systems to be implemented at the site and/or within the EMP to prevent/minimise the likelihood of the incident reoccurring.

Copies of all assessments of finds and actions to deal with the finds should be reported and copies held by the Site Occupier, Site Owner or any future landowners.

- dust leaving the confines of the remediation areas is minimised;
- No water containing any suspended matter or contaminants leaves the site in a manner that could pollute the environment;
- Stockpiles (where required) must be suitably managed with bunding or silt fencing to prevent contaminated sediments from leaving the vicinity of the stockpile and adequate dust suppression must be applied to the surface of the stockpile;
- Vehicles shall be cleaned and secured so that no mud, soil, or water is deposited on any public roadways or adjacent areas;
- Noise and vibration levels at the site boundaries comply with the legislative requirements; and
- Contingency measures for the management of the site during periods of heavy rainfall, water within excavation areas, handling and management of saturated soils and equipment failures, and spills.

16. Conclusions

This FRAP outlines the potential contamination scenarios identified at the site, along with corresponding remediation strategies, methodologies, and proposed validation requirements. Based on current information and subject to implementation of the recommendations herein, CEC Geotechnical considers that the site can be made suitable for the proposed development.

The following key recommendations are made:

- A DSI is required following the demolition of existing structures to confirm the extent and nature of contamination;
- An updated RAP should be prepared following further soil and groundwater investigations. The revised RAP must be informed by and consistent with the strategies outlined in this FRAP;
- A validation assessment report must be prepared upon completion of remediation works. The SVR must be compiled by a suitably qualified environmental consultant and comply with the requirements of the NSW EPA Consultant Reporting on Contaminated Land guidelines (2020);
- An Unexpected Finds Protocol should be developed and implemented prior to site clearing and construction activities;
- A HAZMAT assessment must be undertaken by a licensed assessor prior to demolition of existing buildings;
- If visual or olfactory indicators of contamination (e.g., staining, odours) are encountered during construction, an experienced site contamination consultant should be engaged for further assessment and guidance;
- Any material proposed for off-site disposal must be appropriately classified in accordance with the NSW EPA Waste Classification Guidelines (2014);
- Any imported material used for backfilling must be assessed and certified as clean fill in accordance with relevant EPA guidelines; and
- A dewatering management plan (DMP) should be developed in accordance with DPIE guidelines. If groundwater is to be extracted during construction, it should be assessed and, if necessary, treated prior to discharge.

17. Limitations and Reliance Statement

All work conducted, and report produced by CEC Geotechnical is for a particular Client's objective and are based on a specific scope, conditions and limitations were discussed in the proposal prepared by the CEC Geotechnical and agreed by the Client. Information and/or report(s) prepared by CEC Geotechnical may therefore not be suitable for any use other than the intended objective of the project.

The results of this assessment are based on the site conditions identified at the time of the site inspection/ investigation desktop study and validation sampling (if conducted). The assessment may not identify contamination occurring in all areas of the site, or there may be special conditions pertaining to the site that have not been revealed during the investigation and not documented in the report. Subsurface conditions may vary considerably away from the sample locations where information has been obtained. Moreover, CEC Geotechnical will not be liable to revise the report to account for any changes in site characteristics, regulatory requirements, assessment criteria or the availability of additional information, subsequent to the issue date of this report.The report is reviewed and authorised by Dr. Dawit Bekele (Certified Site Contamination Specialist CEnvP-SC (ID. SC41149) on behalf of crcCARE Pty Ltd. Dr. Dawit has provided an expert review of this report based on the information and data provided by CEC Geotechnical.

The report and/or any information produced by CEC Geotechnical should not be reproduced and/or presented prior permission from CEC Geotechnical.

It has been assumed that data supplied by the client, or any other external data/reports have been referred by CEC Geotechnical. It is also assumed that referred information is correct unless otherwise stated. CEC Geotechnical has no obligation for incomplete or inaccurate data provided by any external source(s).

For and on behalf of CEC Geotechnical Pty Ltd.

Diego Espinosa Moreno

Environmental Engineer
B.E (Chemical), M.E. (Environmental)

Zuhaib Siddiqui

Associate Environmental Engineer
B.E. (Civil), M.E.(Environmental), PhD (Environmental)
CEnvP (General)#1574

18. References

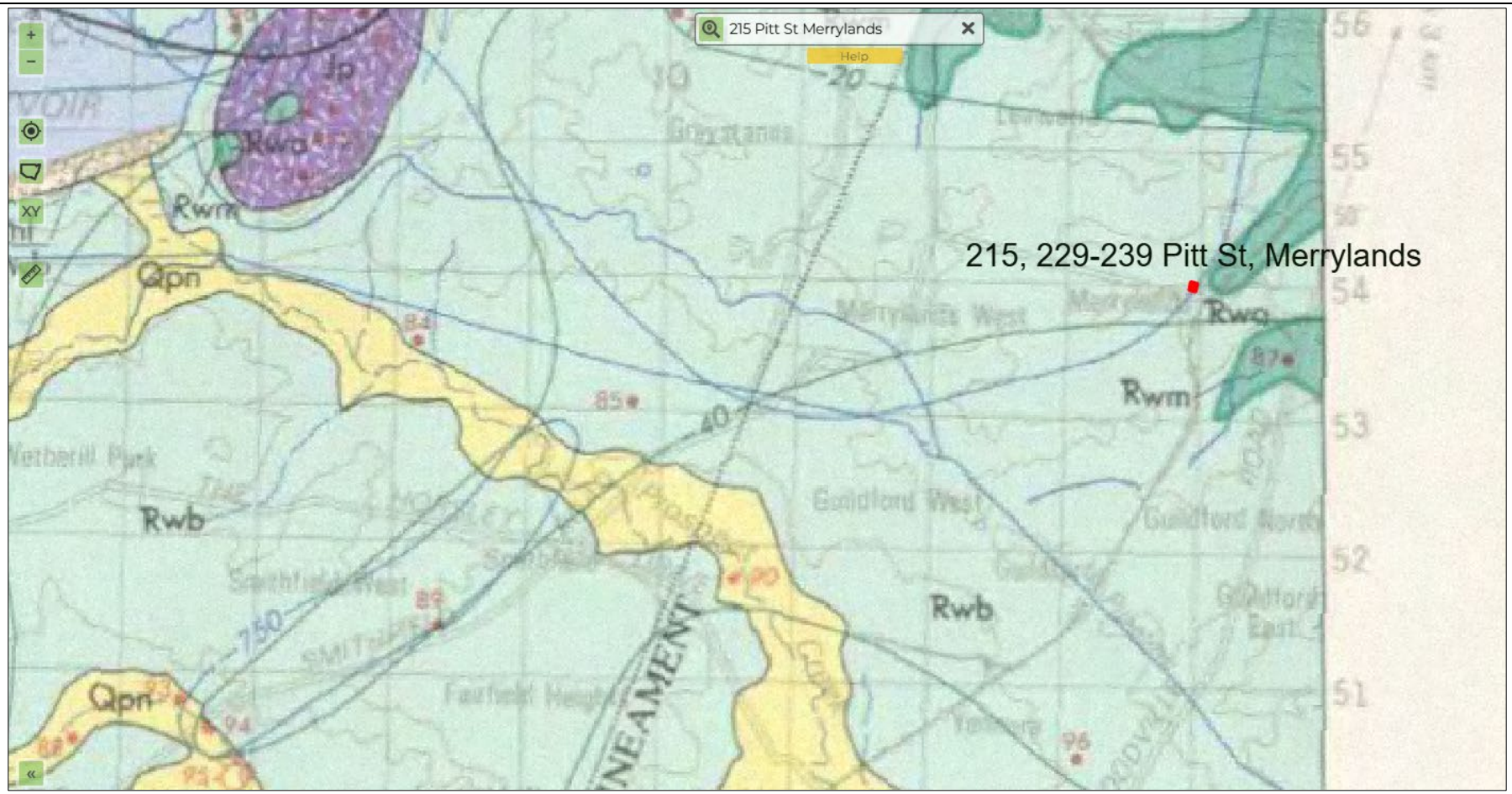
- ANZG (2018). Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Canberra, ACT: Australian and New Zealand Governments and Australian state and territory governments.
- CEC Geotechnical Pty Ltd (2025), Preliminary Site Investigation (PSI), 215, 229-239 Pitt St, Merrylands, reference. ER24029, issued 28/03/2025.
- Construction Sciences Pty Ltd (2020a), Stage 1 Preliminary and Stage 2 Detailed Site Investigation, 215, 229-239 Pitt St, Merrylands, reference. 5046200053-R01, issued 07/05/2020.
- Construction Sciences Pty Ltd (2020ba), Remedial Action Plan, 215, 229-239 Pitt St, Merrylands, reference. 10791EV.P55-R03d1, issued 27/11/2020.
- CRC CARE (2019). Remediation Action Plan: Implementation – Guideline on Documentation, Record Keeping and Reporting. National Remediation Framework, Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC CARE), Adelaide.
- CRC CARE, (2019a). Remediation Action Plan: Implementation – Guideline on Health and Safety. National Remediation Framework, CRC CARE, Adelaide.
- DEC (2017) Guidelines for the NSW Site Auditor Scheme (3rd Edition), NSW Dept. of Environment and Conservation (currently the OEH).
- Department of Water and Environmental Regulation. Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia;
- Include date, Consultant Reporting on Contaminated Land, Contaminated Land Guidelines (2020), NSWEPA.
- NEPC (2013). National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013). National Environment Protection Council, Canberra.
- NEPM (2013) Schedule B(2) Guideline on Site Characterisation, National Environmental Protection (Assessment of Site Contamination) Measure 1999 - Amendment 2013; Contaminated Land Management Act (1997).
- Network Geotechnics s (NG) Pty Ltd (2017), Due Diligence Contamination Assessment 215-239 Pitt Street, Merrylands, reference G09-2639, issued 05/12/2017.
- NSW EPA (2014). Excavated Natural Material Order and Excavated Natural Material Exemption. New South Wales Environment Protection Authority, Sydney.
- NSW EPA (2014). Waste Classification Guidelines, Part 1: Classifying Waste. New South Wales Environment Protection Authority, Sydney.
- NSW EPA (2020). Guidelines for Consultants Reporting on Contaminated Sites. New South Wales Environment Protection Authority, Sydney.
- NSW EPA (2022). Sampling Design Part 1 – Application. Contaminated Land Guidelines. New South Wales Environment Protection Authority, Sydney.
- NSW EPA. (2022). Sampling Design Part1-Application: Contaminated Land Guidelines. NSW Environment Protection Authority.
- NSW Government (1997). Contaminated Land Management Act 1997. NSW Government, Sydney.
- NSW Government (2017). Work Health and Safety Regulation 2017. NSW Government, Sydney.
- NSW Government (2021). State Environmental Planning Policy (Resilience and Hazards) 2021. NSW Department of Planning and Environment, Sydney.

- NSW Government (2023). Protection of the Environment Operations Act 1997 (as amended). NSW Government, Sydney Protection of the Environments Operations Act (1997), NSWEPA.
- SafeWork NSW (2021). Code of Practice: How to Safely Remove Asbestos. SafeWork NSW, Sydney.
- Standards Australia (2004). AS 4964:2004 – Method for the Qualitative Identification of Asbestos in Bulk Samples. Standards Australia, Sydney.
- State Environmental Planning Policy (2021) (Resilience and Hazards, 2021-Chapter 4 Remediation of Land), under the Environmental Planning and Assessment Act 1979.
- WA DOH (2021). Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites. Western Australia Department of Health, Perth.

APPENDIX A – Figures

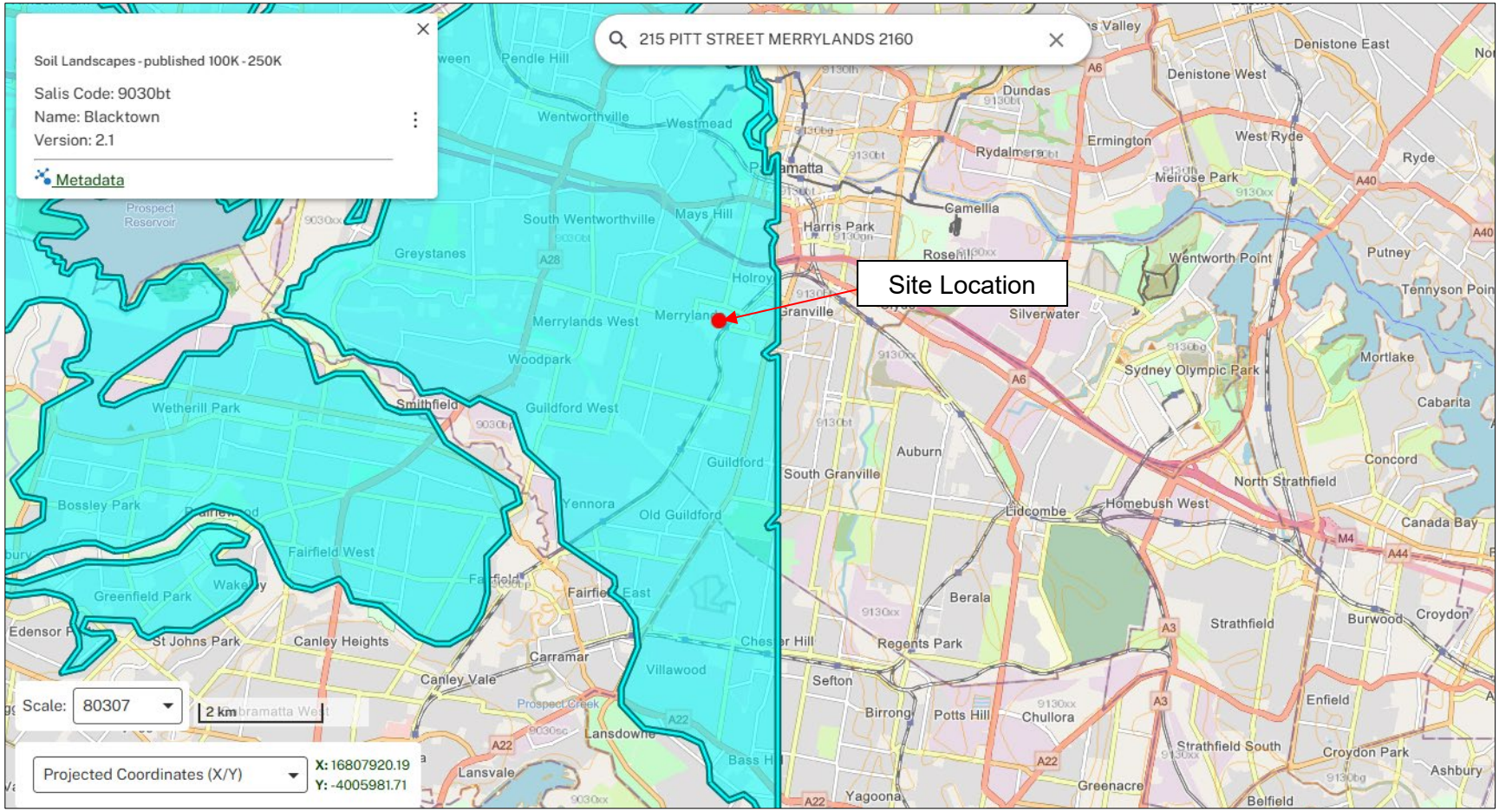
CEC GEOTECHNICAL

Legend: Site Boundary	**Drawn**	**DE**	**Figure 1:** Site Location and Work Zone Area **Site Address:** 215, 229-239 Pitt St, Merrylands	**Scale** 0 10m	**N**
	Checked	**ZS**			
	Date	**19/06/2025**			



CEC GEOTECHNICAL

Legend: — Site	**Drawn**	**DE**	**Figure 2:** Geological Map of Penrith Region **Site Address:** 215, 229-239 Pitt St, Merrylands	**Scale**	**N**
	Checked	**ZS**		**NTS**	
	Date	**19/06/2025**			



CEC GEOTECHNICAL

Legend:
- Site

Drawn	**DE**
Checked	**ZS**
Date	**19/06/2025**

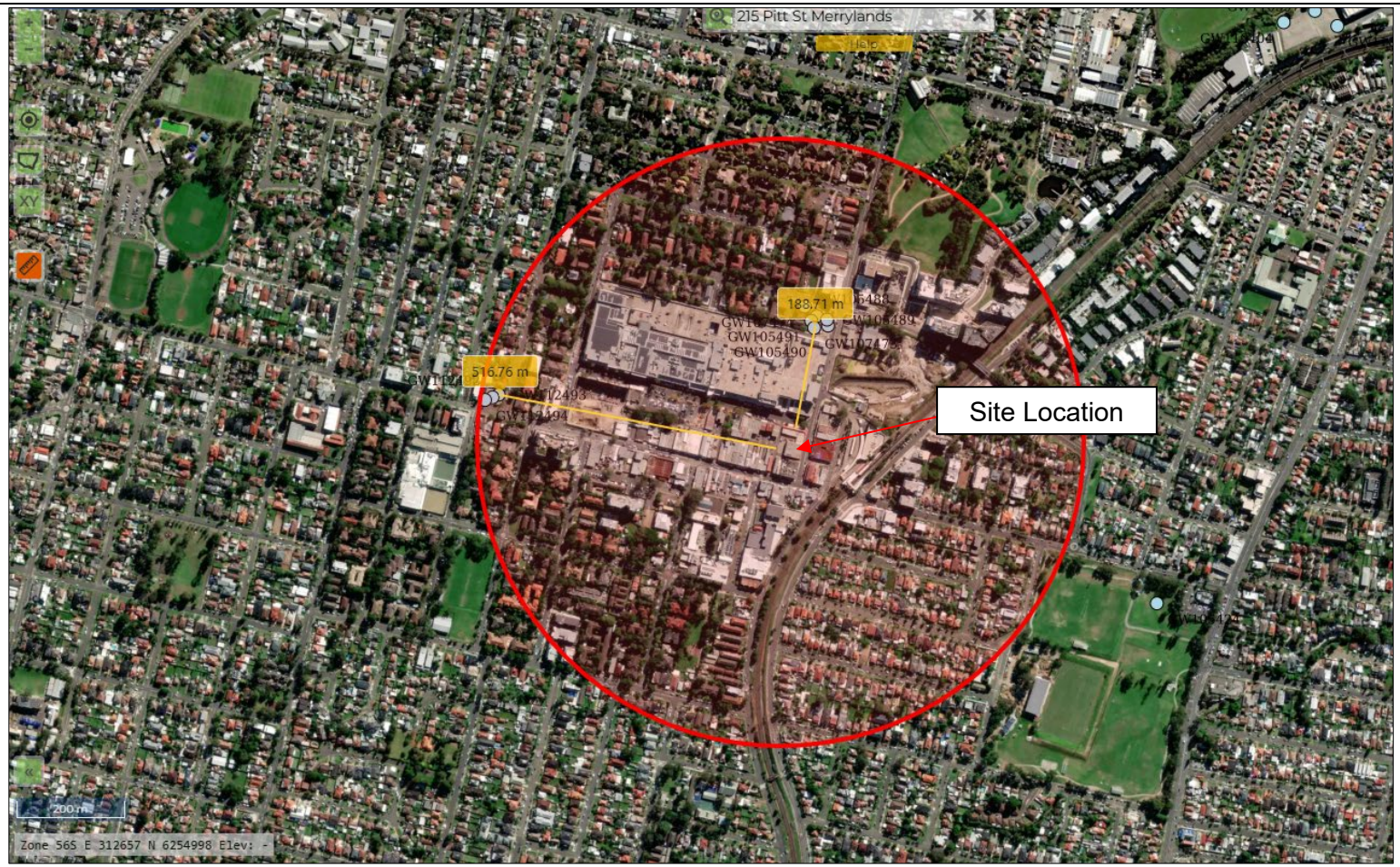
Figure 3: Type of Soil on Site

Site Address: 215, 229-239 Pitt St, Merrylands

Scale

0 — 1,000m

N



CEC GEOTECHNICAL

Legend: 500m Radius Groundwater borehole	**Drawn**	**DE**	**Figure 4:** Groundwater/Bores Close to the Site **Site Address:** 215, 229-239 Pitt St, Merrylands	**Scale** 0 2,000m	**N**
	Checked	**ZS**			
	Date	**19/06/2025**			

WaterNSW
Work Summary

GW105490

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 02/10/2003
Final Depth: 6.50 m
Drilled Depth: 6.50 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW
GWMA:
GW Zone:
Standing Water Level (m): 2.450
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6254420.000
Easting: 314179.000
Latitude: 33°50'02.9"S
Longitude: 150°59'30.7"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.50	100			Hand Auger
1		Hole	Hole	1.50	6.50	150			Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.50	50		0	PVC, SL: 50.0mm, A: 5.00mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.70	0.70	FILL,GRAVEL COARSE,BVLACK WET	Fill	
0.70	4.40	3.70	CLAY,D/BROWN,DRY	Clay	
4.40	5.40	1.00	GRAVELLY CLAY,ORANGE/BROWN	Gravel	
5.40	6.50	1.10	CLAY:L/BROWN/GREY,STIFF	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

WaterNSW
Work Summary

GW105491

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date: **Final Depth:** 6.50 m
Completion Date: 03/10/2003 **Drilled Depth:** 6.50 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW **Standing Water Level (m):** 2.300
GWMA: **Salinity Description:**
GW Zone: **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast **CMA Map:**
River Basin: - Unknown **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6254428.000 **Latitude:** 33°50'02.6"S
Elevation Source: Unknown **Easting:** 314148.000 **Longitude:** 150°59'29.5"E

GS Map: - **MGA Zone:** 56 **Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	4.50	100			Hand Auger
1		Hole	Hole	4.50	6.50	150			Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.50	50		0	PVC, SL: 50.0mm, A: 5.00mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	3.40	3.40	CLAY,L/BROWN,DRY,MOIST	Clay	
3.40	4.40	1.00	GRAVELLY CLAY,ORANGE,BROWN	Gravel	
4.40	6.50	2.10	CLAY,L/BROWN,SOFT,WET	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

WaterNSW
Work Summary

GW105489

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date: **Final Depth:** 6.50 m
Completion Date: 01/10/2003 **Drilled Depth:** 6.50 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW **Standing Water Level (m):** 2.450
GWMA: **Salinity Description:**
GW Zone: **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast **CMA Map:**
River Basin: - Unknown **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6254431.000 **Latitude:** 33°50'02.6"S
Elevation Source: Unknown **Easting:** 314177.000 **Longitude:** 150°59'30.7"E

GS Map: - **MGA Zone:** 56 **Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.50	100			Hand Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.50	50		0	PVC, SL: 50.0mm, A: 5.00mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	4.40	4.40	CLAY,GREY,BLACK,DRY,MOIST	Clay	
4.40	5.40	1.00	GRAVELLY CLAY,ORANGE/BROWN	Gravel	
5.40	6.50	1.10	CLAY,L/BROWN,WET	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

WaterNSW
Work Summary

GW105488

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date: **Final Depth:** 6.90 m
Completion Date: 01/10/2003 **Drilled Depth:** 6.90 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW **Standing Water Level (m):** 2.100
GWMA: **Salinity Description:**
GW Zone: **Yield (L/s):**

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast **CMA Map:**
River Basin: - Unknown **Grid Zone:** **Scale:**
Area/District:

Elevation: 0.00 m (A.H.D.) **Northing:** 6254437.000 **Latitude:** 33°50'02.4"S
Elevation Source: Unknown **Easting:** 314158.000 **Longitude:** 150°59'29.9"E

GS Map: - **MGA Zone:** 56 **Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.50	100			Hand Auger
1		Hole	Hole	1.50	6.90	150			Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.90	50		0	PVC, SL: 50.0mm, A: 5.40mm

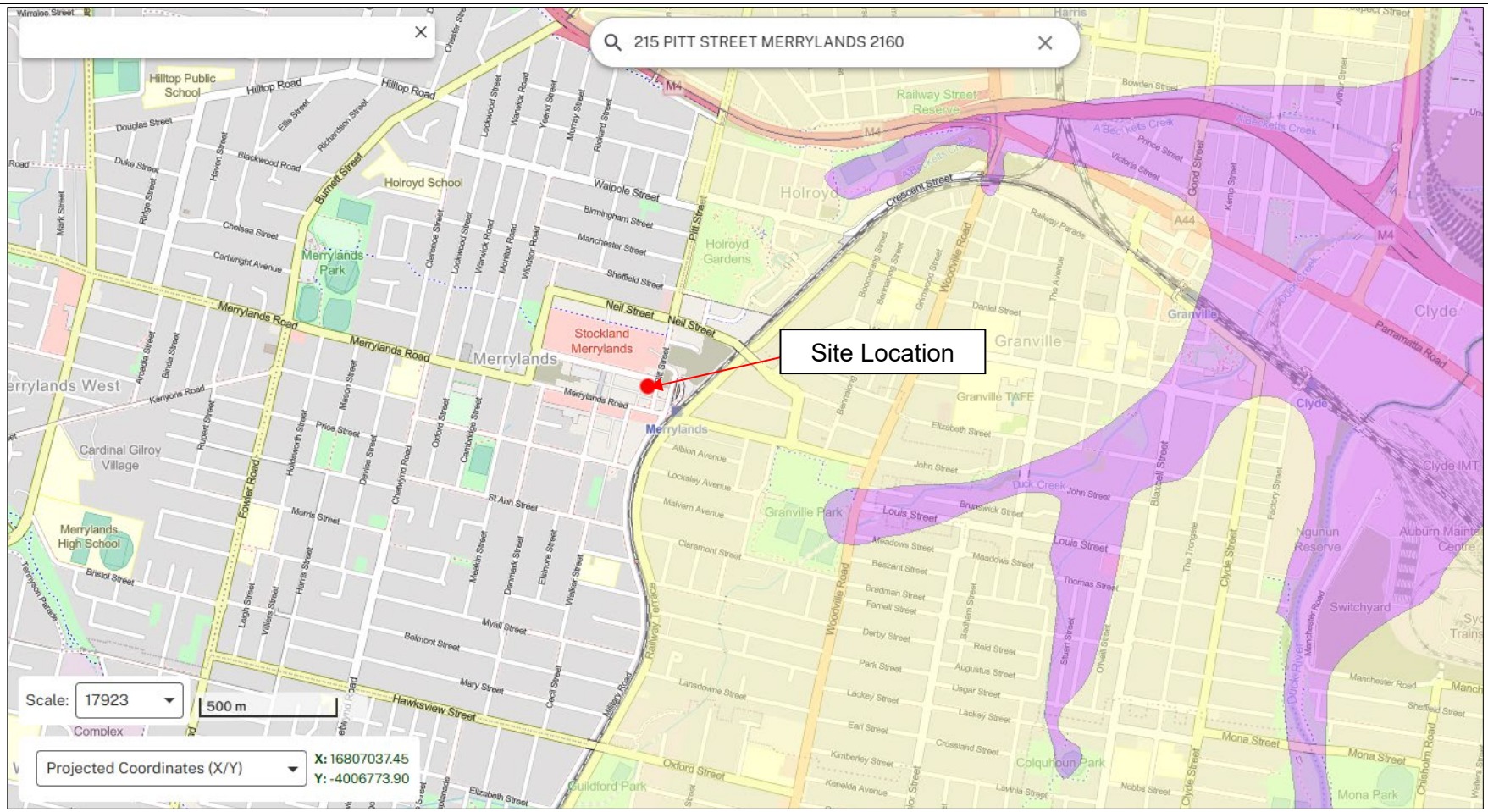
Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	4.40	4.40	CLAY,L/BROWN,DRY,MOIST	Clay	
4.40	5.40	1.00	GRAVELLY CLAY/RED/BROWN	Gravel	
5.40	6.90	1.50	INTERBEDDED CLAY	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

Figure 5: Extract of Groundwater/Bores Information Close to the Site



CEC GEOTECHNICAL

Legend:
- Site Boundary
- Class 4
- Class 5

Drawn	**DE**
Checked	**ZS**
Date	**19/06/2025**

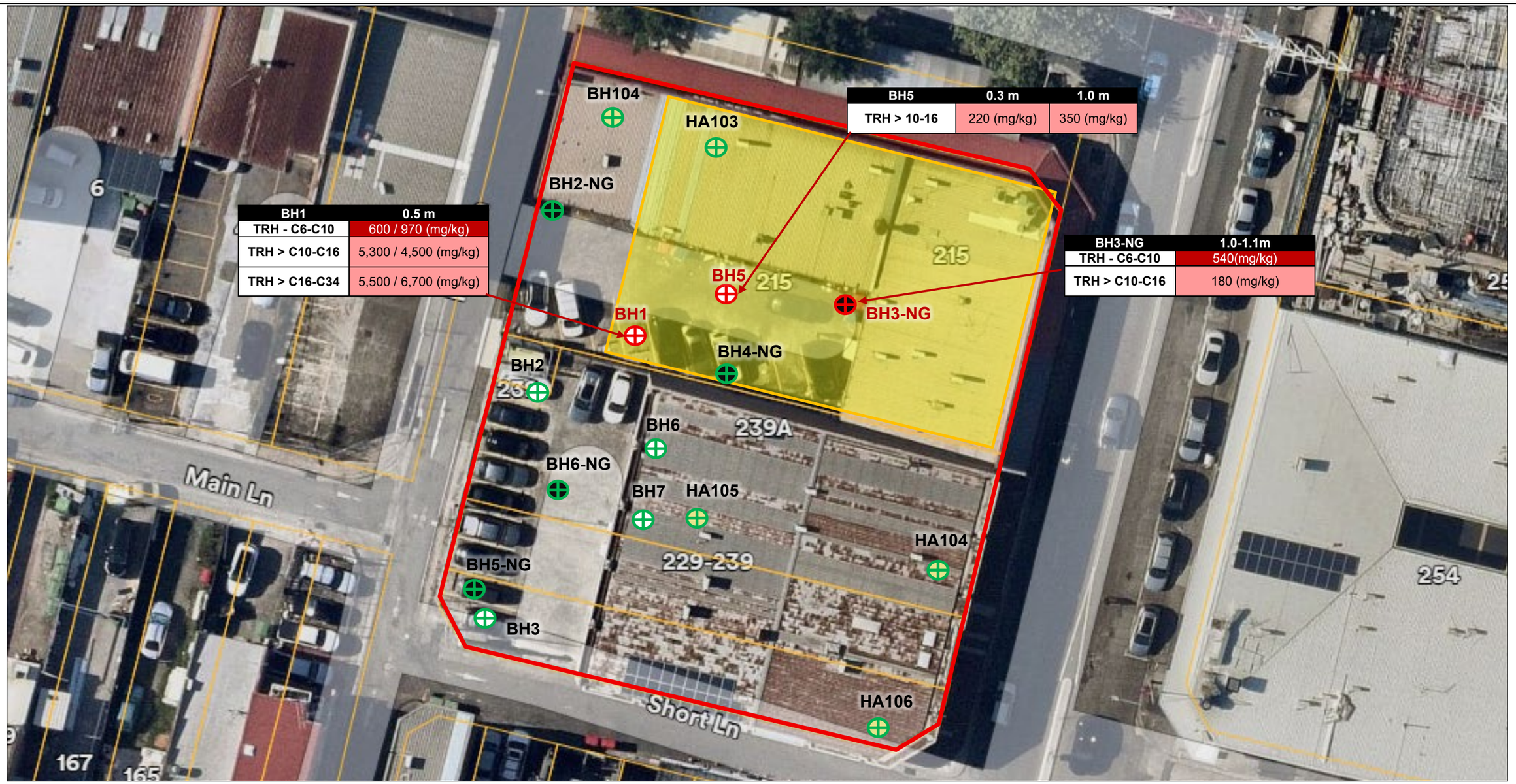
Figure 6: Acid Sulphate Soils Map Showing Subject Site

Site Address: 215, 229-239 Pitt St, Merrylands

Scale

0 500m

N



CEC GEOTECHNICAL

Legend:
- Site Boundary
- Borehole Exceeding (CEC, 2025)
- Borehole Exceeding (NG, 2017)
- Borehole Not Exceeding (CEC, 2025)
- Borehole Not Exceeding (NG, 2017)
- Borehole Not Exceeding (CS, 2020)
- HSL D Exceedance
- ESL Exceedance
- AEC: Former Petrol Station

Drawn	**DE**
Checked	**ZS**
Date	**19/06/2025**

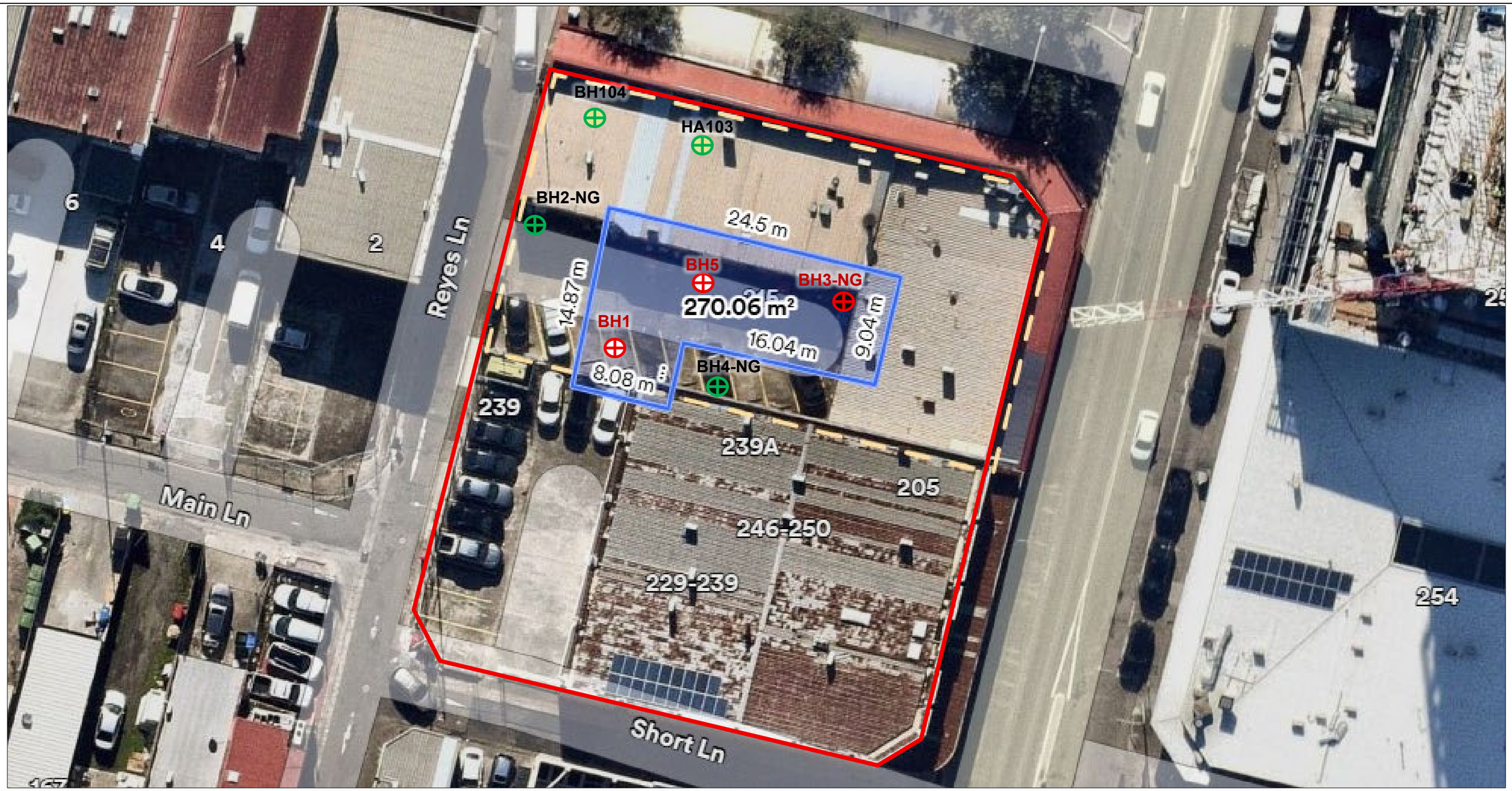
Figure 7: Sample Locations from Previous Investigations

Site Address: 215, 229-239 Pitt St, Merrylands

Scale

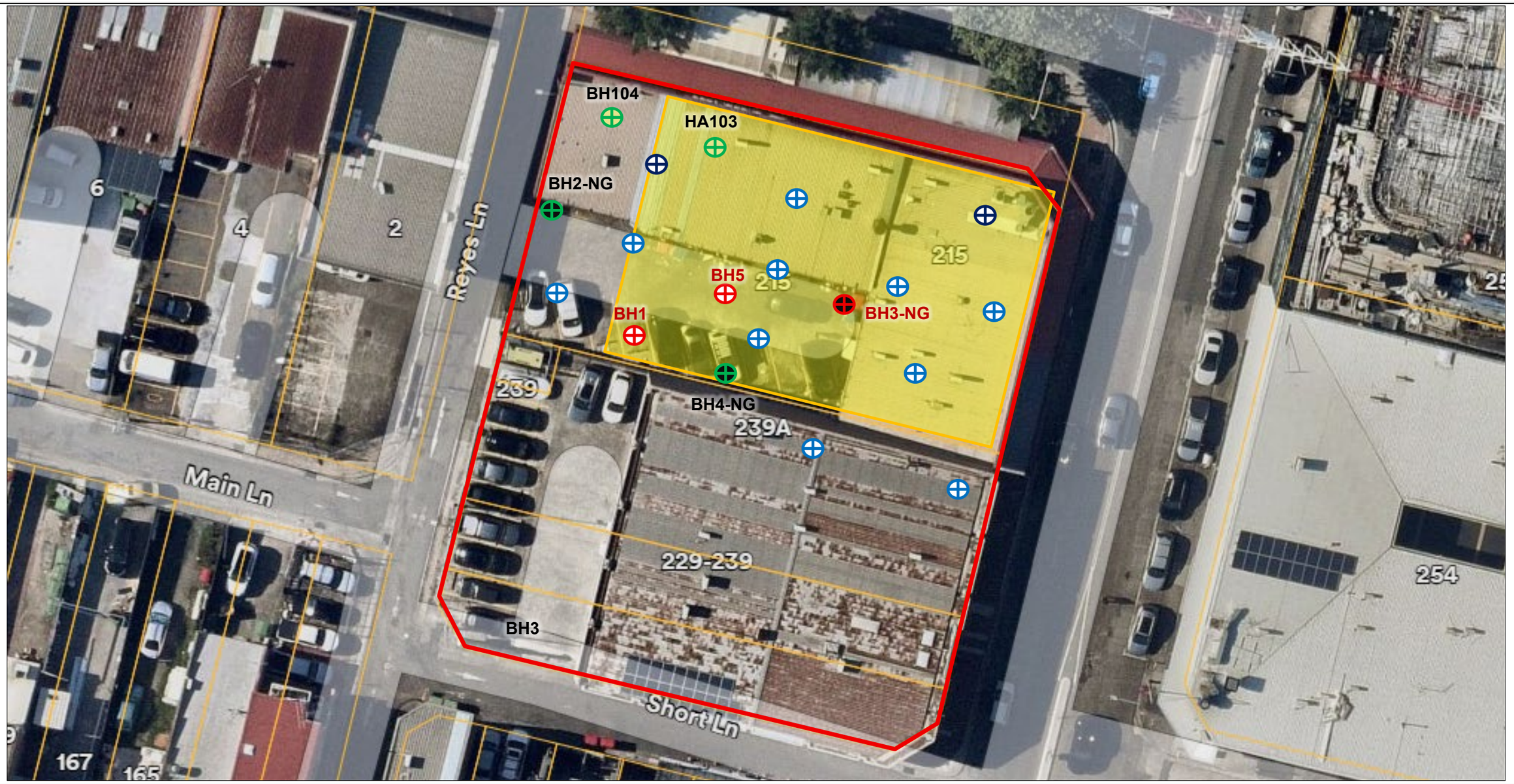
0 — 10m

N



CEC GEOTECHNICAL

Legend: Site Boundary Borehole Exceeding (CEC, 2025) Borehole Exceeding (NG, 2017) Borehole Not Exceeding (NG, 2017) Borehole Not Exceeding (CS, 2020) Preliminary Remediation Area	**Drawn**	**DE**	**Figure 8:** Preliminary Remediation Area **Site Address:** 215, 229-239 Pitt St, Merrylands	**Scale** 0 — 10m **N**
	Checked	**ZS**		
	Date	**19/06/2025**		



CEC GEOTECHNICAL

Legend:

- Site Boundary
- Borehole Exceeding (CEC, 2025)
- Borehole Exceeding (NG, 2017)
- Borehole Not Exceeding (NG, 2017)
- Borehole Not Exceeding (CS, 2020)
- Proposed DGA Sampling Location
- Proposed DGA Sampling Location and Well Installation
- AEC: Former Petrol Station

Drawn	**DE**
Checked	**ZS**
Date	**19/06/2025**

Figure 9: Proposed DGA Sampling Location

Site Address: 215, 229-239 Pitt St, Merrylands

Scale

0 10m

N

APPENDIX B – Proposed Development Plan

MERRYLANDS COMMUNITY LIVING

215, 229-239 PITT STREET MERRYLANDS 2160

STATE SIGNIFICANT DEVELOPMENT APPLICATION

ARCHITECTURAL DRAWING SCHEDULE

NO.	DESCRIPTION	REVISION	SCALE
SSDA 000 PLANS			
SSDA 001	COVER SHEET	A	NTS
SSDA 002	DEVELOPMENT SUMMARY	A	NTS
SSDA 003	CONTEXT ANALYSIS	A	1:3000
SSDA 004	SITE ANALYSIS	A	1:200
SSDA 005	SITE PLAN	A	1:150
SSDA 006	DEMOLITION PLAN	A	1:150
SSDA 100 PLANS			
SSDA 101	BASEMENT 04 PLAN	A	1:150
SSDA 102	BASEMENT 03 PLAN	A	1:150
SSDA 103	BASEMENT 02 PLAN	A	1:150
SSDA 104	BASEMENT 01 PLAN	A	1:150
SSDA 105	GROUND LEVEL PLAN	A	1:150
SSDA 106	GROUND LEVEL PLAN - MEZZANINE	A	1:150
SSDA 107	LEVEL 01 PLAN	A	1:150
SSDA 108	LEVEL 02 PLAN	A	1:150
SSDA 109	LEVEL 03 PLAN - COS	A	1:150
SSDA 110	LEVEL 04-05 PLAN	A	1:150
SSDA 111	LEVEL 06-20 PLAN	A	1:150
SSDA 112	LEVEL 21 PLAN	A	1:150
SSDA 113	LEVEL 22-28 PLAN	A	1:150
SSDA 114	LEVEL 29 PLAN - COS	A	1:150
SSDA 115	LEVEL 30 PLAN	A	1:150
SSDA 116	LEVEL 31 PLAN - COS	A	1:150
SSDA 117	LEVEL 32 PLAN	A	1:150
SSDA 118	LEVEL 33 PLAN	A	1:150
SSDA 119	LEVEL 34 PLAN	A	1:150
SSDA 120	LEVEL 35 PLAN	A	1:150
SSDA 121	ROOF PLAN	A	1:150
SSDA 200 ELEVATIONS AND SECTIONS			
SSDA 201	NORTH ELEVATION (MCFARLANE STREET)	A	1:300
SSDA 202	SOUTH ELEVATION (SHORT LANE)	A	1:300
SSDA 203	EAST ELEVATION (PITT STREET)	A	1:300
SSDA 204	WEST ELEVATION (REYES LANE)	A	1:300
SSDA 205	SECTION A	A	1:300
SSDA 206	SECTION B	A	1:300
SSDA 207	SECTION C	A	1:300
SSDA 208	SECTION H (PODIUM COS)	A	1:50
SSDA 209	SECTION J (ROOF COS)	A	1:50
SSDA 210	DRIVEWAY SECTION	A	1:50
SSDA 211	THROUGH SITE LINK SECTION	A	1:50
SSDA 212	RESIDENTIAL LOBBY INTERFACE SECTION	A	
SSDA 213	FIRE EXIT STAIRS SECTION	A	1:50
SSDA 214	EAT STREET SECTION	A	1:50
SSDA 215	COMMERCIAL LOBBY INTERFACE SECTION	A	1:50
SSDA 300 UNIT TYPES			
SSDA 301	UNIT TYPES SHEET 01	A	1:100
SSDA 302	UNIT TYPES SHEET 02	A	1:100
SSDA 303	UNIT TYPE_ADAPTABLE SHEET 01	A	1:50
SSDA 304	UNIT TYPE_ADAPTABLE SHEET 02	A	1:50
SSDA 305	UNIT TYPE_ADAPTABLE SHEET 03	A	1:50
SSDA 400 SOLAR ANALYSIS			
SSDA 401	SHADOW DIAGRAMS SHEET 01	A	1:3500
SSDA 402	SUN EYE VIEW DIAGRAMS SHEET 01	A	
SSDA 403	COS SUN EYE VIEW DIAGRAMS SHEET 01	A	NTS
SSDA 404	COS SHADOW DIAGRAMS SHEET 01	A	1:300
SSDA 405	COS SHADOW DIAGRAMS SHEET 02	A	1:300
SSDA 406	PUBLIC DOMAIN SHADOW DIAGRAMS SHEET 01	A	1:300
SSDA 500 AREA + ADG Diagrams			
SSDA 501	GFA DIAGRAMS	A	1:400
SSDA 502	OPEN AREA DIAGRAMS	A	1:300
SSDA 503	SOLAR ACCESS DIAGRAMS 01	A	1:300
SSDA 504	SOLAR ACCESS DIAGRAMS 02	A	1:300
SSDA 505	SOLAR ACCESS DIAGRAMS 03	A	1:300
SSDA 506	NO DIRECT SUNLIGHT DIAGRAMS	A	1:300
SSDA 507	NATURAL CROSS VENTILATION DIAGRAMS	A	1:300
SSDA 508	LEP HEIGHT PLANE DIAGRAM	A	
SSDA 509	BUILDING SEPARATION PLAN GROUND	A	1:150
SSDA 510	BUILDING SEPARATION PLAN PODIUM	A	1:150
SSDA 511	BUILDING SEPARATION PLAN TOWER	A	1:150
SSDA 600 MATERIALS/PRODUCTS/FINISHES SCHEDULE			
SSDA 601	MATERIALS AND FINISHES SCHEDULE	A	
SSDA 700 PHOTOMONTAGES			NTS
SSDA 701	PHOTOMONTAGE SHEET 01	A	
SSDA 702	PHOTOMONTAGE SHEET 02	A	NTS
SSDA 703	PHOTOMONTAGE SHEET 03	A	NTS
SSDA 704	PHOTOMONTAGE SHEET 04	A	NTS
SSDA 705	PHOTOMONTAGE SHEET 05	A	NTS
SSDA 706	PHOTOMONTAGE SHEET 06	A	NTS
SSDA 707	PHOTOMONTAGE SHEET 07	A	NTS
			NTS

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:25 pm
© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH/BC
DATE
15/08/2024
SCALE
@ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
COVER SHEET

SHEET NO.
SSDA 001
REVISION.
A

ARCHITECTURAL LEGEND

	A
A	ALIGN
(A)	ACOUSTIC
AC	AIR CONDITIONING
AC*	AIR CONDITIONING WITH NON CLIMBABLE SHROUDS
ACC	ACCESSIBLE
ACP	AIR CONDITIONING CONTROL PANEL
ACS	ACCESS CONTROL SYSTEM
AD	ACCESS DECK
ADJ	ADJUSTABLE
ADP	ADAPTABLE
AH-01,..	ACCESS HATCH TYPE 01,02, ETC.
AHD	AUSTRALIAN HEIGHT DATUM
AJ	ARTICULATION JOINT
AL	ALUMINIUM
AMB	AMBULANT
AP	ACCESS PANEL
ASL	FIXED VERTICAL LADDER
ASP	ANTI-SLIP PLATE
AWF	APPLIED WALL FINISH
AWN	AWNING
	B
B	BATHROOM
BD-01,..	BEDROOM 1, BEDROOM 2, ETC.
BG	BOX GUTTER
BGS	BOOM GATE SYSTEM
BH	BULKHEAD
BJ	BUTT JOINT
BKP	BICYCLE PARKING
BKR	BICYCLE RACK
BKS	BICYCLE STORAGE
BL-01,..	BALUSTRADE-01, 02, ETC.
BLK	BLOCKWORK
BOL	BOLLARD
BO	BALCONY RAIN WATER OUTLET
BS	BALCONY SPRINKLER SLOT CAST INTO FULL DEPTH OF FOLD
BSH	BATHROOM SHELF
BSN	BASIN
BSP	BATH SPOUT
BST	BALLAST
BT	BENCHTOP
BTH-01.	BATH-01, 02, ETC.
BTP	BOTTLE TRAP
BTR	BOUNDARY TRAP
BWK-01.	BRICK TYPE 01, 02, ETC.
BY	BALCONY
BYW	BALCONY WINTER GARDEN
	C
CAP	CAPPING
CBC	CUBICLE SYSTEM
CBF	CONCRETE BROOM FINISH
CEA	CONCRETE EXPOSED AGGREGATE FINISH
CF	CRITICAL FACE
CFC	COMPRESSED FIBRE CEMENT
CFF	CONCRETE FLOAT FINISH
CGF	CONCRETE GROOVE FINISH
CH	CEILING HEIGHT
CHE	CHAMFERED EDGE
CHS	CIRCULAR HOLLOW SECTION
CI	CAST IN
CIS	CISTERN
CJ	CONTRUCTION JOINT
CKT	COOK TOP
CL	CENTRE LINE
CLD	CLADDING
CLK	CLOACK ROOM
CLNR	CLEANER STORE
CM	CONVEX MIRROR
CMR	CEMENT RENDER/ ACRYLIC
CNR	CORNER
COF	CONCRETE OFF-FORM FINISH
COL	COLUMN
COM	COMMERCIAL
COMS	COMMUNICATIONS SERVICES
CONC	CONCRETE FINISH
COS	CHECK ON SITE
CP	CAR PARK SPACE
CPC	CONCRETE PRECAST
CPD	CUPBOARD
CPL	COVER PLATE
CPS	CARPARK SUPPLY
CPT	CARPET
CPX	CAR PARK EXHAUST
CS	CEILING FINISH
CSF	CEMENTITIOUS SCREED FINISH
CSK	COUNTERSUNK
CSNK	CLEANERS SINK
CST	CONCRETE STEEL TROWEL FINISH
CTF	CERAMIC TILE FLOOR FINISH
CTW	CERAMIC TILE WALL FINISH
CU	CONDENSER UNIT
CVJ	COVED JUNCTION
CW	COLD WATER
CWB	CAR WASH BAY
CWS	COLD WATER SUPPLY
CY	COURTYARD
	D
D	DINING
DD	DISH DRAIN
DDO	DISH DRAIN OUTLET
DG	DRIP GROOVE
DJ	DUMMY JOINT
DM	DOOR MAT
DP	DOWN PIPE
DPC	DAMP PROOF COURSE
DRB	PULLOUT BIN DRAWER
DRW	DRAWER
DRY	DRYER
DS	DOOR STOP
DW	DISHWASHER
	E
E	ENTRY
EA	EQUAL ANGLE
EDB	ELECTRICAL DISTRIBUTION BOARD
EFF	EPOXY FLOOR FINISH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL SERVICE
EM	ENTRY MAT
EN	ENSUITE
EP	EDGE PROTECTION
EPO	EPOXY FLOOR FINISH WITH COVERED CORNER
EX	EXISTING
EXH	EXHAUST
EXJ	EXPRESS JOINT
EXP	EXPOSED
	F
F	FIRE SERVICES
FB	FLUSH BUTTON (CISTERN)
FBV	FIRE BOOSTER VALVE
FC	FIBRE CEMENT
FCC	FIRE CONTROL CENTRE
FCL	FINISH CEILING LEVEL
FCR	FIRE CONTROL ROOM
FCU	FAN COIL UNIT (AC)
FEP	FIRE EGRESS PASSAGE
FES	FLOOR EDGE STRIP
FEX	FIRE EXTINGUISHER
FFL	FINISH FLOOR LEVEL
FG	FIXED GLASS
FGL	FINISHED GROUND LEVEL
FH	FIRE HYDRANT
FHB	FIRE HYDRANT BOOSTER
FHR	FIRE HOSE REEL
FIP	FIRE ALARM CONTROL PANEL
FLS	FLASHING
FMP	FIRE MIMIC PANEL
FN-01	FURNITURE TYPE 01, 02, ETC
FNC-01	FENCE TYPE 01, 02, ETC
FR	FIRE RATED
FRL	FIRE RESISTANCE LEVEL
FS-01,..	FIRE STAIR NO.1, 2, ETC
FSC	FIRE SPRINKLER CONTROL
FW	FLOOR WASTE
FX	FIXED
	G
GA-01	GREASE ARRESTOR NO.1, 2, ETC.
GB	GAS BAYONET
GBB	BULK GARBAGE ROOM
GBC	GARBAGE CHUTE
GBR	GARBAGE ROOM
GC	GLASS CLEAR
GD	GLASS, DECORATIVE
GDR	GRATED DRAIN
GE	GROOVED EDGE
GHR	GARBAGE HOLDING ROOM
GL-01,..	GLASS TYPE 01, 02, ETC.
GTR	GUTTER
GLR	MECHANICAL GRILLE
GM	GAS METER
GP	GLASS PANEL
GPO	GENERAL POWER OUTLET
GPT	GROSS POLLUTANT TRAP
GR	GRAB RAIL
GRL	GROUND LINE
GS	GLAZING SUITE
GT	GLASS, TRANSLUCENT
GX	GARBAGE EXHAUST
	H
H	HYDRAULIC SERVICES
HB	HEBEL
HC	HOSE COCK
HD	HANDLE
HDR	HAND DRYER
HIR	HIGH IMPACT RESISTANT
HK	HOOK
HMR	HIGH MOISTURE RESISTANCE
HP	HIGH POINT
HR-01,..	HANDRAIL-01, 02, ETC.
HRV	HEAVY RIGID VEHICLE
HWS	HOT WATER SERVICE
HWU	HOT WATER UNIT
	I
ID	INSIDE DIAMETER
IL	INVERT LEVEL
INA	INTEGRATED ASSEMBLY
INS	INSULATION
INT	INTERCOM
IO	INSPECTION OPENING
	J
J-01	JOINERY TYPE 01, 02, ETC.
JF-01	JOINERY FINISH 01, 02, ETC.
JP	JOINERY PULL
	K
K	KITCHEN
KB	KERB
KE	KITCHEN EXHAUST
	L
L	LIVING
LB	LETTER BOX
LBY	LOBBY
LCB	LIFT CALL BUTTON
LCL	LIFT CALL LANTERN
LF-01,..	LIFT-01, 02, ETC.
LG	LOWER GROUND
LM	PLASTIC LAMINATE
LP	LOW POINT
LRA	LOBBY RELIEF AIR
LSA	LOBBY SUPPLY AIR
LT	LAUNDRY TUB
LV	LOUVRES TYPE 01, 02, ETC
LY	LAUNDRY
	M
M	MECHANICAL SERVICES
MA	MEDIA ABOVE
MATV	MASTER ANTENNA TELEVISION SERVICE
MBP	MOTOR BIKE PARKING
MBX	MAIL BOX ASSEMBLY
MCP	PRESSED METAL CAPPING
MDR	METAL DECK ROOFING
MDSP	MULTI-USE DISPENSER UNIT
MGB	MOBILE GARBAGE BIN
MJ	MITRE JOINT
MOV	MICROWAVE OVEN
MR	MIRROR
MRR	MIRROR REVERSE
MRV	MEDIUM RIGID VEHICLE
MS	MASONRY WALL TILES
MSB	MAIN SWITCH BOARD SERVICES
MTR	METER
MV	MECHANICAL VENT
MVJ	MOVEMENT JOINT
	N
NGL	NATURAL GROUND LEVEL
NOM	NOMINAL
NB	NOTICE BOARD
	O
O	OPERABLE
OD	OVERHEAD DOOR
OF	OVER FLOW SLOT
OFS	OVER FLOW SPOUT
OP	OPERABLE
OSD	ON SITE DETENTION TANK
OSR	ON SITE RETENTION TANK
OV	OVEN
	P
P	PANTRY
PB	PLASTERBOARD
PC-01,..	POWDER COAT FINISH-01, 02, ETC.
PD	PIVOT DOOR
PDO	PLANTER DRAINAGE OUTLET
PF-01,..	PAINT FINISH-01, 02, ETC.
PFC	PARALLEL FLANGE CHANNEL
PG	PERGOLA
PL	PAINT LINE MARKING
PLB	PLANTER BOX
PLT	PLATFORM LIFT
PM	PELMET
PP_01	TRAFFIC ROAD MARKING PAINT
PP_02	SAFETY HAZARD STRIPS
PS	PIPIE SPACE
PRC	PRE CAST CONCRETE
PUP	PUSH PLATE
PV	PAVING
	R
R	ROBE
(R)	RECESSED
RA	RETURN AIR
RAS	ROOF ACCESS SAFTEY SYSTEM
RC	REINFORCED CONCRETE
RD	ROLLER DOOR
REP	RECESSED EDGE PULL
RES	RESIDENTIAL
RF	REFRIGERATOR
RFF	RESILIENT FLOOR FINISH
RH	RANGE HOOD
RHS	RECTANGULAR HOLLOW SECTION
RL	RELATIVE LEVEL TO AHD
RP-01,..	RAMP-01, 02, ETC.
RTL	RETAIL
RU	RECEPTABLE UNIT
RV	RELIEF VENT
RWH	RAIN WATER HEAD
RWO	RAINWATER OUTLET
RWT	RAINWATER TANK
RY	RECYCLING
	S
S	STORAGE
SA	SUPPLY AIR
SB	SPLASH BACK
SBM	STEEL BEAM
SBT	SEWER BOUNDRY TRAP
SC	STORAGE CAGE WITH GATE
SCN	SCREEN
SCOL	STEEL COLUMN
SCT	SHOWER CURTAIN
SCTR	SHOWER CURTAIN RAIL
SD	SLIDING DOOR
SDH	SOAP DISH HOLDER
SDO	SPOON DRAIN OUTLET
SDSP	SOAP DISPENSER
SEC	SECURITY SERVICES
SFF	STONE FLOOR FINISH
SFS	SHOWER FOLDING SEAT
SGN	SIGNAGE
SHC	SHAVING CABINET
SHP	SPEED HUMP
SHR	SHOWER
SHRR	SHOWER ROSE
SHS	SQUARE HOLLOW SECTION
SIM	SIMILAR
SJ	SAW JOINT
SK	SARKING
SKL-01,..	SKYLIGHT 01, 02, ETC.
SKT	SKIRTING
SLR	SEALANT
SMD	SMOKE DETECTOR
SN	SAFETY HAZARD
SNK	SINK
SO	STRUCTURAL OPENING
SOP	SET OUT POINT
SP	STAIR PRESSURISATION
SPR	STAIR PRESSURISATION RELIEF
SPT	SPOUT
SQE	SQUARE EDGE
(SR)	SEMI RECESSED
SS	STAINLESS STEEL
SSD	SUB-SURFACE DRAINAGE SYSTEM
SSL	STRUCTURAL SLAB LEVEL
SSN	SHOWER SCREEN
ST-01	STAIR NO.1, 2, ETC.
STL	STEEL
STN	STAIR NOSING
STP	SHOWER TAPSET
STY	STUDY
SV	SANITARY VENT
SW	STORM WATER
SWD	STORMWATER DRAIN
SWF	STONE WALL FINISH
SWP	STORMWATER PIT
	T
(T)	THERMAL
TCE	TERRACE
TD	TIMBER DECK
TDSP	TOWEL DISPENSER UNIT
TE	TOOLED EDGE
TF	TIMBER FLOOR FINISH
TFW	TRADE FLOOR WASTE
TGIS	TACTILE INDICATORS
TGSI	TACTILE GROUND SURFACE INDICATOR
TH	THRESHOLD
TND	TUNDISH
TOB	TOP OF BALUSTRADE
TOH	TOP OF HOB
TOS	TOP OF SCREEN
TOW	TOP OF WALL
TPH	TOPHAT
TPS	TAPSET
TR	TOWEL RAIL
TRA	TENANT RETURN AIR
TRH	TOILET ROLL HOLDER
TSA	TENANT SUPPLY AIR
TV	TIMBER VENEER
TYP.	TYPICAL
	U
U/G	UNDERGROUND
U/S	UNDERSIDE
UA	UNEQUAL ANGLE
UCT	UNDER CUT
UG	UPPER GROUND
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UT	UTILITY SPACE
	V
V	VOID
VIS	VISITOR
VN	VINYL
VP	VENT PIPE
	W
WC	WC
WC-A	WC-ACCESSIBLE
WC-F	WC- FEMALE
WC-M	WC- MALE
WC-U	WC- UNISEX
WIR	WALK IN ROBE
WM	WASHING MACHINE
WP	WEATHER PROOF
WPM-01,..	WATERPROOF MEMBRANE 01, 02, ETC
WST	WHEEL STOP
WTM	WATERMETER
	X
XF-01	EXTERNAL WALL PAINT 01, 02, ETC.

DEVELOPMENT SUMMARY

SITE INFO	
ADDRESS	215, 229-239 Pitt Street Merrylands 2160
DP	LOT 1 - DP 1079960, LOT J - DP 10354, LOT 2 - DP 537031, LOT 2 - DP 501597, LOT 1 - DP 537031
SITE AREA	2,106 sqm
PROJECT SUMMARY	
RESIDENTIAL MIX	1 Bedroom Unit : 77 (32%) 2 Bedroom Unit : 125 (53%) 3 Bedroom Unit : 36 (15%) TOTAL UNITS : 238
NON-RESI AREA (sqm)	3,471 sqm
CAR PARKING	185 CAR PARKING SPACES; consisting of 10 Retail Parking Spaces, 46 Commercial Parking Spaces, 129 Residential Parking Spaces and 1 Carwash bay

CUMBERLAND LEP 2021

	CONTROLS	PROPOSED	
LAND USE	E2 - Commercial centre	E2 - Commercial centre	✓
BUILDING HEIGHT (m)	86m	124.71m (Lift Overrun - +16.80RL)	
FLOOR SPACE RATIO	8 : 1	11.05 : 1	
GROSS FLOOR AREA (sqm)	16,716.8 sqm	23,271 sqm	

DESIGN EXCELLENCE BONUS + SEPP (HOUSING) 2021 BONUS

	CONTROLS	PROPOSED	
BUILDING HEIGHT (m)	122.98m	124.71m	
FLOOR SPACE RATIO	11.05 :1	11.05 :1	✓
GROSS FLOOR AREA (sqm)	23,271.03 sqm	23,271 sqm	✓
LANDSCAPING (%)	30%	69%	✓
LANDSCAPING (sqm)	626.9 sqm	1,450 sqm	
CAR PARKING	**RESIDENTIAL CAR PARKING RATE** 0.4 space 1 bedroom dwelling or less = 0.4 x 77 = 30.8 spaces 0.5 space per 2 bedroom dwelling = 0.5 x 125 = 62.5 spaces 1 space per 3 bedroom dwelling = 1 x 36 = 36 spaces TOTAL REQUIRED RESIDENTIAL CAR PARKING SPACES =129 spaces **COMMERCIAL CAR PARKING RATE** 1.6 space per 100 sqm of commercial GFA = 45.6 spaces **RETAIL CAR PARKING RATE** 1.6 space per 100 sqm of commercial GFA = 10 spaces TOTAL REQUIRED COMMERCIAL CAR PARKING SPACES = 56 spaces **TOTAL REQUIRED CAR PARKING SPACES = 185 spaces**	**RESIDENTIAL CAR PARKING** Resident car parking spaces : 130 spaces (48 accessible spaces) Carwash Bay : 1 space TOTAL RESIDENTIAL CAR PARKING SPACES = 129 spaces **COMMERCIAL CAR PARKING** Commercial car parking spaces : 46 spaces (1 accessible space) **RETAIL CAR PARKING** Retail car parking spaces : 10 spaces (1 accessible space) TOTAL RETAIL & COMMERCIAL CAR PARKING SPACES = 56 spaces **TOTAL PROPOSED CAR PARKING SPACES = 185 spaces** **TOTAL MOTORBIKE SPACES = 9 spaces**	

CUMBERLAND DCP 2021

	CONTROLS	PROPOSED	COMPLIANCE
DWELLING MIX	a. Studio + 1Bedroom : 10% minimum b. 2 Bedroom : 80% c. 3+ Bedroom : 10% minimum 20% Adaptable housing	Proposed Dwelling Mix : 1 Bedroom : 77 (32%) 2 Bedroom : 125 (53%) 3 Bedroom : 36 (15%) **238 SOU's total** 20% Adaptable housing	✓
COMMERCIAL FLOOR AREA	1.7 : 1 ~ 3,560.5 sqm	1.7 : 1 = 3,471 sqm	✓
SETBACK	MCFARLANE STREET Street wall: 0m, 3 storey Above street wall: 4-6m PITT STREET Street wall: 0m with awning, 3 storey Above street wall: 4-6m SHORT LANE Street wall: 0m with awning, 3 storey Above street wall: 3-6m REYES SETBACK Street wall: 0m with awning, 3 storey Above street wall: 3-6m	MCFARLANE STREET Street wall: 0m, 3 storey Above street wall: 4m PITT STREET Street wall: 0m with awning, 3 storey Above street wall:4m SHORT LANE Street wall: 1.5m, 3 storey Above street wall: 7m REYES SETBACK Street wall: 2.7m, 3 storey Above street wall: 8.4m	✓
BICYCLE PARKING	**RESIDENTIAL BICYCLE PARKING RATE** 1 space per 3 dwelling (resident) = 238 / 3 = 79.3 spaces 1 spaces per 3 dwellings (visitor) = 238 / 3 = 79.3 spaces TOTAL REQUIRED RESIDENTIAL & VISITOR BICYCLE PARKING SPACES **= 159 spaces** **COMMERCIAL BICYCLE PARKING RATE** 1 space per 10 employees (assuming 310 employees) = 31 spaces 1 space per 750 sqm of commercial GFA (visitor) =3,455 / 750 = 4.6 spaces TOTAL REQUIRED COMMERCIAL BICYCLE PARKING SPACES **= 36 spaces** **TOTAL REQUIRED BICYCLE PARKINGSPACES =195 spaces**	**RESIDENTIAL BICYCLE PARKING** Resident bicycle parking spaces : 80 spaces Resident visitor bicycle parking spaces : 79 spaces TOTAL RESIDENTIAL & VISITOR BICYCLE PARKING SPACES = 159 spaces **COMMERCIAL BICYCLE PARKING** Tenant bicycle parking spaces : 31 spaces Visitor bicycle parking spaces : 5 spaces TOTAL COMMERCIAL BICYCLE PARKING SPACES = 36 spaces **TOTAL PROPOSED BICYCLE PARKING SPACES = 195 spaces**	✓

APARTMENT DESIGN GUIDE

	CONTROLS	PROPOSED	COMPLIANCE
3D. COMMUNAL OPEN SPACE	Communal open space has a minimum area equal to 25% of the site = 522.4 sqm	1,063 sqm (50%)	✓
3E. DEEP SOIL ZONE	6m minimum dimension, and equal to 7% of the site area = 146.3 sqm	0 sqm	N/A
4A. SOLAR AND DAYLIGHT ACCESS	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area	71%	✓
4B. NATURAL VENTILATION	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	61%	✓

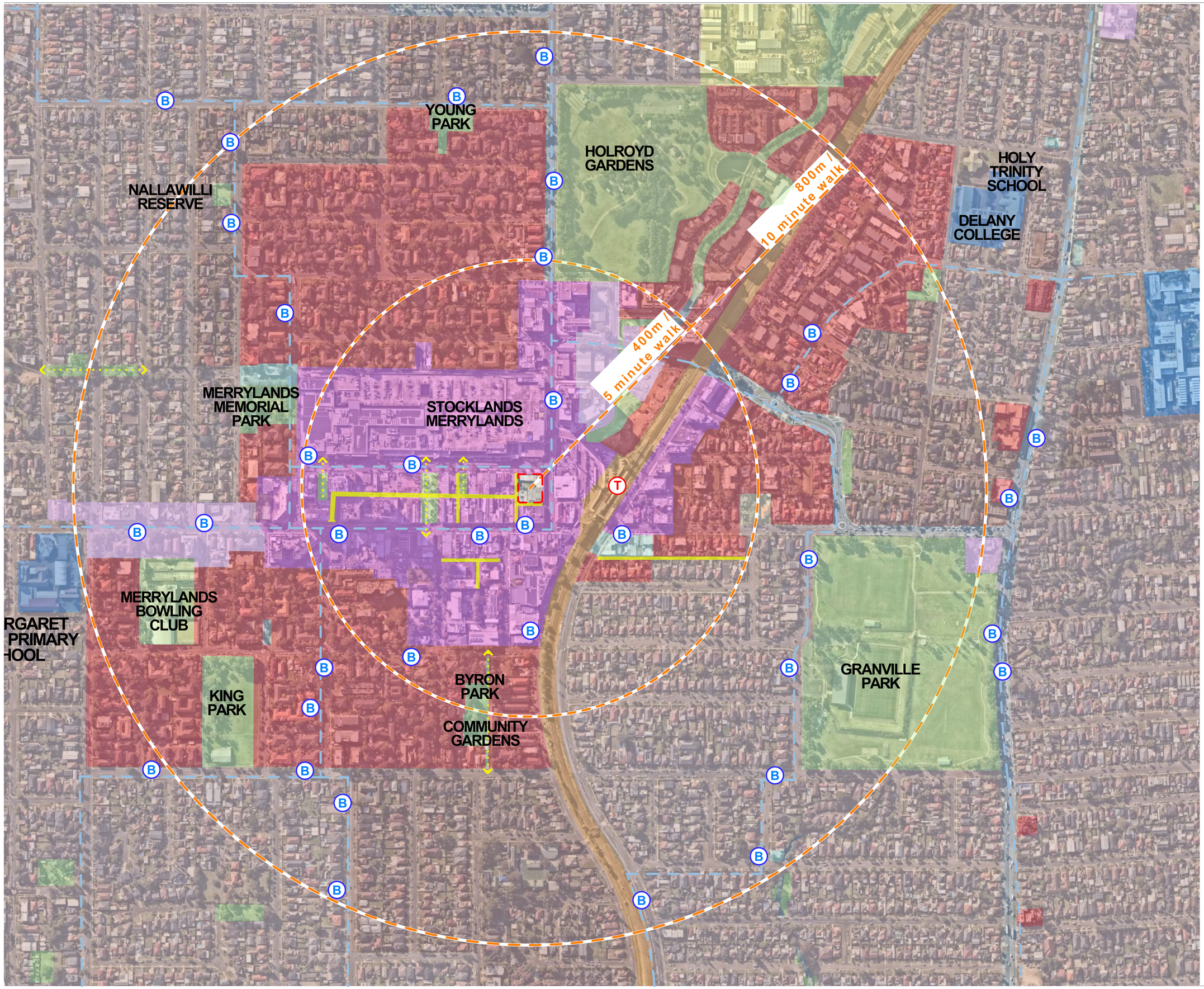
GENERAL NOTES
© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:26 pm
© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW.ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
DEVELOPMENT SUMMARY
SHEET NO. SSDA 002
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:26 pm

© FUSE ARCHITECTS.

CONTEXT ANALYSIS

- SITE
- MEDICAL
- EDUCATION
- EMPLOYMENT HUB
- MIXED USE CLUSTER RESIDENTIAL/COMMERCIAL
- ACTIVE RETAIL
- OPEN SPACE
- COMMUNITY HUB
- R2 LOW LOW DENSITY RESIDENTIAL HOB: 8.5-9m
- R3 MEDIUM DENSITY RESIDENTIAL HOB: 8.5m
- R4 HIGH DENSITY RESIDENTIAL HOB: 15m
- B2 LOCAL CENTRE HOB: 21m
- RAILWAY TRACKS
- T — TRAIN STATION
- B — BUS STOPS
- BUS ROUTE
- GENERAL HERITAGE SITE
- EXISTING VEHICULAR LANEWAYS
- EXISTING PEDESTRIAN LINK

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED: AA/JSN/CH
DRAWN: KH/BC
DATE: 15/08/2024
SCALE: 1:3000 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
CONTEXT ANALYSIS
SHEET NO.: SSDA 003
REVISION.: A

PARAMATTA VIEW

MCFARLANE STREET

NE SUMMER WIND

RESIDENTIAL + COMMERCIAL TOWER UNDER CONSTRUCTION

POTENTIAL TOWER FOOTPRINT

RL 16.78

RL 16.89

SB 39.625

SB 43.635

RL 16.86

254 PITT STREET
1 STOREY COMMERCIAL
E2 COMERCIAL CENTRE
= POTENTIAL HOB 86m

2-16 MCFARLANE STREET
2-3 STOREY COMMERCIAL
E2 COMERCIAL CENTRE
= POTENTIAL HOB 77m

W PM

W AM

REYES LANE

215 PITT STREET
SINGLE STORY SHOPS

SITE AREA:
2,106

FALL ≈ 1.8m

SB 46.695

SB 43.635

229-239 PITT STREET
TWO-STOREY BUILDING

PITT STREET

MAIN LANE

RL 17.05

SB 42.24

RL 17.07

SB 36.685

RL 17.03

RL 16.93

SHORT LANE

SYDNEY CBD VIEW

S AM

MILNE LANE

POTENTIAL TOWER FOOTPRINT

S PM

SW WINTER WIND

POTENTIAL TOWER FOOTPRINT

262 PITT STREET
2 STOREY COMMERCIAL
E2 COMERCIAL CENTRE
= POTENTIAL HOB 86m

161- 191 MERRYLANDS ROAD
2-3 STOREY COMMERCIAL
E2 COMERCIAL CENTRE
= POTENTIAL HOB 77m

241 PITT STREET
2-3 STOREY COMMERCIAL
E2 COMERCIAL CENTRE
= POTENTIAL HOB 86m

GENERAL NOTES
© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:26 pm
© FUSE ARCHITECTS.

LEGEND

- SITE
- STREET PARKING ZONE
- FALL OF TERRAIN
- VEHICULAR ACCESS
- TRAFFIC DIRECTION AND LANES
- LIGHT POLE
- PREVAILING BREEZES
- NOISE SOURCE
- EXISTING TRANSFORMER
- ELECTRICAL CABLES
- GAS MAIN
- WATER MAIN
- SEWER MAIN
- TELSTRA PIT
- OPTUS PIT
- OUTDOOR DINING
- VIEWS
- FUTURE CONTEXT
- ACTIVE FRONTAGE
- OPPORTUNITY FOR FUTURE PEDESTRIAN CONNECTION

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

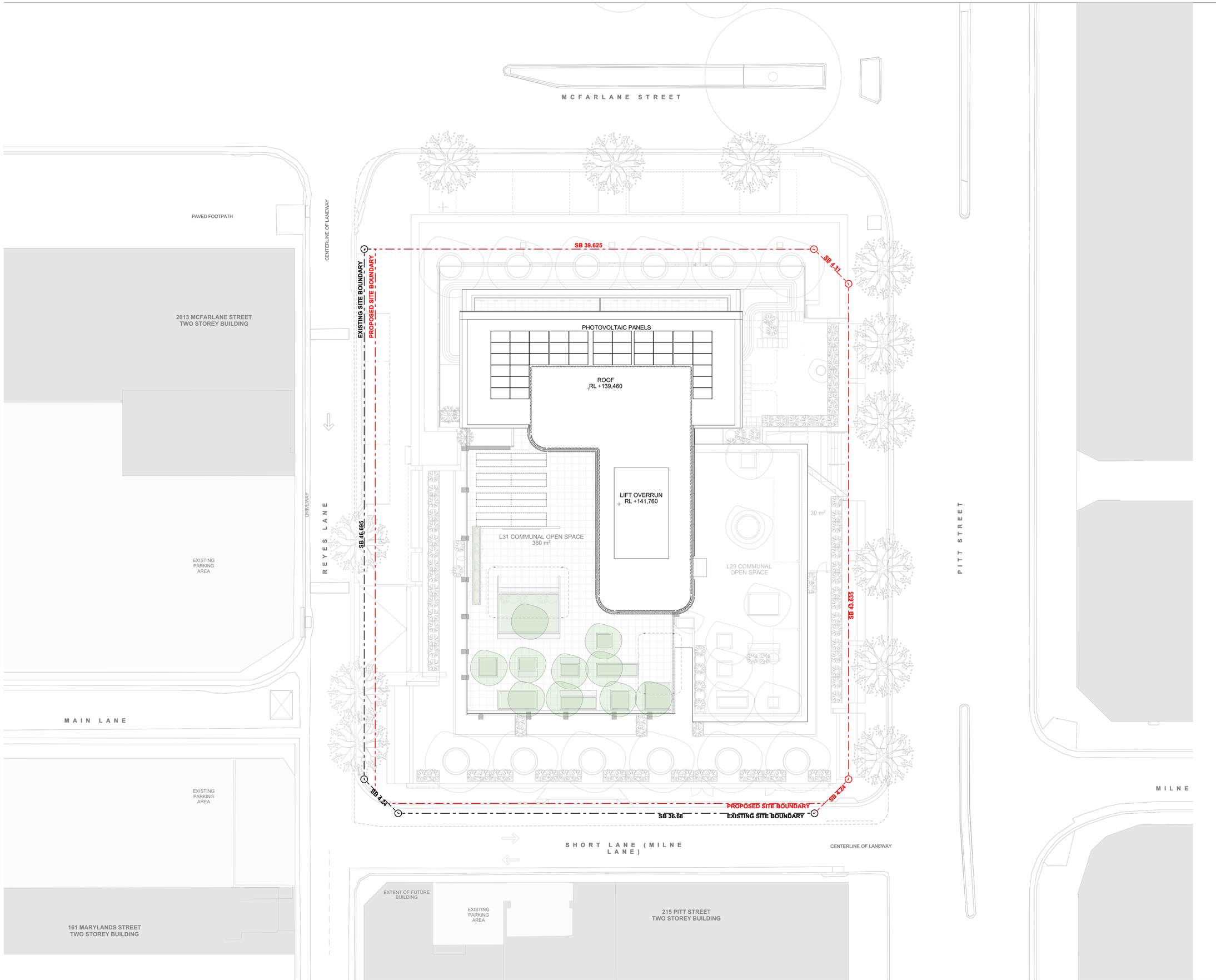
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 943
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:200 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SITE ANALYSIS
SHEET NO. SSDA 004
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:27 pm

© FUSE ARCHITECTS.

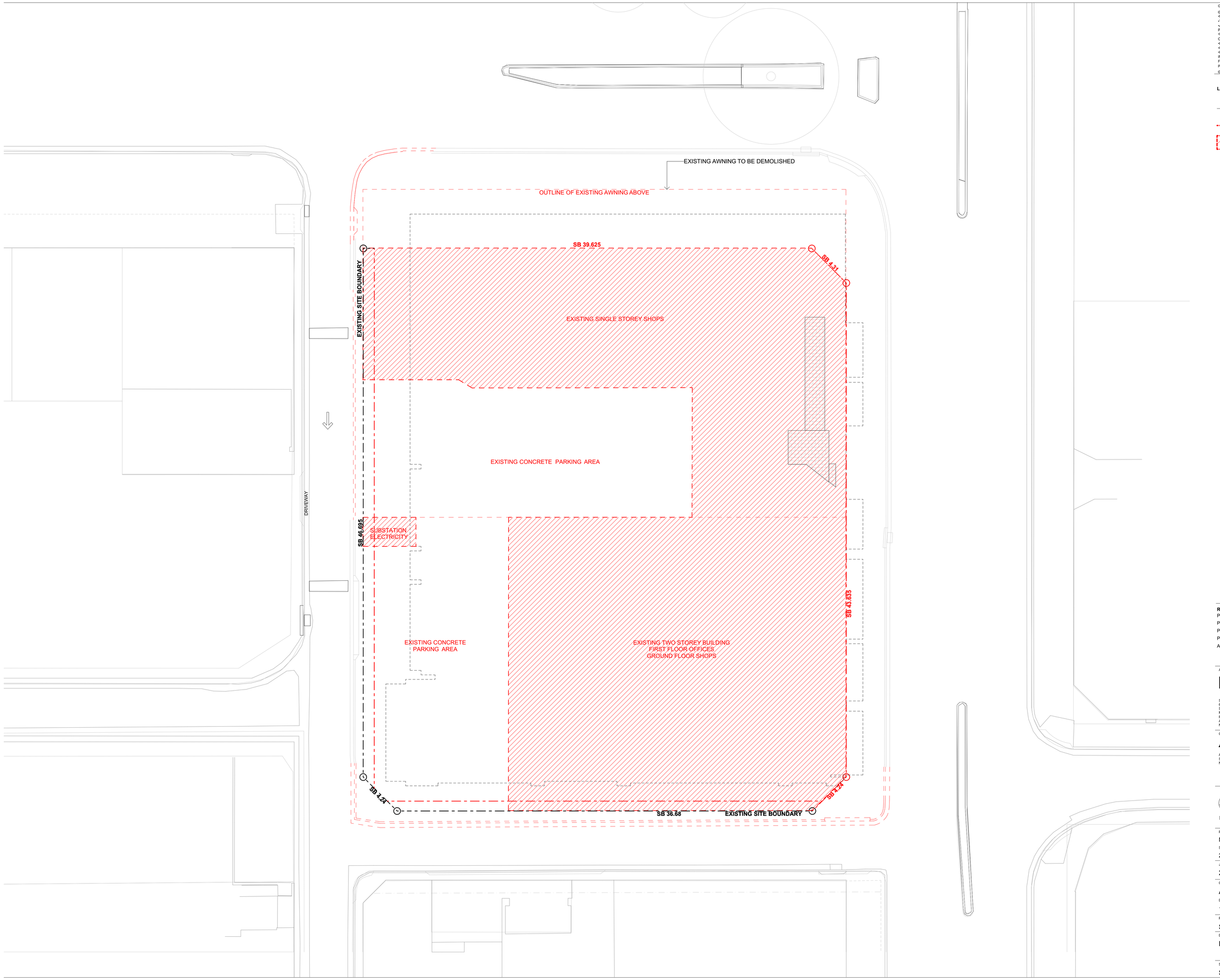
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH/BC
DATE
15/08/2024
SCALE
1:150 @ A1
A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SITE PLAN
SHEET NO.
SSDA 005
REVISION.
A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:28 pm

© FUSE ARCHITECTS.

LEGEND

TO BE RETAINED

TO BE DEMOLISHED

TO BE DEMOLISHED

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT

MERRYLANDS COMMUNITY LIVING

SITE ADDRESS

215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO

2421

CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

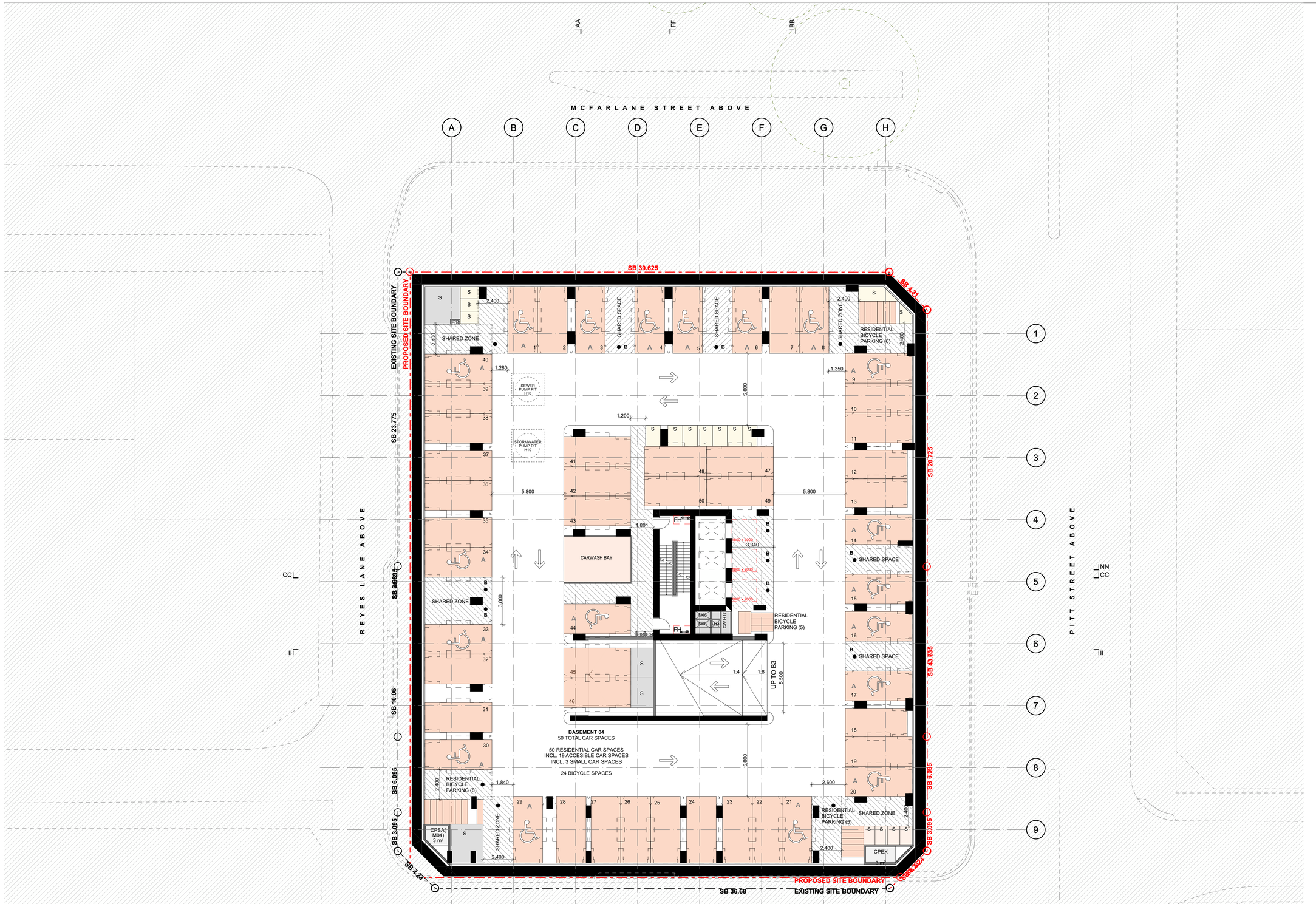
PROJECT STATUS

STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE

DEMOLITION PLAN

SHEET NO.	REVISION.
SSDA 006	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2

Print date and time: Friday, 26 September 2025 @ 6:28 pm

© FUSE ARCHITECTS.

LEGEND

- COMMERCIAL PARKING (2400x5400)
- RETAIL PARKING (2400x5400)
- RESIDENTIAL PARKING (2400x5400)
- A — ACCESSIBLE CARSPACE (2400x5400)
- SHARED ZONE (2400x5400)
- B — BOLLARD
- LF — LIFT

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	08/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

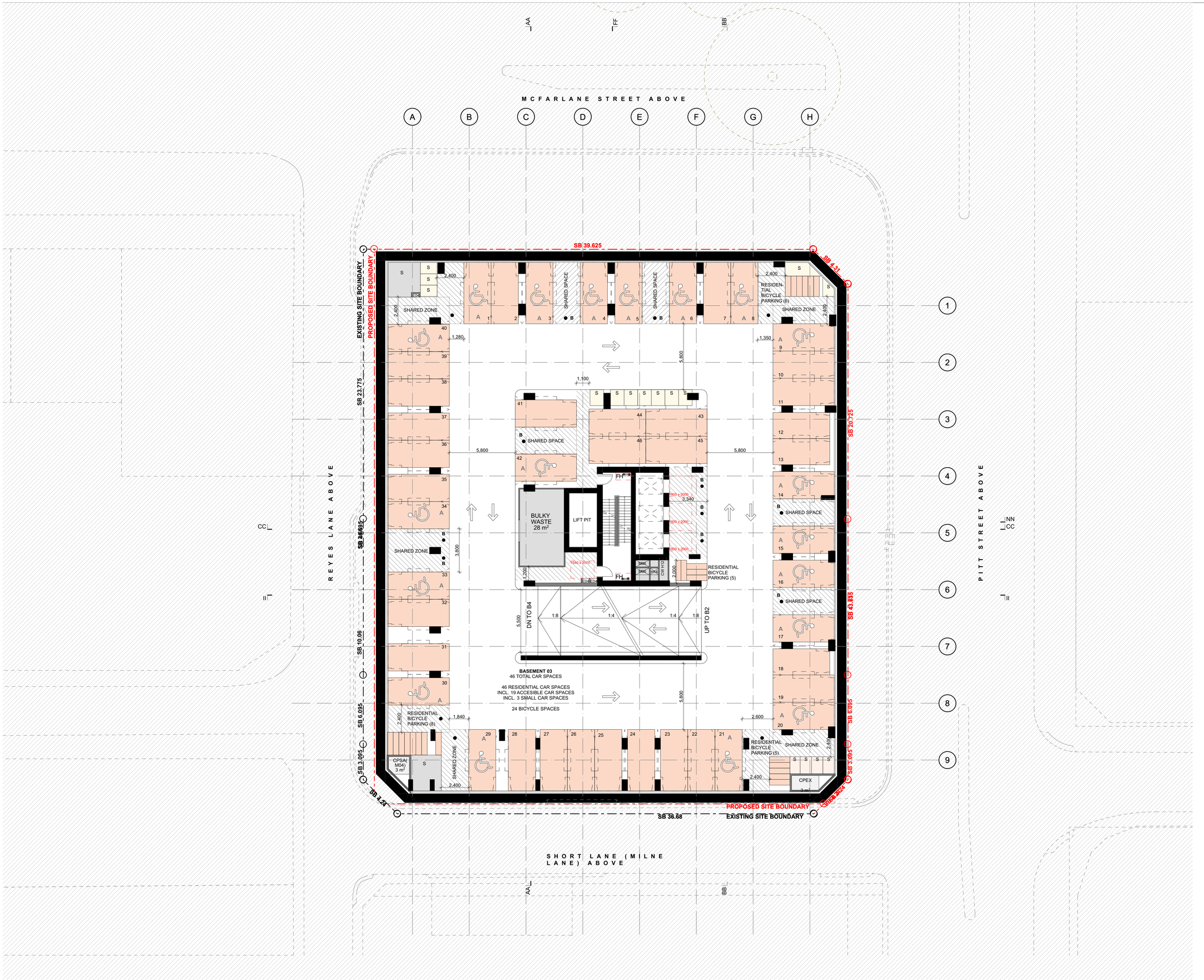
CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
BASEMENT 04 PLAN

SHEET NO.	REVISION.
SSDA 101	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:29 pm

© FUSE ARCHITECTS.

LEGEND

- COMMERCIAL PARKING (2400x5400)
- RETAIL PARKING (2400x5400)
- RESIDENTIAL PARKING (2400x5400)
- A — ACCESSIBLE CARSPACE (2400x5400)
- SHARED ZONE (2400x5400)
- B — BOLLARD
- LF — LIFT

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	08/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

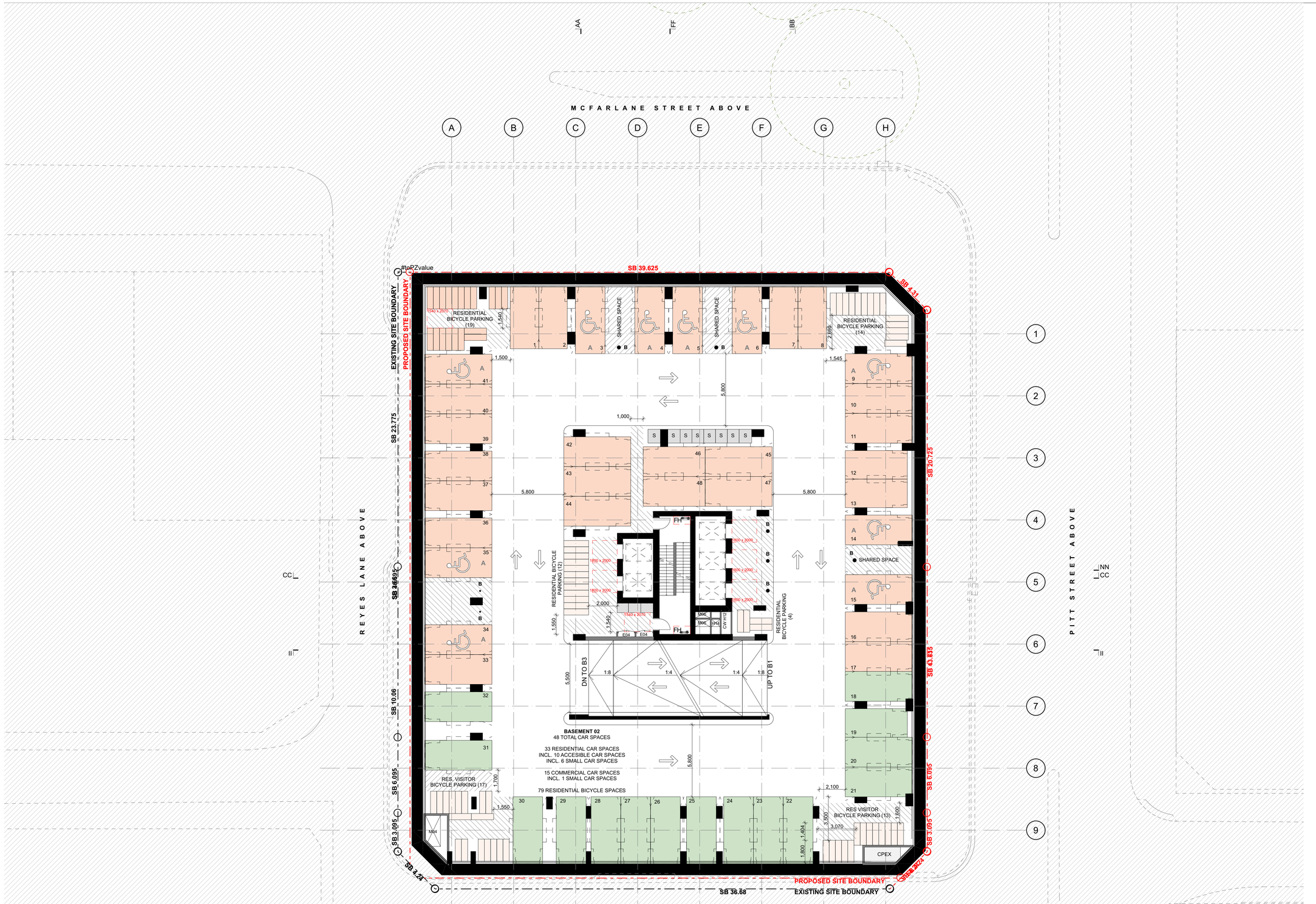
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421

CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
BASEMENT 03 PLAN

SHEET NO.	REVISION.
SSDA 102	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Monday, 29 September 2025 @ 7:29 AM

© FUSE ARCHITECTS

LEGEND

- COMMERCIAL PARKING (2400x5400)
- RETAIL PARKING (2400x5400)
- RESIDENTIAL PARKING (2400x5400)
- A — ACCESSIBLE CARSPACE (2400x5400)
- SHARED ZONE (2400x5400)
- B — BOLLARD
- LF — LIFT

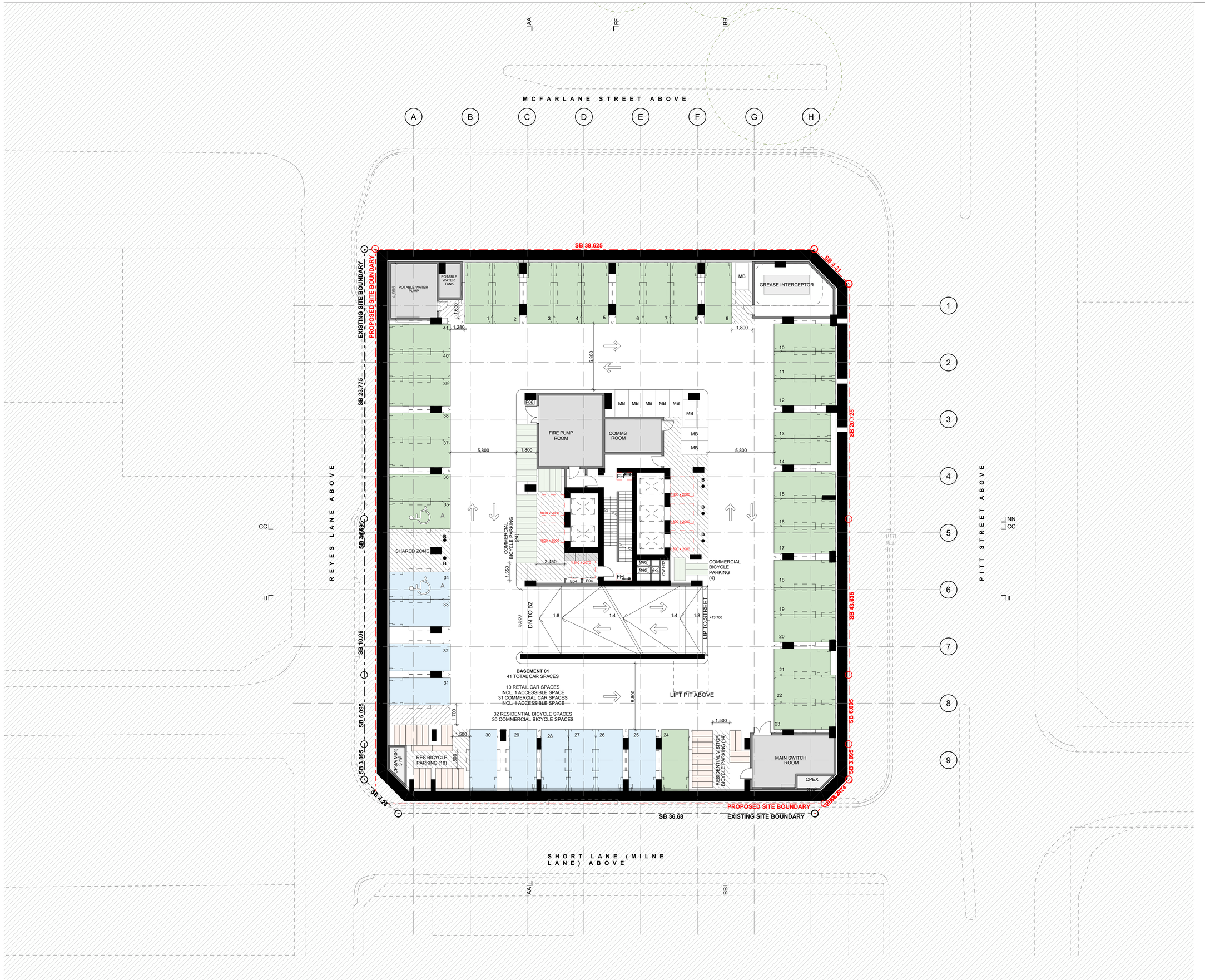
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	8/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
BASEMENT 02 PLAN
SHEET NO. SSDA 103
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.

•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:29 pm

© FUSE ARCHITECTS.

LEGEND

- COMMERCIAL PARKING (2400x5400)
- RETAIL PARKING (2400x5400)
- RESIDENTIAL PARKING (2400x5400)
- A — ACCESSIBLE CARSPACE (2400x5400)
- SHARED ZONE (2400x5400)
- B — BOLLARD
- LF — LIFT

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	08/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

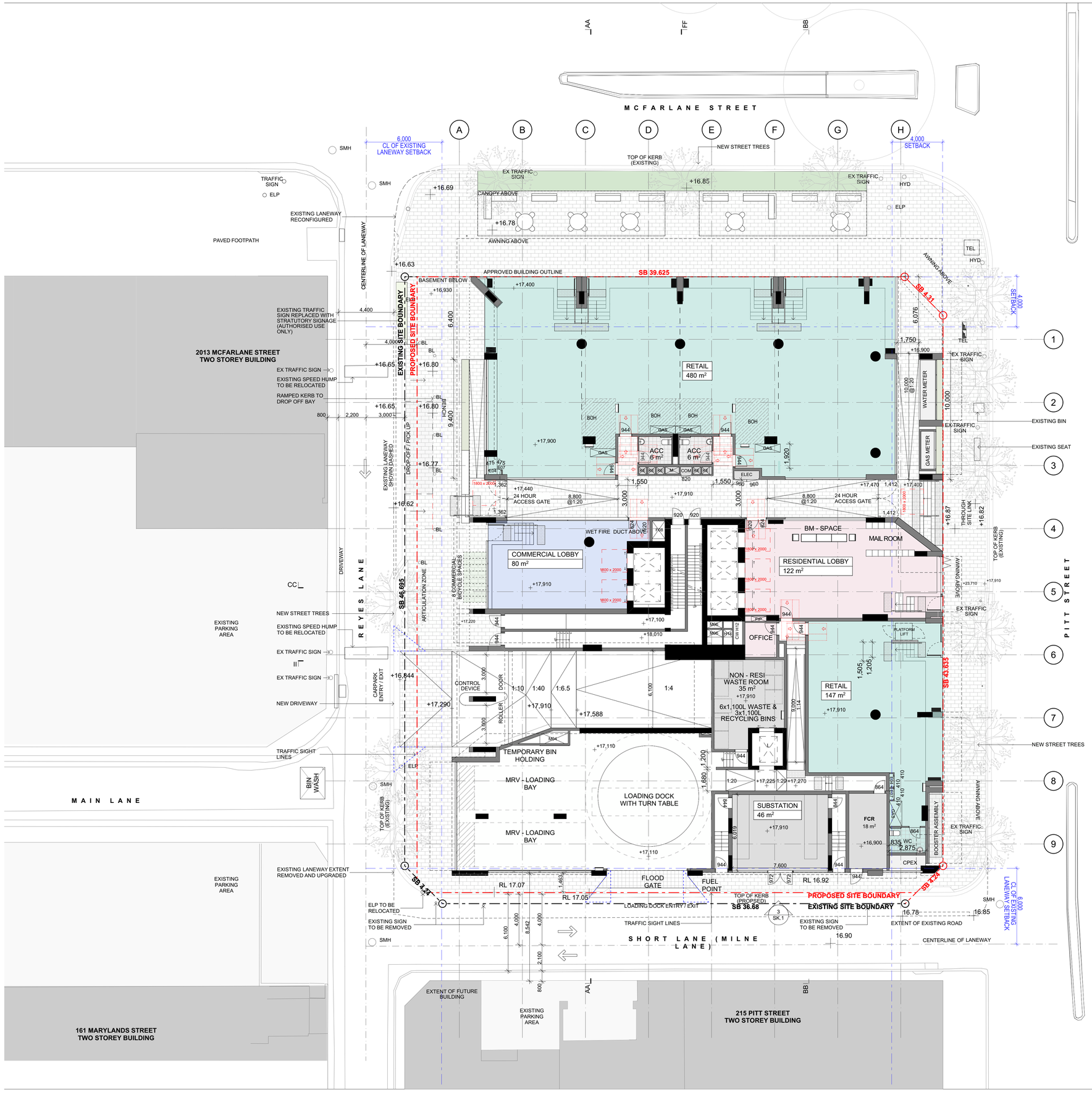
CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
BASEMENT 01 PLAN

SHEET NO.	REVISION.
SSDA 104	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:29 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

REVISION ID	AMENDMENT	DATE
P3	FOR INFORMATION	08/04/2025
P4	FOR INFORMATION	22/04/2025
P5	FOR INFORMATION	24/04/2025
P6	FOR INFORMATION	16/05/2025
P7	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 843
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
GROUND LEVEL PLAN
SHEET NO. SSDA 105
REVISION. A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:29 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

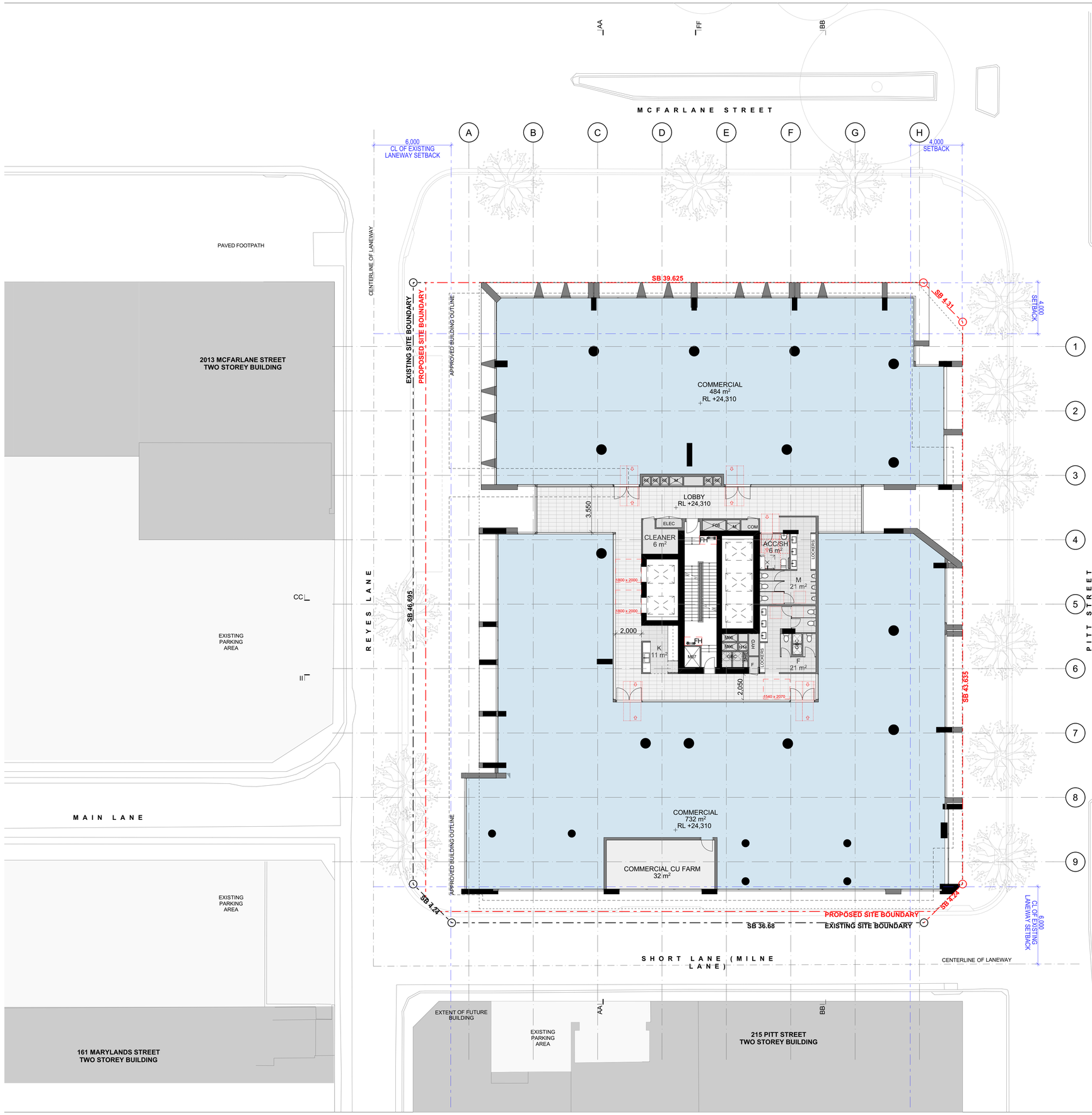
REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH/BC
DATE
15/08/2024
SCALE
1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
GROUND LEVEL PLAN - MEZZANINE
SHEET NO.
SSDA 106
REVISION.
A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:30 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

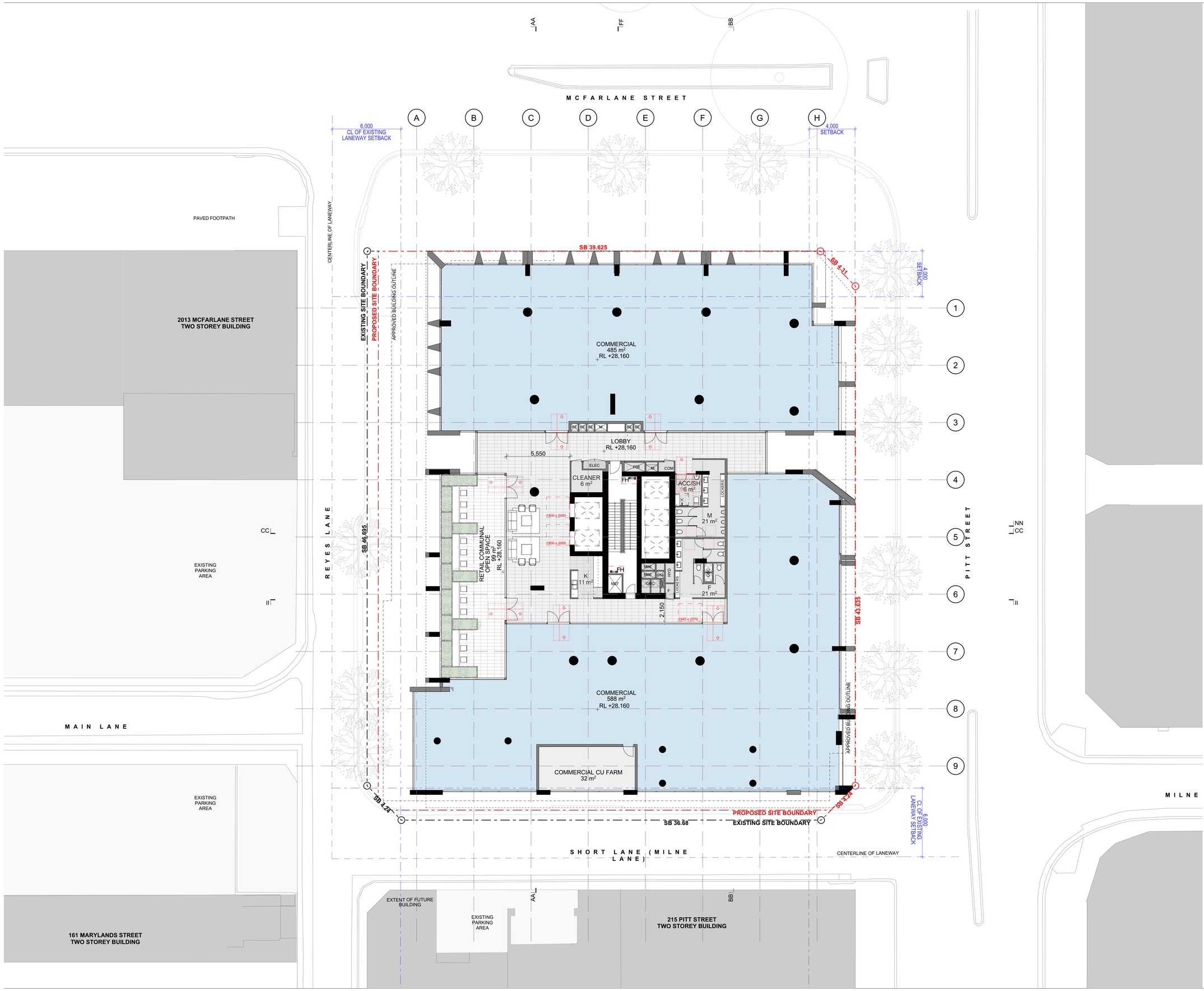
REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH/BC
DATE
15/08/2024
SCALE
1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 01 PLAN
SHEET NO.
SSDA 107
REVISION.
A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:30 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

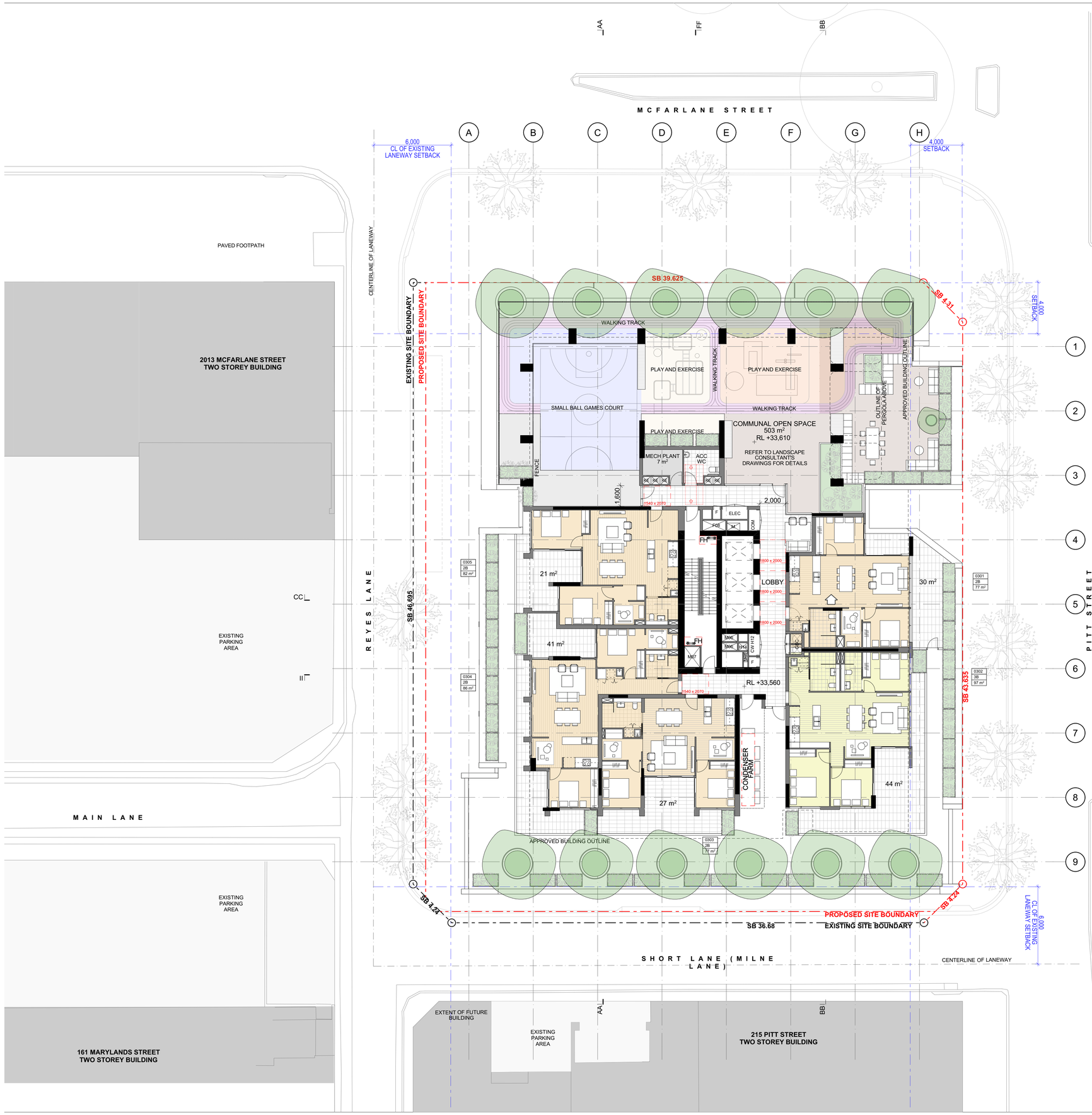
REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 02 PLAN
SHEET NO. SSDA 108
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:30 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

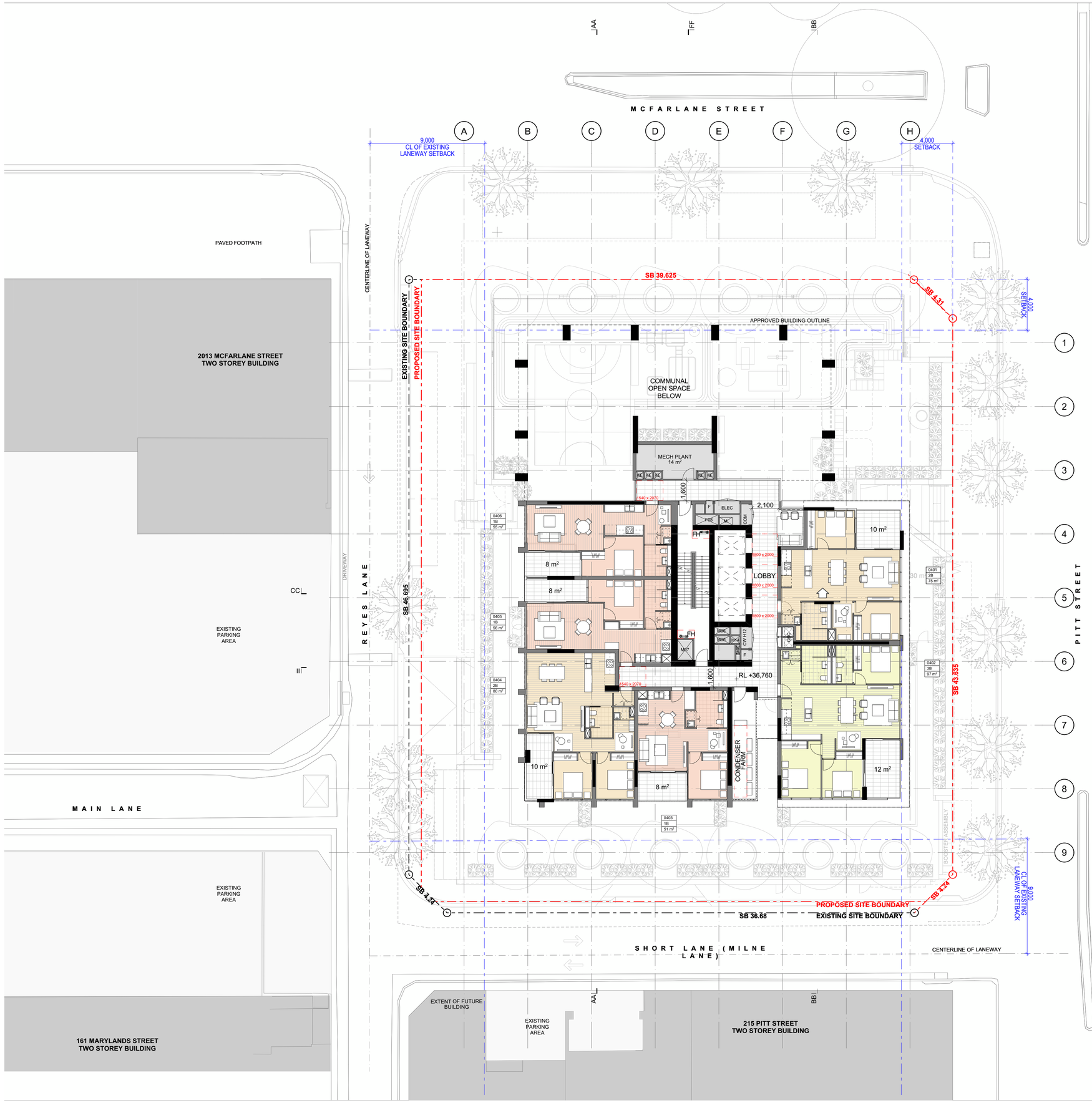
REVISION ID	AMENDMENT	DATE
P3	FOR INFORMATION	08/04/2025
P4	FOR INFORMATION	22/04/2025
P5	FOR INFORMATION	24/04/2025
P6	FOR INFORMATION	16/05/2025
P7	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH/BC
DATE
15/08/2024
SCALE
1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 03 PLAN - COS
SHEET NO.
SSDA 109
REVISION.
A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:31 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

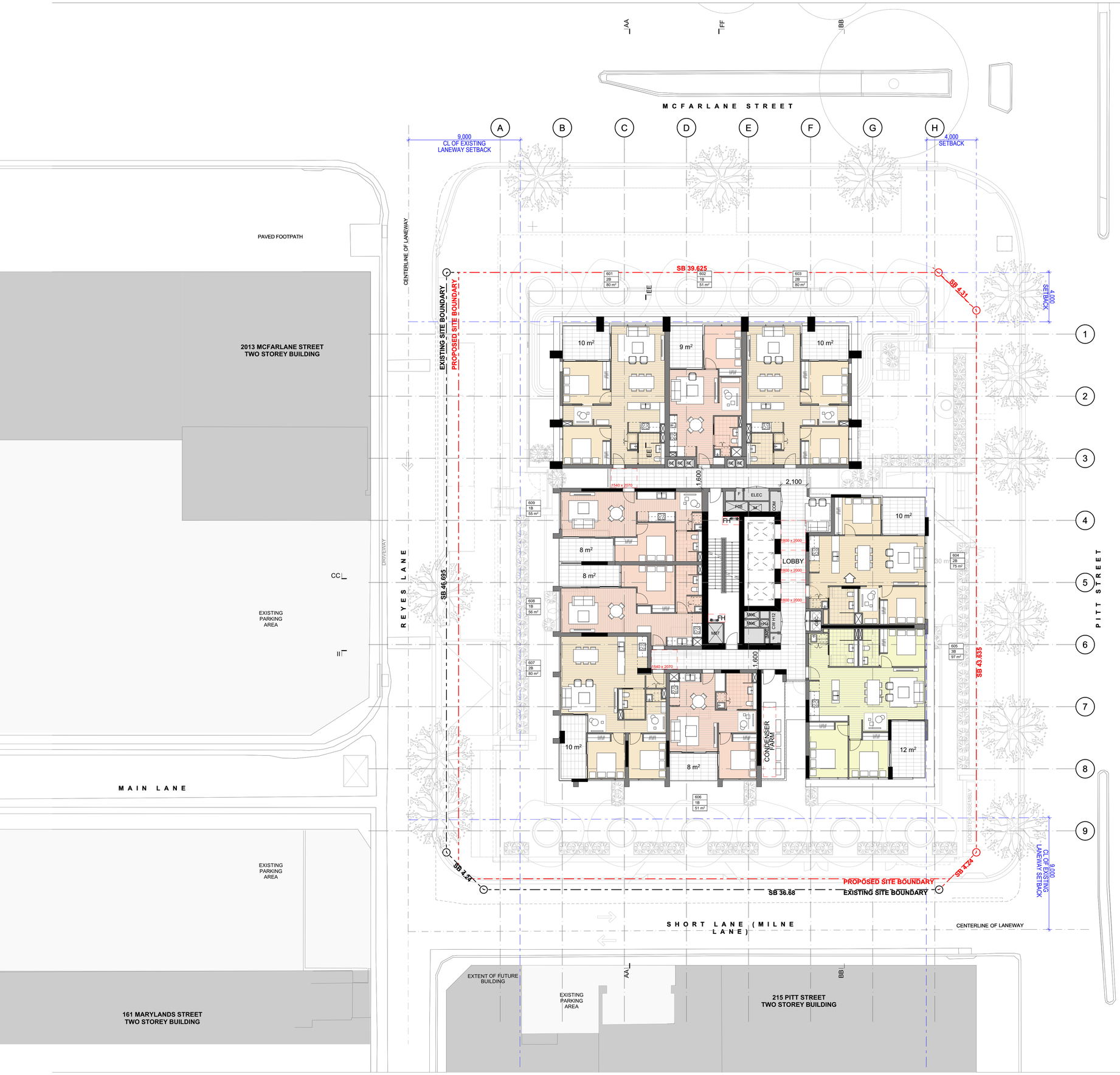
REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH/BC
DATE
15/08/2024
SCALE
1:150 @ A1
A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 04-05 PLAN
SHEET NO.
SSDA 110
REVISION.
A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:31 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

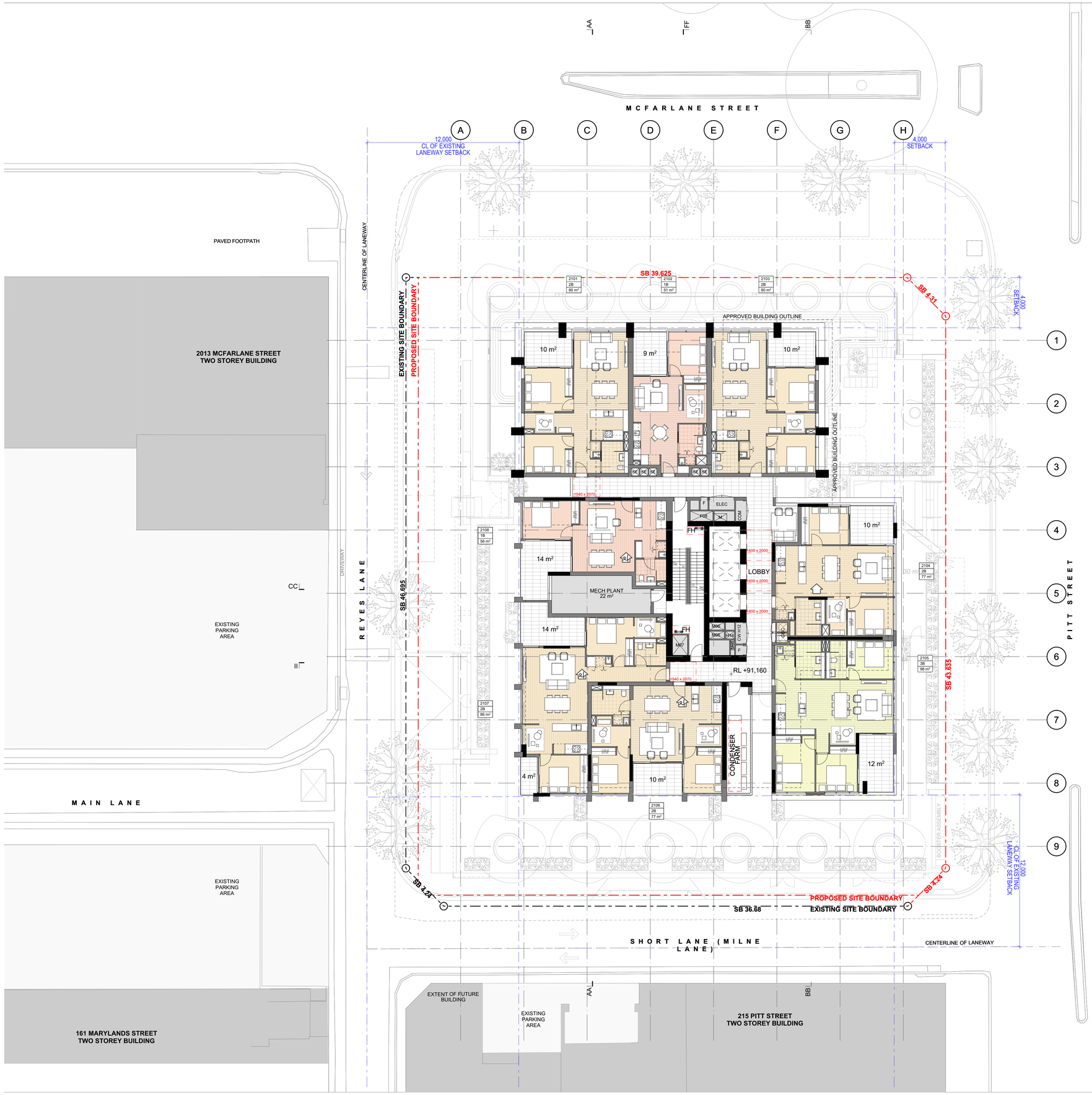
REVISION ID	AMENDMENT	DATE
P3	FOR INFORMATION	16/04/2025
P4	FOR INFORMATION	22/04/2025
P5	FOR INFORMATION	24/04/2025
P6	FOR INFORMATION	16/05/2025
P7	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 06-20 PLAN
SHEET NO. SSDA 111
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:32 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

REVISION ID	AMENDMENT	DATE
P3	FOR INFORMATION	16/04/2025
P4	FOR INFORMATION	22/04/2025
P5	FOR INFORMATION	24/04/2025
P6	FOR INFORMATION	16/05/2025
P7	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
LEVEL 21 PLAN

SHEET NO.	REVISION.
SSDA 112	A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:32 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

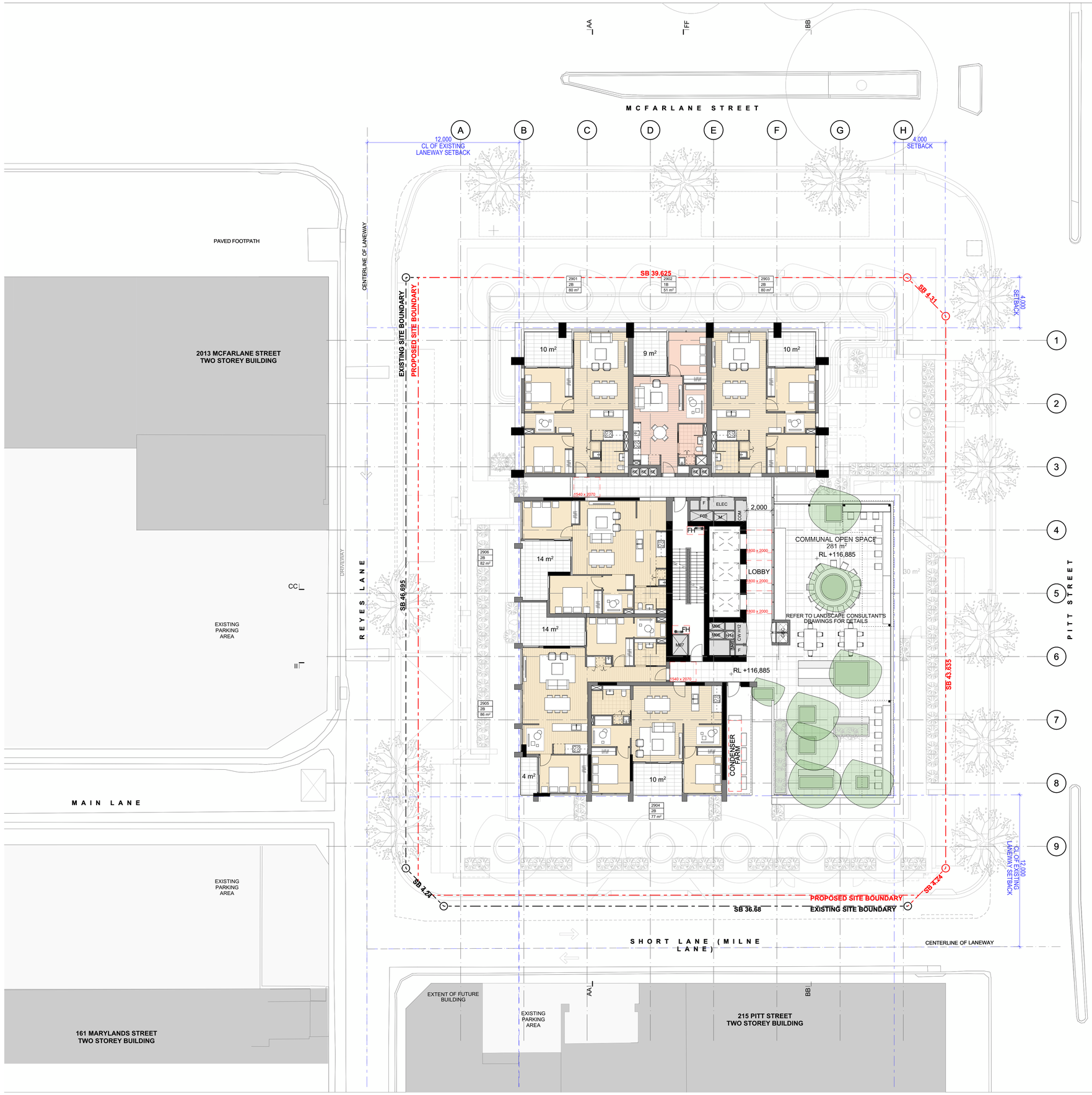
CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
LEVEL 22-28 PLAN

SHEET NO.	REVISION.
SSDA 113	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:33 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

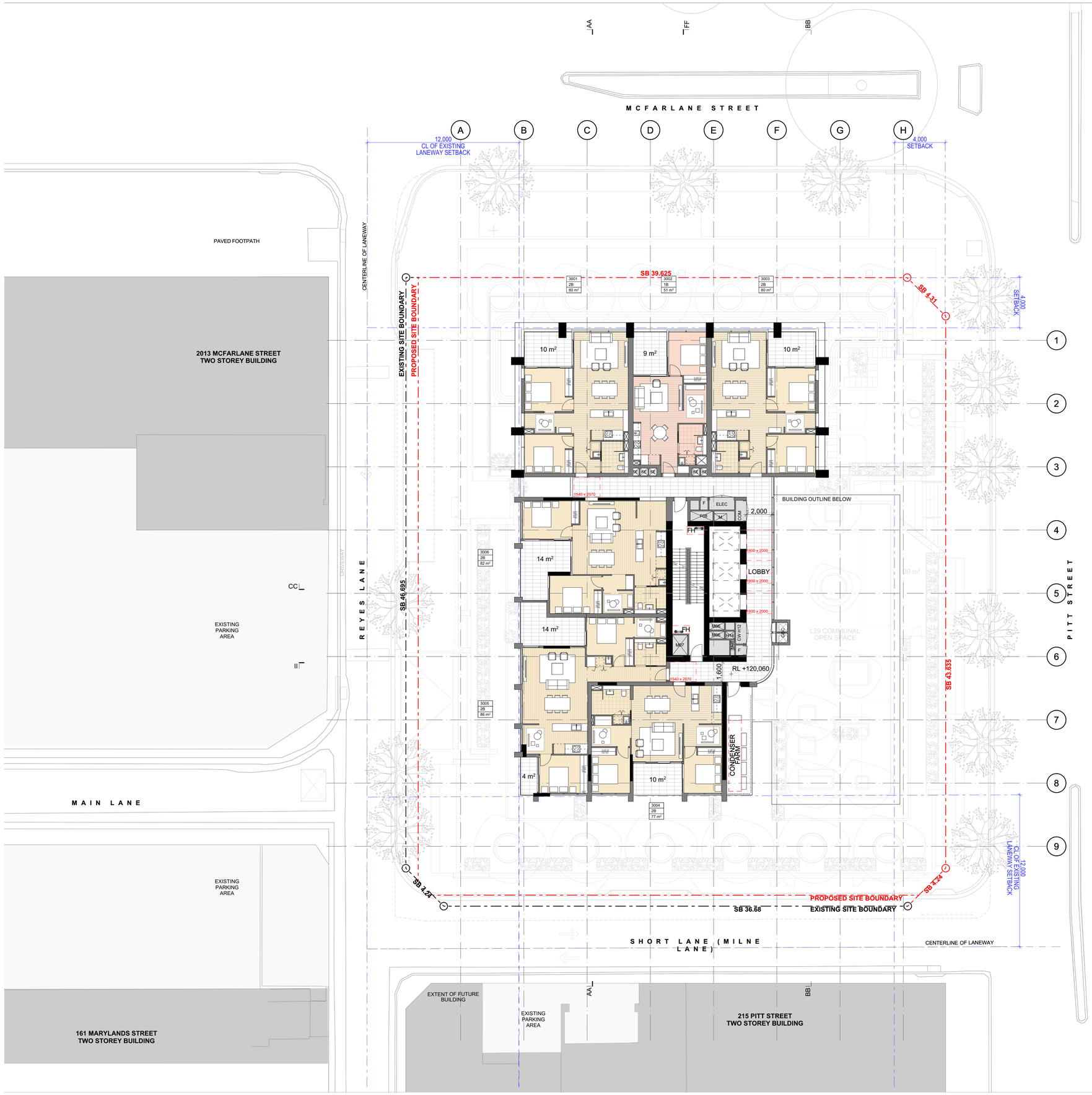
REVISION ID	AMENDMENT	DATE
P3	FOR INFORMATION	08/04/2025
P4	FOR INFORMATION	22/04/2025
P5	FOR INFORMATION	24/04/2025
P6	FOR INFORMATION	16/05/2025
P7	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 29 PLAN - COS
SHEET NO. SSDA 114
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:33 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

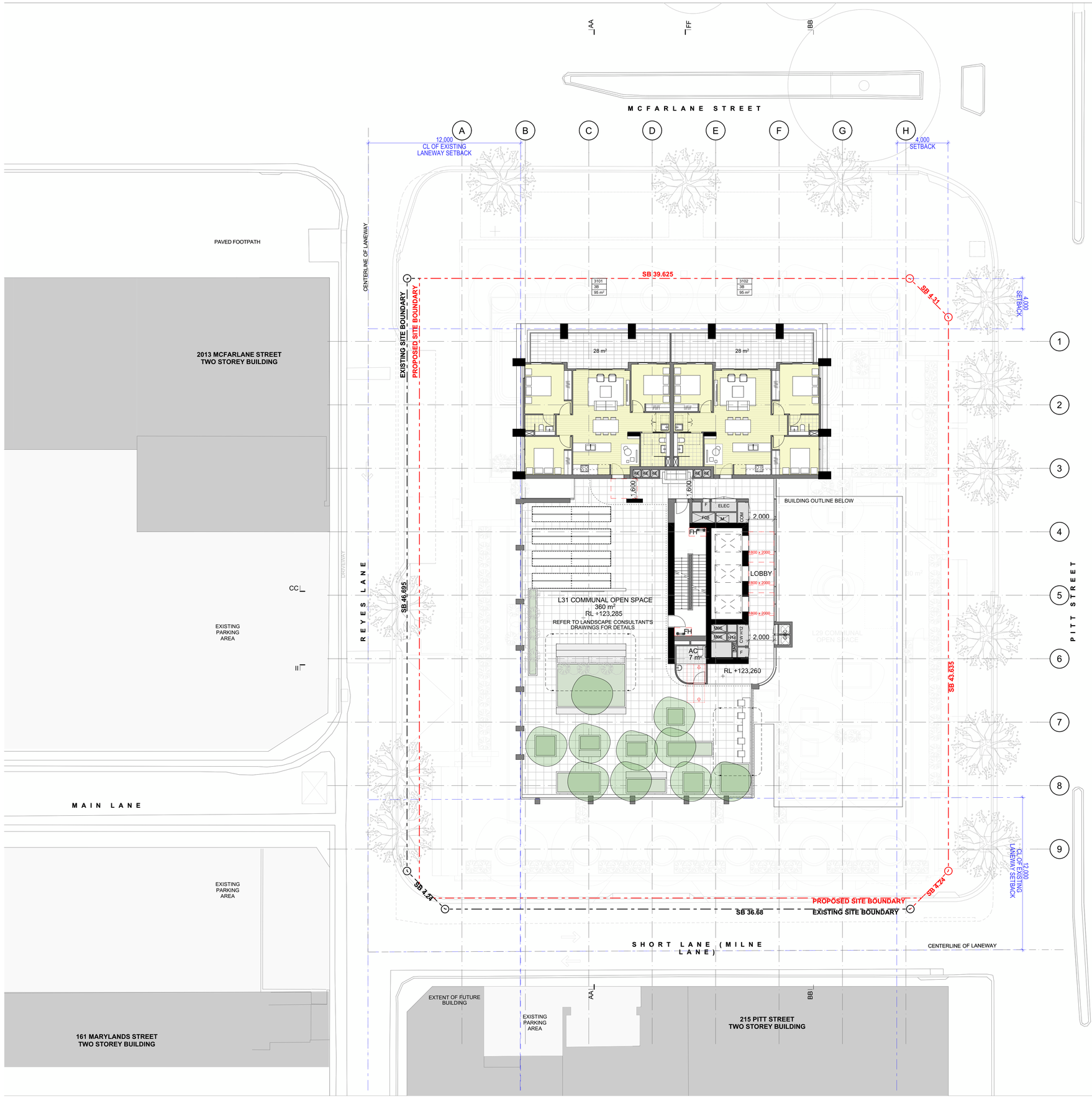
REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 30 PLAN
SHEET NO. SSDA 115
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:33 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

REVISION ID	AMENDMENT	DATE
P3	FOR INFORMATION	08/04/2025
P4	FOR INFORMATION	22/04/2025
P5	FOR INFORMATION	24/04/2025
P6	FOR INFORMATION	16/05/2025
P7	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 843
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

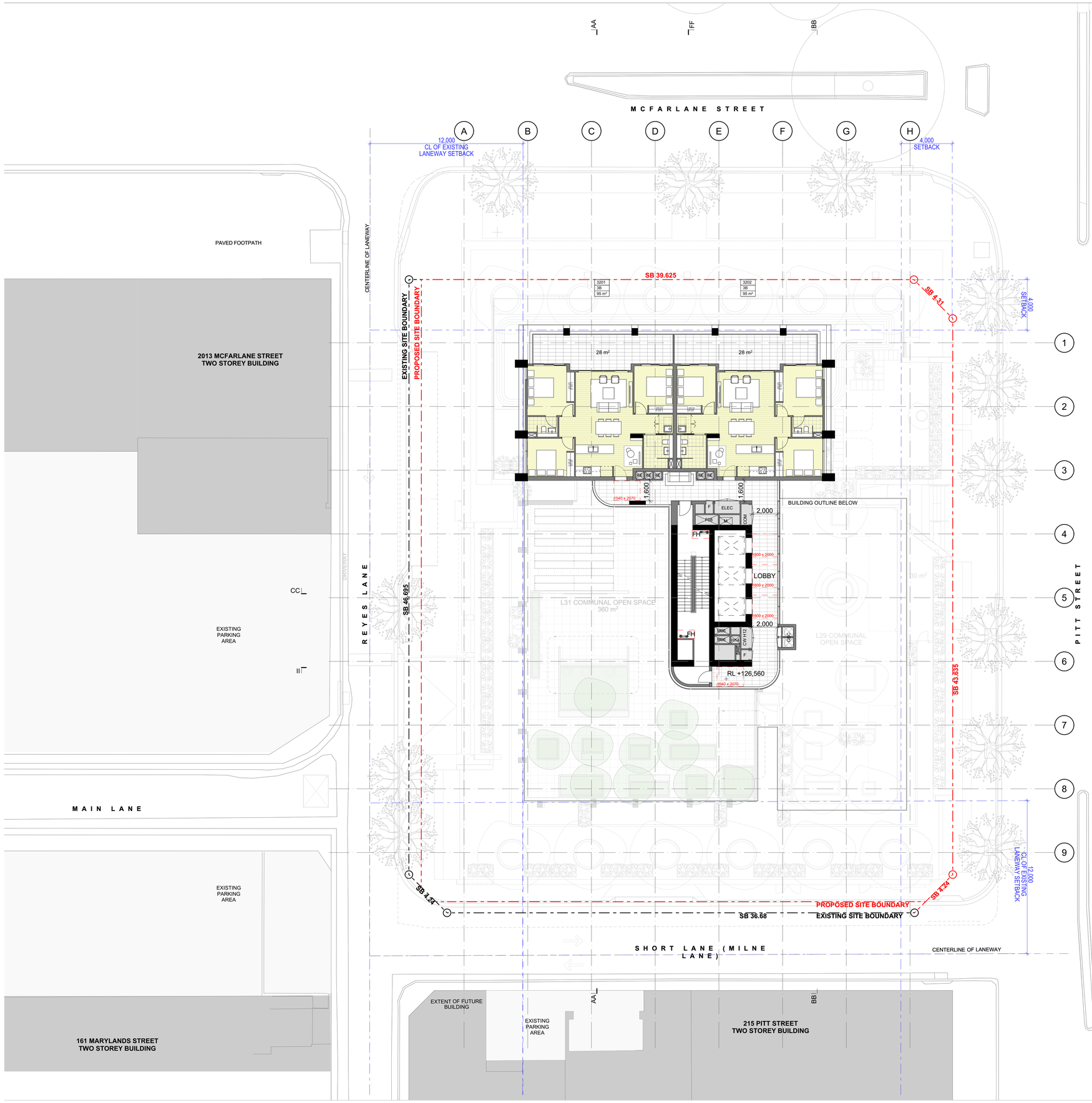
CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
LEVEL 31 PLAN - COS

SHEET NO.	REVISION.
SSDA 116	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:34 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

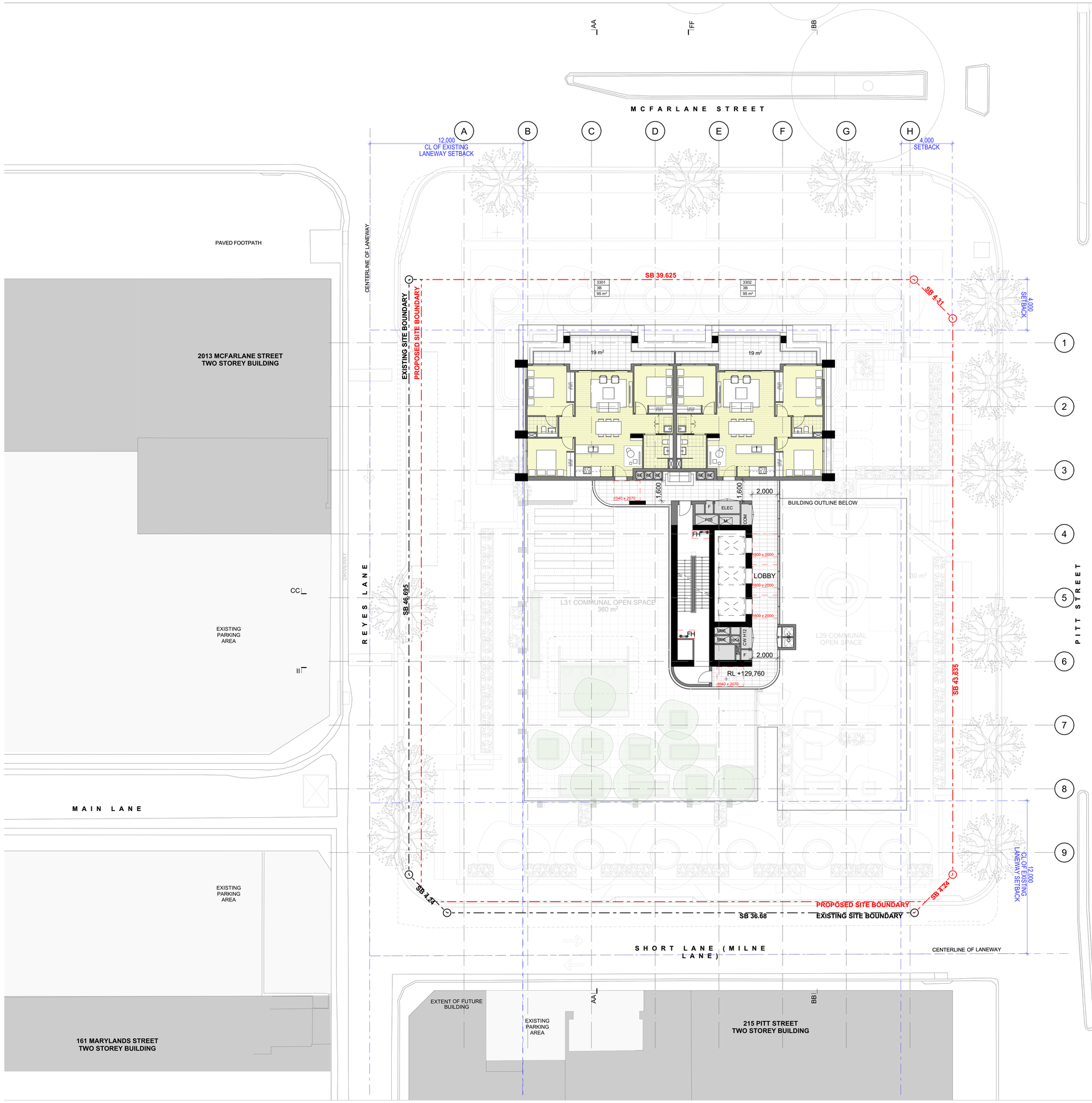
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 943
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 32 PLAN
SHEET NO. SSDA 117
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:34 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

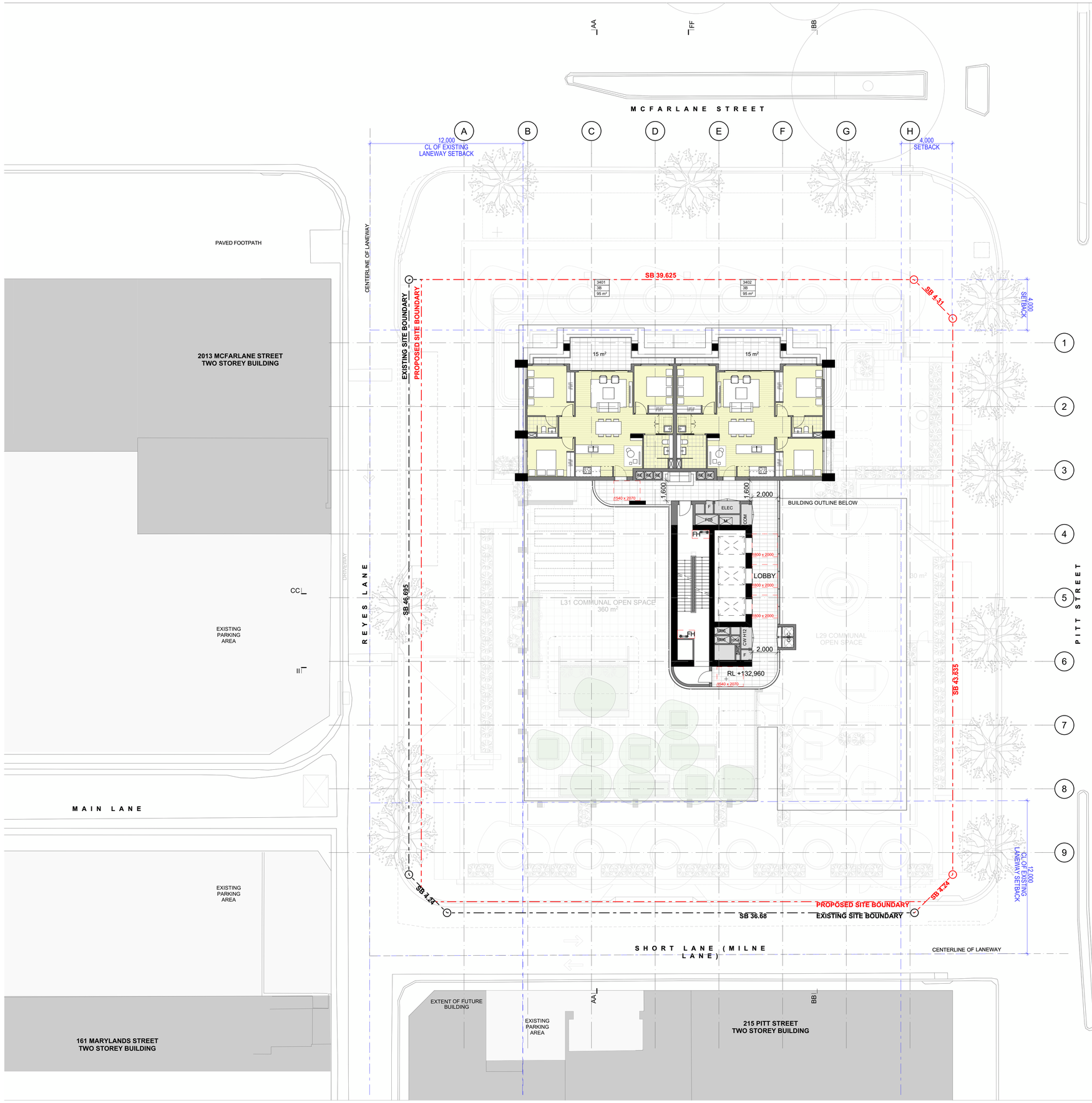
REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 943
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 33 PLAN
SHEET NO. SSDA 118
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:35 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

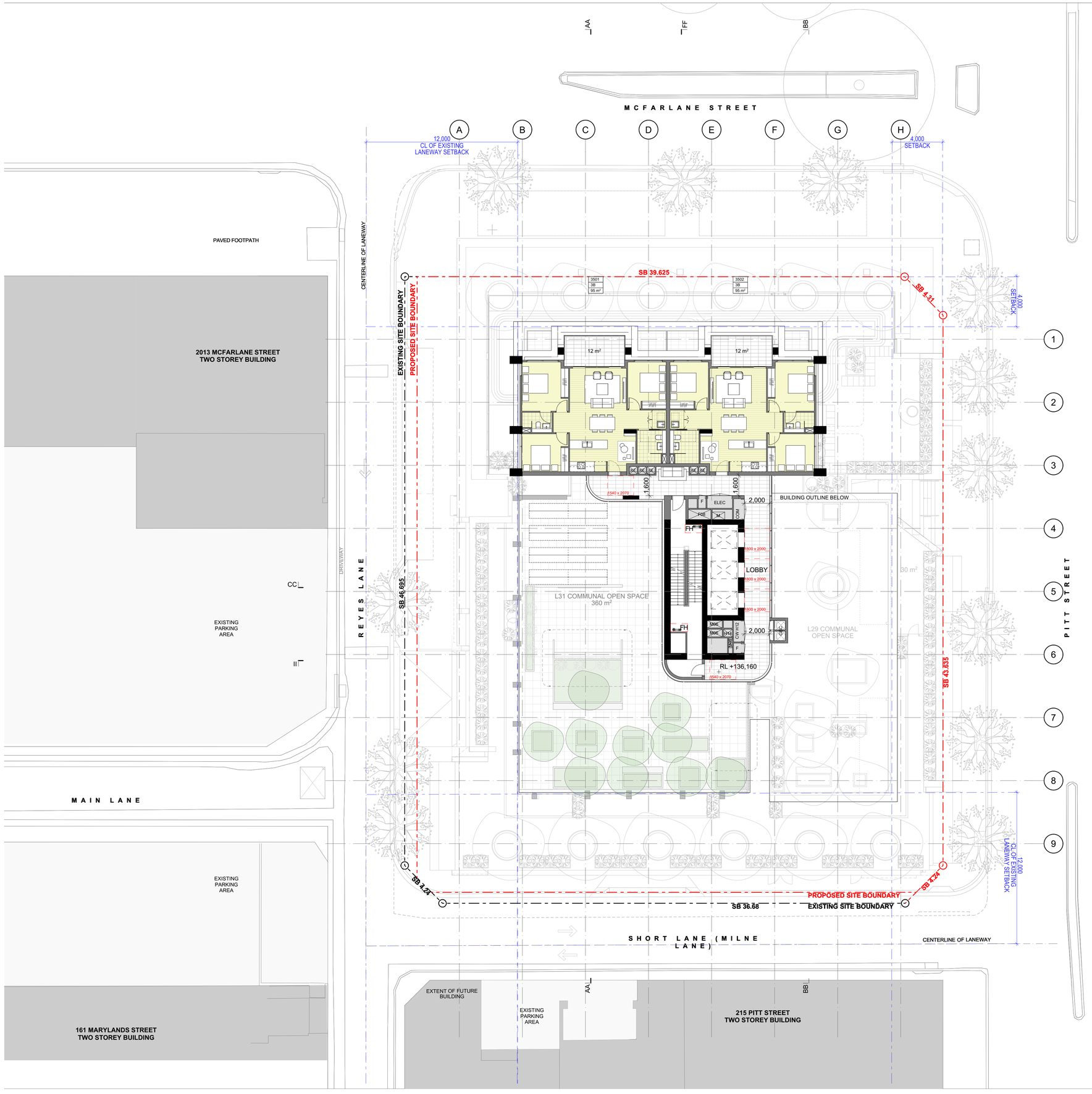
REVISION ID	AMENDMENT	DATE
P3	FOR INFORMATION	16/04/2025
P4	FOR INFORMATION	22/04/2025
P5	FOR INFORMATION	24/04/2025
P6	FOR INFORMATION	16/05/2025
P7	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 943
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 34 PLAN
SHEET NO. SSDA 119
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:35 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

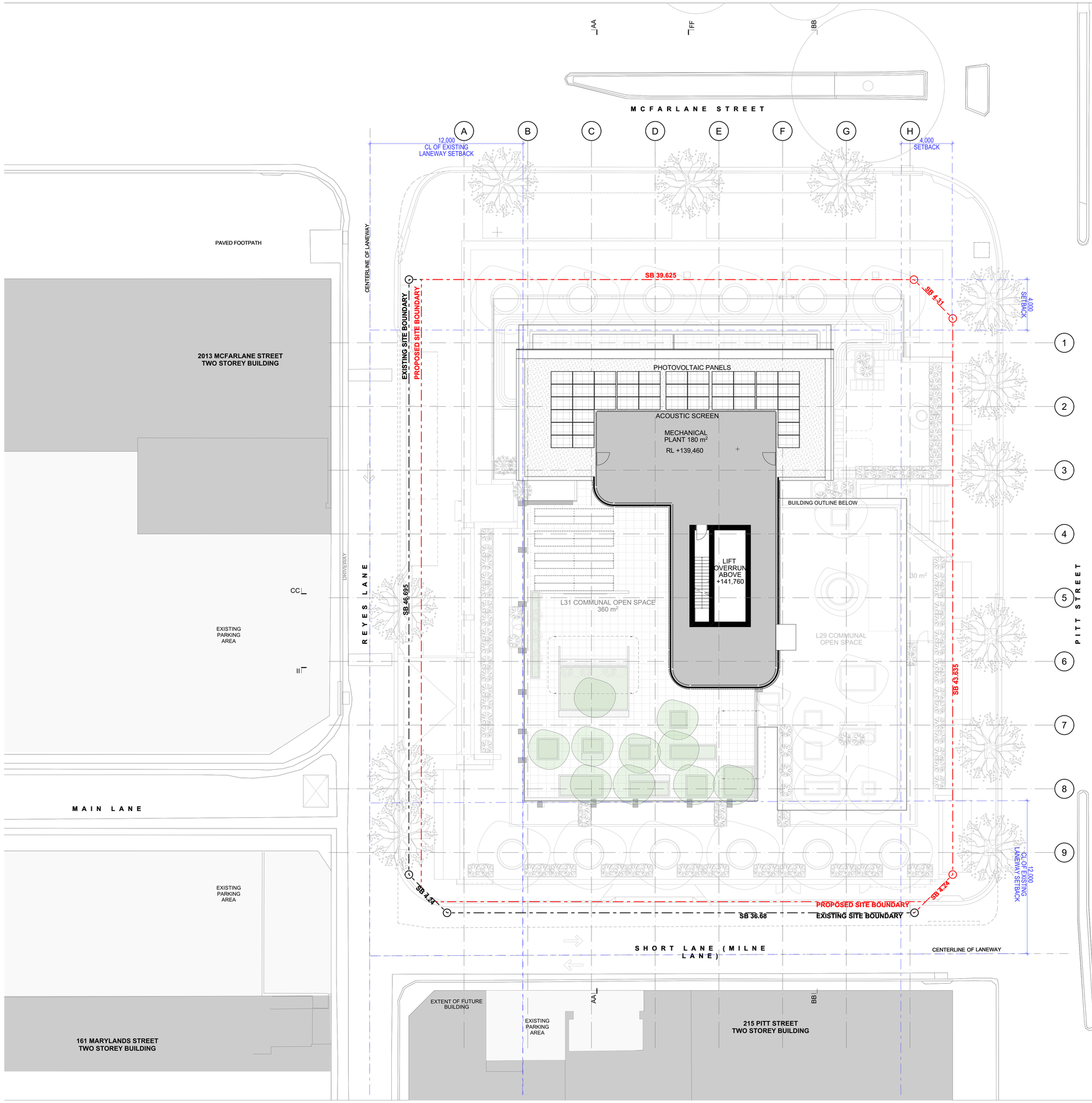
REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
LEVEL 35 PLAN
SHEET NO. SSDA 120
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:35 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY
- ADAPTABLE APARTMENT
- LIVABLE APARTMENT

REVISION ID	AMENDMENT	DATE
P2	FOR INFORMATION	08/04/2025
P3	FOR INFORMATION	22/04/2025
P4	FOR INFORMATION	24/04/2025
P5	FOR INFORMATION	16/05/2025
P6	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

MILNE LAN

N
0 2.5 5 10m

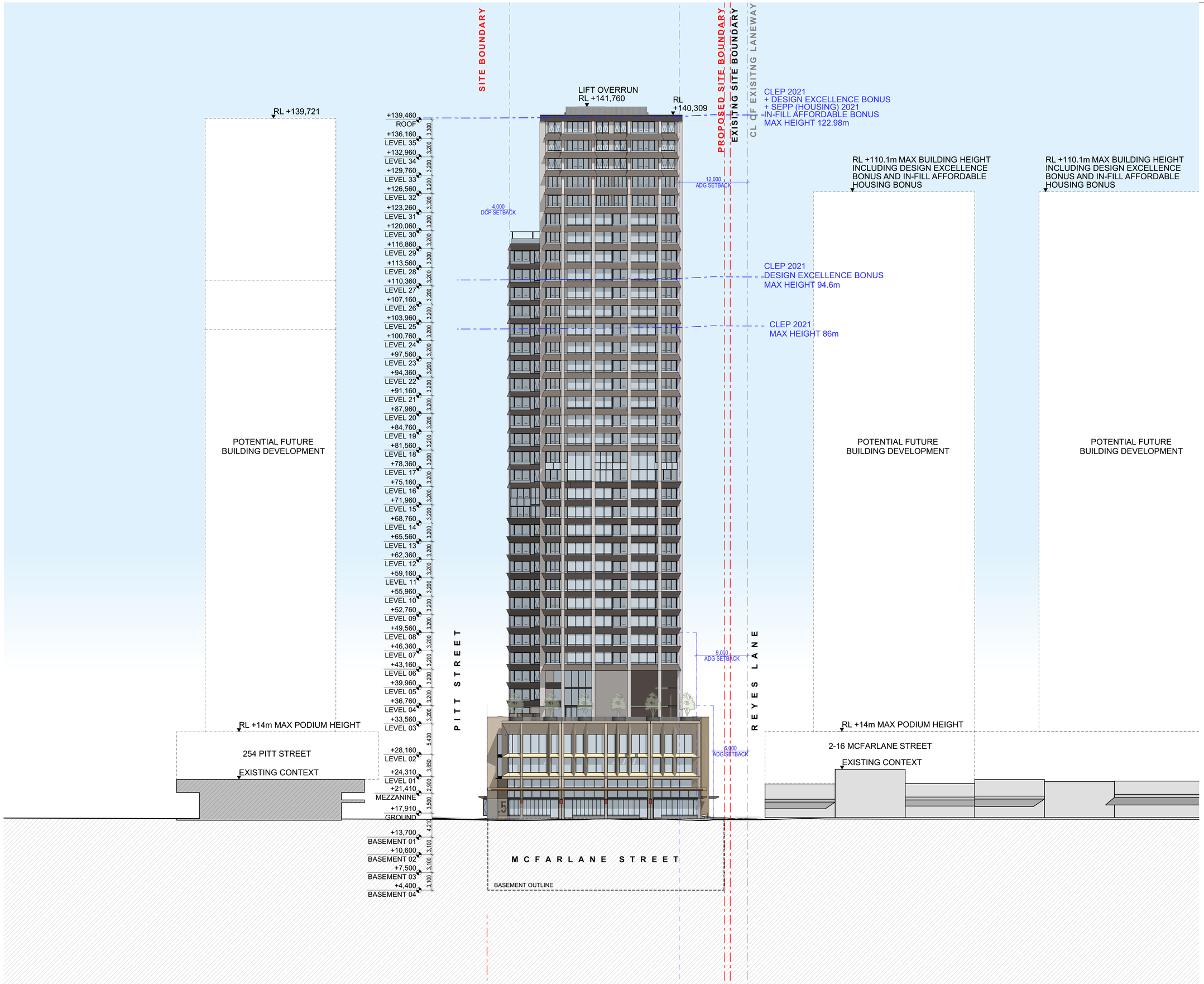
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421

CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
ROOF PLAN

SHEET NO.	REVISION.
SSDA 121	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:38 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	08/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 3 6 10m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

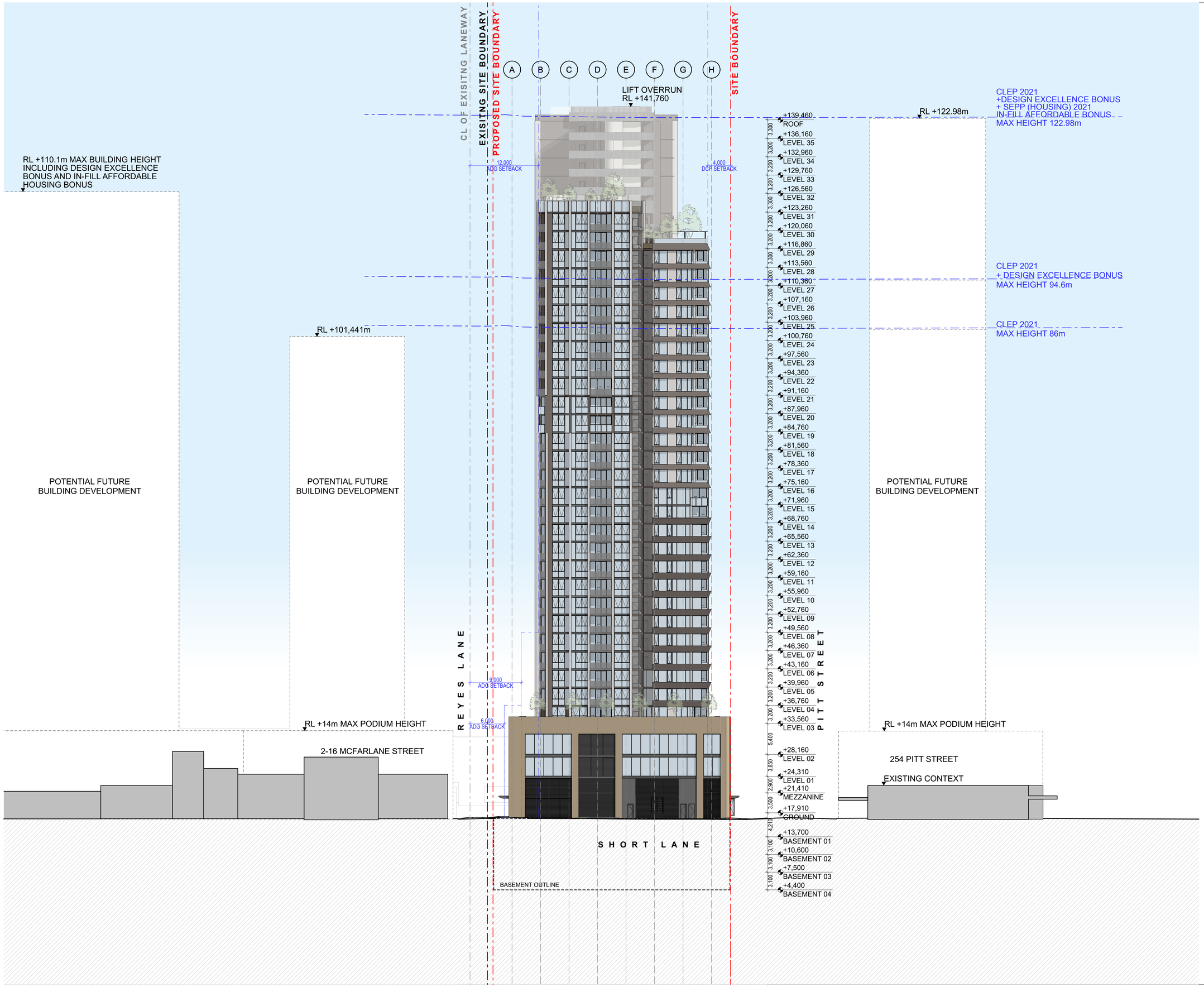
JOB NO
2421

CHECKED	DRAWN
AA/JSN/CH	SL
DATE	SCALE
15/08/2024	1:300 @ A1 A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
NORTH ELEVATION (MCFARLANE STREET)

SHEET NO.	REVISION.
SSDA 201	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:39 pm

© FUSE ARCHITECTS.

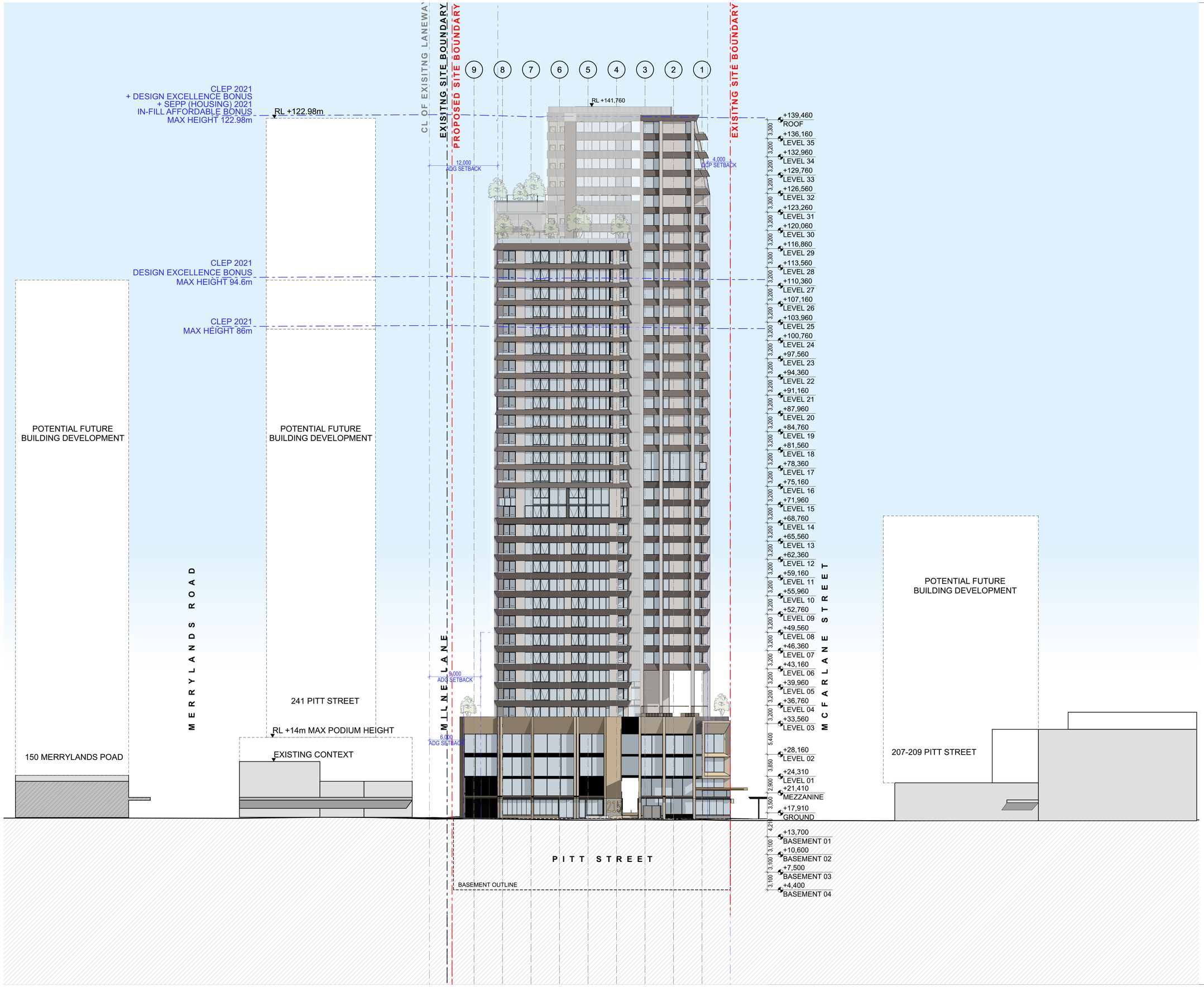
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	08/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 3 6 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
SL
DATE
15/08/2024
SCALE
1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SOUTH ELEVATION (SHORT LANE)
SHEET NO.
SSDA 202
REVISION.
A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:41 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	08/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

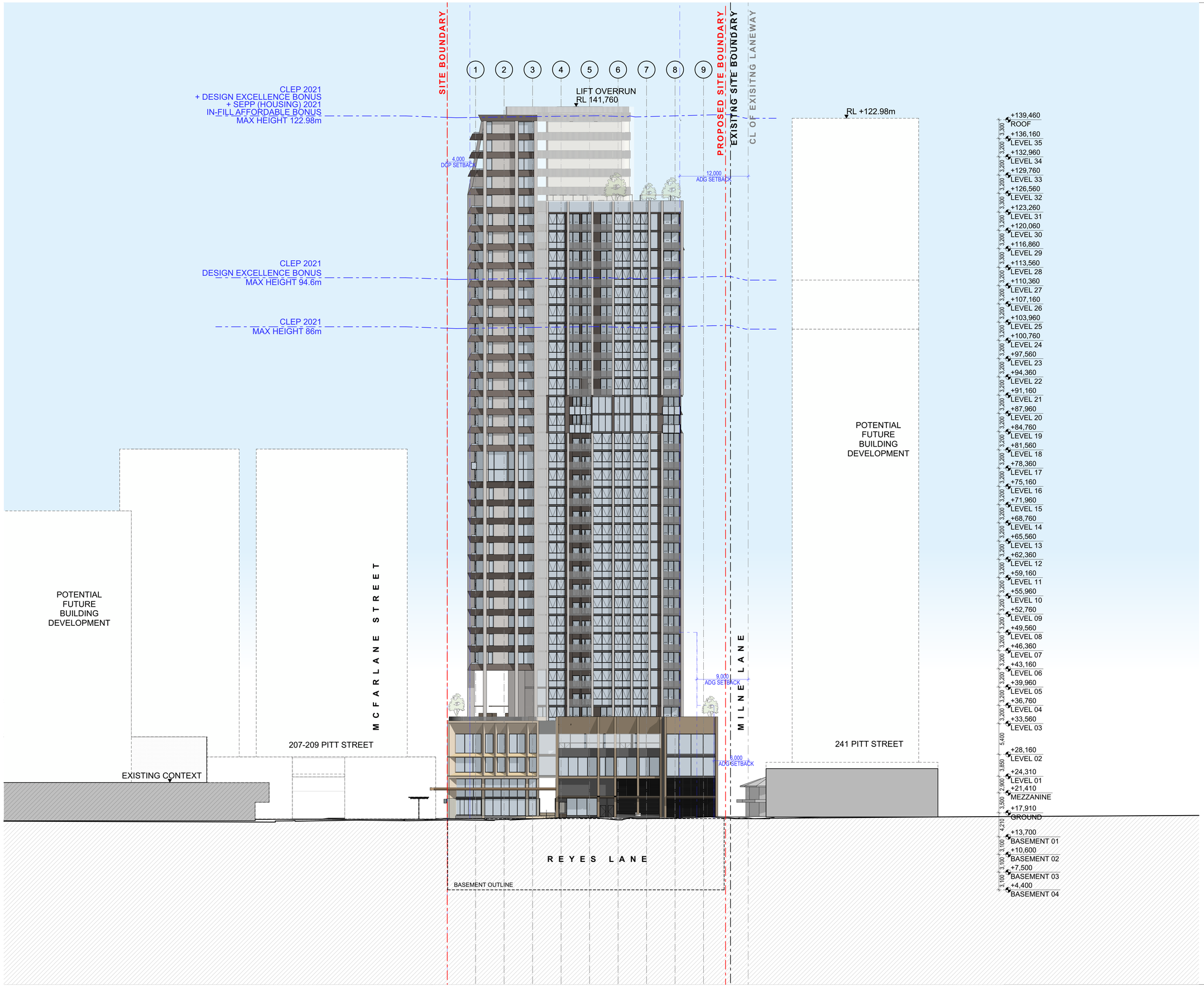
ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 3 6 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO.
2421
CHECKED
AA/JSN/CH
DRAWN
SL
DATE
15/08/2024
SCALE
1:300 @ A1
A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
EAST ELEVATION (PITT STREET)

SHEET NO.
SSDA 203
REVISION.
A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:43 pm

© FUSE ARCHITECTS.

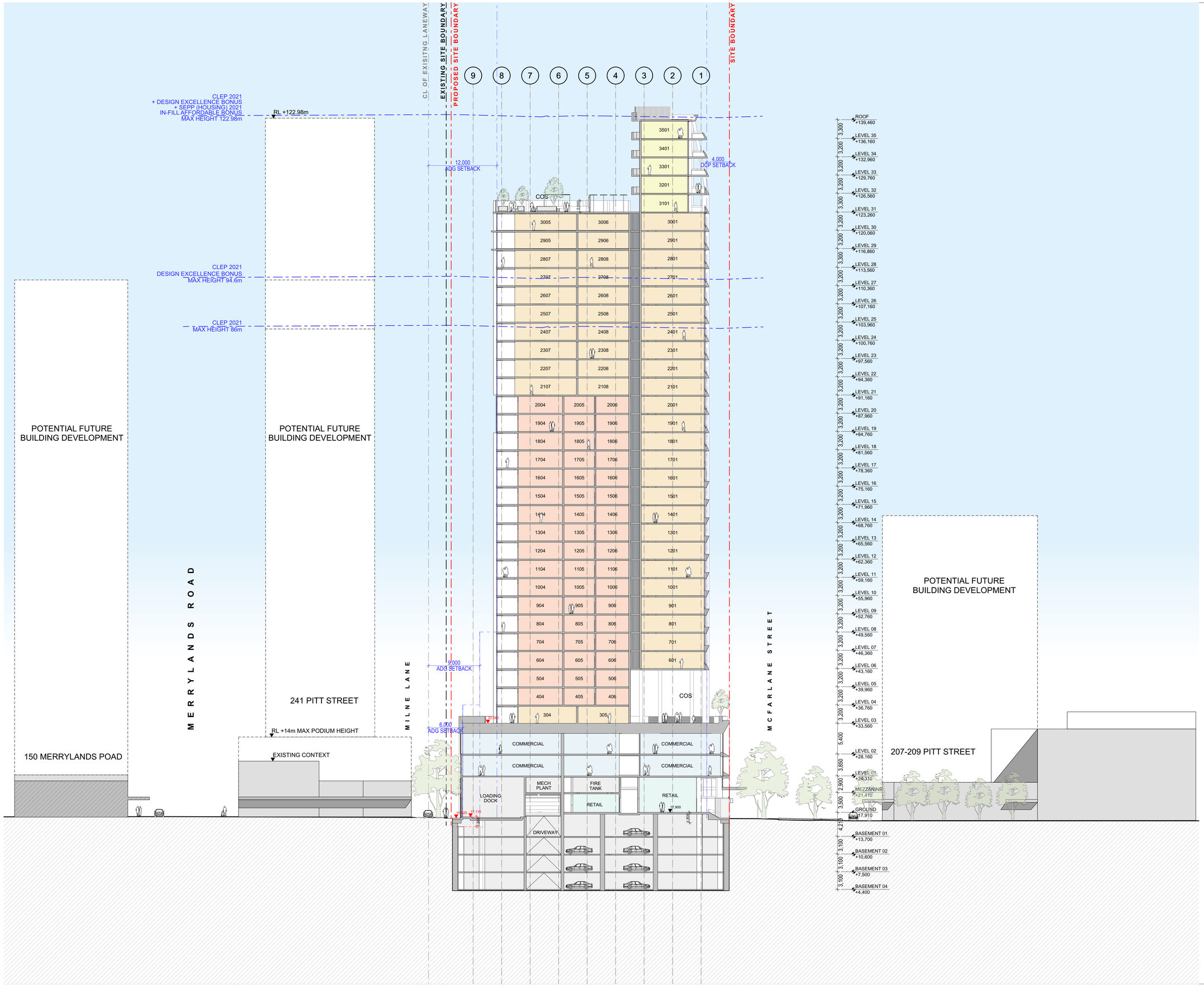
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	08/04/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/05/2025
P5	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

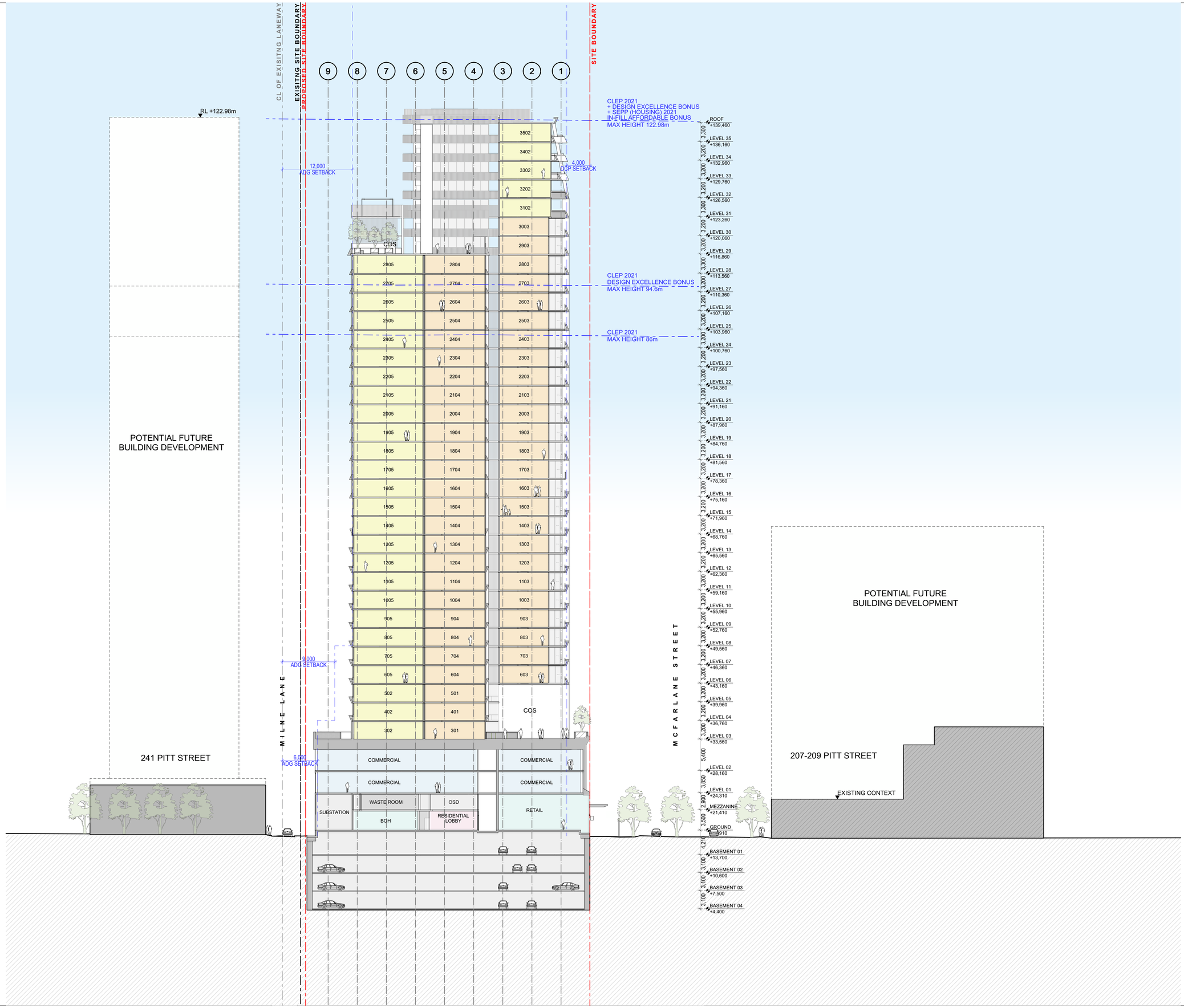
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 3 6 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
SL
DATE
15/08/2024
SCALE
1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
WEST ELEVATION (REYES LANE)
SHEET NO.
SSDA 204
REVISION.
A


CL OF EXISITNG LANEWAY
EXISTING SITE BOUNDARY
PROPOSED SITE BOUNDARY
SITE BOUNDARY
9
8
7
6
5
4
3
2
1
CLEP 2021
+ DESIGN EXCELLENCE BONUS
+ SEPP (HOUSING) 2021
IN-FILL AFFORDABLE BONUS
MAX HEIGHT 122.98m
RL +122.98m
CLEP 2021
DESIGN EXCELLENCE BONUS
MAX HEIGHT 94.6m
CLEP 2021
MAX HEIGHT 86m
12.000
ADG SETBACK
4.000
DCP SETBACK
COS
12.000
3501
3401
3301
3201
3101
3005
3006
3001
2905
2906
2901
2807
2808
2801
2707
2708
2701
2607
2608
2601
2507
2508
2501
2407
2408
2401
2307
2308
2301
2207
2208
2201
2107
2108
2101
2004
2005
2006
2001
1904
1905
1906
1901
1804
1805
1806
1801
1704
1705
1706
1701
1604
1605
1606
1601
1504
1505
1506
1501
1404
1405
1406
1401
1304
1305
1306
1301
1204
1205
1206
1201
1104
1105
1106
1101
1004
1005
1006
1001
904
905
906
901
804
805
806
801
704
705
706
701
604
605
606
601
504
505
506
404
405
406
304
305
POTENTIAL FUTURE
BUILDING DEVELOPMENT
POTENTIAL FUTURE
BUILDING DEVELOPMENT
MERRYLANDS ROAD
241 PITT STREET
MILNE LANE
MCFARLANE STREET
9.000
ADG SETBACK
6.000
ADG SETBACK
COS
RL +14m MAX PODIUM HEIGHT
EXISTING CONTEXT
150 MERRYLANDS POAD
COMMERCIAL
COMMERCIAL
COMMERCIAL
COMMERCIAL
LOADING
DOCK
MECH
PLANT
FIRE
TANK
RETAIL
RETAIL
DRIVEWAY
33.340
17.110
17.900
POTENTIAL FUTURE
BUILDING DEVELOPMENT
207-209 PITT STREET
ROOF
+139,460
LEVEL 35
+136,160
LEVEL 34
+132,960
LEVEL 33
+129,760
LEVEL 32
+126,560
LEVEL 31
+123,260
LEVEL 30
+120,060
LEVEL 29
+116,860
LEVEL 28
+113,560
LEVEL 27
+110,360
LEVEL 26
+107,160
LEVEL 25
+103,960
LEVEL 24
+100,760
LEVEL 23
+97,560
LEVEL 22
+94,360
LEVEL 21
+91,160
LEVEL 20
+87,960
LEVEL 19
+84,760
LEVEL 18
+81,560
LEVEL 17
+78,360
LEVEL 16
+75,160
LEVEL 15
+71,960
LEVEL 14
+68,760
LEVEL 13
+65,560
LEVEL 12
+62,360
LEVEL 11
+59,160
LEVEL 10
+55,960
LEVEL 09
+52,760
LEVEL 08
+49,560
LEVEL 07
+46,360
LEVEL 06
+43,160
LEVEL 05
+39,960
LEVEL 04
+36,760
LEVEL 03
+33,560
LEVEL 02
+28,160
LEVEL 01
+24,310
MEZZANINE
+21,410
GROUND
+17,910
BASEMENT 01
+13,700
BASEMENT 02
+10,600
BASEMENT 03
+7,500
BASEMENT 04
+4,400
3,300
3,200
3,200
3,200
3,300
3,200
3,200
3,300
3,200
3,200
3,200



GENERAL NOTES

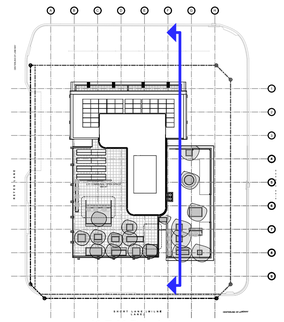
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:48 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



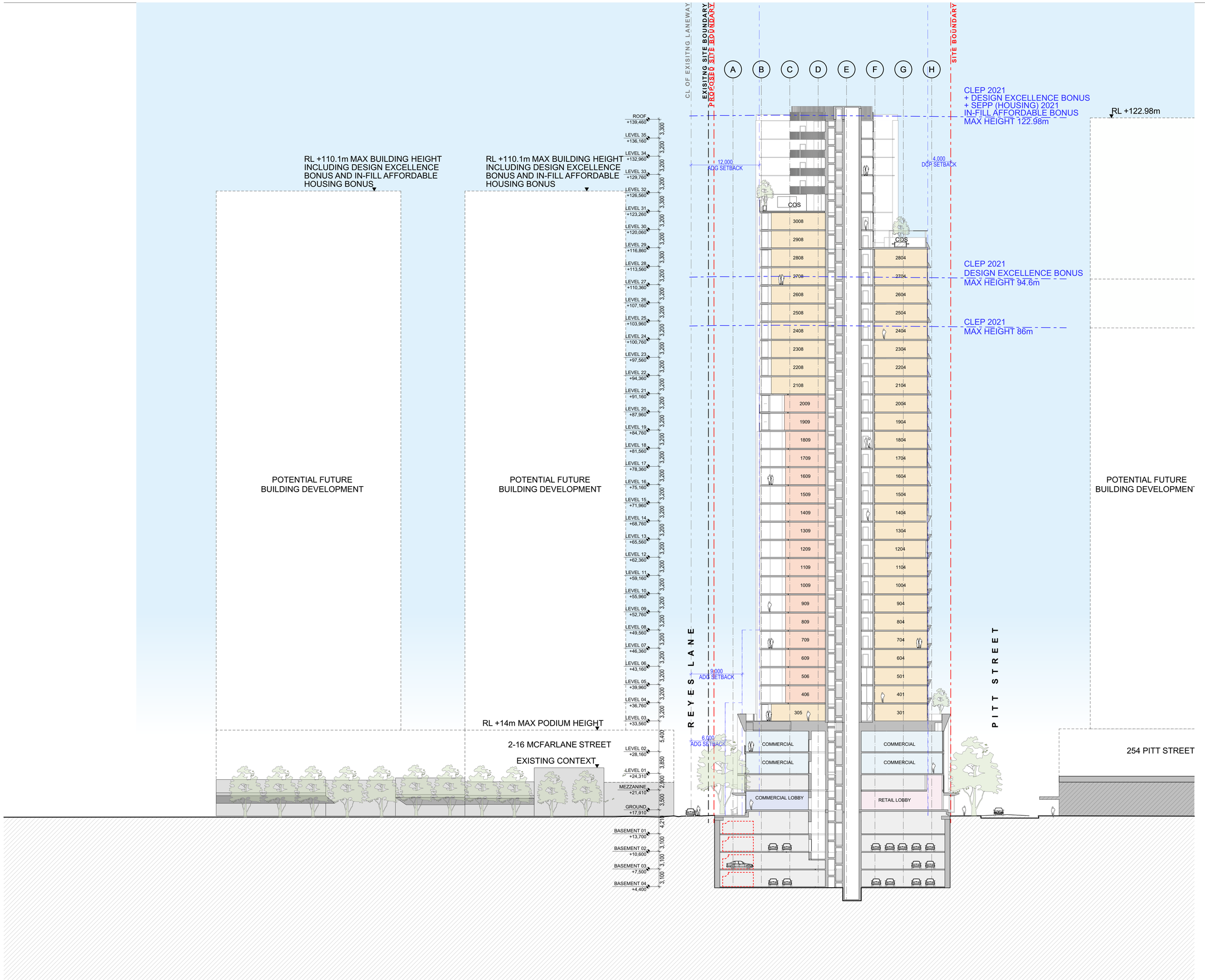
KEYPLAN

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
SL
DATE
15/08/2024
SCALE
1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SECTION B
SHEET NO.
SSDA 206
REVISION.
A



GENERAL NOTES

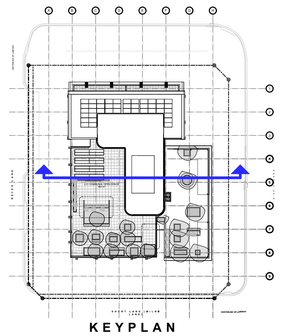
© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:49 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



KEYPLAN

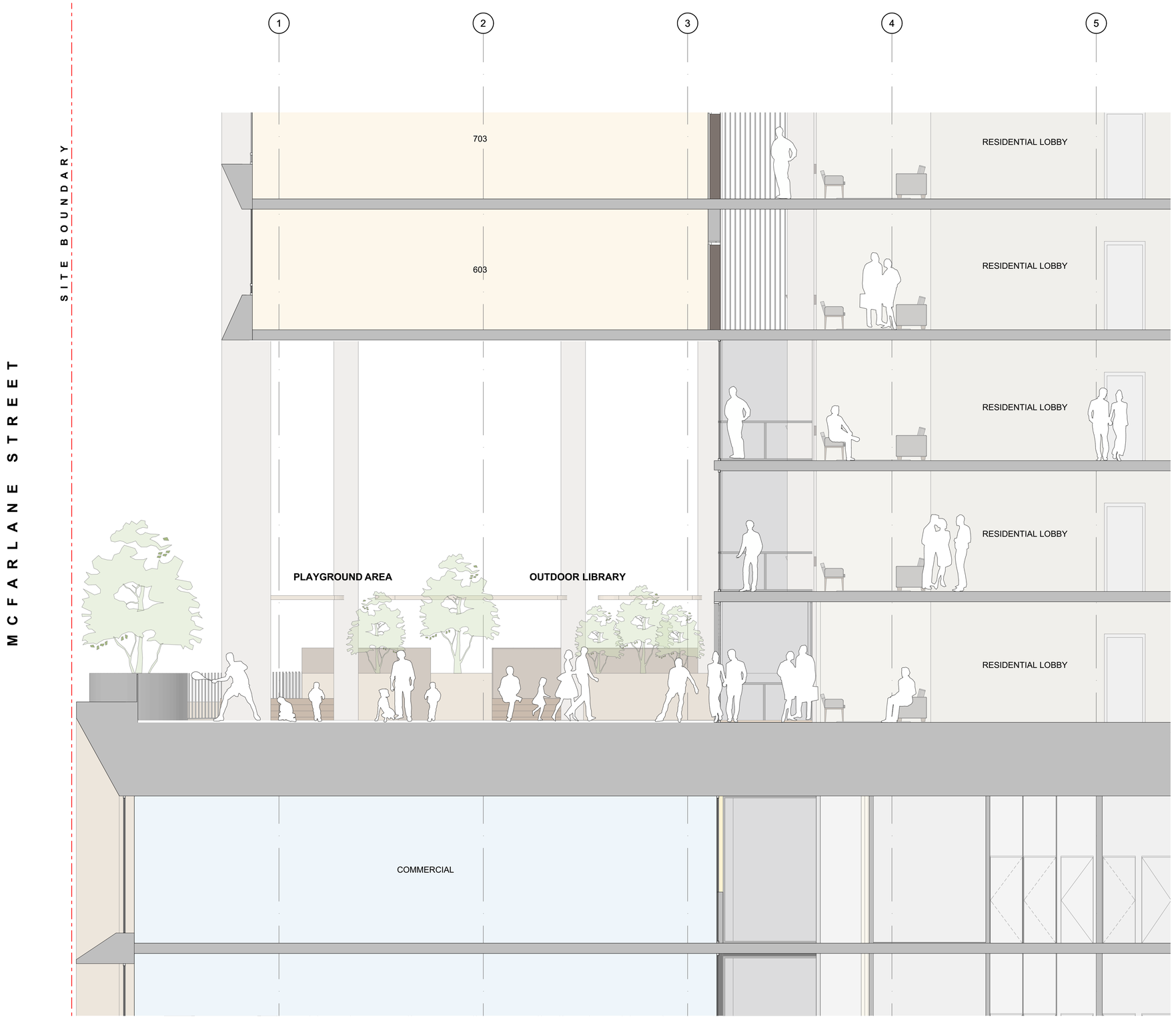
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

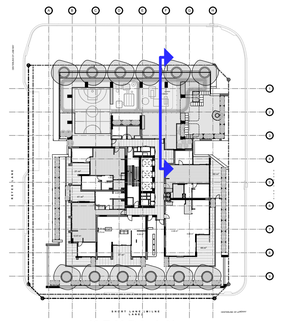
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
SL
DATE
15/08/2024
SCALE
1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SECTION C
SHEET NO.
SSDA 207
REVISION.
A

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:50 pm
© FUSE ARCHITECTS.



LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



KEYPLAN

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/05/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH/BC/SL/NB
DATE
15/08/2024
SCALE
1:50 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SECTION H (PODIUM COS)
SHEET NO.
SSDA 208
REVISION.
A

B C D E F G

+139,460
ROOF

+136,160
LEVEL 35

+132,960
LEVEL 34

+129,760
LEVEL 33

+126,560
LEVEL 32

+123,260
LEVEL 31

+120,060
LEVEL 30

+116,860
LEVEL 29

COMMUNITY GARDEN

3005

3004

CU FARM

2905

2904

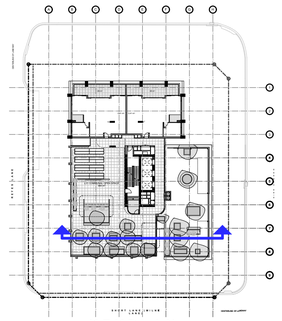
CU FARM

COMMUNITY GARDEN

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6.52 pm
© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



KEYPLAN

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

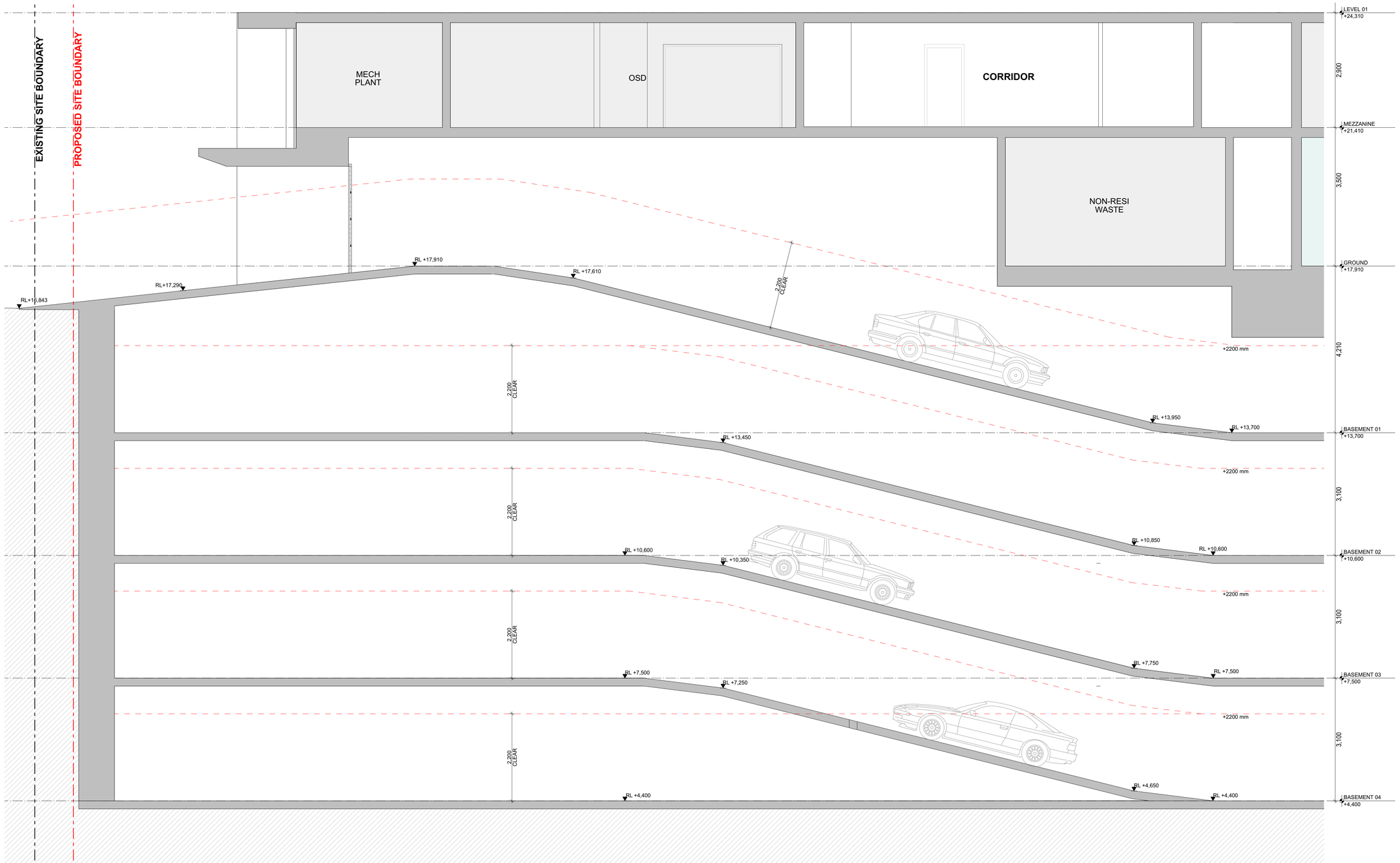
ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 0.5 1.0 2.0m

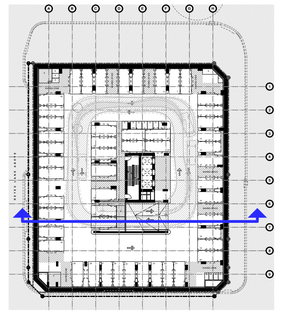
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH
DATE 15/08/2024
SCALE 1:50 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SECTION J (ROOF COS)
SHEET NO. SSDA 209
REVISION. A

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:52 pm
© FUSE ARCHITECTS.



LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



KEYPLAN

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/05/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

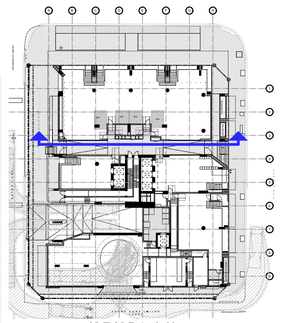
0 1 2 5m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
KH,SL,NB,BC,KB
DATE
15/08/2024
SCALE
1:50 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
DRIVEWAY SECTION
SHEET NO.
SSDA 210
REVISION.
A

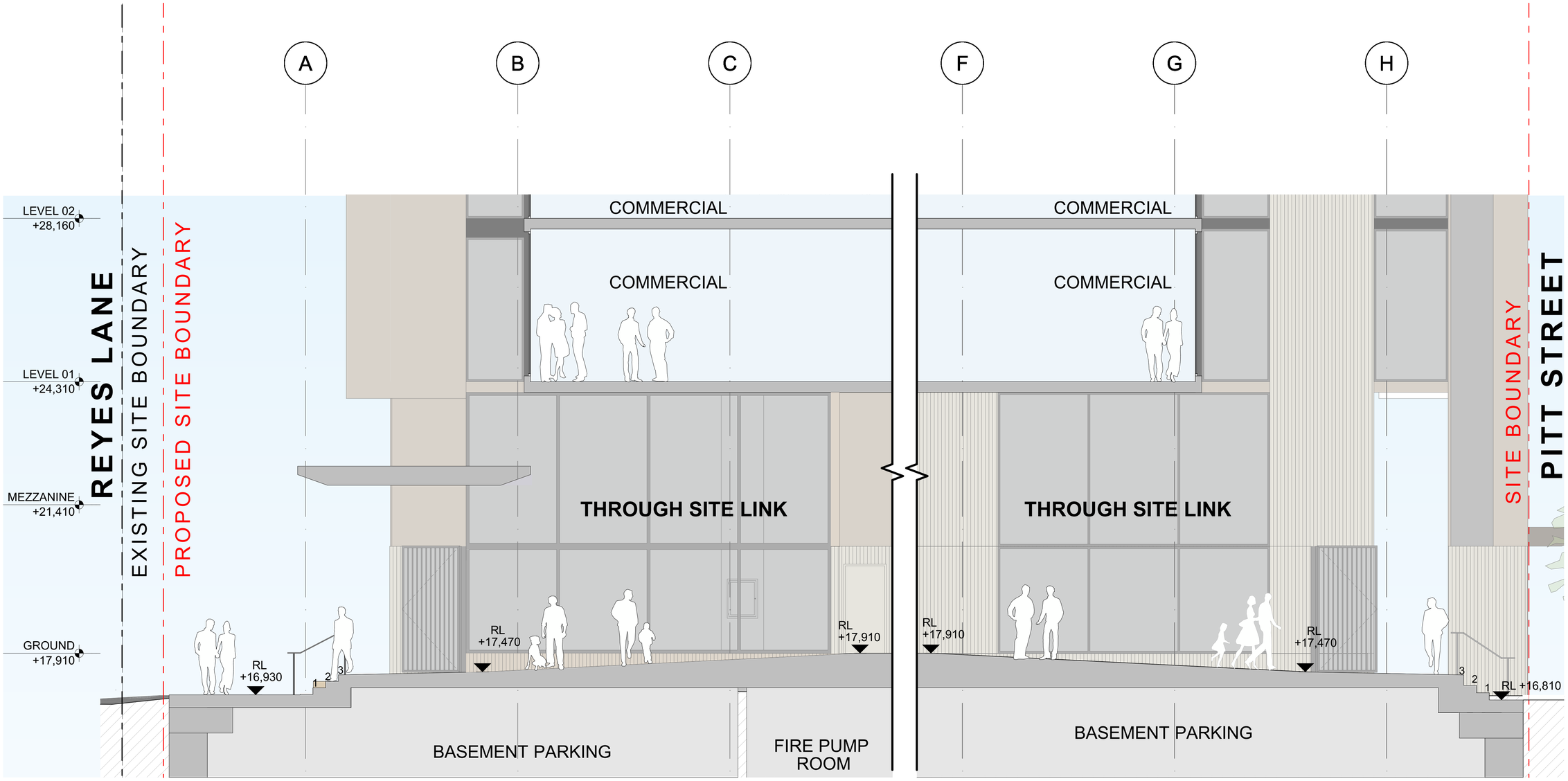
GENERAL NOTES
© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 6:56 pm
© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



KEYPLAN



REVISION ID	AMENDMENT	DATE
01	FOR INFORMATION	22/04/2025
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/05/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

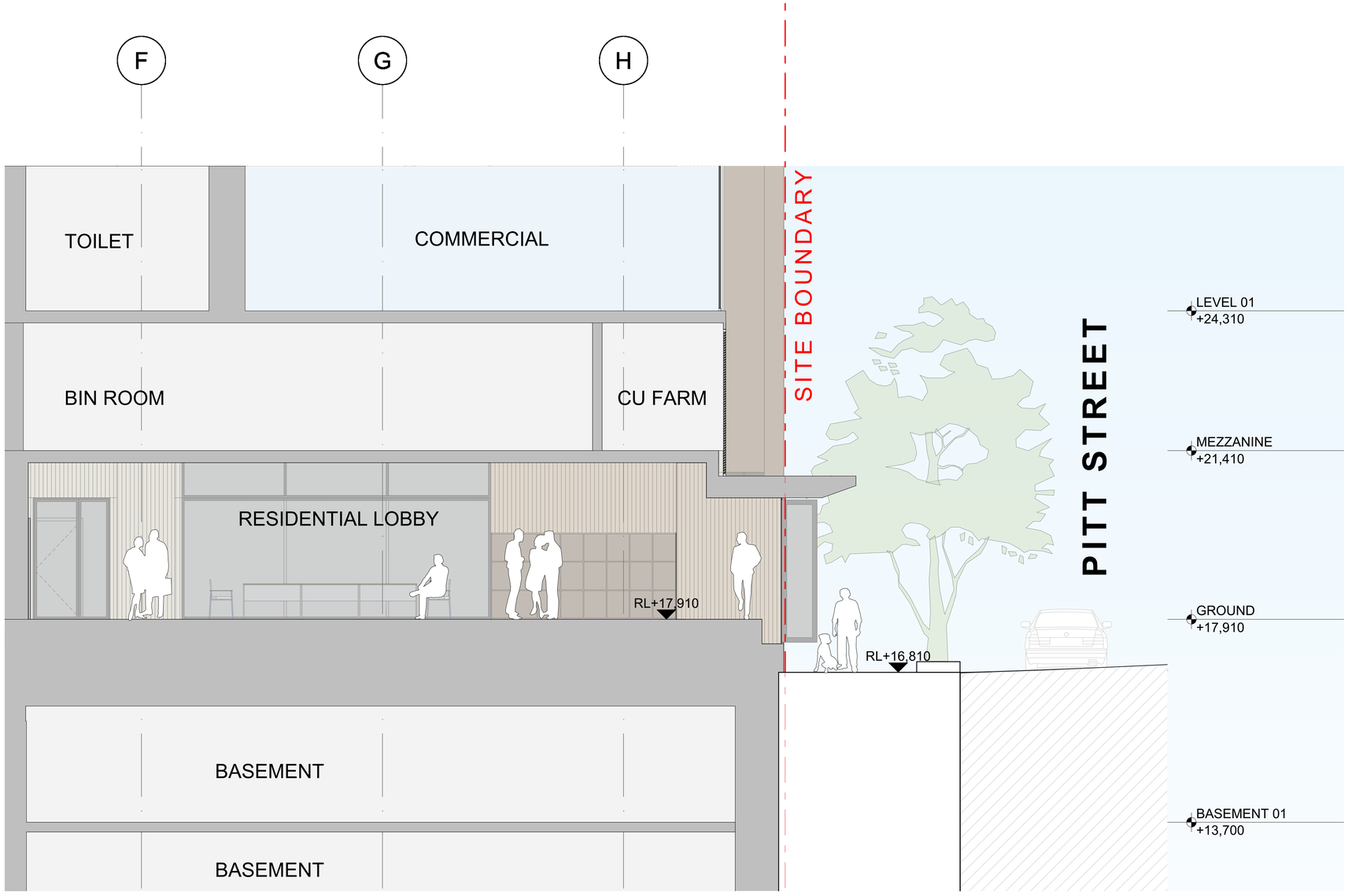
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED: AA/JSN/CH
DRAWN: SL
DATE: 15/08/2024
SCALE: 1:50 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
THROUGH SITE LINK SECTION

SHEET NO. SSDA 211
REVISION. A



GENERAL NOTES

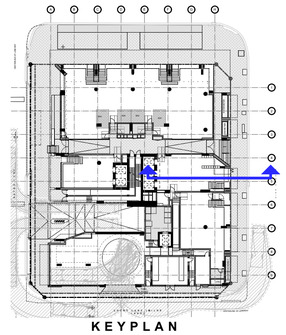
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.01 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



KEYPLAN

REVISION ID	AMENDMENT	DATE
01	FOR INFORMATION	22/04/2025
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/05/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 843
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

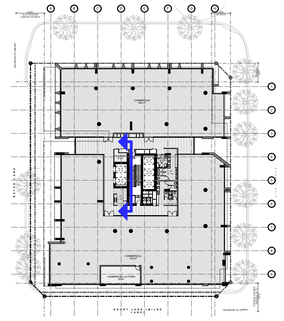
0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN SL
DATE 15/08/2024
SCALE @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
RESIDENTIAL LOBBY INTERFACE SECTION
SHEET NO. SSDA 212
REVISION. A

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.02 pm
© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



REVISION ID	AMENDMENT	DATE
01	FOR INFORMATION	22/04/2025
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/05/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421

CHECKED	DRAWN	
AA/JSN/CH	KH	
DATE	SCALE	
15/08/2024	1:50 @ A1	A3@50%

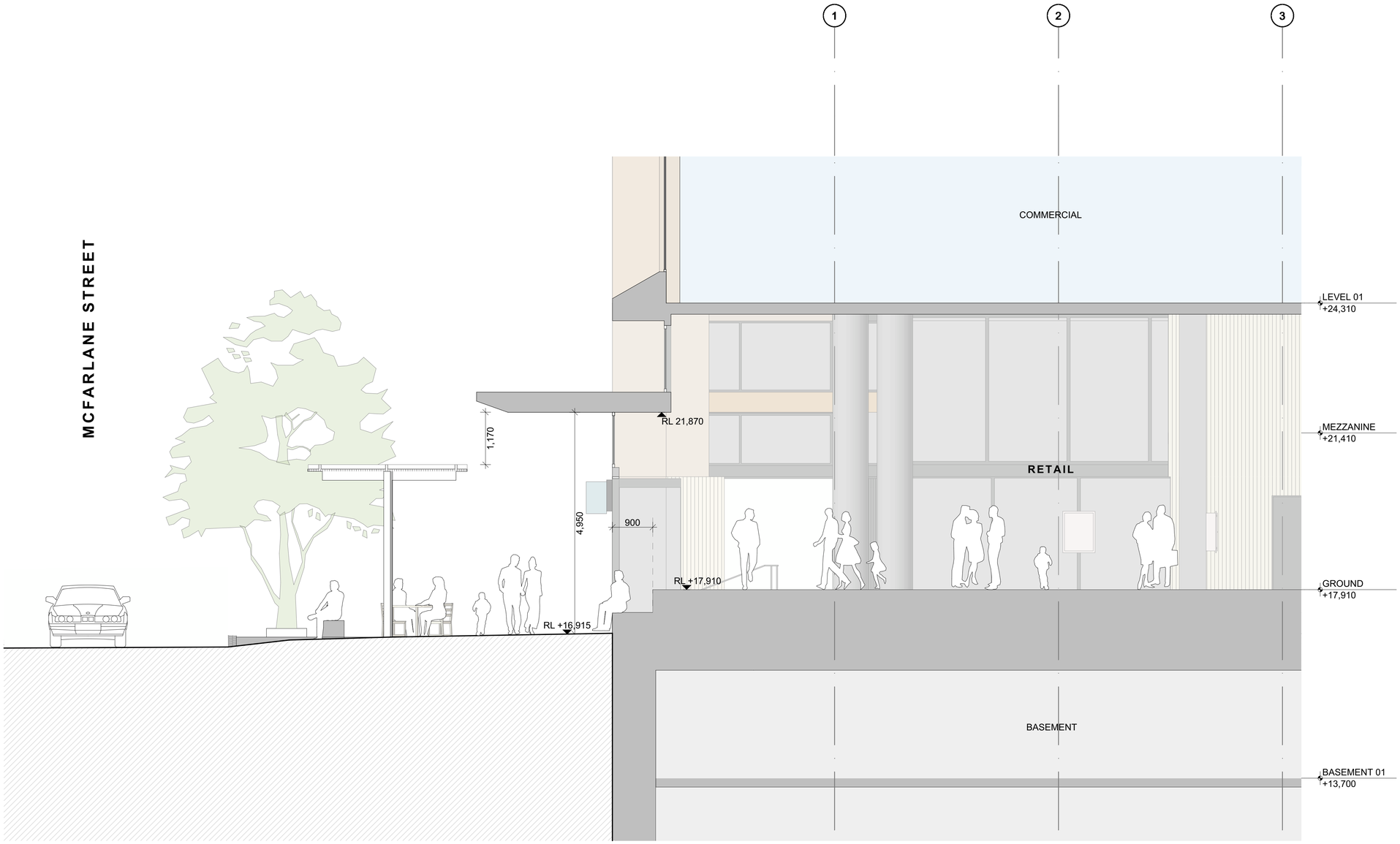
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
FIRE EXIT STAIRS SECTION

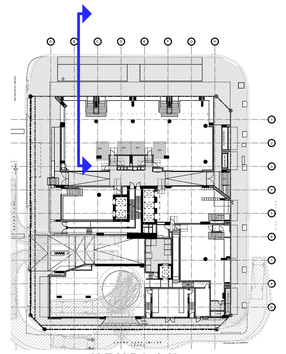
SHEET NO.	REVISION.
SSDA 213	A

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.05 pm
© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY





KEYPLAN

REVISION ID	AMENDMENT	DATE
01	FOR INFORMATION	22/04/2025
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/05/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

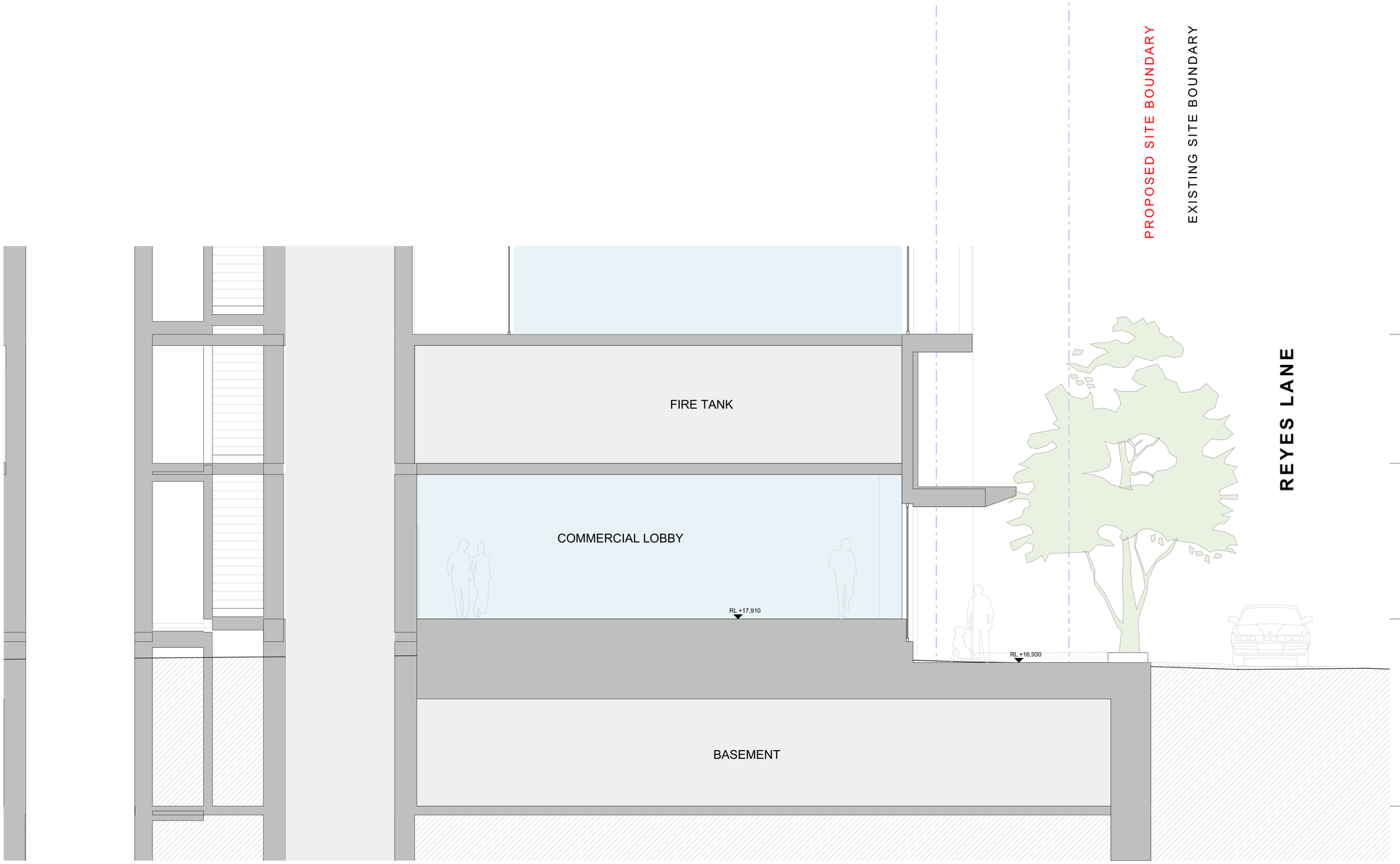
0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
SL
DATE
15/08/2024
SCALE
1:50 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
EAT STREET SECTION
SHEET NO.
SSDA 214
REVISION.
A

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:06 pm
© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- COMMERCIAL
- RETAIL
- RESIDENTIAL LOBBY



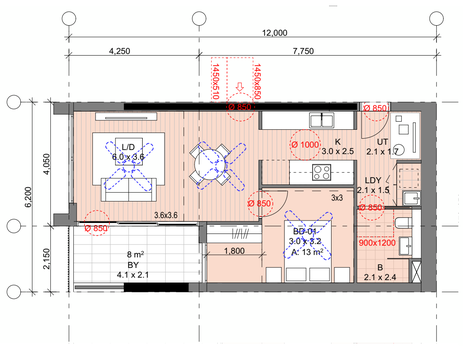
REVISION ID	AMENDMENT	DATE
01	FOR INFORMATION	22/04/2025
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/05/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

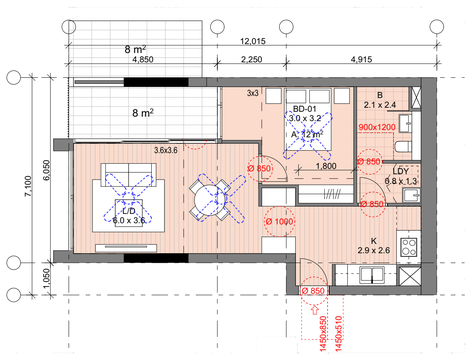
ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 9278 7156
ABN 51 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

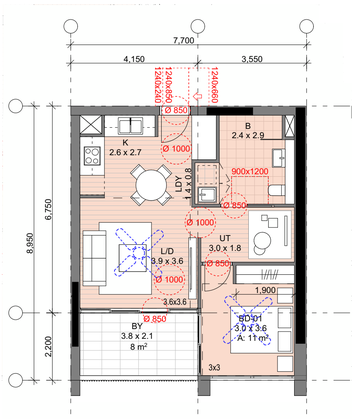
CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

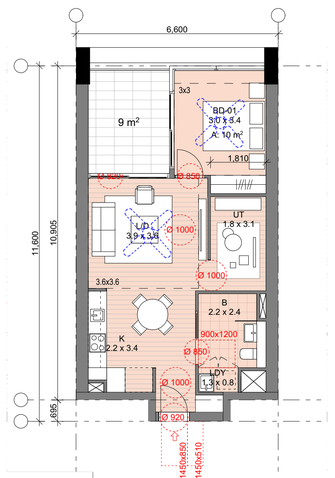
0 0.5 1.0 2.0m

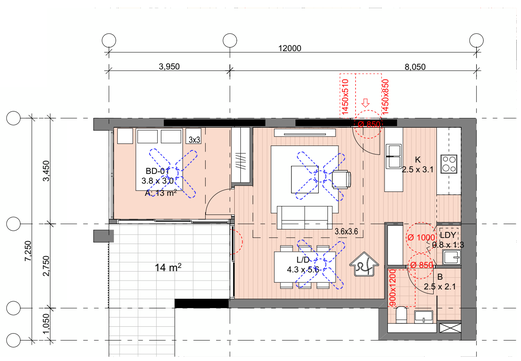
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN/CH
DRAWN
SL
DATE
15/08/2024
SCALE
1:50 @ A1
A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
COMMERCIAL LOBBY INTERFACE SECTION
SHEET NO.
SSDA 215
REVISION.
A











GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

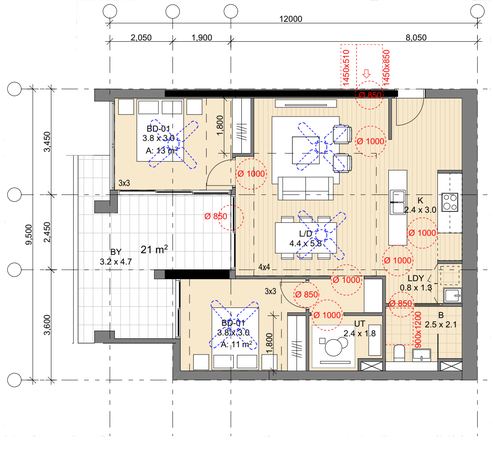
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.08 pm

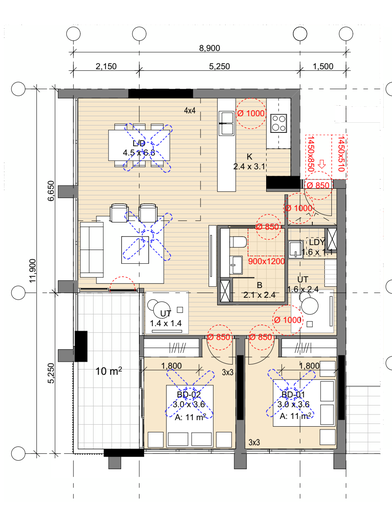
© FUSE ARCHITECTS.

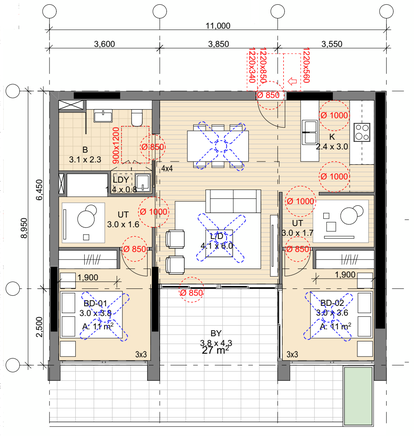
LEGEND

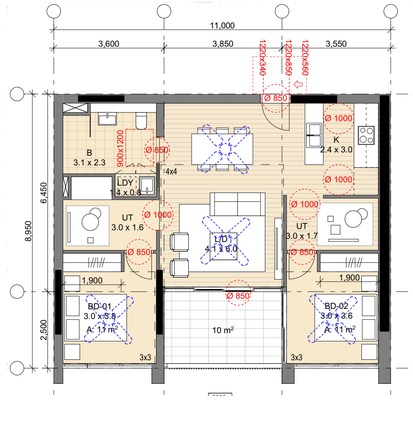
	1 BED APARTMENT
	2 BED APARTMENT
	3 BED APARTMENT
	BALCONY
B#	BEDROOM NO.
B	BATHROOM
ENS	ENSUITE
K	KITCHEN
L/D	LIVING / DINING
LDY	LAUNDRY
STY	STUDY

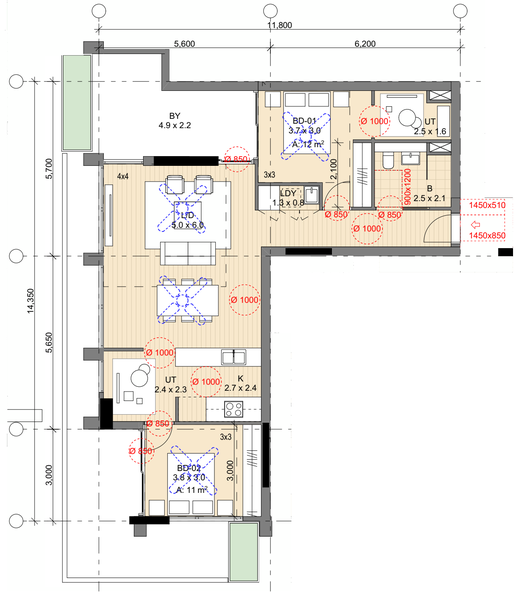
UNIT TYPE:	1.01 - 1 BEDROOM (17)	**UNIT TYPE:**	1.02 - 1 BEDROOM + UTILITY ROOM (17)	**UNIT TYPE:**	1.03 - 1 BEDROOM + STUDY (17)	**UNIT TYPE:**	1.04 - 1 BEDROOM + STUDY (25)	**UNIT TYPE:**	1.05 - 2 BEDROOM + STUDY (1)
UNIT NUMBER:	406, 506, 609, 709, 809, 909, 1009, 1109, 1209, 1309, 1409, 1509, 1609, 1709, 1809, 1909, 2009	**UNIT NUMBER:**	405,505,608,708,808,908,1008,1108,1208, 1308,1408,1508,1608,1708,1808,1908,2008	**UNIT NUMBER:**	403, 503, 606, 706, 806, 906, 1006, 1106, 1206, 1306, 1406, 1506, 1606, 1706, 1806, 1906, 2006	**UNIT NUMBER:**	602,702,802,902,1002,1102,1202,1302,1402, 1502,1602,1702,1802,1902,2002,2102,2202, 2302,2402,2502,2602,2702,2802,2902,3002	**UNIT NUMBER:**	2108
STORAGE AREA:	IN APARTMENT: 8.96 m^3	**STORAGE AREA:**	IN APARTMENT: 3.81 m^3 · IN BASEMENT:2.28m^3	**STORAGE AREA:**	IN APARTMENT: 10.68 m^3	**STORAGE AREA:**	IN APARTMENT: 15.93 m^3	**STORAGE AREA:**	IN APARTMENT: 1.97 m^3 · IN BASEMENT:4.03 m^3
INTERNAL AREA:	56 m^2	**INTERNAL AREA:**	56 m^2	**INTERNAL AREA:**	50 m^2	**INTERNAL AREA:**	51 m^2	**INTERNAL AREA:**	56 m^2
TERRACE:	8 m^2	**TERRACE:**	8 m^2	**TERRACE:**	8 m^2	**TERRACE:**	9 m^2	**TERRACE:**	10 m^2











UNIT TYPE:	2.01 - 2 BEDROOM + STUDY (10)	**UNIT TYPE:**	2.02 - 2 BEDROOM + STUDY (17)	**UNIT TYPE:**	2.03 - 2 BEDROOM + STUDY (1)	**UNIT TYPE:**	2.04 - 2 BEDROOM + STUDY (10)	**UNIT TYPE:**	2.05 - 2 BEDROOM + STUDY (1)
UNIT NUMBER:	305, 2208, 2308, 2408, 2508, 2608, 2708, 2808, 2906, 3006	**UNIT NUMBER:**	404,504,607,707,807,907,1007,1107,1207,1307, 1407,1507,1607,1707,1807,1907,2007	**UNIT NUMBER:**	303	**UNIT NUMBER:**	2106, 2206, 2306, 2406, 2506, 2606, 2706, 2806, 2904, 3004	**UNIT NUMBER:**	304
STORAGE AREA:	IN APARTMENT: 24.55 m^3	**STORAGE AREA:**	IN APARTMENT: 14.57 m^3	**STORAGE AREA:**	IN APARTMENT: 17.16 m^3	**STORAGE AREA:**	IN APARTMENT: 17.16 m^3	**STORAGE AREA:**	IN APARTMENT: 23.55 m^3
INTERNAL AREA:	82 m^2	**INTERNAL AREA:**	80 m^2	**INTERNAL AREA:**	76 m^2	**INTERNAL AREA:**	76 m^2	**INTERNAL AREA:**	86 m^2
TERRACE:	15 m^2	**TERRACE:**	11 m^2	**TERRACE:**	27 m^2	**TERRACE:**	10 m^2	**TERRACE:**	41 m^2

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

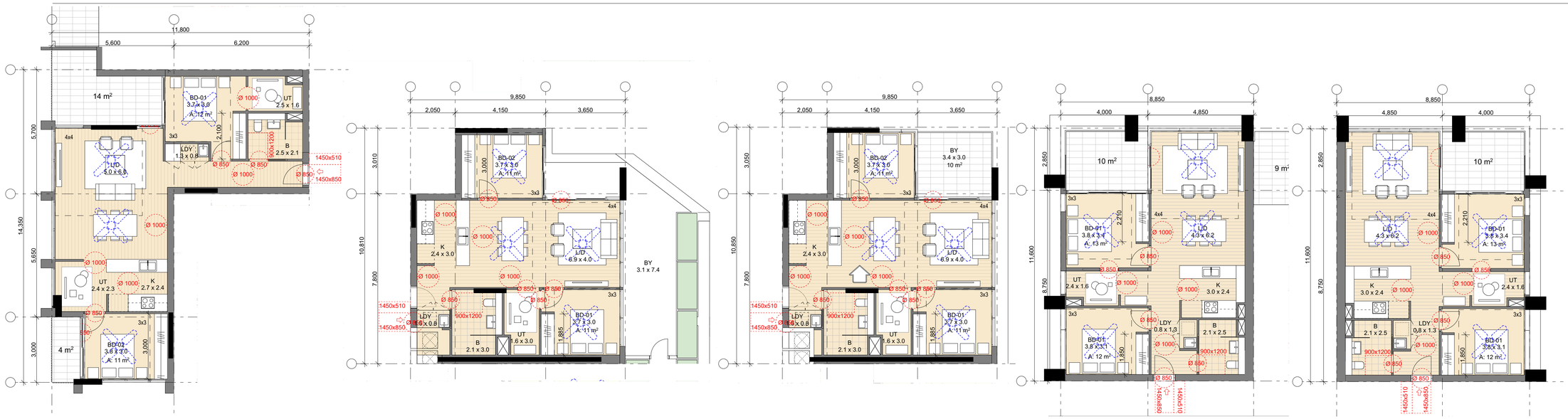
N
0 1 2 5m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421

CHECKED	DRAWN
AA/JSN	KH
DATE	SCALE
15/08/2024	1:100 @ A1 A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
UNIT TYPES SHEET 01

SHEET NO.	REVISION.
SSDA 301	A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

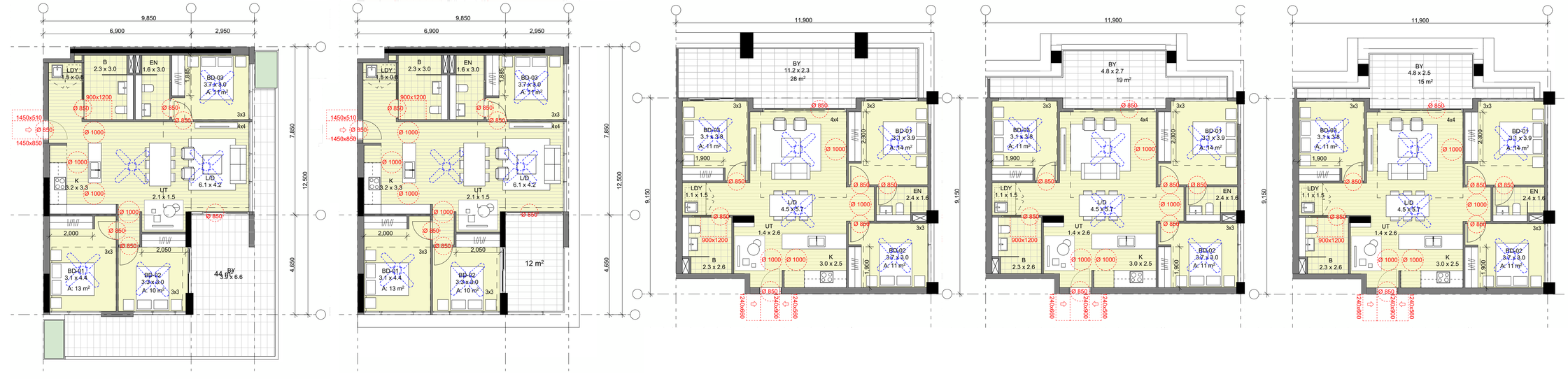
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:10 pm

© FUSE ARCHITECTS.

LEGEND

	1 BED APARTMENT
	2 BED APARTMENT
	3 BED APARTMENT
	BALCONY
B#	BEDROOM NO.
B	BATHROOM
ENS	ENSUITE
K	KITCHEN
L/D	LIVING / DINING
LDY	LAUNDRY
STY	STUDY

UNIT TYPE:	2.06 - 2 BEDROOM + STUDY (10)	**UNIT TYPE:**	2.07 - 2 BEDROOM + STUDY (1)	**UNIT TYPE:**	2.08 - 2 BEDROOM + STUDY (25)	**UNIT TYPE:**	2.09 - 2 BEDROOM + STUDY (25)	**UNIT TYPE:**	2.10 - 2 BEDROOM + STUDY (25)
UNIT NUMBER:	2107, 2207, 2307, 2407, 2507, 2607, 2707, 2807, 2905, 3005	**UNIT NUMBER:**	301	**UNIT NUMBER:**	401, 501, 604, 704, 804, 904, 1004, 1104, 1204, 1304, 1404, 1504, 1604, 1704, 1804, 1904, 2004, 2104, 2204, 2304, 2404, 2504, 2604, 2704, 2804	**UNIT NUMBER:**	601, 701, 801, 901, 1001, 1101, 1201, 1301, 1401, 1501, 1601, 1701, 1801, 1901, 2001, 2101, 2201, 2301, 2401, 2501, 2601, 2701, 2801, 2901, 3001	**UNIT NUMBER:**	603, 703, 803, 903, 1003, 1103, 1203, 1303, 1403, 1503, 1603, 1703, 1803, 1903, 2003, 2103, 2203, 2303, 2403, 2503, 2603, 2703, 2803, 2903, 3003
STORAGE AREA:	IN APARTMENT: 23.55 m^3	**STORAGE AREA:**	IN APARTMENT: 11.26 m^3	**STORAGE AREA:**	IN APARTMENT: 11.26 m^3	**STORAGE AREA:**	IN APARTMENT: 12.17 m^3	**STORAGE AREA:**	IN APARTMENT: 12.17 m^3
INTERNAL AREA:	86 m^2	**INTERNAL AREA:**	77 m^2	**INTERNAL AREA:**	77 m^2	**INTERNAL AREA:**	80 m^2	**INTERNAL AREA:**	80 m^2
TERRACE:	4 m^2, 10 m^2	**TERRACE:**	30 m^2	**TERRACE:**	10 m^2	**TERRACE:**	10 m^2	**TERRACE:**	10 m^2



UNIT TYPE:	3.01 - 3 BEDROOM + STUDY (1)	**UNIT TYPE:**	3.02 - 3 BEDROOM + STUDY (25)	**UNIT TYPE:**	3.03 - 3 BEDROOM + UTILITY ROOM (4)	**UNIT TYPE:**	3.04 - 3 BEDROOM + UTILITY ROOM (2)	**UNIT TYPE:**	3.06 - 3 BEDROOM + UTILITY ROOM (4)
UNIT NUMBER:	302	**UNIT NUMBER:**	402, 502, 605, 705, 805, 905, 1005, 1105, 1205, 1305, 1405, 1505, 1605, 1705, 1805, 1905, 2005, 2105, 2205, 2305, 2405, 2505, 2605, 2705, 2805	**UNIT NUMBER:**	3101, 3102, 3201, 3202	**UNIT NUMBER:**	3301, 3302	**UNIT NUMBER:**	3401, 3402, 3501, 3502
STORAGE AREA:	IN APARTMENT: 7.57 m^3 · IN BASEMENT:3.00 m^3	**STORAGE AREA:**	IN APARTMENT: 7.57 m^3 · IN BASEMENT:3.00 m^3	**STORAGE AREA:**	IN APARTMENT: 6.41 m^3 · IN BASEMENT:4.08m^3	**STORAGE AREA:**	IN APARTMENT: 6.41 m^3 · IN BASEMENT:4.08m^3	**STORAGE AREA:**	IN APARTMENT: 6.41 m^3 · IN BASEMENT:4.08m^3
INTERNAL AREA:	97 m^2	**INTERNAL AREA:**	97 m^2	**INTERNAL AREA:**	95 m^2	**INTERNAL AREA:**	95 m^2	**INTERNAL AREA:**	95 m^2
TERRACE:	44 m^2	**TERRACE:**	12 m^2	**TERRACE:**	28 m^2	**TERRACE:**	13 m^2	**TERRACE:**	12 m^2

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 943
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 1 2 5m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

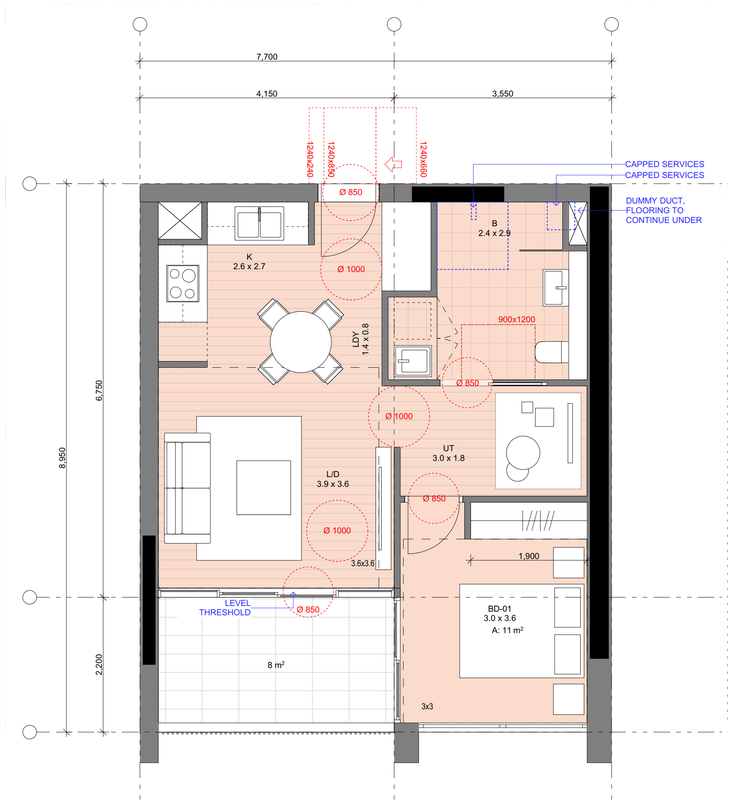
CHECKED	DRAWN
AA/JSN	KH

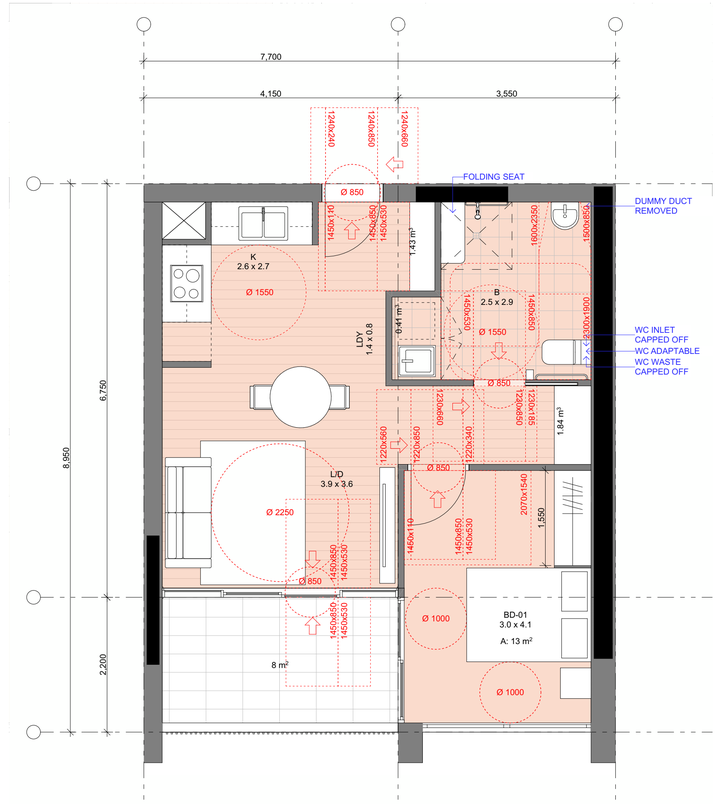
DATE	SCALE	
15/08/2024	1:100 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
UNIT TYPES SHEET 02

SHEET NO.	REVISION.
SSDA 302	A





UNIT TYPE:	1.03 - 1 BEDROOM + STUDY (17)
UNIT NUMBER:	403, 503, 606, 706, 806, 906, 1006, 1106, 1206, 1306, 1406, 1506, 1606, 1706, 1806, 1906, 2006
PRE STORAGE:	IN APARTMENT: 9.65 m^3
POST STORAGE:	IN APARTMENT: 3.68 m^3
INTERNAL AREA:	50 m^2
TERRACE:	8 m^2

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:11 pm

© FUSE ARCHITECTS.

LEGEND

	1 BED APARTMENT
	2 BED APARTMENT
	3 BED APARTMENT
	BALCONY
B#	BEDROOM NO.
B	BATHROOM
ENS	ENSUITE
K	KITCHEN
L/D	LIVING / DINING
LDY	LAUNDRY

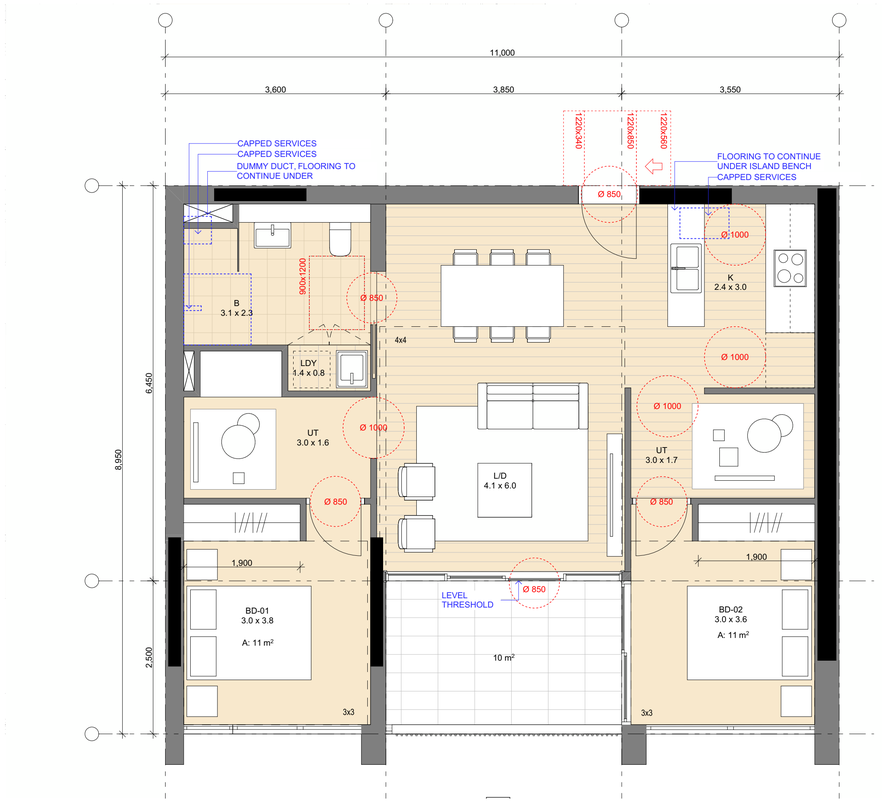
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

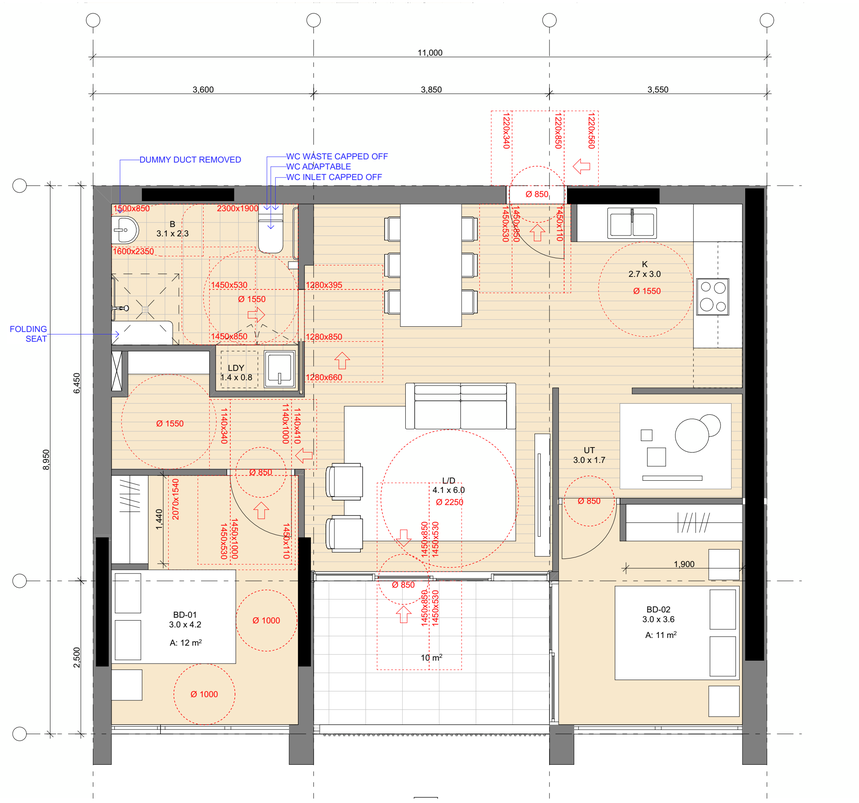
ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN
DRAWN
KH
DATE
15/08/2024
SCALE
1:50 @ A1
A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
UNIT TYPE_ADAPTABLE SHEET 01
SHEET NO.
SSDA 303
REVISION.
A





UNIT TYPE:	2.05 - 2 BEDROOM + STUDY (10)
UNIT NUMBER:	2106, 2206, 2306, 2406, 2506, 2606, 2706, 2806, 2904, 3004
PRE STORAGE:	IN APARTMENT: 17.40 m^3
POST STORAGE:	IN APARTMENT: 9.87 m^3
INTERNAL AREA:	76 m^2
TERRACE:	10 m^2

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:13 pm

© FUSE ARCHITECTS.

LEGEND

- 1 BED APARTMENT
- 2 BED APARTMENT
- 3 BED APARTMENT
- BALCONY
- **B#** BEDROOM NO.
- **B** BATHROOM
- **ENS** ENSUITE
- **K** KITCHEN
- **L/D** LIVING / DINING
- **LDY** LAUNDRY

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

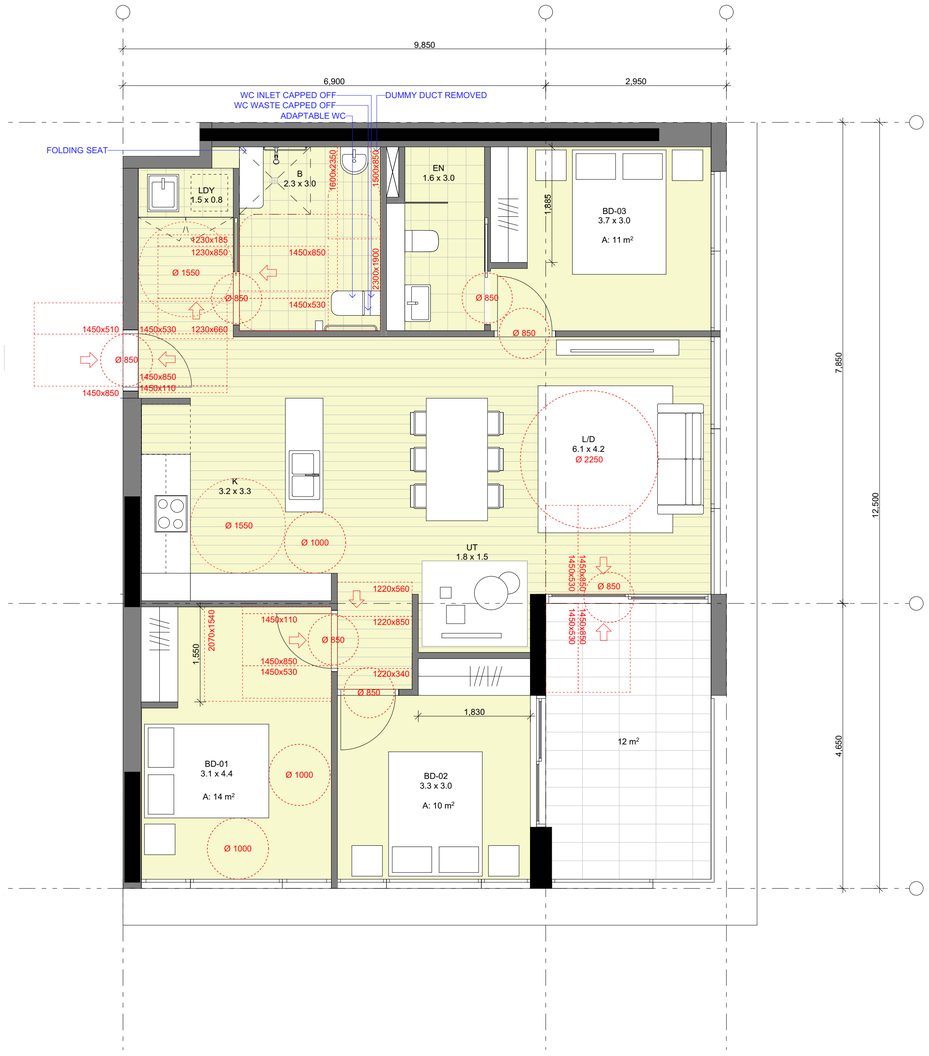
N
0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421

CHECKED	DRAWN	
AA/JSN	KH	
DATE	SCALE	
15/08/2024	1:50 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
UNIT TYPE_ADAPTABLE SHEET 02

SHEET NO.	REVISION.
SSDA 304	A



UNIT TYPE:	3.02 - 3 BEDROOM + STUDY (21)	**UNIT TYPE:**	3.02 - 3 BEDROOM + STUDY (4)
UNIT NUMBER:	402, 502, 605, 705, 805, 905, 1005, 1105, 1205, 1305, 1405, 1505, 1605, 1705, 1805, 1905, 2005, 2105, 2205, 2305, 2405	**UNIT NUMBER:**	2505, 2605, 2705, 2805
PRE STORAGE:	IN APARTMENT: 7.57 m^3,IN BASEMENT: 3.00 m^3	**PRE STORAGE:**	IN APARTMENT: 7.57 m^3 ,IN BASEMENT: 3.00 m^3
POST STORAGE:	IN APARTMENT: 7.07 m^3,IN BASEMENT: 3.00 m^3	**POST STORAGE:**	
INTERNAL AREA:	97 m^2	**INTERNAL AREA:**	97 m^2
TERRACE:	12 m^2	**TERRACE:**	12 m^2

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:15 pm

© FUSE ARCHITECTS.

LEGEND

	1 BED APARTMENT
	2 BED APARTMENT
	3 BED APARTMENT
	BALCONY
B#	BEDROOM NO.
B	BATHROOM
ENS	ENSUITE
K	KITCHEN
L/D	LIVING / DINING
LDY	LAUNDRY

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

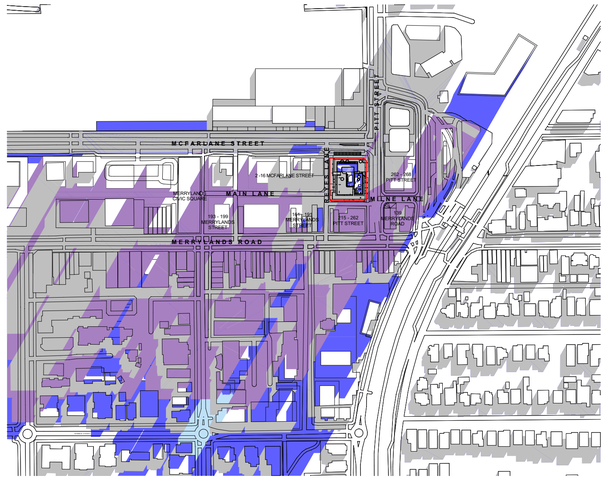
CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

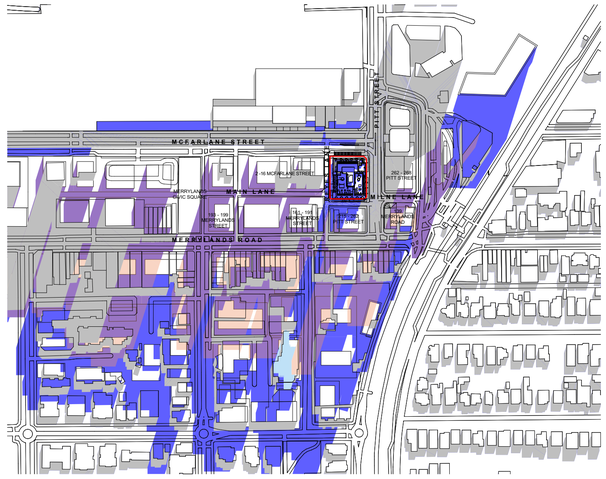
0 0.5 1.0 2.0m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN
DRAWN KH
DATE 15/08/2024
SCALE 1:50 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
UNIT TYPE_ADAPTABLE SHEET 03

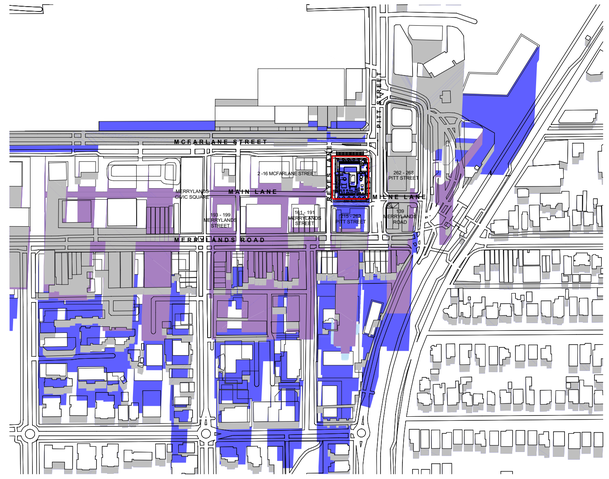
SHEET NO. SSDA 305
REVISION. A



1 JUNE 21 - 9AM



2 JUNE 21 - 10AM



3 JUNE 21 - 11AM

4 JUNE 21 - 12PM

5 JUNE 21 -1PM

6 JUNE 21 - 2PM

7 JUNE 21 - 3PM

GENERAL NOTES

© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.27 pm

© FUSE ARCHITECTS.

LEGEND

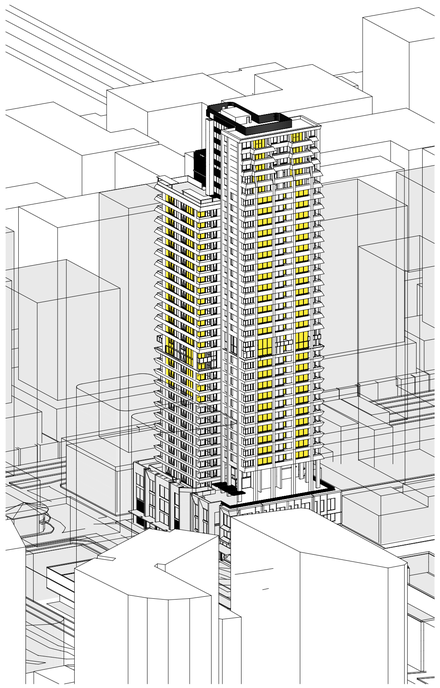
- SHADOWS CAST BY EXISTING BUILDINGS
- SHADOWS CAST BY PROPOSED ENVELOPE
- SHADOWS CAST BY POTENTIAL NEIGHBOURING BUILDINGS
- SHADOWS CAST BY PROPOSED ENVELOPE

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

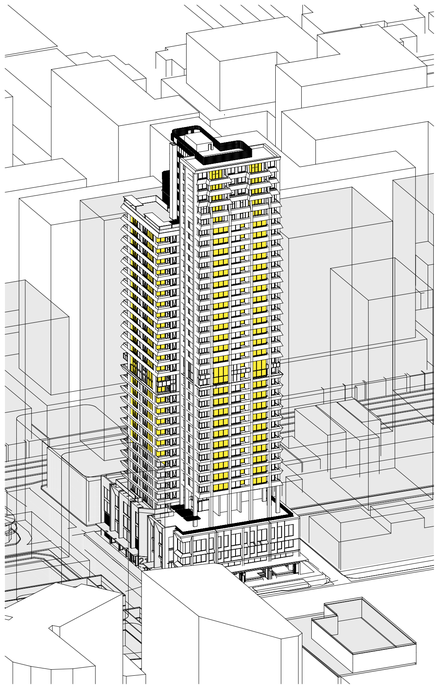
ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

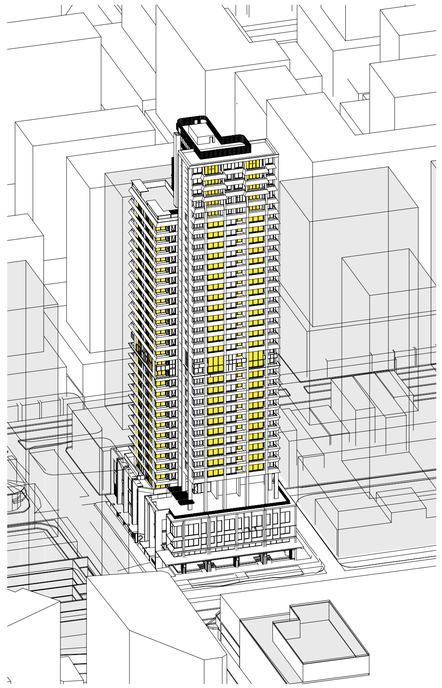
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN
DRAWN
KH
DATE
15/08/2024
SCALE
1:3500 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SHADOW DIAGRAMS SHEET 01
SHEET NO.
SSDA 401
REVISION.
A



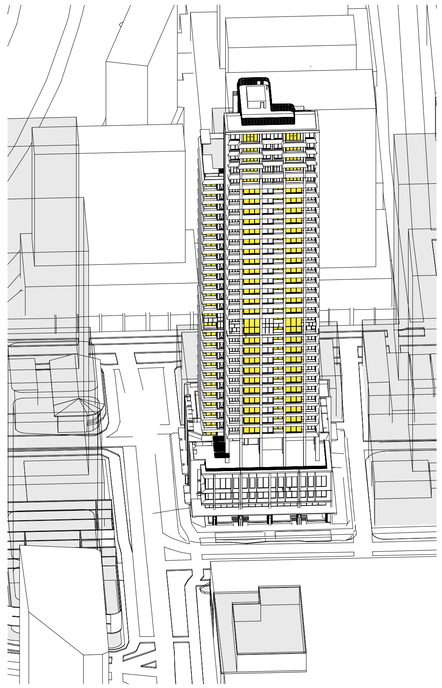
1
-
JUNE 21 - 9AM



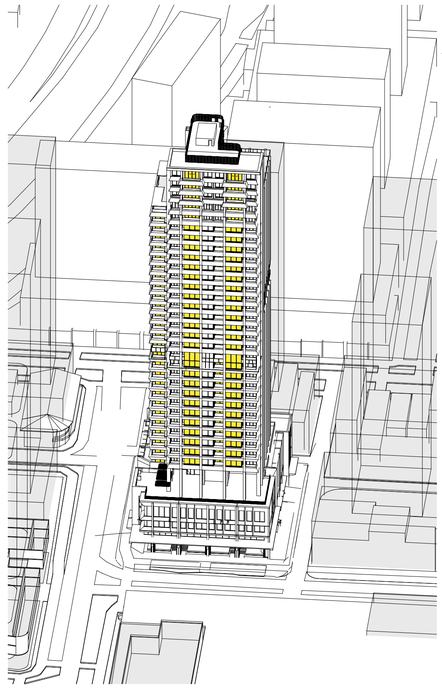
2
-
JUNE 21 - 930AM



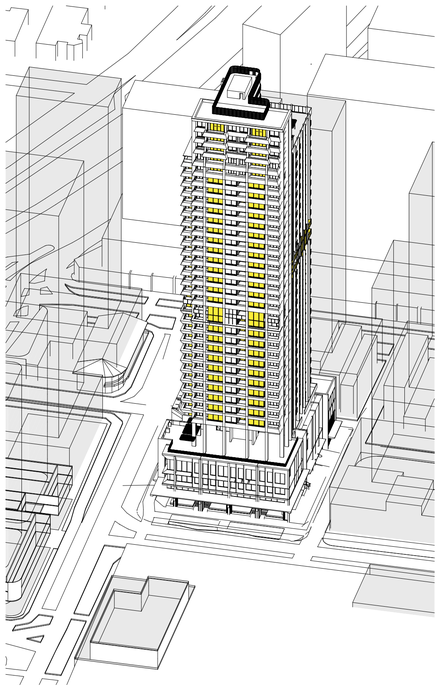
3
-
JUNE 21 - 10AM



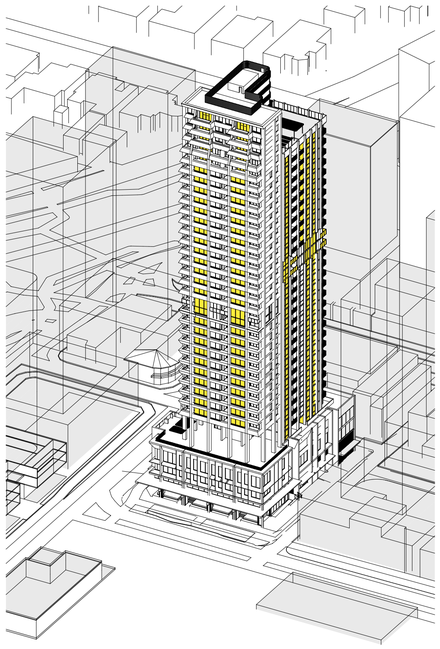
4
-
JUNE 21 - 11AM



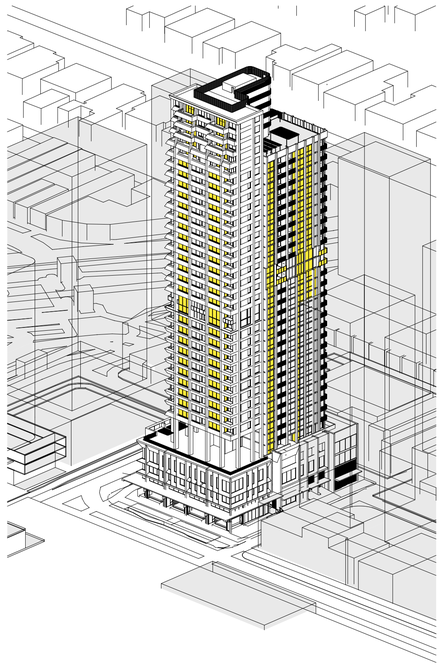
5
-
JUNE 21 - 1130am



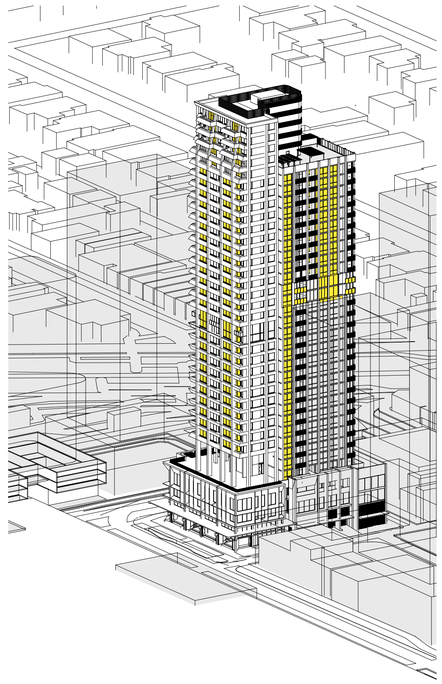
6
-
JUNE 21 - 12PM



7
-
JUNE 21 - 1PM



8
-
JUNE 21 - 2PM



9
-
JUNE 21 - 3PM

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:41 pm

© FUSE ARCHITECTS.

LEGEND

LIVING AREAS RECEIVING SUNLIGHT

POTENTIAL NEIGHBOUR BUILDING OUTLINE

EXISTING BUILDING OUTLINE

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

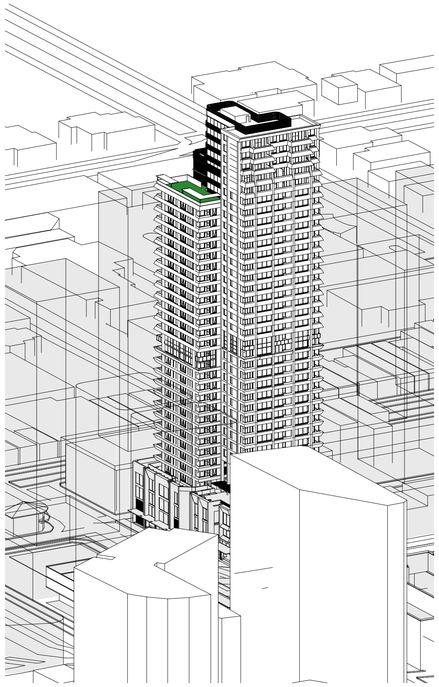
JOB NO
2421

CHECKED AA/JSN
DRAWN KH
DATE 15/08/2024
SCALE @ A1 A3@50%

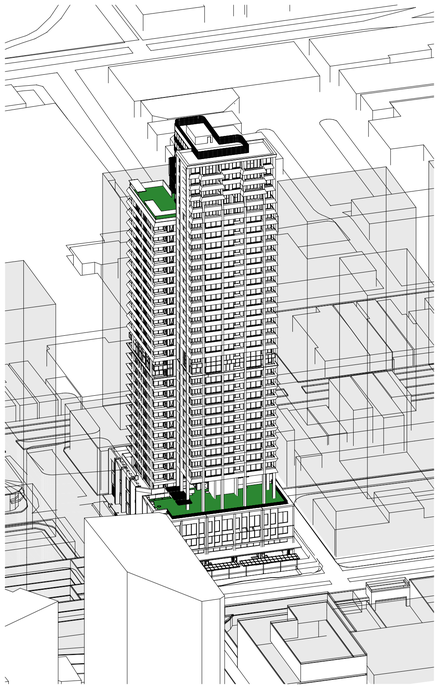
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
SUN EYE VIEW DIAGRAMS SHEET 01

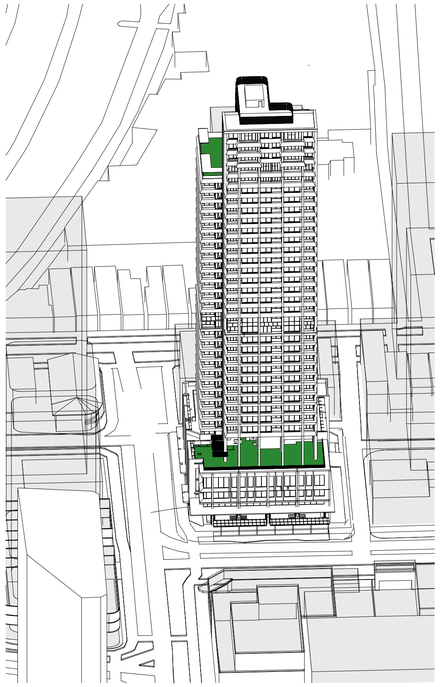
SHEET NO. SSDA 402
REVISION. A



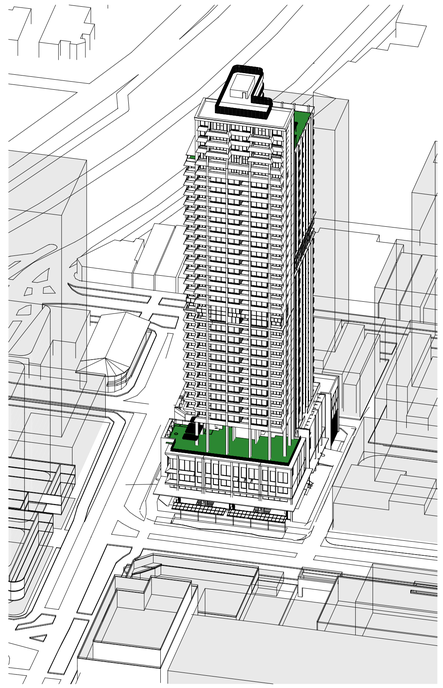
1
-
JUNE 21 - 9AM



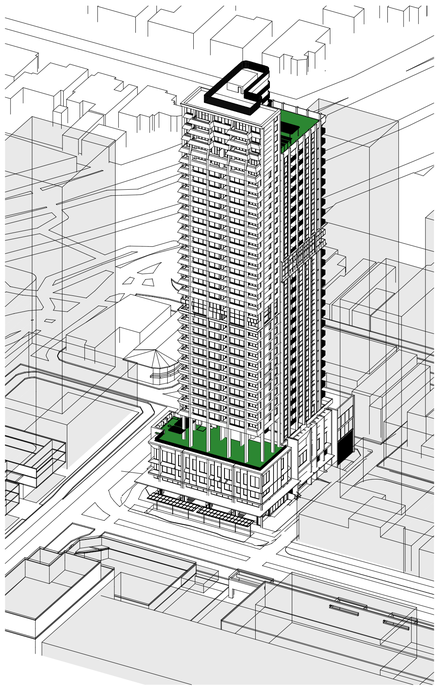
2
-
JUNE 21 - 10AM



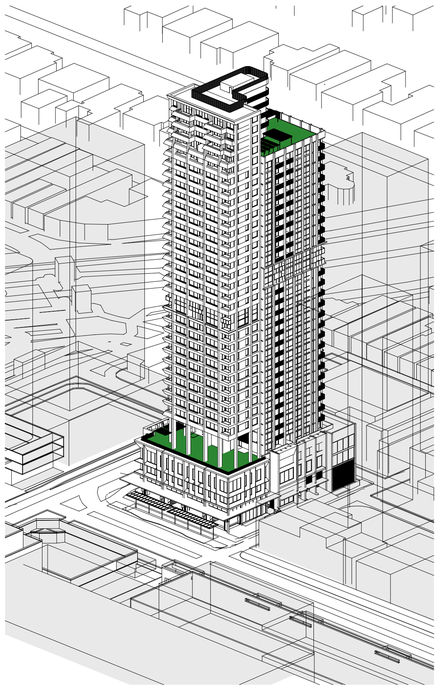
3
-
JUNE 21 - 11AM



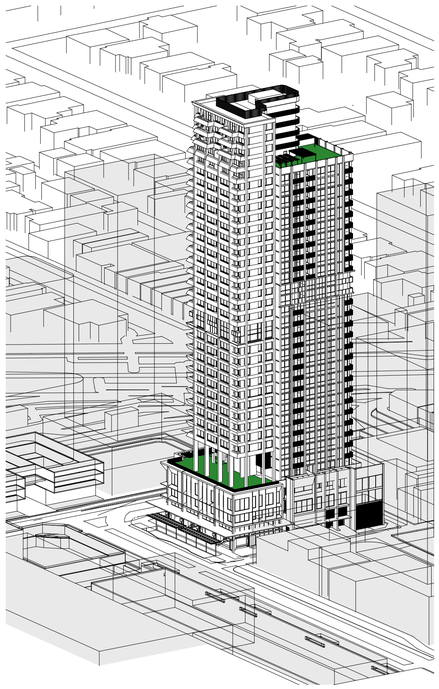
4
-
JUNE 21 - 12PM



5
-
JUNE 21 - 1PM



6
-
JUNE 21 - 2PM



7
-
JUNE 21 - 3PM

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.42 pm

© FUSE ARCHITECTS.

LEGEND

COS RECEIVING SUNLIGHT

POTENTIAL NEIGHBOUR BUILDING OUTLINE

EXISTING NEIGHBOUR BUILDING OUTLINE

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

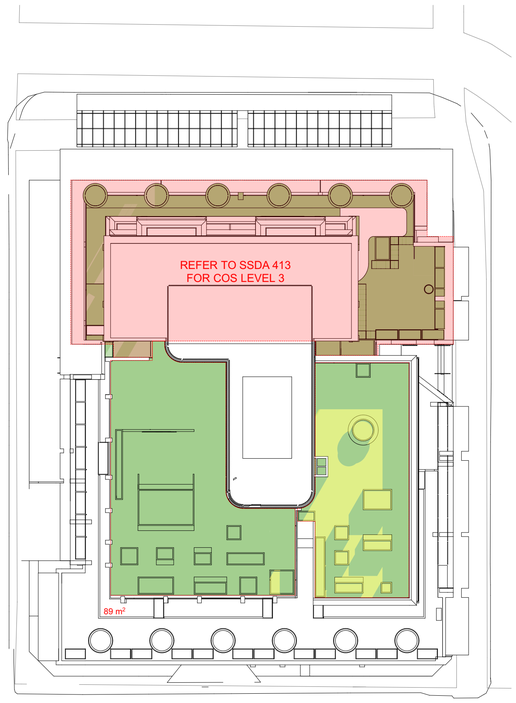
CHECKED	DRAWN
AA/JSN	KH

DATE	SCALE	
15/08/2024	@ A1	A3@50%

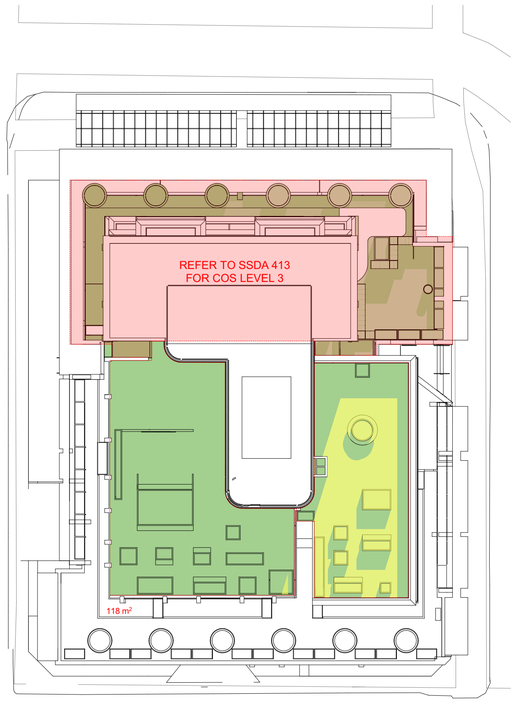
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
COS SUN EYE VIEW DIAGRAMS SHEET 01

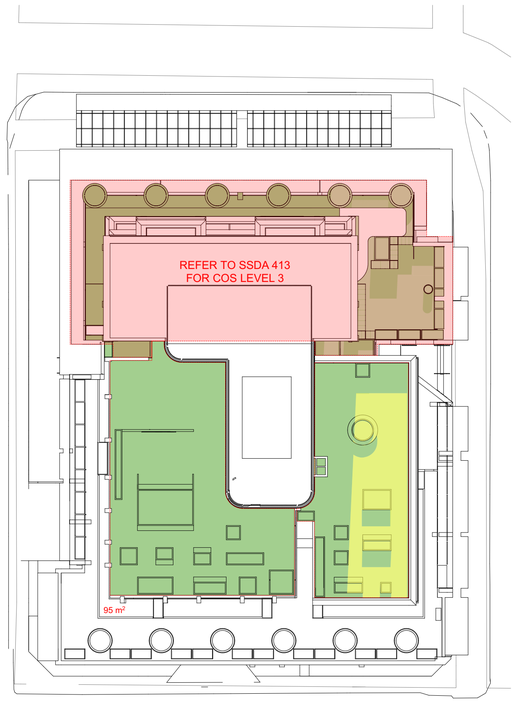
SHEET NO.	REVISION.
SSDA 403	A



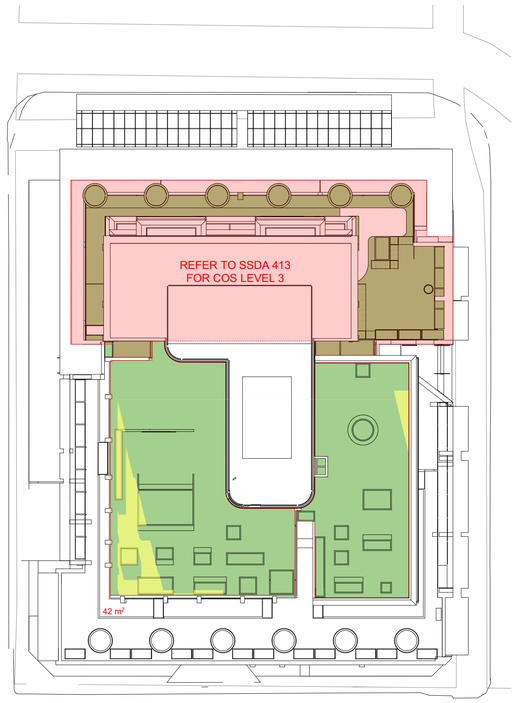
1 JUNE 21 - 9 AM



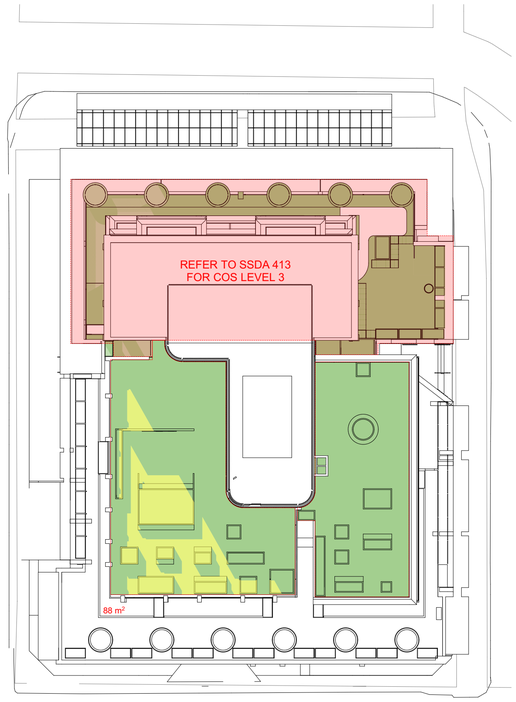
2 JUNE 21 - 10 AM



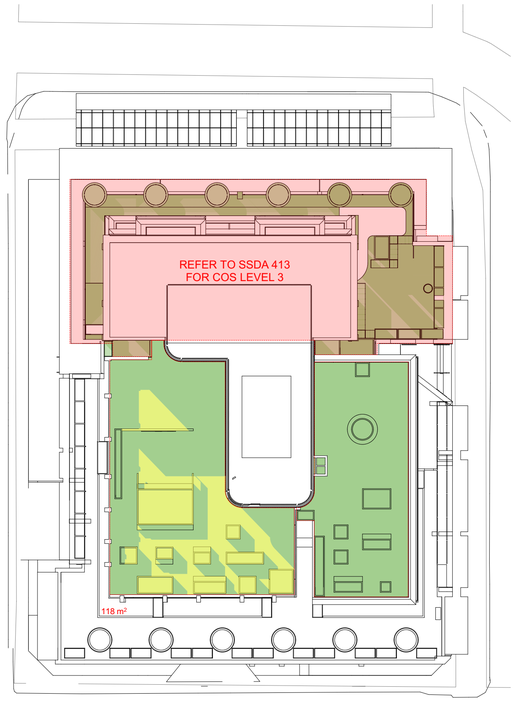
3 JUNE 21 - 11 AM



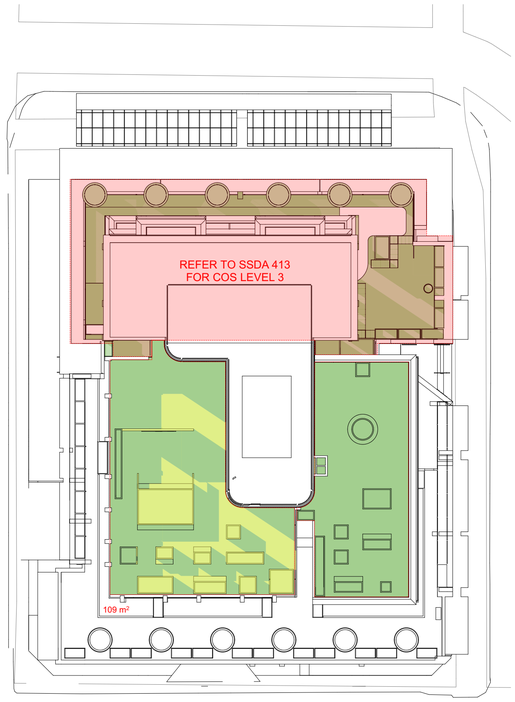
4 JUNE 21 - 12 PM



5 JUNE 21 - 1 PM



6 JUNE 21 - 2 PM



7 JUNE 21 - 3 PM

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:45 pm

© FUSE ARCHITECTS.

LEGEND

OUTLINE OF COMMUNAL OPEN SPACE

SHADOWS CASTED ON COMMUNAL OPEN SPACE

EXTENT OF COMMUNAL OPEN SPACE RECEIVING SUNLIGHT

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

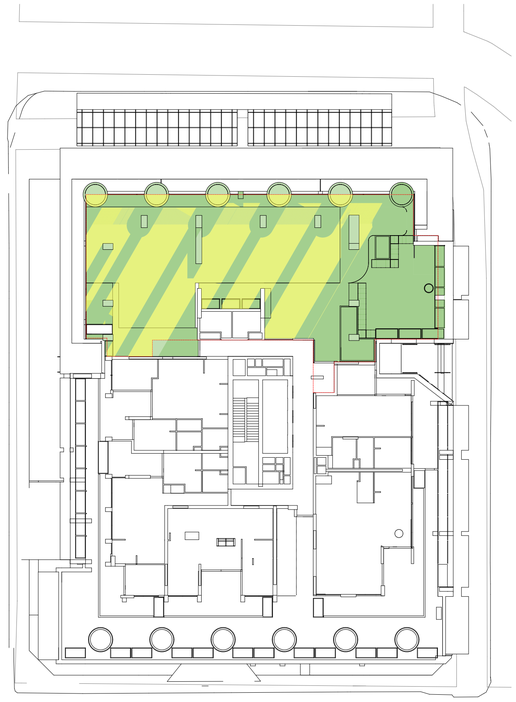
JOB NO
2421

CHECKED	DRAWN	
AA/JSN	KH	
DATE	SCALE	
15/08/2024	1:300 @ A1	A3@50%

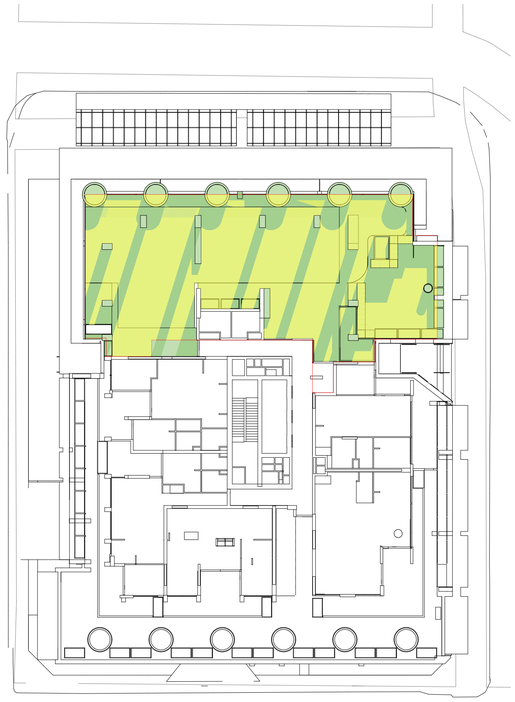
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
COS SHADOW DIAGRAMS SHEET 01

SHEET NO.	REVISION.
SSDA 404	A



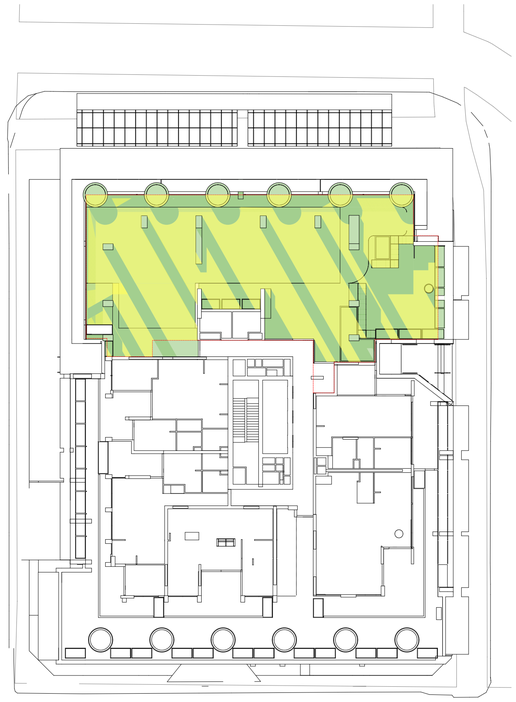
1 JUNE 21 - 9 AM (LEVEL 3)



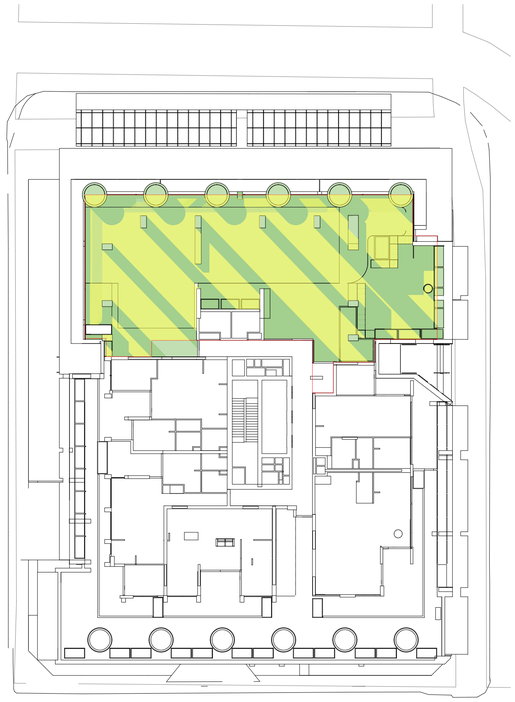
2 JUNE 21 - 10 AM (LEVEL 3)

3 JUNE 21 - 11 AM (LEVEL 3)

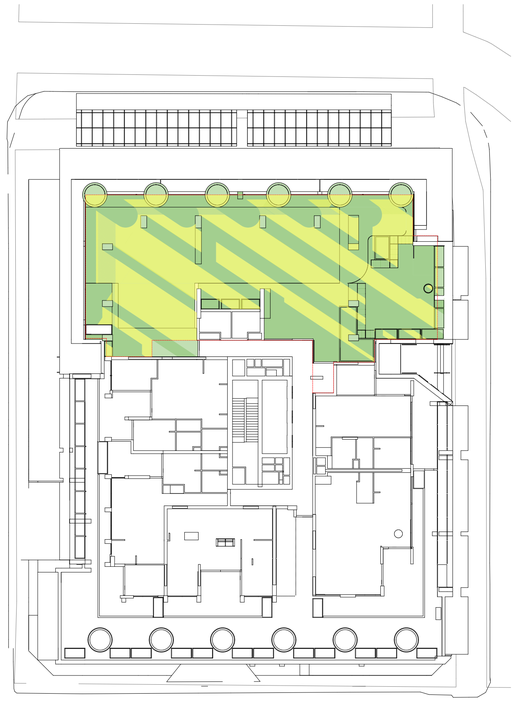
4 JUNE 21 - 12 PM (LEVEL 3)



5 JUNE 21 - 1 PM (LEVEL 3)



6 JUNE 21 - 2 PM (LEVEL 3)



7 JUNE 21 - 3 PM (LEVEL 3)

GENERAL NOTES
© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.
File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7:46 pm
© FUSE ARCHITECTS.

LEGEND

OUTLINE OF COMMUNAL OPEN SPACE

SHADOWS CASTED ON COMMUNAL OPEN SPACE

EXTENT OF COMMUNAL OPEN SPACE RECEIVING SUNLIGHT

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

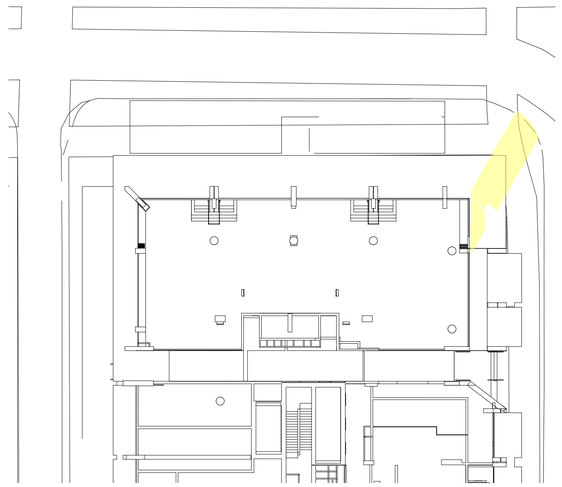
ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

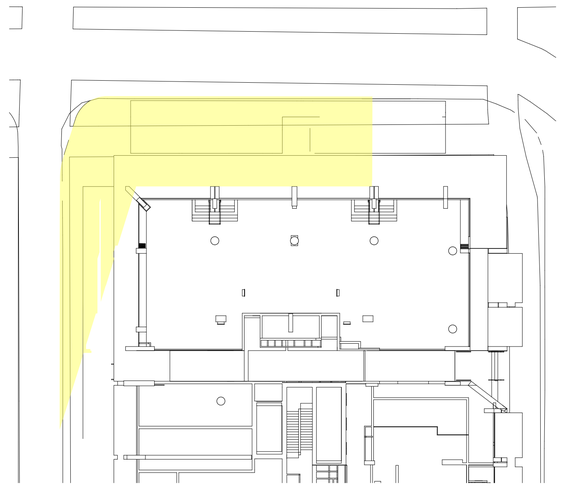
N

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN
DRAWN KH
DATE 15/08/2024
SCALE 1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
COS SHADOW DIAGRAMS SHEET 02

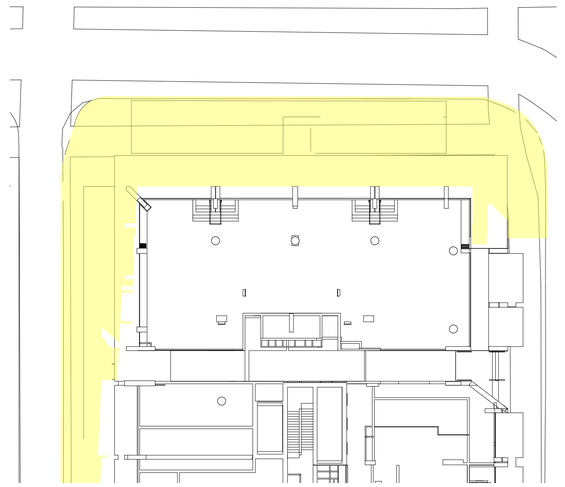
SHEET NO. SSDA 405
REVISION. A



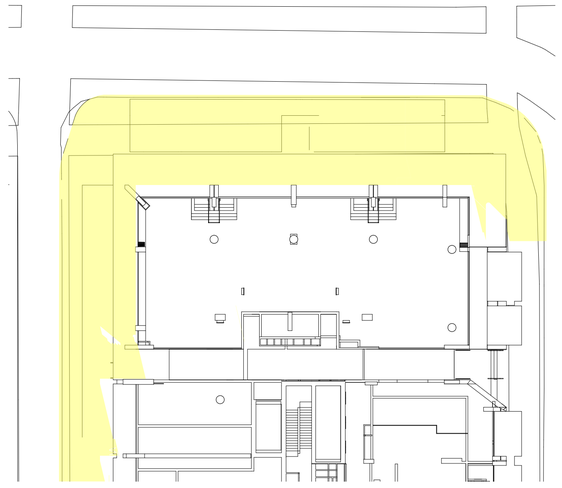
1 JUNE 21 - 9 AM (GROUND)



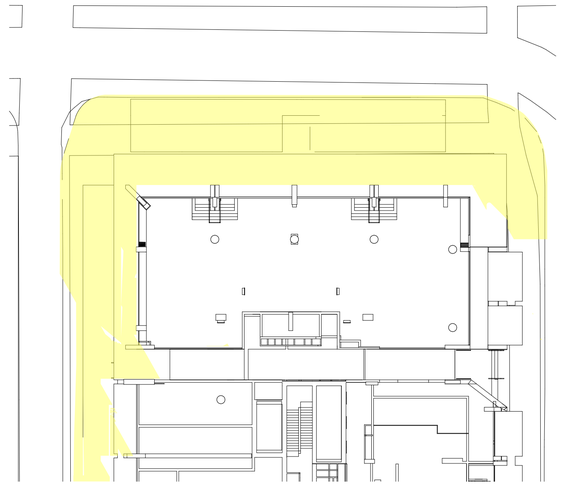
2 JUNE 21 - 10 AM (GROUND)



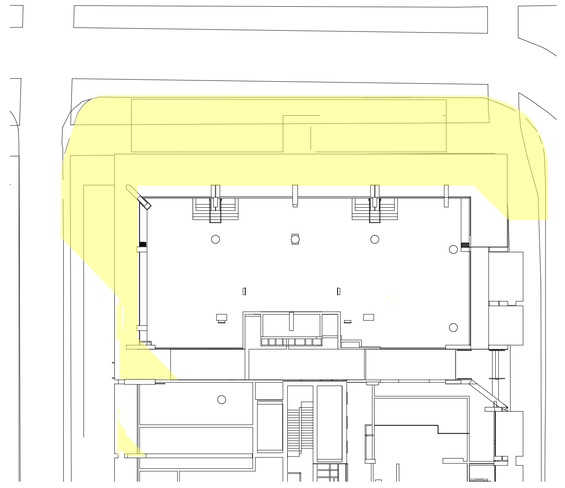
3 JUNE 21 - 11 AM (GROUND)



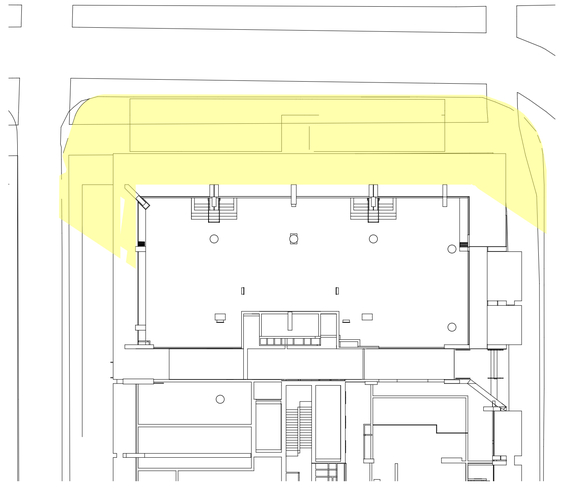
4 JUNE 21 - 12 PM (GROUND)



5 JUNE 21 - 1 PM (GROUND)



6 JUNE 21 - 2 PM (GROUND)



7 JUNE 21 - 3 PM GROUND

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.50 pm

© FUSE ARCHITECTS.

LEGEND

AREAS RECEIVING SUNLIGHT

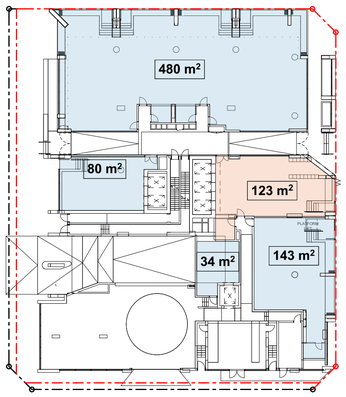
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	24/04/2025
P2	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

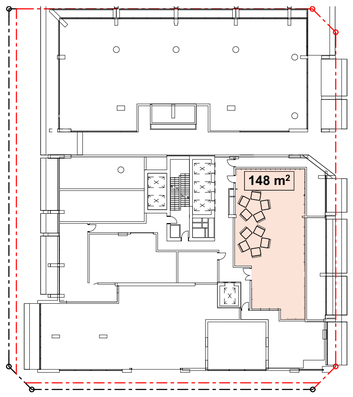
CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

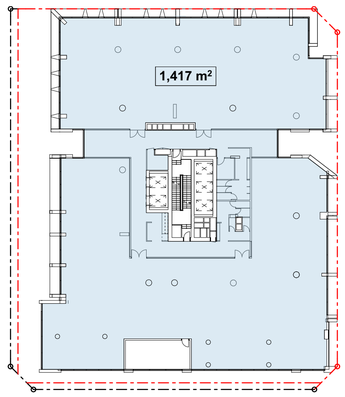
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED
AA/JSN
DRAWN
KH
DATE
15/08/2024
SCALE
1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
PUBLIC DOMAIN SHADOW DIAGRAMS SHEET 01
SHEET NO.
SSDA 406
REVISION.
A



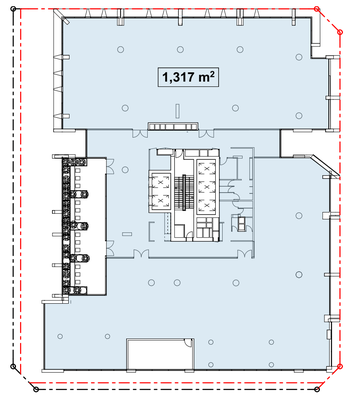
1 GFA - GROUND FLOOR



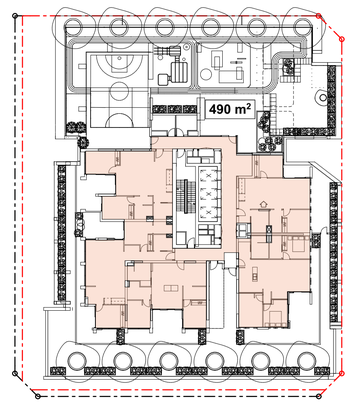
2 GFA - GROUND FLOOR - MEZZANINE



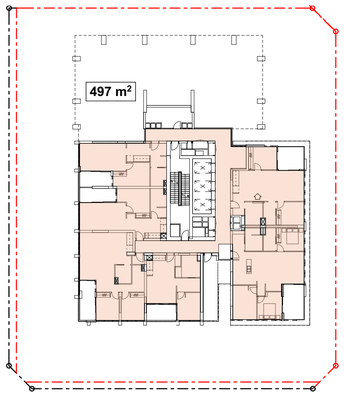
3 GFA - LEVEL 01



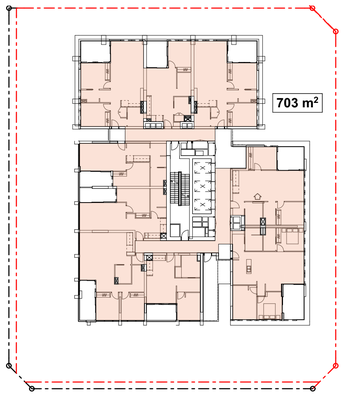
4 GFA - LEVEL 02



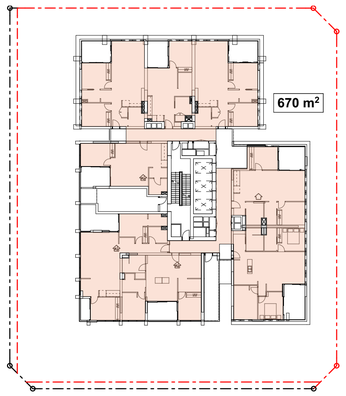
5 GFA - LEVEL 03



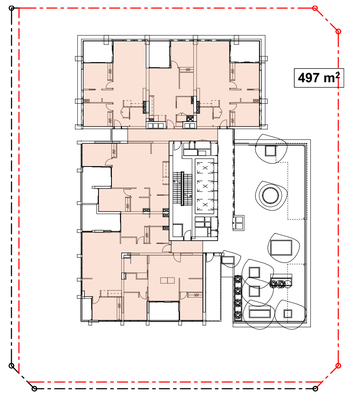
6 GFA - LEVEL 04-05



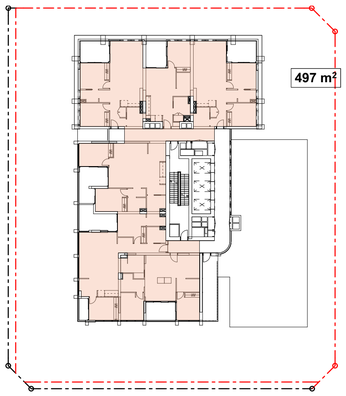
7 GFA - LEVEL 06 - 20



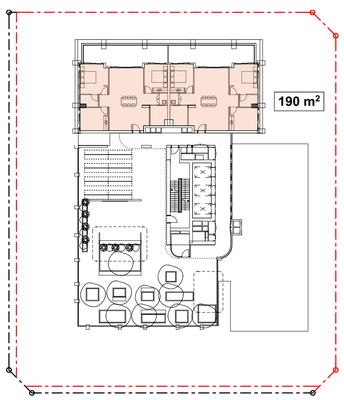
8 GFA - LEVEL 21- 28



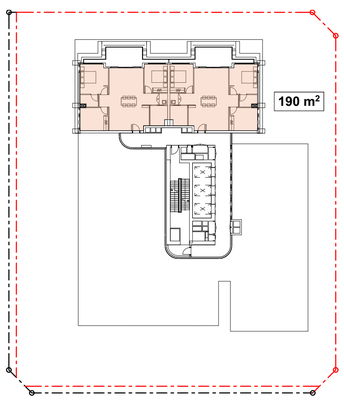
9 GFA - LEVEL 29



10 GFA - LEVEL 30



11 GFA - LEVEL 31



12 GFA - LEVEL 32-35

GENERAL NOTES

© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 7.55 pm

© FUSE ARCHITECTS.

SITE AREA: **2,106 m²**

GROSS FLOOR AREA
GROSS FLOOR AREA (**CUMBERLAND LEP 2021**): Sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

(a) the area of a mezzanine, and
(b) habitable rooms in a basement or an attic, and
(c) any shop, auditorium, cinema, and the like, in a basement or attic,
but excludes:
(d) any area for common vertical circulation, such as lifts and stairs, and
(e) any basement:
(i) storage, and
(ii) vehicular access, loading areas, garbage and services, and
(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
(g) car parking to meet any requirements of the consent authority (including access to that car parking), and
(h) any space used for the loading or unloading of goods (including access to it), and
(i) terraces and balconies with outer walls less than 1.4 metres high, and
(j) voids above a floor at the level of a storey or storey above.

RETAIL / COMMERCIAL GFA

RESIDENTIAL GFA

GFA	
LEVEL	**TOTAL m2**
GROUND	860
MEZZANINE	148
LEVEL 01	1,417
LEVEL 02	1,317
LEVEL 03	490
LEVEL 04	497
LEVEL 05	497
LEVEL 06	703
LEVEL 07	703
LEVEL 08	703
LEVEL 09	703
LEVEL 10	703
LEVEL 11	703
LEVEL 12	703
LEVEL 13	703
LEVEL 14	703
LEVEL 15	703
LEVEL 16	703
LEVEL 17	703
LEVEL 18	703
LEVEL 19	703
LEVEL 20	703
LEVEL 21	670
LEVEL 22	698
LEVEL 23	698
LEVEL 24	698
LEVEL 25	698
LEVEL 26	698
LEVEL 27	698
LEVEL 28	698
LEVEL 29	497
LEVEL 30	497
LEVEL 31	190
LEVEL 32	190
LEVEL 33	190
LEVEL 34	190
LEVEL 35	190
	23,271 m²

PERMITTED LEP
GFA 16,848 m²
FSR 8:1

PERMITTED SEPP
GFA 23,271.3 m²
FSR 11.05 : 1

PROPOSED
GFA 23,271 m²
FSR 11.05 :1

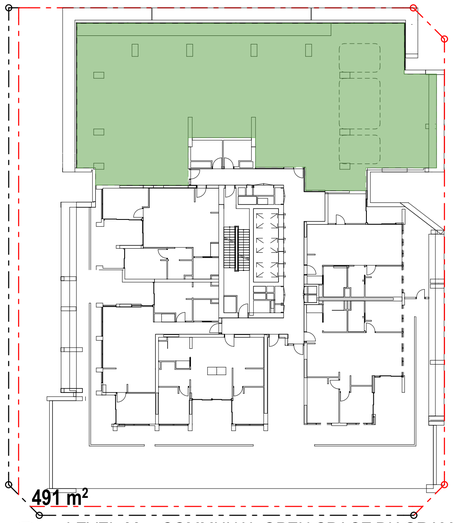
GFA MIX:
- RETAIL 623 m²
- COMMERCIAL 2,848 m²
- RESIDENTIAL 19,800 m²

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	26/03/2025
P2	FOR INFORMATION	22/04/2025
P3	FOR INFORMATION	24/04/2025
P4	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

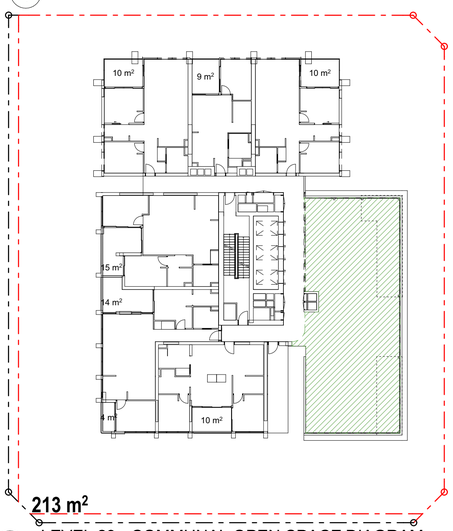
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

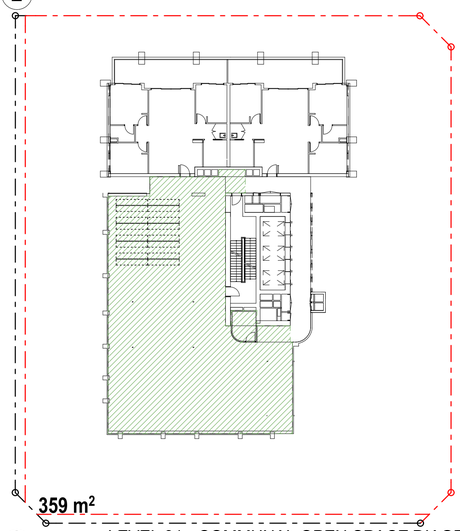
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN
DRAWN SL
DATE 15/08/2024
SCALE 1:400 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
GFA DIAGRAMS
SHEET NO. SSDA 501
REVISION. A



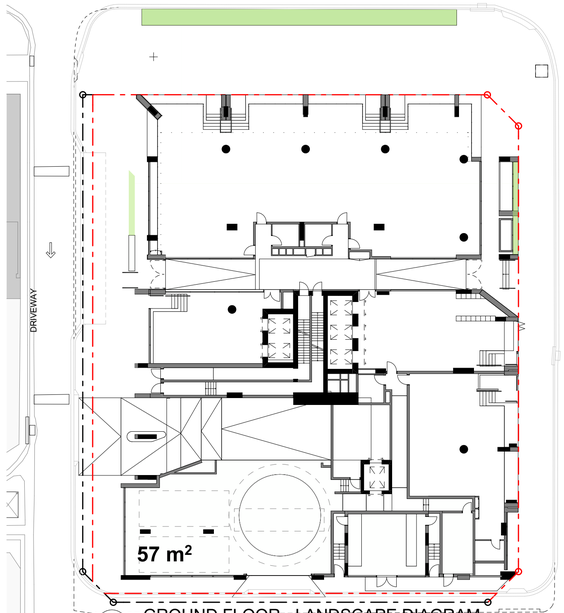
1 LEVEL 03 - COMMUNAL OPEN SPACE DIAGRAM



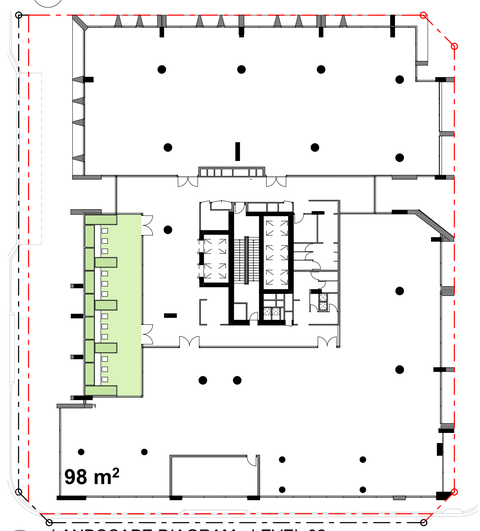
2 LEVEL 29 - COMMUNAL OPEN SPACE DIAGRAM



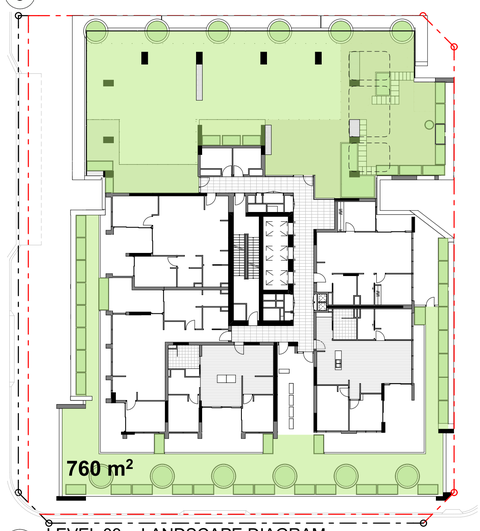
3 LEVEL 31 - COMMUNAL OPEN SPACE DIAGRAM



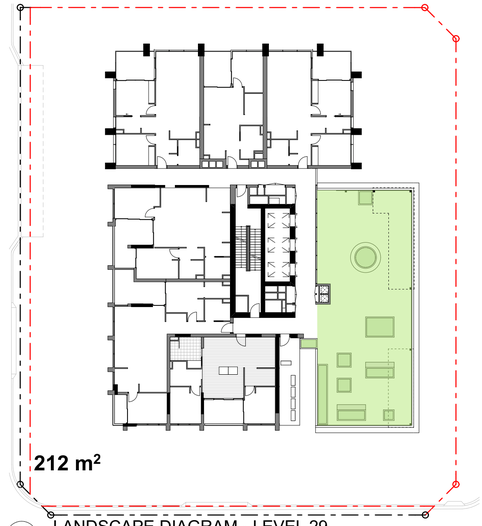
4 GROUND FLOOR - LANDSCAPE DIAGRAM



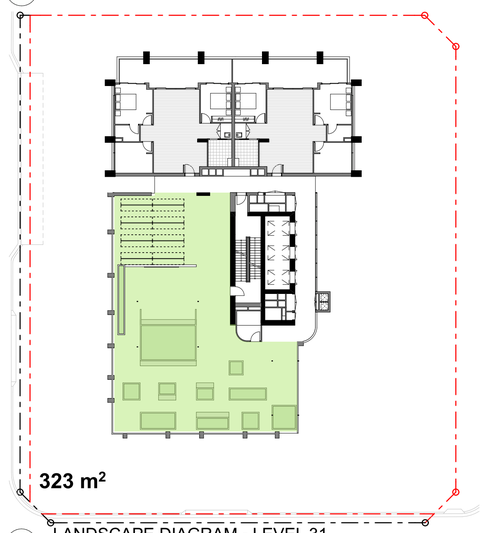
5 LANDSCAPE DIAGRAM - LEVEL 02



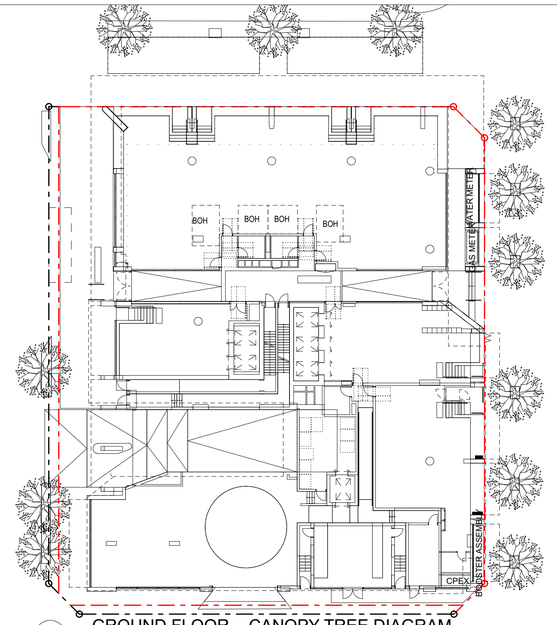
6 LEVEL 03 - LANDSCAPE DIAGRAM



7 LANDSCAPE DIAGRAM - LEVEL 29



8 LANDSCAPE DIAGRAM - LEVEL 31



9a GROUND FLOOR - CANOPY TREE DIAGRAM

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:00 pm

© FUSE ARCHITECTS.

SITE AREA: **2106 m²**

LANDSCAPE AREA
LANDSCAPE AREA **(SEPP (HOUSING) 2021):** means the part of the site area not occupied by a building and includes a part used or intended to be used for rainwater tank, swimming pool or open-air recreation facility, but does not included a part used or intended to be used for a driveway or parking area.

LANDSCAPE AREA

GROUND FLOOR	57m²
LEVEL 02	98m²
LEVEL 03	760m²
LEVEL 29	212m²
LEVEL 31	323m²
TOTAL	**1,450m²**
TOTAL %	69%
MIN. REQ.	30%
MIN. m²	631.8m²

COMMUNAL OPEN SPACE
COMMUNAL OPEN SPACE **(ADG)**: outdoor space located within the site at ground level or on a structure that is within common ownership and for the recreational use of residents of the development. Communal open space may be accessible to residents only or to the public.

COMMUNAL OPEN SPACE

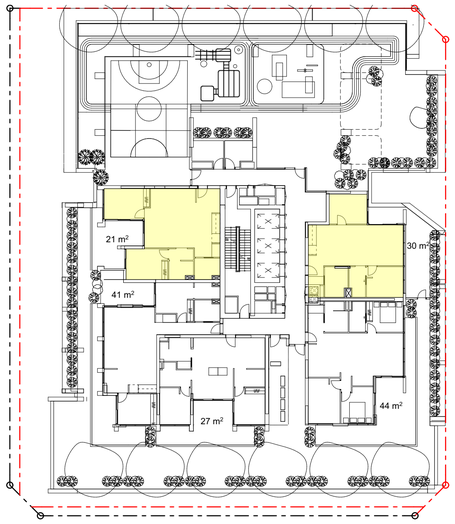
LEVEL 03	491m²
LEVEL 29	213m²
LEVEL 31	359m²
TOTAL	**1,063m²**
TOTAL %	50%
MIN. REQ.	25%
MIN. m²	526.5m²

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

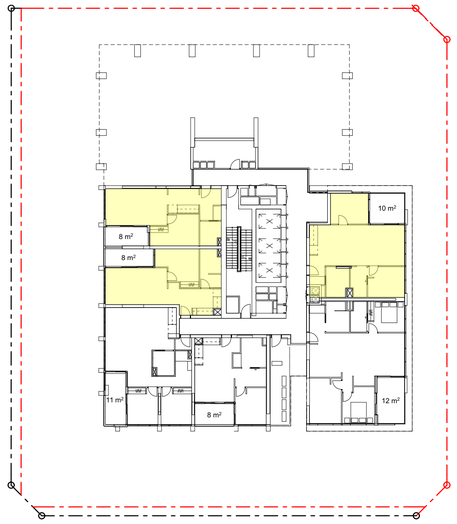
ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

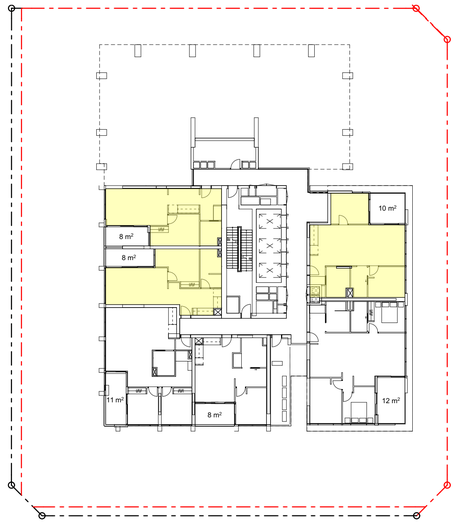
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN
DRAWN KH
DATE 15/08/2024
SCALE 1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
OPEN AREA DIAGRAMS
SHEET NO. SSDA 502
REVISION. A



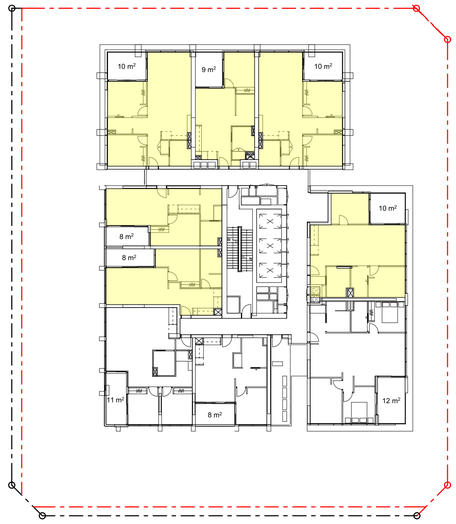
1 SOLAR ACCESS - LEVEL 03



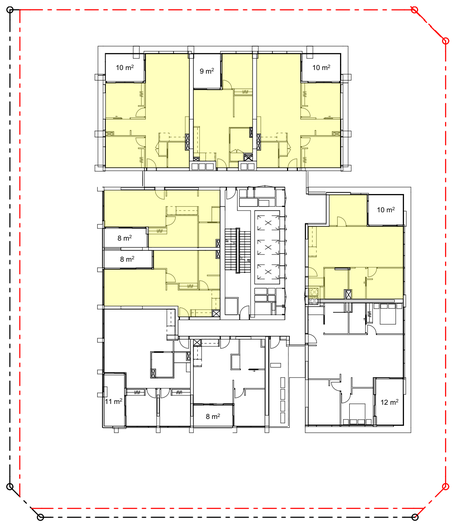
2 SOLAR ACCESS - LEVEL 04



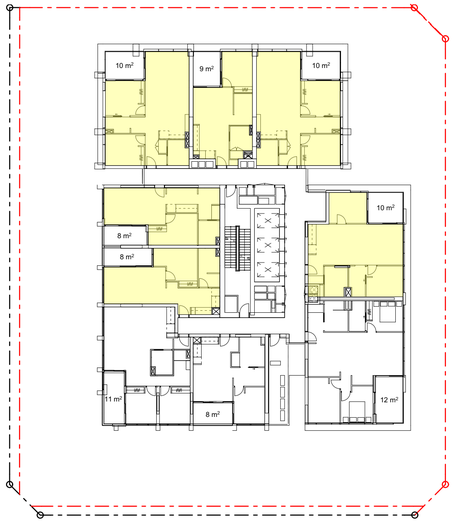
3 SOLAR ACCESS - LEVEL 05



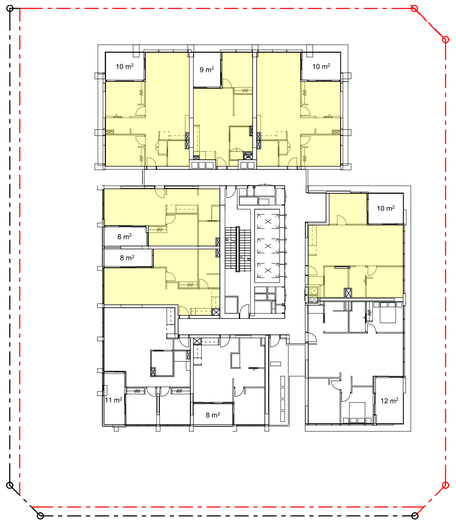
4 SOLAR ACCESS - LEVEL 06



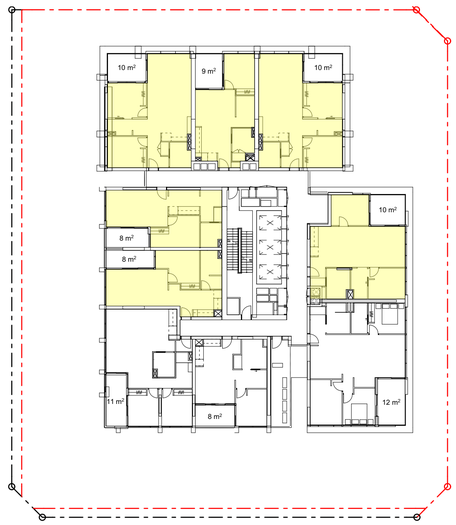
5 SOLAR ACCESS - LEVEL 07



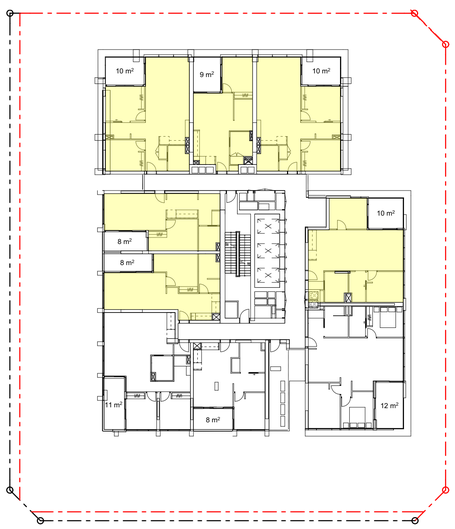
6 SOLAR ACCESS - LEVEL 08



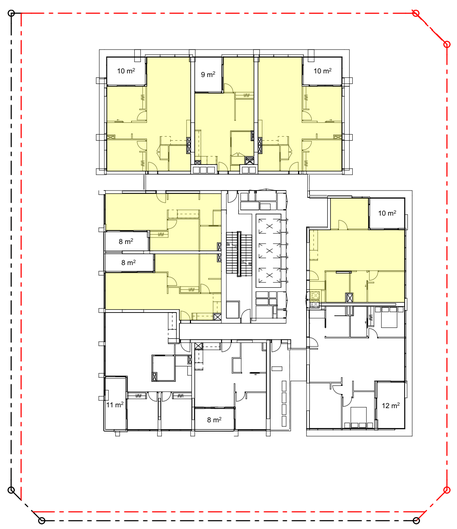
7 SOLAR ACCESS - LEVEL 09



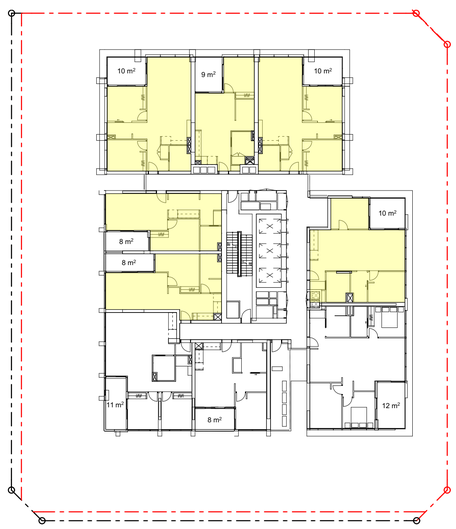
8 SOLAR ACCESS - LEVEL 10



9 SOLAR ACCESS - LEVEL 11



10 SOLAR ACCESS - LEVEL 12



11 SOLAR ACCESS - LEVEL 13

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:06 pm

© FUSE ARCHITECTS.

NO. OF UNITS **238**

SUNLIGHT ACCESS

APARTMENTS ACHIEVING SOLAR ACCESS BETWEEN 9AM AND 3PM ON JUNE 21

SUNLIGHT ACCESS	169
SUNLIGHT ACCESS %	71%
MINIMUM REQUIREMENT	70%
MINIMUM NUMBER OF UNITS	167

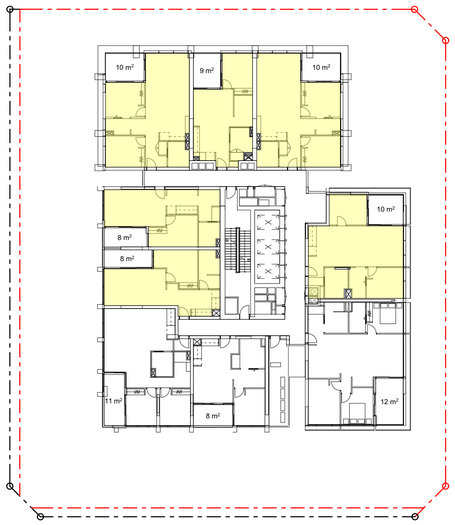
SOLAR ACCESS	
LEVEL	**SOLAR ACCESS**
LEVEL 03	2
LEVEL 04	3
LEVEL 05	3
LEVEL 06	6
LEVEL 07	6
LEVEL 08	6
LEVEL 09	6
LEVEL 10	6
LEVEL 11	6
LEVEL 12	6
LEVEL 13	6
LEVEL 14	6
LEVEL 15	6
LEVEL 16	6
LEVEL 17	6
LEVEL 18	6
LEVEL 19	7
LEVEL 20	7
LEVEL 21	6
LEVEL 22	6
LEVEL 23	6
LEVEL 24	6
LEVEL 25	6
LEVEL 26	6
LEVEL 27	6
LEVEL 28	6
LEVEL 29	5
LEVEL 30	5
LEVEL 31	2
LEVEL 32	2
LEVEL 33	2
LEVEL 34	2
LEVEL 35	2
	168

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

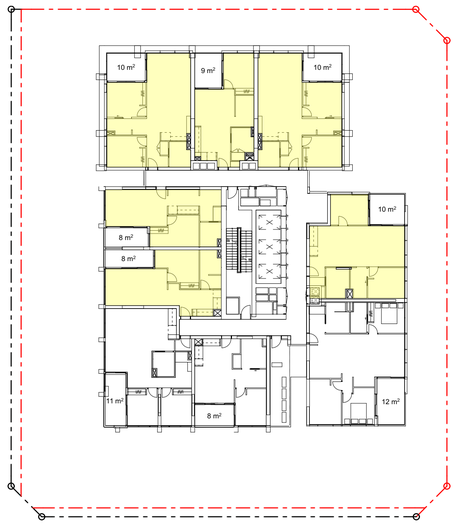
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

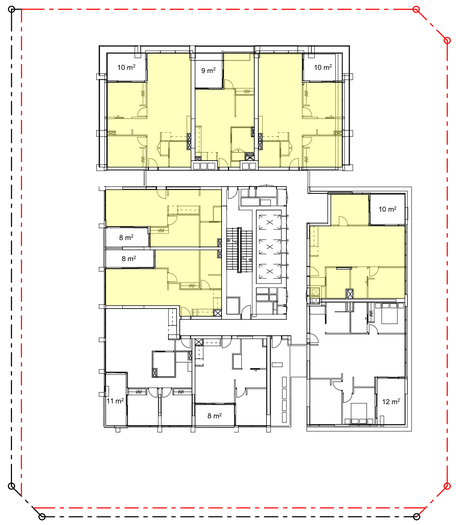
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN
DRAWN KH
DATE 15/08/2024
SCALE 1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SOLAR ACCESS DIAGRAMS 01
SHEET NO. SSDA 503
REVISION. A



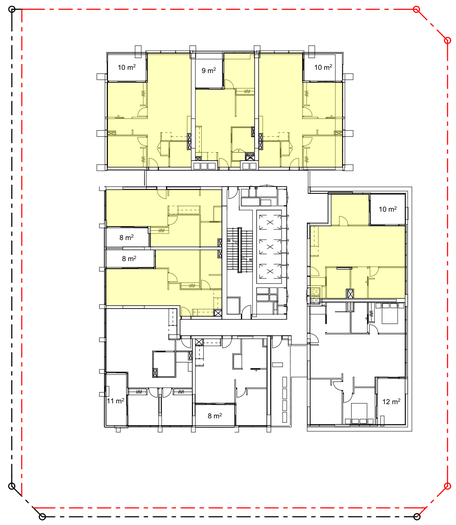
1 SOLAR ACCESS - LEVEL 14



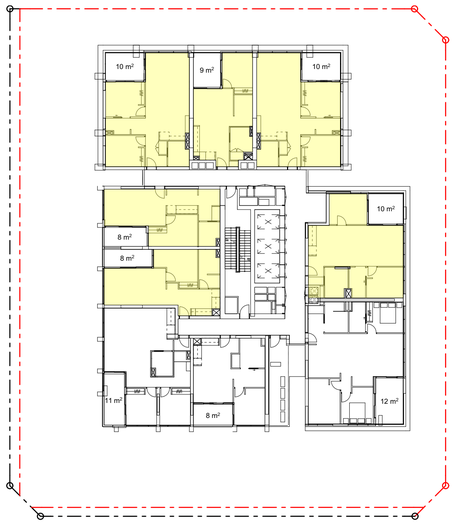
2 SOLAR ACCESS - LEVEL 15



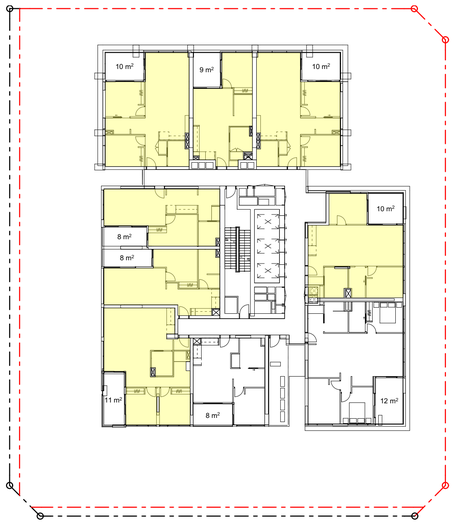
3 SOLAR ACCESS - LEVEL 16



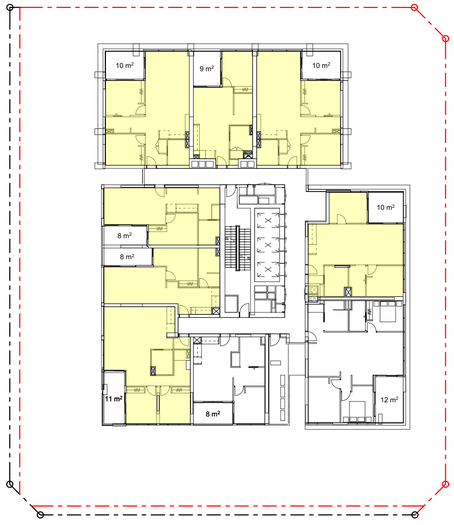
4 SOLAR ACCESS - LEVEL 17



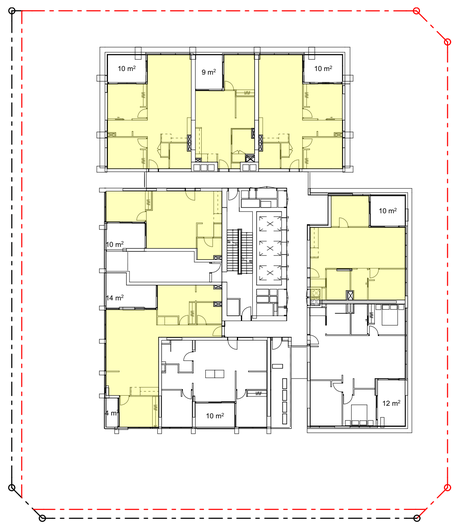
5 SOLAR ACCESS - LEVEL 18



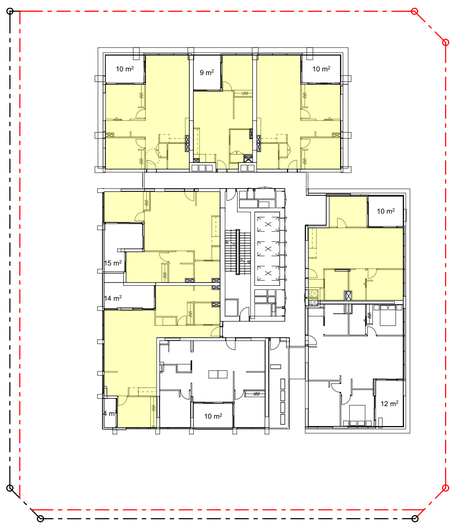
6 SOLAR ACCESS - LEVEL 19



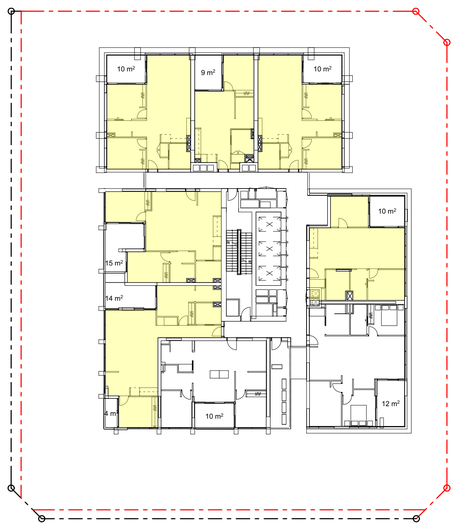
7 SOLAR ACCESS - LEVEL 20



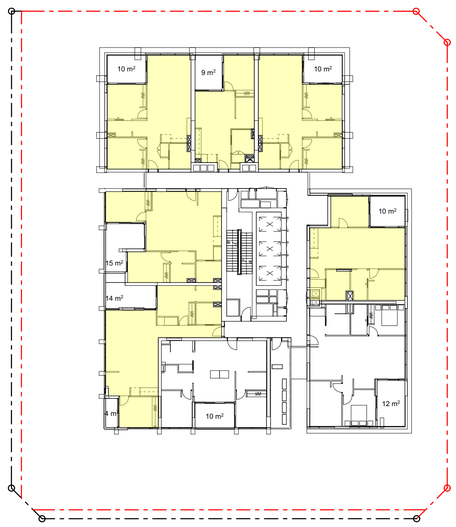
8 SOLAR ACCESS - LEVEL 21



9 SOLAR ACCESS - LEVEL 22



10 SOLAR ACCESS - LEVEL 23



11 SOLAR ACCESS - LEVEL 24

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:10 pm

© FUSE ARCHITECTS.

SUNLIGHT ACCESS

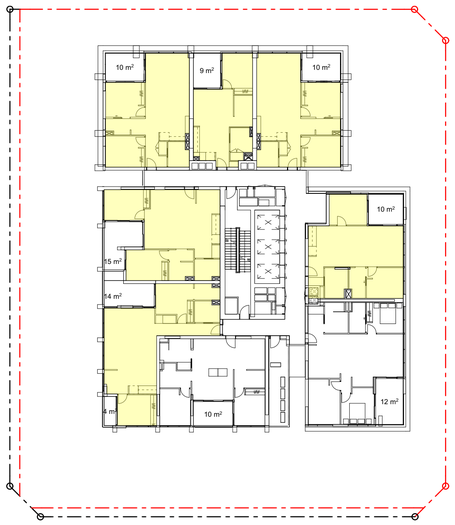
APARTMENTS ACHIEVING SOLAR ACCESS BETWEEN 9AM AND 3PM ON JUNE 21

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

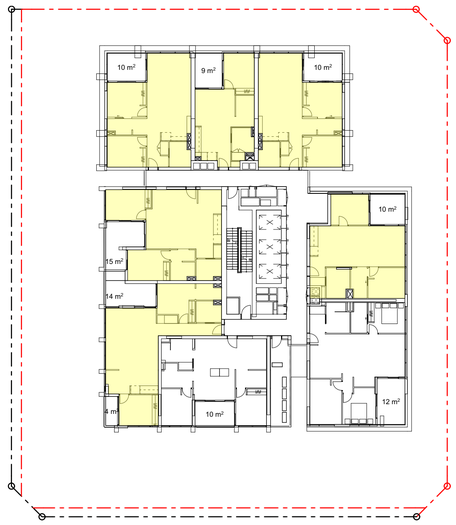
CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED: AA/JSN
DRAWN: KH
DATE: 15/08/2024
SCALE: 1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SOLAR ACCESS DIAGRAMS 02
SHEET NO.: SSDA 504
REVISION.: A

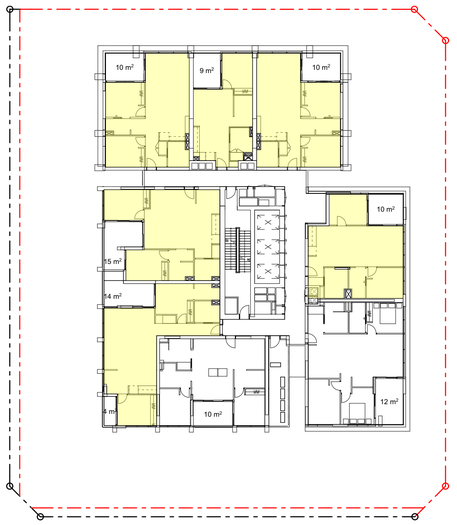


1 SOLAR ACCESS - LEVEL 25

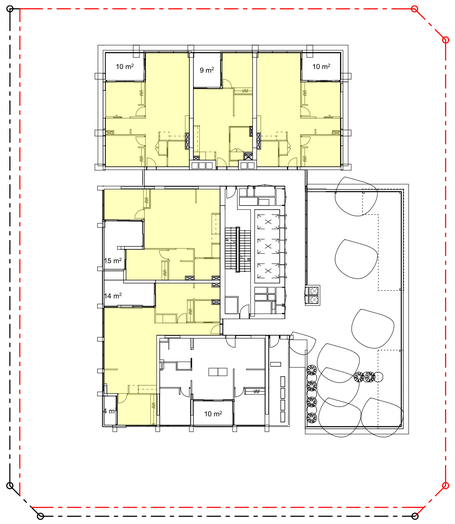
2 SOLAR ACCESS - LEVEL 26



3 SOLAR ACCESS - LEVEL 27

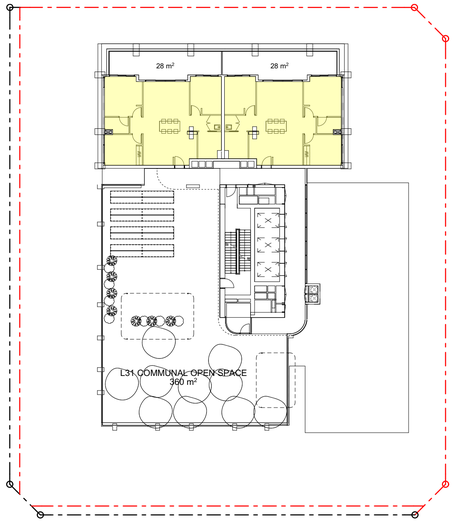


4 SOLAR ACCESS - LEVEL 28

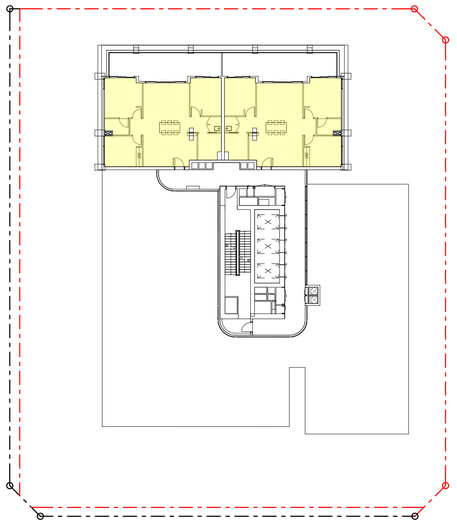


5 SOLAR ACCESS - LEVEL 29

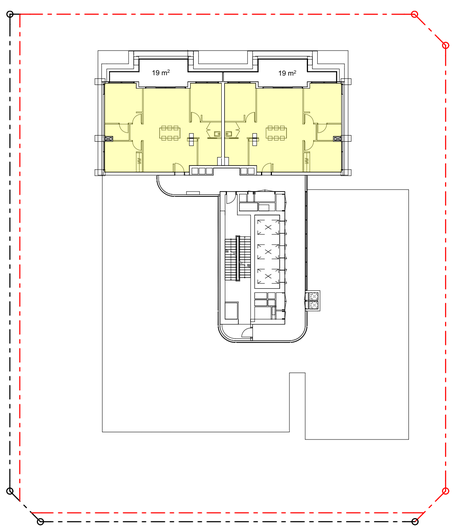
6 SOLAR ACCESS - LEVEL 30



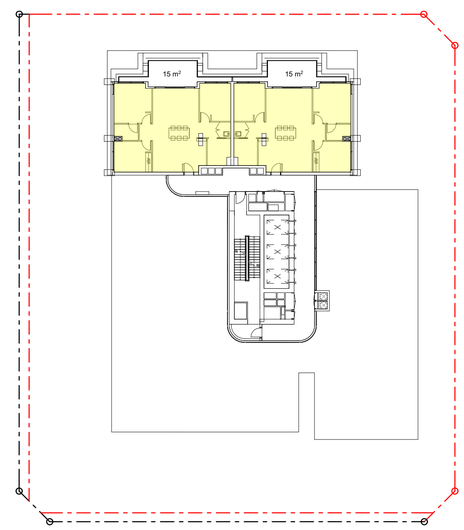
7 SOLAR ACCESS - LEVEL 31



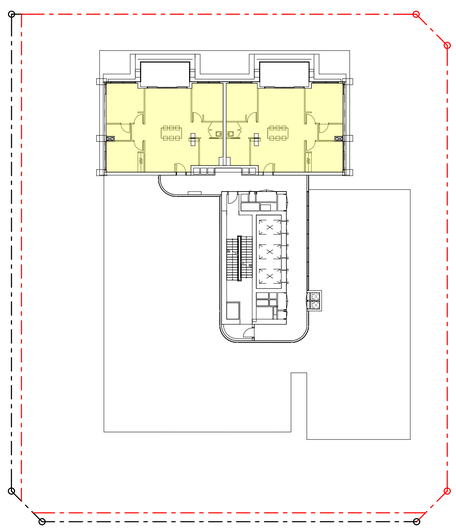
8 SOLAR ACCESS - LEVEL 32



9 SOLAR ACCESS - LEVEL 33



10 SOLAR ACCESS - LEVEL 34



11 SOLAR ACCESS - LEVEL 35

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:13 pm

© FUSE ARCHITECTS.

SUNLIGHT ACCESS

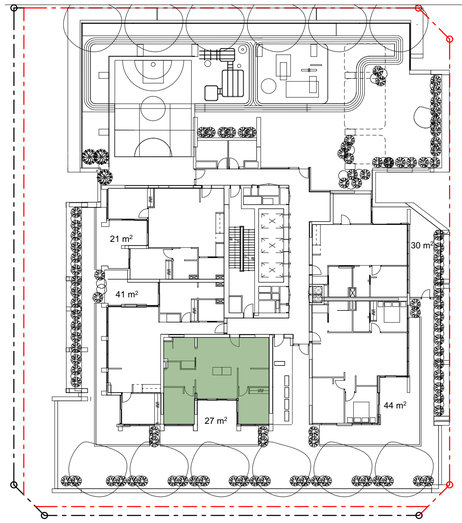
APARTMENTS ACHIEVING SOLAR ACCESS BETWEEN 9AM AND 3PM ON JUNE 21

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

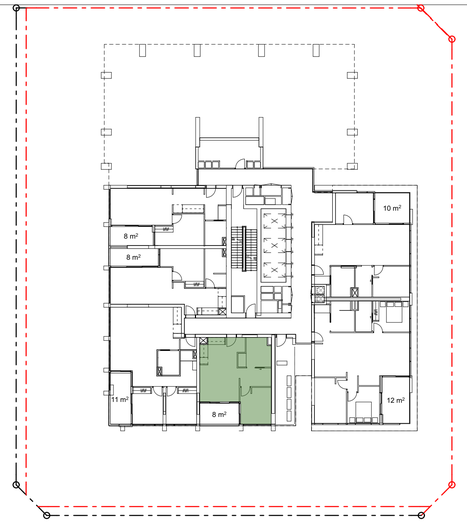
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 043
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

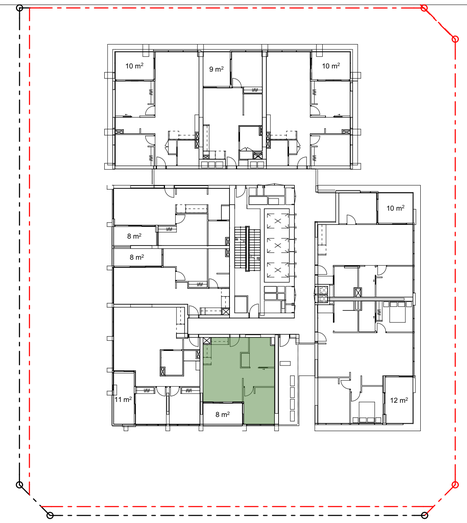
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED: AA/JSN
DRAWN: KH
DATE: 15/08/2024
SCALE: 1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
SOLAR ACCESS DIAGRAMS 03
SHEET NO.: SSDA 505
REVISION.: A



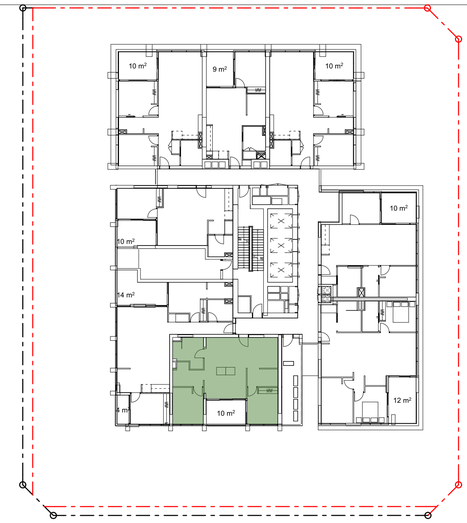
1 NO DIRECT SUNLIGHT - LEVEL 03



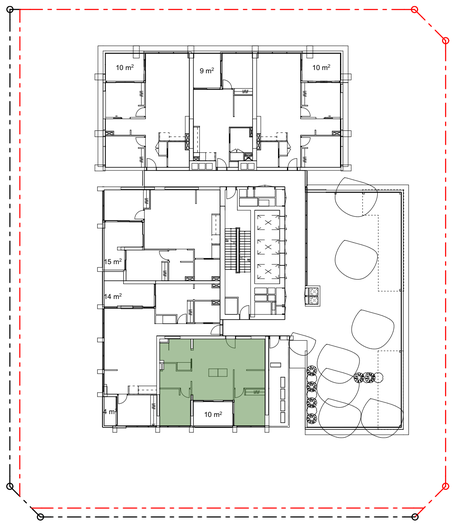
2 NO DIRECT SUNLIGHT - LEVEL 04-05



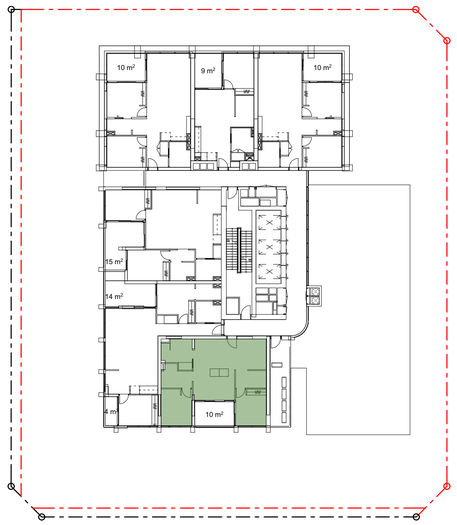
3 NO DIRECT SUNLIGHT - TYPICAL LEVEL 06 - 20



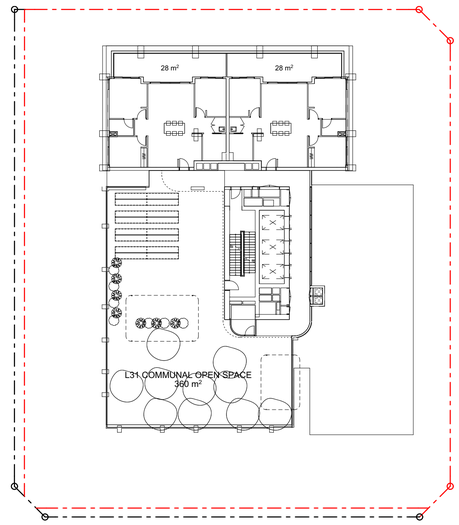
4 NO DIRECT SUNLIGHT - LEVEL 21-28



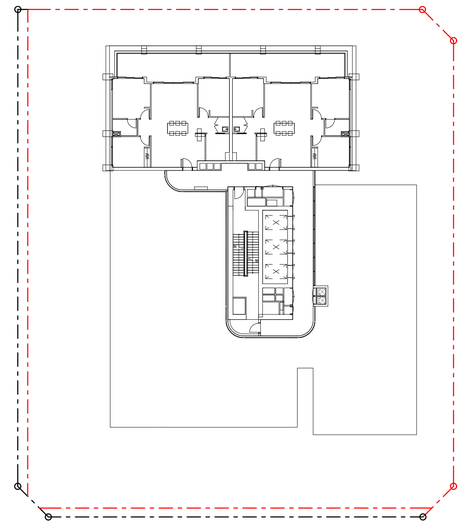
5 NO DIRECT SUNLIGHT - LEVEL 29



6 NO DIRECT SUNLIGHT - LEVEL 30



7 NO DIRECT SUNLIGHT - LEVEL 31



8 NO DIRECT SUNLIGHT - LEVEL 32-35

GENERAL NOTES

© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:16 pm

© FUSE ARCHITECTS.

NO. OF UNITS **238**

SOUTH FACING UNITS **28 (12%)**

APARTMENTS THAT DO NOT RECEIVE DIRECT SUNLIGHT

NO DIRECT SUNLIGHT	
LEVEL	**NO DIRECT SUNLIGHT**
LEVEL 03	1
LEVEL 04	1
LEVEL 05	1
LEVEL 06	1
LEVEL 07	1
LEVEL 08	1
LEVEL 09	1
LEVEL 10	1
LEVEL 11	1
LEVEL 12	1
LEVEL 13	1
LEVEL 14	1
LEVEL 15	1
LEVEL 16	1
LEVEL 17	1
LEVEL 18	1
LEVEL 19	1
LEVEL 20	1
LEVEL 21	1
LEVEL 22	1
LEVEL 23	1
LEVEL 24	1
LEVEL 25	1
LEVEL 26	1
LEVEL 27	1
LEVEL 28	1
LEVEL 29	1
LEVEL 30	1
	28

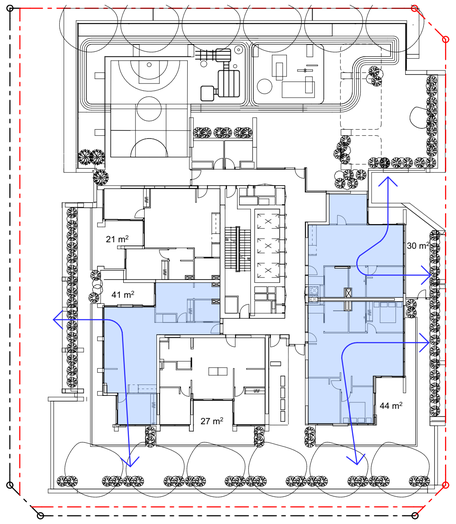
SOUTH FACING	28
SOUTH FACING %	**12%**
MAXIMUM PERMITTED	15%
MAXIMUM PERMITTED	35

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

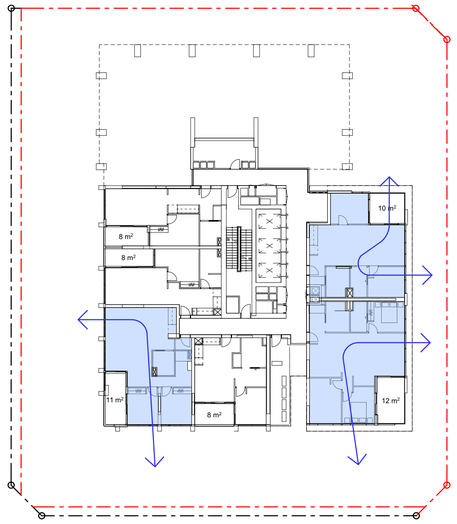
ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

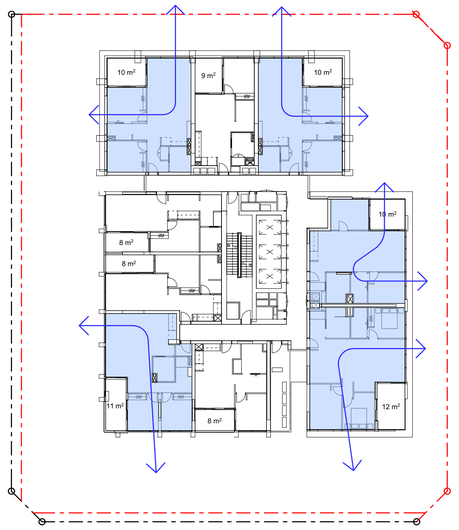
PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN
DRAWN KH
DATE 15/08/2024
SCALE 1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
NO DIRECT SUNLIGHT DIAGRAMS
SHEET NO. SSDA 506
REVISION. A



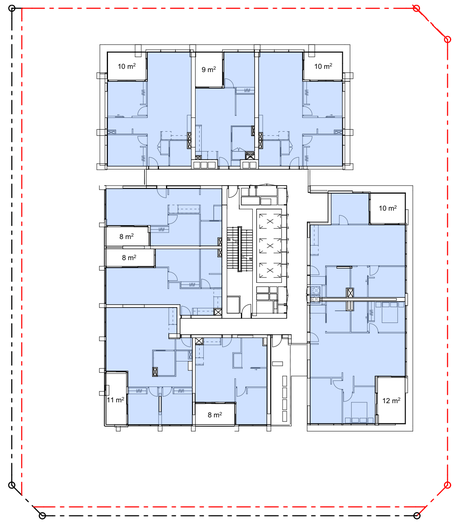
1 VENTILATION - LEVEL 03



2 VENTILATION - LEVEL 04-5



3 VENTILATION - LEVEL 06 - 08



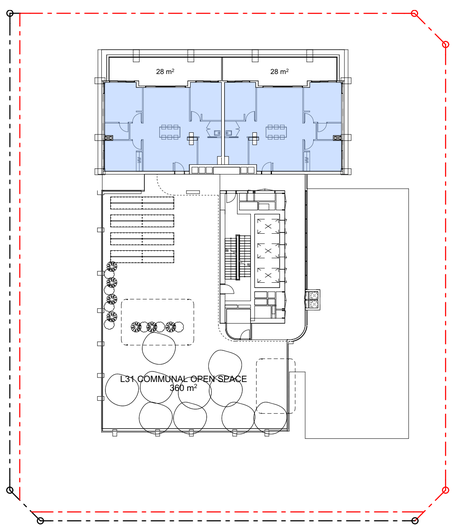
4 VENTILATION - LEVEL 09 -20

5 VENTILATION - LEVEL 21

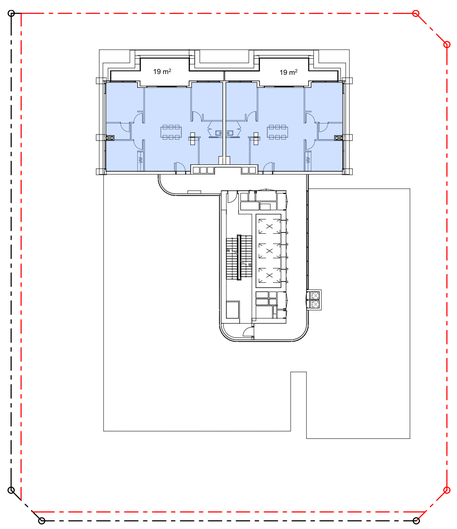
6 VENTILATION - LEVEL 22-28

7 VENTILATION - LEVEL 29

8 VENTILATION - LEVEL 30



9 VENTILATION - LEVEL 31



10 VENTILATION - LEVEL 32-35

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:20 pm

© FUSE ARCHITECTS.

NO. OF UNITS WITHIN FIRST 9 STOREYS **39**

TOTAL NO. OF UNITS **238**

NATURAL VENTILATION

APARTMENTS ACHIEVING NATURAL CROSS VENTILATION

NATURAL VENTILATION WITHIN FIRST 9 STOREYS 24
NATURAL VENTILATION % **61%**

MINIMUM REQUIREMENT 60%
MINIMUM APARTMENTS REQUIRED 24

NATURAL VENTILATION	
LEVEL	NATURAL VENTILATION
LEVEL 03	3
LEVEL 04	3
LEVEL 05	3
LEVEL 06	5
LEVEL 07	5
LEVEL 08	5
	24

NATURAL VENTILATION ALL STOREYS 218
NATURAL VENTILATION % **92%**

NATURAL VENTILATION	
LEVEL	NATURAL VENTILATION
LEVEL 03	3
LEVEL 04	3
LEVEL 05	3
LEVEL 06	5
LEVEL 07	5
LEVEL 08	5
LEVEL 09	9
LEVEL 10	9
LEVEL 11	9
LEVEL 12	9
LEVEL 13	9
LEVEL 14	9
LEVEL 15	9
LEVEL 16	9
LEVEL 17	9
LEVEL 18	9
LEVEL 19	9
LEVEL 20	9
LEVEL 21	8
LEVEL 22	8
LEVEL 23	8
LEVEL 24	8
LEVEL 25	8
LEVEL 26	8
LEVEL 27	8
LEVEL 28	8
LEVEL 29	6
LEVEL 30	6
LEVEL 31	2
LEVEL 32	2
LEVEL 33	2
LEVEL 34	2
LEVEL 35	2
	218

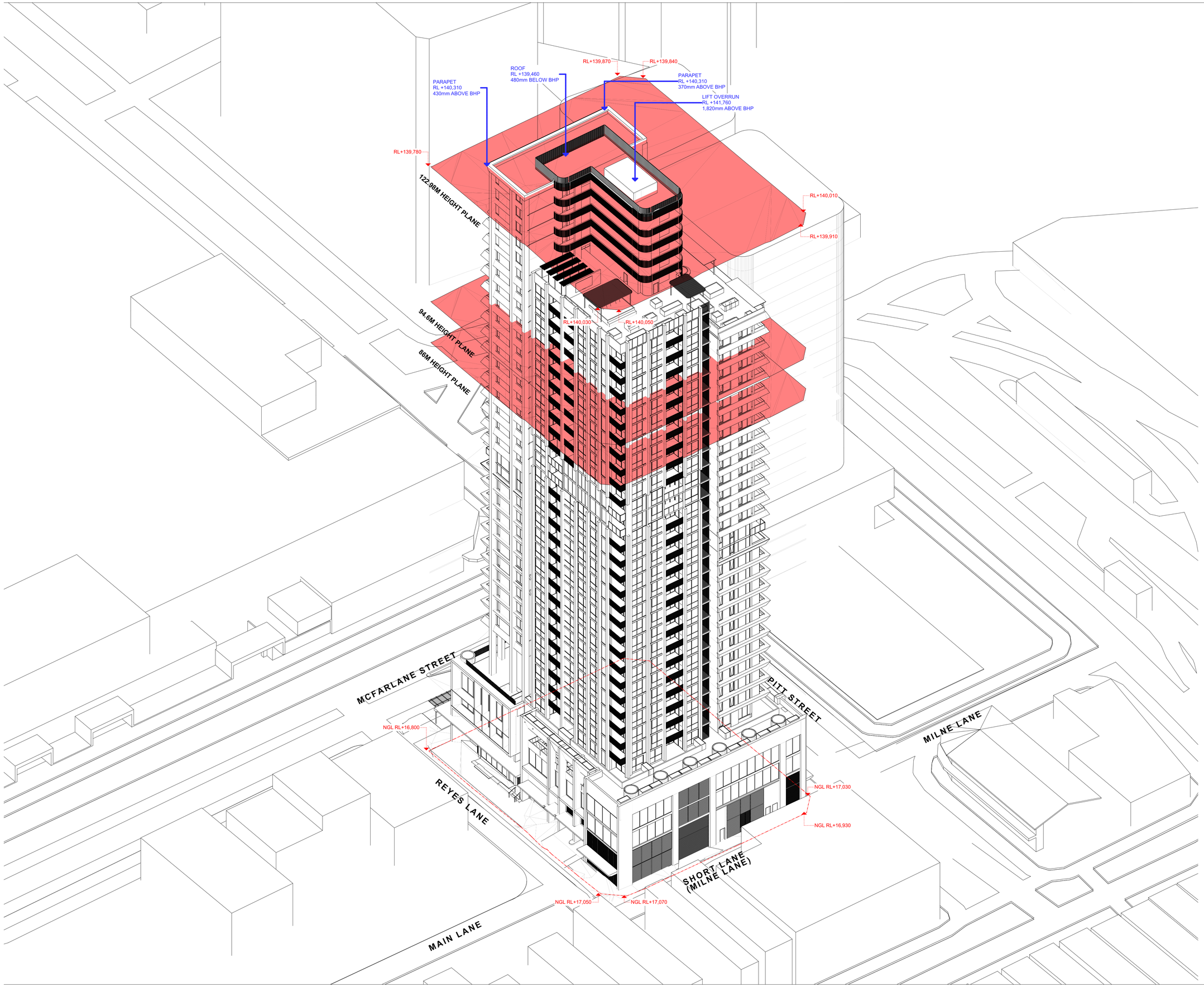
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN
DRAWN KH
DATE 15/08/2024
SCALE 1:300 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
NATURAL CROSS VENTILATION DIAGRAMS

SHEET NO. SSDA 507
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.24 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED	DRAWN
AA/JSN	KH

DATE	SCALE	
15/08/2024	@ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
LEP HEIGHT PLANE DIAGRAM

SHEET NO.	REVISION.
SSDA 508	A

MCFARLANE STREET

6,000
CL OF EXISTING
LANEWAY SETBACK

4,000
SETBACK

PAVED FOOTPATH

CENTERLINE OF LANEWAY

APPROVED BUILDING OUTLINE

SB 39.625

SB 4.31

4,000
SETBACK

EXISTING SITE BOUNDARY

PROPOSED SITE BOUNDARY

2013 MCFARLANE STREET
TWO STOREY BUILDING

9,000
9,375
3,030
9,375
6,650
3,030
8,195
9,000
8,195

10,060
12,530
10,060
10,080

DRIVEWAY

REYES LANE

SB 39.625

EXISTING
PARKING
AREA

PLATFORM
LIFT

SB 43.635

10,070
12,530
10,070
10,080

6,000

PITT STREET

MAIN LANE

EXISTING
PARKING
AREA

SB 4.31

SB 4.44

SB 36.68

PROPOSED SITE BOUNDARY
EXISTING SITE BOUNDARY

5,655
5,655

9,000
CL OF EXISTING
LANEWAY SETBACK

SHORT LANE (MILNE
LANE)

CENTERLINE OF LANEWAY

MILNE

2,920

EXTENT OF FUTURE
BUILDING

EXISTING
PARKING
AREA

6,000
8,000

215 PITT STREET
TWO STOREY BUILDING

161 MARYLANDS STREET
TWO STOREY BUILDING

GENERAL NOTES

© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:26 pm

© FUSE ARCHITECTS.

LEGEND

DISTANCE FROM PROPOSED NEIGHBOURS

DISTANCE FROM EXISTING NEIGHBOURS

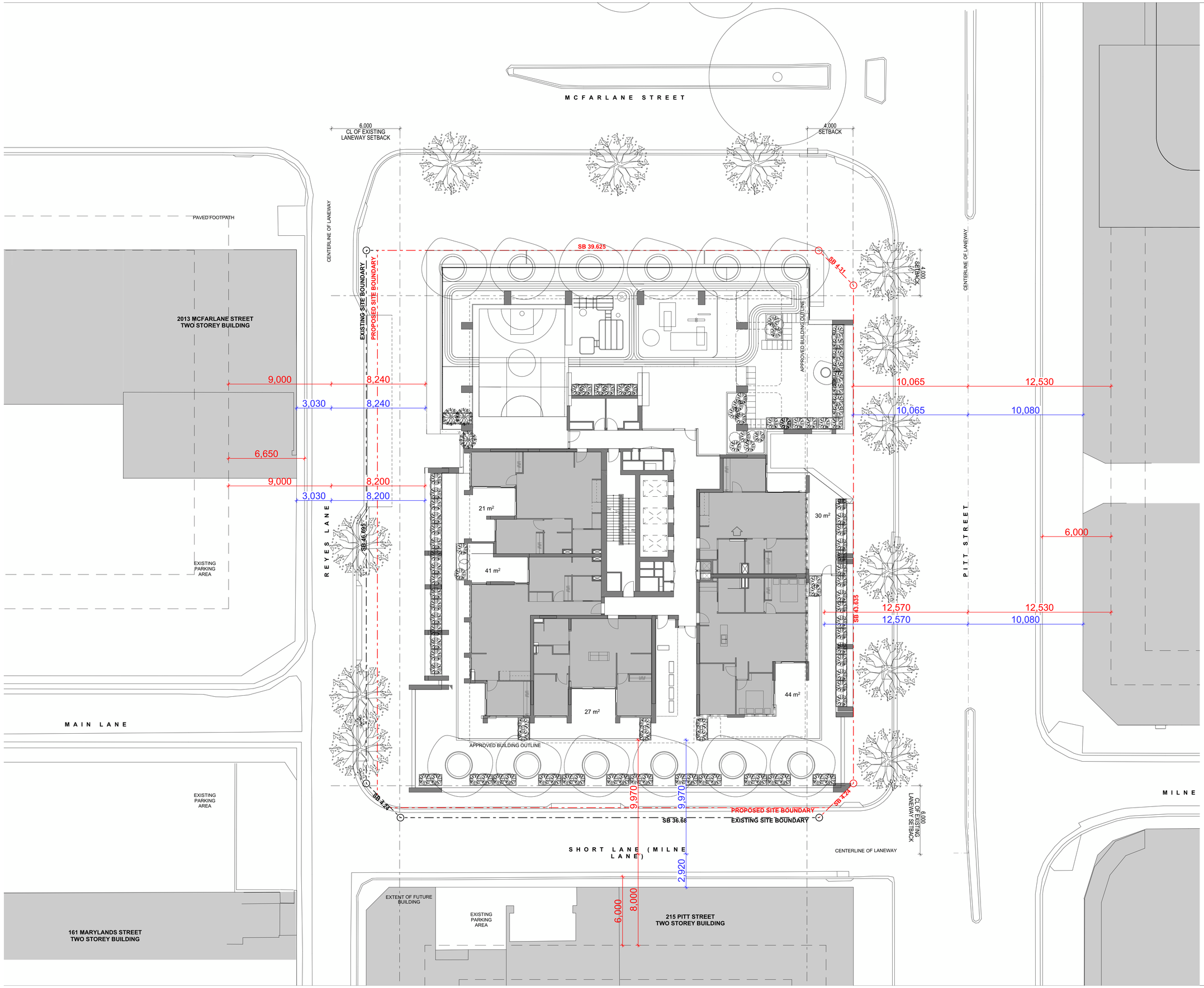
REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
BUILDING SEPARATION PLAN GROUND
SHEET NO. SSDA 509
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.

•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.27 pm

© FUSE ARCHITECTS.

LEGEND

DISTANCE FROM PROPOSED NEIGHBOURS

DISTANCE FROM EXISTING NEIGHBOURS

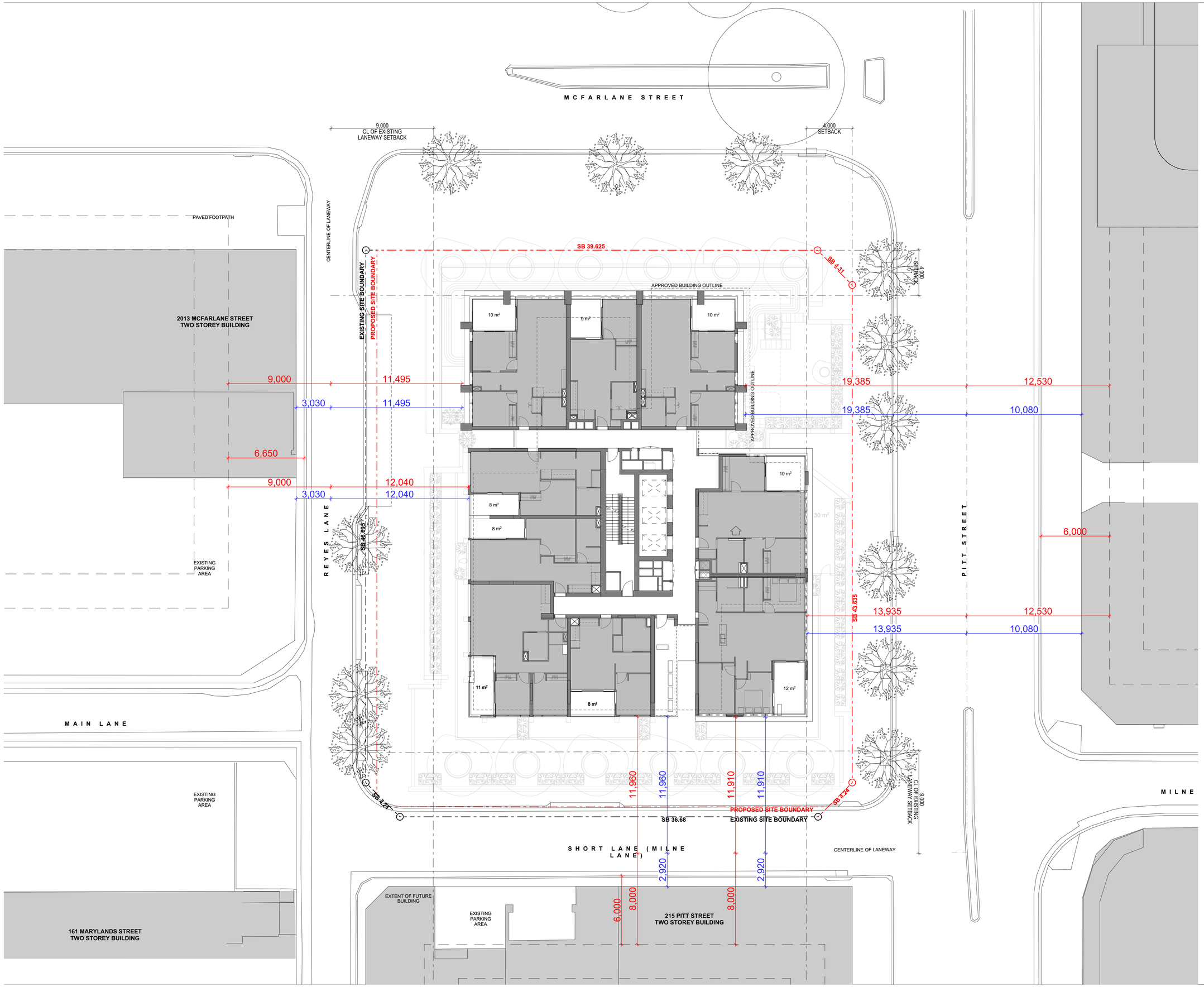
REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE—ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N
0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING
SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160
JOB NO
2421
CHECKED AA/JSN/CH
DRAWN KH/BC
DATE 15/08/2024
SCALE 1:150 @ A1 A3@50%
PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION
DRAWING TITLE
BUILDING SEPARATION PLAN PODIUM
SHEET NO. SSDA 510
REVISION. A



GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.29 pm

© FUSE ARCHITECTS.

LEGEND

DISTANCE FROM PROPOSED NEIGHBOURS

DISTANCE FROM EXISTING NEIGHBOURS

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT
FUSE ARCHITECTS
STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT
Anglicare
ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

N

0 2.5 5 10m

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

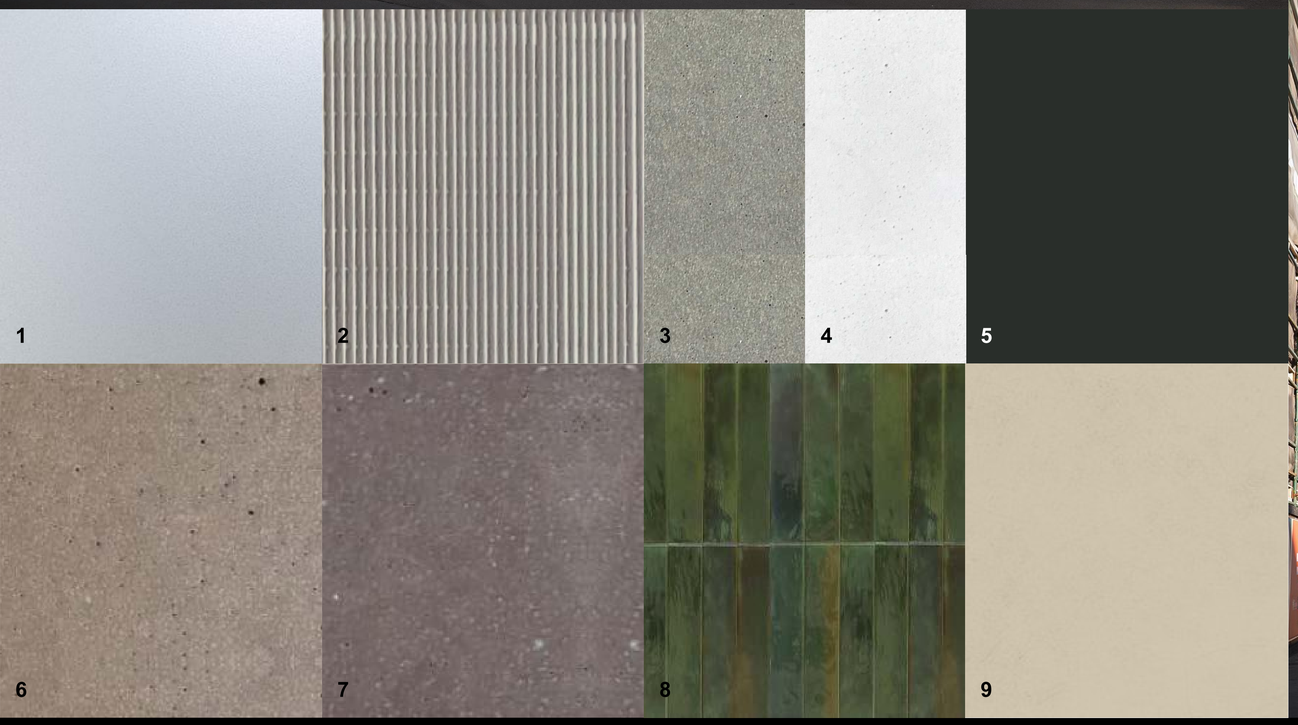
CHECKED	DRAWN
AA/JSN/CH	KH/BC

DATE	SCALE	
15/08/2024	1:150 @ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
BUILDING SEPARATION PLAN TOWER

SHEET NO.	REVISION.
SSDA 511	A



1	2	3	4	5
6	7	8		9

01 | WINDOWS & BALUSTRADES: CLEAR GLAZING
02 | SCREENS, FENCES & GATES: FIXED ALUMINIUM LOUVRES / BATTENS / POWDERCOAT FINISH, DARK GREY AND/OR SURFMIST OR SIMILAR
03 | TOWER HORIZONTAL ELEMENTS, PRECAST, MID GREY
04 | TOWER VERTICAL ELEMENTS, PRECAST, LIGHT GREY
05 | WINDOWS & BALUSTRADES: POWDERCOAT FINISH, DARK GREY/MONUMENT OR SIMILAR
06 | PODIUM INFILL: PRECAST CONCRETE, LIGHT BROWN
07 | PODIUM FRAME: PRECAST CONCRETE, MID/DARK BROWN
08 | STREET LEVEL FACADE: VERTICALLY STACKED GLAZED GREEN TILES
09 | WALLS, SLAB SOFFITS: CONCRETE, FINE TEXTURED PAINT FINISH, DULUX CHINA WHITE OR SIMILAR

MATERIALS AND FINISHES SCHEDULE

215, 229-239 PITT STREET MERRYLANDS 2160

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:31 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED	DRAWN	
AA/JSN	KH	
DATE	SCALE	
15/08/2024	@ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
PHOTOMONTAGE SHEET 01

SHEET NO.	REVISION.
SSDA 701	A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.32 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT

MERRYLANDS COMMUNITY LIVING

SITE ADDRESS

215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO

2421

CHECKED	DRAWN	
AA/JSN	KH	
DATE	SCALE	
15/08/2024	@ A1	A3@50%

PROJECT STATUS

STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE

PHOTOMONTAGE SHEET 02

SHEET NO.	REVISION.
SSDA 702	A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.33 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED: AA/JSN
DRAWN: KH
DATE: 15/08/2024
SCALE: @ A1 A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
PHOTOMONTAGE SHEET 03

SHEET NO.: SSDA 703
REVISION.: A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.34 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED	DRAWN
AA/JSN	KH

DATE	SCALE	
15/08/2024	@ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
PHOTOMONTAGE SHEET 04

SHEET NO.	REVISION.
SSDA 704	A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.35 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
P1	FOR INFORMATION	22/04/2025
P2	FOR INFORMATION	24/04/2025
P3	FOR INFORMATION	16/06/2025
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED	DRAWN
AA/JSN	KH

DATE	SCALE	
15/08/2024	@ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
PHOTOMONTAGE SHEET 05

SHEET NO.	REVISION.
SSDA 705	A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8:36 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE—ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED	DRAWN
AA/JSN	KH

DATE	SCALE	
15/08/2024	@ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
PHOTOMONTAGE SHEET 06

SHEET NO.	REVISION.
SSDA 706	A

GENERAL NOTES

© FUSE ARCHITECTURE.
•NO REPRODUCTION WITHOUT PERMISSION, UNLESS NOTED OTHERWISE.
•THIS DRAWING IS NOT FOR CONSTRUCTION.
•ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
•INFORM FUSE ARCHITECTURE OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING WITH WORK.
•DRAWINGS ARE NOT TO BE SCALED.
•USE ONLY FIGURED DIMENSIONS.
•REFER TO CONSULTANT DOCUMENTATION FOR FURTHER INFORMATION.

File: 2421_MERRYLANDS2
Print date and time: Friday, 26 September 2025 @ 8.37 pm

© FUSE ARCHITECTS.

REVISION ID	AMENDMENT	DATE
A	FOR DEVELOPMENT APPLICATION	22/07/2025

ARCHITECT

FUSE ARCHITECTS

STUDIO 64
61 MARLBOROUGH STREET
SURRY HILLS NSW 2010
MAIL@FUSEARCHITECTURE.COM.AU
PHONE 02 8278 7156
ABN 81 612 046 643
NOMINATED ARCHITECT RACHID ANDARY NSW ARB 8627

CLIENT

Anglicare

ANGLICARE
Suit 1.01 Level 1
Norwest NSW 2153

PROJECT
MERRYLANDS COMMUNITY LIVING

SITE ADDRESS
215, 229-239 PITT STREET MERRYLANDS 2160

JOB NO
2421

CHECKED	DRAWN
AA/JSN	KH

DATE	SCALE	
15/08/2024	@ A1	A3@50%

PROJECT STATUS
STATE SIGNIFICANT DESIGN APPLICATION

DRAWING TITLE
PHOTOMONTAGE SHEET 07

SHEET NO.	REVISION.
SSDA 707	A

APPENDIX C – PSI (CEC Geotechnical, 2025)

CEC Geotechnical

PRELIMINARY SITE INVESTIGATION (PSI) REPORT WITH LMITED SOIL SAMPLING

Client – Anglican Community Services (Anglicare)
Project Title – 215, 229-239 Pitt St, Merrylands
Project Type – Multi-Storey Mixed-Use Development
Project No. – ER24029.Rev01
Date Issued – 28/03/2025
Description of Services – Preliminary Site Investigation (PSI) and Limited Soil Sampling

Document Control

Report Title: Preliminary Site Investigation (PSI) with Limited Soil Sampling

Report No: ER24029.Rev01

Copies	Recipient
1. Final Copy (PDF – Sent via email)	Anglican Community Services (Anglicare)

Author	Technical Reviewer
Diego Espinosa Moreno Environmental Engineer	***Dr. Zuhaib Siddiqui*** Associate Environmental Engineer

Revision	Details	Date	Amended By
	Original	28.03.2025	
01	Update project plans and No. of basements	16.10.2025	DE

T: (02) 9630 0121 **Email:** info@cec-au.com

M: (+61) 493 473 621 **Address:** 4/83 Grose St, North Parramatta NSW 2151

Table of Contents

Executive Summary 5
1. Introduction 7
1.1 Background 7
1.2 Purpose and Objectives 7
1.3 Scope 7
1.4 Limitation 8
2. Status of Site and Environment 8
2.1 Site Details 8
2.2 Site Description 8
2.3 Proposed Development 9
2.4 Regional Geology 9
2.5 Soil Types 10
2.6 Regional and Site Hydrogeology 10
2.7 Site Drainage and Surface Water 10
2.8 Acid Sulphate Soils 10
2.9 EPA Records Search 10
2.9.1 Contaminated Land Management Register (NSW EPA) 10
2.9.2 Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises 11
2.9.3 PFAS 11
3. Site History 11
3.1 Historical Information Services 11
3.2 Certificates of Title Review 11
3.3 Council Planning Certificates Review 11
3.4 Review of Historical Council Records 12
3.4.1 Construction Sciences – Detailed Site Investigation (PSI & DSI) 12
3.4.2 Construction Sciences – Remedial Action Plan (RAP) 13
3.4.3 Historical Aerial Photographs Records 13
4. Preliminary Conceptual Site Model 14
5. Sampling and Analysis Quality Plan 17
5.1 Areas of Environmental Concern 17
5.2 Soil Sampling Rationale 17
5.3 Soil Assessment Criteria (SAC) 18
5.4 Data Quality Assurance and Quality Control 18
6. Laboratory Results 19
6.1 Soil Sample 19
7. Data Gaps 22
8. Conclusions and Recommendations 22

9. Conditions of the Recommendation 24

References 25

List of Appendices

APPENDIX A – Proposed Development Plan 26

APPENDIX B – Figures 27

APPENDIX C – Planning Certificate 35

APPENDIX D – Site Photographs 36

APPENDIX E – Search of the NSW EPA Contaminated Land Management Record 39

APPENDIX F – Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises 40

APPENDIX G – Search for NSW Government PFAS Investigation Programme 41

APPENDIX H – Certificates of Historical Title Review 42

APPENDIX I – GIPA 43

APPENDIX J – Historical Aerial Photographs 44

APPENDIX K – Laboratory Results 48

List of Tables

Table 1: Summary of site details 8
Table 2: Summary of Field Observations 9
Table 3: Regional and Site Hydrogeology 10
Table 4: Historical and background information sources 11
Table 5: Summary of land use history and activities 14
Table 6: Summary of risk present on the site 15
Table 7: Preliminary conceptual site model 16
Table 8: Depth of Sample Collection and Potential Source of Contamination 17
Table 9: Laboratory Test Results and Site Assessment Criteria 20
Table 9: Laboratory Test Results and Site Assessment Criteria 21

List of Figures

Figure 1: Site Location 27
Figure 2: Geological Map of Penrith Region 27
Figure 3: Type of Soil on Site 28
Figure 4: Extract of Groundwater/Bores Information Close to the Site 28
Figure 5: Extract of Groundwater/Bores Information Close to the Site 29
Figure 6: Extract of Acid Sulphate Soils Map showing Subject Site 33
Figure 7: Sample Locations 34

List of Abbreviations and Acronyms

AEC	Area of Environmental Concerns
ALS	Australian Laboratory Services
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CND	Central Business District
CEnvP	Certified Environmental Professional
CLM	Contaminated Land Management
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DA	Development Application
DEC	Environment and Conservation
DECCW	Department of Environment, Climate Change and Water
EIL	Ecological Investigation Levels (EIL)
ESL	Ecological Screening Levels
GW	Groundwater
HAZMAT	Hazardous Material
HCB	Hexachlorobenzene
HILs	Health Investigation Levels
HSL	Health Screening Levels
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
LCS	Laboratory Control Standard
LOR	Level of Reporting
MW	Monitoring Well
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NSW LPI	New South Wales Land and Property Information
NSWEPA	New South Wales Environmental Protection Agency
QA/QC	Quality assurance and quality control
PAHs	Poly Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
POEO	Protection of the Environment Operations
PQL	Practical quantitation limits
PSI	Preliminary Site Assessment
TC	Tungsten Carbide
TCA	Trichloroethane
TCE	Trichloroethene
TP	Total phosphorus
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
VENM	Virgin Excavated Natural Material

Units

km	Kilometre
m	Metre
m^2	Square metres
mg/kg	Milligram per kilogram

Executive Summary

CEC Geotechnical has prepared this report to provide a Stage 1 Preliminary Site Investigation (PSI) or Contamination Assessment at 215, 229-239 Pitt St, Merrylands. The works included a preliminary site investigation study with a scope following the request from our client, Anglican Community Services (Anglicare).

CEC Geotechnical understood that the proposed development will comprise the demolition of existing structures and the construction of a multi-storey mixed-use building, including commercial shops, residential flats, and a 4-level basement.

A search of the NSW EPA Contaminated Land Management Record of Notices, Protection of the Environment Operations Public Register (POEO) records, EPA under Section 60 CLM Act 1997 and NSW EPA for PFAS Investigation Programme record, revealed that there were no notices issued to the site nor in proximity (500m) to the subject site.

The aerial photographs indicated that the existing structures in blocks 229-239 were constructed before 1978. Additionally, existing structures in block 215 were constructed before 1998. Therefore, the risk of contamination associated with asbestos on the site was assessed and may be present.

Additionally, a preliminary search in the Cumberland City Council DA tracker showed a previous preliminary, detailed site investigation and remedial action plan (PSI, DSI & RAP) prepared for the subject site. The DSI identified a former petrol station in block 215. However, the report did not identify relevant contamination within the collected samples. However, the RAP noted that the former Underground Petroleum Storage System (UPSS) and associated contamination may be present beneath the existing buildings and pavements. Therefore, the risk of contamination associated with oil/hydrocarbons on the site was assessed and may be present.

Following the potential risk of concerns, twelve (12) discrete soil samples, including 1 soil sample for intra-lab duplicate, 2 for QA/QC, and 2 deep samples, were collected systematically across the site from 6 sampling locations (BH1-BH3, BH5-BH7). The soil samples were analysed for contaminants of potential concerns (COPCs) such as heavy metals (arsenic, cadmium, chromium, copper, lead, mercury nickel and zinc), polycyclic aromatic hydrocarbons (PAH), benzene, toluene, ethylbenzene and xylene (BTEX), total recoverable hydrocarbons (TRH), VOCs, Phenols and asbestos. The results indicated levels of heavy metals, BTEX, VOCs, Phenols, and asbestos were below the adopted assessment HIL B and HSL D.

However, the results of BH1 and the duplicate BH1 showed exceedance of TRH C6-C10 for the adopted human health assessment criteria for HSL D. The exceedances over the criteria were 2.4 and 3.88 times, respectively. Additionally, exceedance for the ecological assessment ESL was observed for the samples BH1-0.5-1, BH1-0.5-2, BH5-0.3, and BH5-1.0. Furthermore, the location of BH1 and BH5 corresponded to the approximate location of the former service location. Therefore, the observed TRH contamination was associated with the potential presence of the UPSS from the former service station.

Based on the findings of this PSI report, a Detailed Site Investigation (DSI) is necessary to assess the potential presence of an underground petroleum storage system (UPSS), delineate soil and groundwater area contamination, and conduct a vapour intrusion assessment if warranted by the results. However, it is important to note that the DSI can only proceed after the demolition of the existing structures, as this is essential for effectively addressing the identified data gaps. The potential existence of a UPSS poses significant risks for drilling operations, and no additional sampling should be carried

out until the presence or absence of a UPSS has been confirmed. This confirmation can be achieved using Ground Penetrating Radar (GPR), although accurate results require the removal of the existing structure and the footing slab, which can reduce GPR accuracy. Therefore, CEC Geotechnical recommends that the DSI be conducted following the demolition of the current buildings and the clearance of the footing slab.

Due to the current access constraints, it is not possible to complete these investigations prior to the submission of the State Significant Development Application (SSDA). Consequently, it is advisable to prepare a Framework Remedial Action Plan (FRAP) to support the development application. This FRAP should identify potential outcomes from the data gaps noted in section 7 and recommend remediation strategies in response to the possible contamination scenarios. Furthermore, the FRAP must incorporate a Data Gap Assessment plan to be carried out post-demolition to address the identified data gaps. Finally, a detailed Remedial Action Plan (RAP) should be developed based on the FRAP and the findings of the data gap assessment.

In conclusion, CEC Geotechnical considered that the site can be made suitable for the proposed multi-storey mixed-use development, subject to the implementation of a FRAP. Additionally, the following recommendations are put forward:

- Prior to demolishing the properties, the client must carry out a HAZMAT assessment by a licensed assessor.
- Where hazardous building materials are identified and subsequently removed, an inspection of surface soils and clearance should be completed following demolition by a suitably qualified consultant.
- Should evidence of site contamination be identified at any stage during the development process, such as staining, odorous soils, or suspect asbestos, then an experienced site contamination consultant should be contacted immediately for advice.
- Any material to be removed off-site, ENM, MUST be classified for off-site disposal in accordance with the NSW EPA (2014) Waste Classification Guidelines.
- Any material being imported to the site for backfilling purposes should be assessed for potential contamination in accordance with the EPA guidelines.
- Unexpected Finds Protocol (UFP) is required for the site. This is required to be prepared by the appropriate environmental consultant/person and submitted with the application.

1. Introduction

1.1 Background

CEC Geotechnical Pty Ltd (CEC Geotechnical) has prepared this report on behalf of Anglicare to provide a Stage 1 Preliminary Site Investigation (PSI) or Contamination Assessment at 215, 229-239 Pitt St, Merrylands (herein referred to as "the site"). CEC Geotechnical understood that the development comprises demolishing existing structures and the construction of a mixed-use residential building, including commercial shops and a four-level basement (**Appendix A**). Therefore, the purpose of this Preliminary Site Investigation (PSI) is to provide a preliminary assessment of the environmental conditions at the site and to support a State Significant Development Application (SSDA). The location and features of the site are presented in **Figure 1 in Appendix B**. The PSI was prepared in accordance with contaminated land guidelines State Environmental Planning Policy (Resilience and Hazards, 2021-Chapter 4 Remediation of Land) under the Environmental Planning and Assessment Act 1979) and the National Environment Protection (Assessment of Site Contamination) Measure (NEPM 1999, as amended April 2013), Consultants Reporting on Contaminated Land, NSWEPA (2020).

1.2 Purpose and Objectives

The purpose of this PSI is to provide the client with preliminary advice on the contamination status of the site, based on the review of current and historically available information and advice on any consequent implications for its intended use.

The objectives of the PSI are to:

- Identify the potential for past or present site activities or activities within the vicinity that may result in surface and subsurface impacts;
- Identify potential areas and contaminants of concern at the site if present;
- Identify potential receptors of concern and assess the potential for the protected beneficial uses of the land and groundwater to be impacted by site activities; and
- Assess the requirement, if any, for further environmental investigation to assess or make the site suitable with respect to the site contamination in relation to the proposed redevelopment.

1.3 Scope

CEC Geotechnical completed the following scope of work to meet the objectives of the PSI in accordance with the requirements of SEPP (Resilience and Hazards) 2021:

- A detailed site walkover inspection for potential contamination sources;
- Review of geological and soil profile maps;
- Review of land titles and council records (planning certificates);
- Review of available hydrogeological information including nearby registered bores;
- Search for PFAS contamination using NSWEPA Government PFAS investigation Programme;
- A search through the NSW EPA/DECCW Land Information records to confirm that there are no statutory notices current on the site under the Unhealthy Building Land Act (1990) or the Contaminated Land Management Act (1997);
- Development of a conceptual site model (CSM);
- Soil boring and sampling – approximately twelve (12) soil samples were collected systematically across the site (including 1 soil sample for intra-lab triplicate, 2 for QA/QC and 3 natural samples). 3 BHs were drilled to depths of approximately maximum 0.5m. 3 BHs were drilled to a maximum depth of 1.5m;

- The recovered soil samples were tested heavy metals, Total Petroleum/Recoverable Hydrocarbons (TPHs/TRHs), Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN), Polycyclic Aromatic Hydrocarbons (PAH), Phenols, Volatile Organic Compounds (VOCs) and Asbestos;
- Quality Assurance/Quality Control (QA/QC) - all QA/QC procedures were undertaken in compliance with the Quality Assurance/Quality Control manual. Soil: 1 intra-lab for soils, 2 rinsate/trip spike/trip blank per field were taken to satisfy EPA requirements.
- Data interpretation and reporting.

1.4 Limitation

The limitations of this PSI are as follows:

- CEC Geotechnical prepared this PSI in a manner consistent with the normal level of care and expertise exercised by members of the environmental assessment profession.
- The site had access restrictions in some areas due to tenant occupation during the detailed site investigation. This limited the collection of samples in areas under the commercial shops.
- This report relates only to the objectives stated and relate to any other work undertaken for the Client. It is a report based on the soil and groundwater sample results (COCPs) collected at the time of the inspection. These conditions may change with time and space. The absence of any identified hazardous or toxic materials on the subject property should not be interpreted as a guarantee that such materials do not exist on the Site.

2. Status of Site and Environment

2.1 Site Details

The Site is located within Lot 2 DP501597, Lot 1 & 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031 located at the corner of Pitt Street and McFarlane Street, within Merrylands. The site location is presented in **Figure 1** in **Appendix B,** with site details presented in **Table 1**. Under the Cumberland Local Environmental Plan 2021, the site is currently zoned as E2 - Commercial Centre. Additionally, the Cumberland City Council Planning Certificate (**Appendix C**) also shows that the site is situated in zone E2 - Commercial Centre.

Table 1: Summary of site details

Items	Details
Site Address	215, 229-239 Pitt St, Merrylands
Approximate Site Area (m^2)	2,106
Title Details (Coordinates)	Lot 2 DP501597, Lot 2 DP537031, Lot J DP10354, Lot 1 DP1079960 and Lot 1 DP537031 (-33.836094, 150.991152)
Council Area	Cumberland City Council

2.2 Site Description

Using Six Maps, it was noted that the subject site is nearly rectangular, measuring approximately 49.5m frontage along Pitt Street and 42.6m frontage along McFarlane Street. It covers a total area of approximately 2,106 m^2. A site visit was conducted on the 16th of December 2024 with photographs from the site contained in **Appendix D**. The field observations are summarised in **Table 2**.

Table 2: Summary of Field Observations

Parameters	Details
Visible observations of soil contamination	Stain spots were observed on the concrete slab at rear of 215 Pitt Street. It was suspected to be cooking oil or restaurant waste (**Photograph 5 in Appendix D**). Moreover, slight odours were detected from the soil during the collection of the samples.
Signs of plant stress	None observed.
Signs of Agriculture	None observed.
Presence of drums, underground storage tanks, gas bottles, fill or waste materials	1 dumped drum and oil food containers were observed at the rear of 215 Pitt St, as shown in (**Photograph 5 in Appendix D**).
Presence of Fill	During the drilling works, a fill consisting of silty clay and gravel was identified below the concrete slab, specifically between 0.2 and 0.5 meters.
Presence of Building Equipment and Structures	None observed.
Existing Building Structure	None observed.
Evidence of groundwater contamination	This assessment does not include boreholes or intrusive investigations that may encounter groundwater. As such, no groundwater was observed.

Using Six Maps, it was noted that the subject site is nearly rectangular, measuring approximately 49.5m frontage along Pitt Street and 42.6m frontage along McFarlane Street. It covers a total area of approximately 2,101.8m^2. A site visit was conducted on the 16th of December 2024 with photographs from the site contained in **Appendix D**. The minimum and maximum temperatures were 22.5^{o}C and 33.5 ^{o}C; it was reported as a sunny day. The site is currently owned by Anglican Community Services, which provided CEC Geotechnical the legal permission to conduct the site visit.

During the inspection, the site was noted to consist of a large commercial double-storey brick building, which included a rear parking area. Block 215 Pitt Street comprised primarily restaurants, while Blocks 229-239 featured various commercial establishments, including a financial office, a medical center, and a daycare. Additionally, a railway station and a petrol station were located nearby; the railway station was approximately 98 meters to the east, and the petrol station was about 180 meters to the north of the site. Surrounding the area were a shopping center to the north and commercial buildings to the south and east.

2.3 Proposed Development

CEC Geotechnical understood that the proposed development comprises the demolition of existing structures and the construction of a multi-storey mixed-use building, including commercial shops, residential flats, and 4-level basements.

2.4 Regional Geology

The 1:100,000 scale Geological Series Map of the Sydney region indicates that the subject site is underlain by Bringelly SHALE **(Rwb)** of the Wianamatta group, which consists of shale, carbonaceous claystone, claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff dating back to the Mesozoic Period as shown in **Figure 2** in **Appendix B**.

2.5 Soil Types

Soil profile and soil map information were collected from the NSW Department of Planning, Industry and Environment. As shown in **Figure 3** in **Appendix B**. The subject area comprises of shallow to moderately deep (>100 cm) hardsetting mottled texture contrast soils, Red and Brown Podzolic Soils (Dr3.21, Dr3.31, Db2.11, Db2.21) on crests grading to Yellow Podzolic Soils (Dy2.11, Dy3.11) on lower slopes and in drainage lines. Dominant soils comprise bt1 (Friable brownish black loam), bt2 (Hardsetting brown clay loam), bt3 (Strongly pedal, mottled brown light clay) and bt4 (Light grey plastic mottled clay).

2.6 Regional and Site Hydrogeology

A search was performed through the Groundwater Database on WaterNSW to identify wells in the vicinity of the site. 4 registered groundwater bores were detected within a 500m radius of the site, records of the search are summarised in **Table 3**. The groundwater (GW) search map and bore information is given in **Figure 4-5** in **Appendix B**. Based upon the groundwater database on WaterNSW, the groundwater levels in the surroundings of the subject site were observed from 2.1m to 2.45m, which may impact the level of excavation.

Table 3: Regional and Site Hydrogeology

Bore Identification	Bore Location (Approximate distance in m)	Standing Water Level/Water Bearing Zone (m bgl)	Intended Purpose
GW105490	N (201m)	2.45	Monitoring Bore
GW105491	N (202m)	2.3	Monitoring Bore
GW105489	N (212m)	2.45	Monitoring Bore
GW105488	N (213m)	2.1	Monitoring Bore

2.7 Site Drainage and Surface Water

Stormwater flow is likely to be towards the northeast, consistent with topography, draining via the municipal stormwater system to A'becketts Creek, located approximately 346m to the northeast of the site.

2.8 Acid Sulphate Soils

The NSW Planning Portal Spatial Viewer Acid Sulphate Soils Map indicates that the site is in an area of no acid sulphate soils, as shown in **Figure 6** in **Appendix B**.

2.9 EPA Records Search

2.9.1 Contaminated Land Management Register (NSW EPA)

A search of the publicly available online NSW EPA CLM Act Record of Notices was completed on 20th January 2025. The results indicated that the site was not the subject of any notifications nor the Merrylands suburb under Section 58 of the Contaminated Land Management Act 1997, as shown in **Appendix E**. A search of the publicly available online was also completed on 20th January 2025 for EPA under Section 60 CLM Act 1997. The updated data up to 9th December 2024 of EPA database of properties that have been notified to the EPA under Section 60 CLM Act 1997 was searched. 6 records for 'regulation under CLM Act not required' were observed for Merrylands. However, none of these records were issued for the subject site.

2.9.2 Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises

A search of the publicly available online NSW EPA Record of Notices was completed on 20th January 2025. The results indicated that 6 records were retrieved for a license, license variation, POEO license, cleanup notice and variation of cleanup notice for premises located within the suburb of Merrylands, as shown in **Appendix F**. The subject site was not subject to any of these notices. Out of 6 retrieved data, 1 penalty notice was issued to Amigos Civil Group Pty Ltd (19 Badham Street, Merrylands, 1.37km far from the subject site).

2.9.3 PFAS

A search of the NSW EPA for PFAS investigation program provided the details of fifty (50) sites in NSW. Out of fifty (50) sites, no site is located in Merrylands, as shown in **Appendix G**.

3. Site History

3.1 Historical Information Services

The historical information sources listed in **Table 4** were obtained and reviewed.

Table 4: Historical and background information sources

Information	Source	Details
Historical Title Search	Info Track	Historical Title Search for the site
Aerial Photographs	NSW Land and Property Information (LPI) and NearMaps	Aerial Photographs were obtained in 1943, 1965, 1978, 1986, 1998, 2009, 2019 and 2024

3.2 Certificates of Title Review

The historical title searches (1914-recent) were undertaken for the site. The results of the search are provided in **Appendix H**. In the report, it was observed that the site was owned by Amoco Australia Pty. Limited from 1962 to 1986. Therefore, the site was owned by oil distributors during this period.

3.3 Council Planning Certificates Review

A review of the Council Planning Certificates indicates that:

- The site is not affected by Mine Subsidence.
- The site is not affected by Acid Sulphate Soils.
- The site is not affected by Significantly Contaminated Land as part of the Contaminated Land Management Act (1997).
- The land is not identified on the Council's Bush Fire Prone Land Map.
- The land is not affected by Loose-Fill Asbestos Insulation.

Full planning certificates can be found in **Appendix C**.

3.4 Review of Historical Council Records

CEC Geotechnical contacted the Cumberland City Council for the requirement of Government Information Public Access (GIPA). A preliminary search in the Cumberland City Council DA tracker showed two previous environmental reports issued for the subject site.

- Stage 1 and 2 – Preliminary and Detailed Site Investigation (PSI-DSI) dated 07/05/2020, was prepared by Construction Sciences Pty Ltd.
- Stage 3 – Remedial Action Plan (RAP) dated 27/11/2020, was also prepared by Construction Sciences Pty Ltd.

The results of the search are provided in **Appendix I.**

3.4.1 Construction Sciences – Detailed Site Investigation (PSI & DSI)

Construction Sciences Pty Ltd (CS) was engaged by Anglican Community Services ('Anglicare' or the 'Client'), to undertake a combined stage 1 preliminary site investigation (PSI) and stage 2 detailed site investigation (DSI) for land located at 215-239 Pitt Street, Merrylands.
The scope of work undertaken to address the project objectives included:

- A desktop review;
- Drilling of five soil bores (4 shallow hand auger bores HA103 to HA106 and a deep borehole BH104) within the building footprints and the conversion of BH104 to a groundwater monitoring well;
- Collection of soil samples at regular depth intervals and laboratory analysis for contaminants of concern;
- Collection and analysis of groundwater from the new monitoring well (BH104) and three existing monitoring wells (installed by Net Geo – MW1, 2 and 3) for COPC; and
- Data assessment and preparation of this combined Stage 1 and Stage 2 contamination assessment report.

A previous contamination assessment was conducted by Network Geotechnics Pty Ltd (NG) called *Due Diligence Contamination Assessment*, 215-239 Pitt Street, Merrylands, dated 5 December 2017, ref: G09-2639.7. The report included the collection and analysis of soil and groundwater samples from readily accessible areas. The assessment concluded that the soils are unlikely to contain widespread contamination; however, it noted that the groundwater was impacted by petroleum hydrocarbons.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013a), NEPC (2013b), NSW OEH (2011), WA DOH (2009), NSW EPA (1995) and Department of the Environment and Energy (2018). Based on CS's assessment of desktop review information, fieldwork observations and laboratory analytical data, in the context of the proposed land use scenario, CS made the following conclusions:

- The potential for unacceptable soil and groundwater contamination to be present on the site, as a result of the former service station at No.215-239 Pitt Street, Merrylands, is low;
- The potential for unacceptably contaminated to be migrating offsite is low; and
- The site is suitable for the proposed development, from a contamination perspective, in general accordance with the requirements of SEPP55 and NEPM (2013).

3.4.2 Construction Sciences – Remedial Action Plan (RAP)

Construction Sciences Pty Ltd (CS) was engaged by Anglican Community Services (Anglicare), to prepare a remedial action plan (RAP) for land located at 215-239 Pitt Street Merrylands NSW (the site). The RAP was prepared in accordance with the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Sites.

Network Geotechnics Pty Ltd (NG) previously conducted a Due Diligence Contamination Assessment of the site (NG, 2017), that included the collection and analysis of soil and groundwater samples from readily accessible areas. The report concluded that the soils are unlikely to contain widespread contamination, however, it noted that isolated contamination near former underground fuel infrastructure could not be precluded. NG reported that the proposed basement excavation will likely excavate and remove offsite the contaminated soil and groundwater, but the potential for vapour intrusion could not be precluded without additional assessment.

Cumberland Council requested further information regarding the potential for former underground petroleum storage system (UPSS) infrastructure and associated contamination to be encountered during the proposed earthworks. It was agreed that a remedial action plan (RAP) be prepared to demonstrate that the site can be made suitable for the proposed land use, in the event that UPSS infrastructure is encountered during the earthworks.
Additionally, the council raised concerns regarding the potential for former UPSS infrastructure and associated contamination to be present beneath the existing buildings and pavements, and for such infrastructure and contamination to pose an unacceptable risk to the site workers during the proposed construction works.

Based on CS' assessment of the information presented in the available historical contamination assessment reports, CS considered that the remedial goal could be achieved, and the site can be suitable for the proposed land use, subject to:

- Should remediation of UPSS infrastructure be required, the remediation strategy was proposed to excavate and dispose of it offsite.
- Following the completion of all demolition works, including the removal of the slabs and hardstand pavement and offsite disposal of all demolished material, the exposed site surface will be subjected to a detailed ground penetrating radar survey, to assess for the presence of any former UPSS infrastructure.
- If the survey does not identify evidence of former UPSS infrastructure, then the remediation strategies suggested in the RAP will not be required. A report will be prepared by the environmental consultant to outline the findings of the GPR survey and the SafeWork NSW search and will be submitted to the Council.
- If the GPR survey identifies former UPSS infrastructure, such infrastructure will be marked on the ground and the report, and the depth of such infrastructure will be estimated, to allow safe removal by qualified contractors.
- Preparation of a site validation report.

3.4.3 Historical Aerial Photographs Records

Five (5) historical aerial photographs dating back to 1943 were sourced from New South Wales Land and Property Information (LPI) and three (3) satellite images were sourced from NearMaps and is presented in **Appendix J**. Summary of historical land uses and potential activities noticed at the site are summarised in **Table 5**.

Table 5: Summary of land use history and activities

Year	Information Source	Details
1943	Historical Aerial Photograph from NSW LPI	The site appeared to contain several structures resembling a residential dwelling and sheds. In Block 215, a suspected residential structure was identified in the southeastern area. Additionally, two shed-like structures were observed in the northwestern part of the site. On the other hand, blocks 229-239 were observed as vacant. Additionally, the surroundings of the site showed low-density residential properties. Furthermore, a railway was observed to the east of the site and a water basin/lake was identified to the northeast of the subject site. Finally, no market gardening/agriculture operation could be seen over the site and in the immediate surroundings. The approximate location of the subject site is highlighted in **Figure 1** in **Appendix J.**
1965	Historical Aerial Photograph from NSW LPI	Block 215 showed new structures that differed from those observed in 1943. This new structure was suspected to be a petrol station, based on its shape and the presence of cars nearby. Additionally, blocks 229 - 239 were found to contain two structures resembling residential dwellings that were built before 1965. Finally, the surroundings of the site showed new commercial/industrial dwellings and the basin/lake shown in 1943 was no longer observed. The approximate location of the subject site is highlighted in **Figure 2** in **Appendix J.**
1978	Historical Aerial Photograph from NSW LPI	A different structure was observed in blocks 229-239 (likely to be the existing dwelling) which was built before 1978. Additionally, no changes were observed in block 215 from the year 1965. Furthermore, a shopping centre was built to the north of the site. The approximate location of the subject site is highlighted in **Figure 3** in **Appendix J.**
1986	Historical Aerial Photograph from NSW LPI	The suspected petrol station was observed to be abandoned. Additionally, no other changes were observed in the site from the year 1978. The approximate location of the subject site is highlighted in **Figure 4** in **Appendix J.**
1998	Historical Aerial Google Earth Pro and Google Street View	A different structure was observed in block 215 (likely to be the existing dwelling) which was built before 1998, replacing of the previous petrol station. Additionally, no changes were observed in blocks 229-239 from the year 1986. The approximate location of the subject site is highlighted in **Figure 5** in **Appendix J.**
2009	Historical Aerial Photograph from Nearmap	No changes were observed in the site from the year 1998. The approximate location of the subject site is highlighted in **Figure 6** in **Appendix J.**
2019	Historical Aerial Photograph from Nearmap	No changes were observed in the site from the year 2009. The approximate location of the subject site is highlighted in **Figure 7** in **Appendix J.**
2024	Historical Aerial Photograph from Nearmap	No changes were observed in the site from the year 2019. One high-rise building was built to the northeast of the site. Additionally, an additional high-rise building was observed which was under construction, located at northeast of the site. The approximate location of the subject site is highlighted in **Figure 8** in **Appendix J.**

4. Preliminary Conceptual Site Model

This conceptual site model (CSM) has been developed to determine the presence of potential complete exposure pathways from potential contamination sources to susceptible receptors such as humans and/or the environment. It also assesses the potential migration of the contaminants of potential concern (COPC) relative to site specific subsurface conditions with regard to their potential risk to human health and the environment. A CSM provides an assessment for identifying the following:

- Sources of contamination,
- COPC according to the site history and present site conditions,
- Potential pathways,
- Potential receptors and
- Potential exposure pathways.

Table 6: Summary of risk present on the site

Potential Sources	Potential Exposure Pathways	Description
Site History/ Contaminant Source	Direct Contact Inhalation Direct Contact Dermal Inhalation Ingestion	The aerial photographs also indicated that the existing structures in blocks 229-239 were constructed before 1978. Additionally, existing structures in block 215 were constructed before 1998. Therefore, the risk of contamination associated with asbestos on the site was assessed and may present. Furthermore, the historical photographs identified a structure built in block 215 and were suspected to be a petrol station, based on its shape and the presence of cars nearby. The structure was demolished before 1998 and replaced with the existing dwelling. Additionally, a preliminary search using the Cumberland City Council DA tracker showed a previous preliminary, detailed site investigation and remedial action plan reports, prepared for the subject site. The PSI report identified a former petrol station in block 215. However, the PSI report did not identify any relevant contamination within the collected samples. Nevertheless, the RAP noted that the former UPSS infrastructure and associated contamination may be present beneath the existing buildings and pavements. Moreover, during the sampling conducted on the 16th of December 2024, a light odour was detected from the soil during the collection of the samples. Therefore, the risk of contamination associated with oil/hydrocarbons on the site was assessed and may present. Furthermore, a railway line was located approximately 98m to the east of the subject site. The historical photographs showed the railway has been observed since 1943. Also, the railway is located upstream of the site according to the topography. Therefore, the risk of contamination associated with railway spillage was assessed and may not present Finally, an existing petrol station was identified approximately 180m to the north of the subject site. However, it is located downstream according to the topography. Therefore, the risk of contamination associated with oil/hydrocarbons on the site from the surroundings was assessed as low.
Current and Future Use of the Site		The site was used as a large size commercial double-storey brick structure with a rear parking area. Furthermore, the proposed development comprises the demolition of existing structures and the construction of a multi-storey mixed-use building, including commercial shops, residential flats and 4-levels basement.
Site Geology		According to the interpretation of the sub-surface soil profile for this site, it consists which comprises podzolic soils. This material would provide a relatively low permeable layer and may limit the migration of contamination into deeper soils or groundwater.
Site Hydrogeology		CEC Geotechnical did not observe or assess groundwater during the preparation of this PSI. A search was performed through the Groundwater Database on WaterNSW to identify wells in the vicinity of the site. During the groundwater bore search, 4 bores were identified within a 500m radius of the site. Based upon the groundwater database on WaterNSW, the groundwater levels were observed from 2.45m to 2.1 m, which may impact the level of excavation.
COPCs within the Site		COPCs associated with Oil/Hydrocarbons, uncontrolled fill and old structures may present on the site (Heavy metals, Hydrocarbons, BTEX, Phenols, VOCs and asbestos).
COPCs from Neighboring sites	Leaching Direct Contact Dermal Inhalation Ingestion	There was no visible evidence of potential contamination as no leachate or waste was entering the site from the existing railway or petrol station. However, the risk of contamination associated with the site may still be present and potential COPCs comprise Heavy metals, Hydrocarbons, BTEX, Phenols and VOCs.
Potential Human Receptors-Onsite	Direct Contact Dermal Inhalation Ingestion	Onsite potential human receptors include: • Future construction workers, maintenance workers including builders, council workers etc • Future tenants and visitors
Potential Environmental Receptors		Potential environmental receptors include: • Groundwater • Ecology

- Based on the information sourced in this report, a preliminary CSM has been developed and is outlined in **Table 7**.

Table 7: Preliminary conceptual site model

Potential Contamination Source	COPCs	Potential Exposure Pathways	Potential Receptors	Risk	Risk Analysis
Potential presence of an Underground petroleum storage system (UPSS) from a previous service station in the site	Heavy metals, Hydrocarbons (TRH), PAHs, BTEX, Phenols, VOCs	Direct dermal contact, Inhalation of vapours, Ingestion	• Current site users • Future demolition/construction workers, maintenance workers including builders, council workers etc • Future tenants and visitors • Groundwater aquifers	**Medium to High**	The aerial photographs and previous reports showed a former service station in the site. However, no evidence was observed of the removal and disposal of the system. If present, the contamination is expected to be limited within the soil layers 0-3m within the site area.
HAZMAT materials in buildings	Asbestos and lead	Direct dermal contact, Inhalation of fibres, ingestion	• Current site users • Future demolition/construction workers, maintenance workers including builders, council workers etc	**Medium**	The aerial photographs showed the existing structures in blocks 229-239 were constructed before 1978. Additionally, existing structures in block 215 were constructed before 1998. If present, the contamination is expected to be limited inside the building structures
HAZMAT materials in soil	Asbestos and lead	Direct dermal contact, Inhalation of fibres, ingestion	• Future demolition/construction workers, maintenance workers including builders, council workers etc	**Low**	The aerial photographs showed the demolition of former structures within the site. If present, the contamination is expected to be limited to surface soils within previous building footprints and footings
Potential contamination from the railway spillage	Heavy metals, Hydrocarbons (TRH), PAHs, BTEX, Phenols, VOCs	Direct dermal contact, Inhalation of vapours, Ingestion	• Current site users • Future demolition/construction workers, maintenance workers including builders, council workers etc • Future tenants and visitors	**Low**	The existing railway is located 98m upstream from the subject site. However (if present), the contamination is expected to be limited to surface soils that are covered with an existing concrete slab. Therefore, the likelihood of exposure was assessed to be low.
Potential contamination from the existing service station in the surroundings of the site	Heavy metals, Hydrocarbons (TRH), PAHs, BTEX, Phenols, VOCs	Direct dermal contact, Inhalation of vapours, Ingestion	• Current site users • Future demolition/construction workers, maintenance workers including builders, council workers etc • Future tenants and visitors • Groundwater aquifers	**Negligible to low**	The existing service station is located 180m downstream from the subject site. Therefore, the likelihood of contamination was assessed to be negligible to low

5. Sampling and Analysis Quality Plan

5.1 Areas of Environmental Concern

As discussed in **Table 6-7**, Two (2) areas of environmental concern (AECs) were observed at the site. First, the area of the former service station. Second, the approximate area of the previous building footprints and footings. As a result, twelve (12) soil samples were collected systematically across the site from 6 boreholes, BH1-BH3, BH5-BH7 (including 1 soil sample for intra-lab duplicate, 2 for QA/QC, and 3 natural/deep soil samples). 3 BHs were drilled to depths of approximately a maximum 0.5m. 3 BHs were drilled to a maximum depth of 1.0m; The samples were analysed for heavy metals, Total Petroleum/Recoverable Hydrocarbons (TPHs/TRHs), Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene (BTEXN), Polycyclic Aromatic Hydrocarbons (PAH), Phenols, Volatile Organic Compounds (VOCs) and Asbestos.

5.2 Soil Sampling Rationale

Sampling and analysis were undertaken to assess the nature, location, and likely distribution of contamination present at the subject site, and also the potential risk posed to human health or the environment. Test site locations were adopted using a combined judgmental and systematic sampling strategy to cover the areas of environmental concerns (AECs). COPCs were adopted using the site history information and the CSM, with the rationale provided in **Table 7**. AECs/hotspots identified in **Table 7** are shown in **Figure 7, Appendix A**. Consideration was also given to NSW EPA Contaminated Sites, and Sampling Design Guidelines (NSW EPA, 2020) to determine test site numbers and locations. Sampling locations were also adapted based on areas of access and were limited by the presence of in-ground obstructions. Therefore, six sampling locations (BH1-BH3, BH5-BH7) were chosen following AECs, as shown in **Figure 7, Appendix A**. Borehole 4 was not drilled due to restrictions from underground services.

Table 8: Depth of Sample Collection and Potential Source of Contamination

Unit	Soil Type	Intercept Depths (mm)
A	Concrete	0-200
B	Fill: Sub base coarse/Residual Silty CLAY: grey, brown and yellow	200-500
C	Residual Silty CLAY: grey, brown and yellow	500-1,500
Sample	**Depth of Sample Collection (mm)**	**Unit**
BH1-0.5-1	500	C
BH1-1.0	1,000	C
BH2-0.5	500	C
BH2-1.0	1,000	C
BH3-0.5	500	C
BH5-0.3	300	B
BH5-1.0	1,000	C
BH6-0.4	400	B
BH7-0.4	400	B

Number of Samples	AEC/Hotspots	Sample Identification	Unit
8	Former service station	BH1, BH2, BH5 and BH6	B, C
2	Previous structures	BH3 and BH7	B, C

Twelve (12) soil samples were collected systematically across the site (including 1 soil samples for intra-lab duplicate, 2 for QA/QC and 3 deep samples). 3 BHs were drilled to depths of approximately maximum 0.5m. 3 BHs were drilled to a maximum depth of 1.5 m.

Details of all collected soil samples are detailed in **Table 8**. The soil samples were placed in 250g laboratory-prepared glass jars which were capped using Teflon-sealed screw caps and then placed in a chilled container. Soil samples were also collected for asbestos identification from each test location. The samples were then forwarded to Eurofins Environmental Testing for analysis along with a chain of

custody which was subsequently returned to confirm the receipt of all samples. Eurofins is accredited by the National Association of Testing Authorities (NATA) for the analyses carried out and is also accredited for compliance with ISO/IEC 17025.

5.3 Soil Assessment Criteria (SAC)

The detailed site assessment has been undertaken in general accordance with the National Environment Protection Council Service Corporation (NEPC) in the National Environmental Protection (Assessment of Contaminated Sites) Measure (NEPM) – Schedule B1 which includes health based soil investigation levels and this was adopted by NSW EPA and "Guidelines for Assessing Former Orchards and Market Gardens" prepared by the department of Environment and Conservation (DEC) and re-published by the NSW EPA. The HILs are scientifically based, generic assessment criteria designed to be used in the first stage (Tier 1 or 'screening') of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario for a variety of exposure settings for a number of organic and inorganic contaminants.

Therefore, to assess the risk to human health the results of the laboratory analysis for soil samples are compared mainly against the Health Investigation Levels (HIL) B for the exposure setting; Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space, such as high-rise buildings and flats. Additionally, the Health Screening Levels (HSL D) for Commercial/ Industrial developments. This criteria were selected following the NEPM guidelines which states the presence of basement or ground level car parking for high-density residential would require the application of the land-use category D, commercial/industrial.

The following criteria of NEPM guidelines were adopted for this assessment:

- Health investigation levels (HIL) B: Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats.
- Health Screening Levels (HSL) for fine textured (silty CLAY) soils on a commercial/industrial site were adopted as appropriate for the soils encountered to assess the potential human health impact of petroleum hydrocarbons including benzene, toluene, ethylbenzene, and xylene (BTEX) compounds;
- Ecological Investigation Levels (EIL) for commercial and industrial land use were used for evaluation of the potential ecological / environmental impact of heavy metals and PAH; and
- Ecological Screening Levels (ESL) for fine textured (silt or clay) soils on a standard residential site were adopted as appropriate for the soils encountered, to assess the potential ecological / environmental impact of petroleum hydrocarbons and BTEX compounds.
- The guideline level for asbestos is from the amended NEPM 2013 which has adopted WA Department of Health guidance (2009).

5.4 Data Quality Assurance and Quality Control

The data quality assurance and quality control (QA/QC) results are included in **Appendix K**. Based on the results of the field QA and field and laboratory QC, and evaluation against the data quality indicators (DQI) it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.

6. Laboratory Results

6.1 Soil Sample

Test results of soils samples obtained from Eurofins Environmental Testing, Report Reference number 1174650-S, 1174650-AID, 1174650-W (**Table 9**). The detailed results are presented in **Appendix K**.

The contaminant threshold values used in this investigation have been obtained from the National Environment Protection (Assessment of Site Contamination) Measure (NEPM, 2013), Health Investigation Levels (HIL), Health Screening Levels (HSLs), Ecological investigation level (EIL) and Ecological screening levels (ESL) for the exposure setting Commercial/industrial (D) includes premises such as shops, offices, factories and industrial sites (D). The laboratory results detailed in **Table 9**, indicated levels of heavy metals, BTEX, VOCs, Phenols, and asbestos were below the adopted assessment criteria.

However, the results of BH1 and the duplicate BH1 showed exceedance of TRH C6-C10 for the adopted human health assessment criteria for HSL D. The exceedances over the criteria were 2.4 times for BH1-0.5-1 and 3.88 times for BH1-0.5-2. Additionally, the samples BH1-0.5-1, BH1-0.5-2, BH5-0.3 and BH5-1.0 showed exceedance for the ecological assessment ESL with values of 44.1, 37.5, 1.8 and 2.9 times over the limit, respectively. Furthermore, the location of BH1 and BH5 corresponded to the approximate location of the former service location. Therefore, the observed TRH contamination was associated with the potential presence of the UPSS from the former service station.

Table 9: Laboratory Test Results and Site Assessment Criteria

Boreholes/SAC	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAH	Carcinogenic PAH	Benzo(a)pyrene	Benzene	Toluene	Ethyl-Benzene	Xylenes	TRH – C6-C10	TRH > C10-C16	TRH > C16-C34	TRH > C34-C40	Asbestos
Soil Samples (mg/kg)																				
BH1-0.5-1	10	4.5	21	140	870	0.1	18	400	30	< 0.5	< 0.5	0.2	0.8	3.7	35	600	5,300	5,500	1100	No
BH1-1.0	4.6	< 0.4	11	13	37	< 0.1	< 5	24	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	< 20	< 50	120	< 100	No
BH2-0.5	5.9	< 0.4	12	6.1	17	< 0.1	< 5	5.3	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	< 20	< 50	< 100	< 100	No
BH2-1.0	7.9	< 0.4	18	14	25	< 0.1	5.9	8.3	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	< 20	< 50	< 100	< 100	No
BH3-0.5	5	< 0.4	10	11	13	< 0.1	< 5	5.4	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	< 20	< 50	< 100	< 100	No
BH5-0.3	7.2	< 0.4	19	18	30	< 0.1	8	20	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	56	220	160	< 100	No
BH5-1.0	4.6	< 0.4	18	16	17	< 0.1	8.6	14	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	21	350	320	< 100	No
BH6-0.4	11	0.6	23	50	110	0.1	18	270	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	< 20	< 50	< 100	< 100	No
BH7-0.4	14	< 0.4	27	33	44	< 0.1	18	110	< 0.5	< 0.5	< 0.5	<0.1	<0.1	<0.1	<0.3	< 20	< 50	< 100	< 100	No
HIL B	**500**	**140**	**500**	**30,000**	**1,200**	**600**	**900**	**60,000**	**400**	**4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
HSL D*	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4**	**NL**	**NL**	**NL**	**310**	**NL**	**-**	**-**	**-**
EIL	**100**	**-**	**-**	**-**	**1,100**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
ESL	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.4**	**65**	**105**	**125**	**45**	**180**	**120**	**1,300**	**5,600**	**-**
BH1-0.5-2	11	4.8	28	180	680	0.1	24	500	39	< 0.5	< 0.5	0.4	0.8	13	71	970	4,500	6,700	1,400	No
RPD %	9.5	6.5	28.6	25.0	24.5	0.0	28.6	22.2	26.1	-	-	66.7	0.0	111.4	67.9	47.1	16.3	19.7	24.0	-
TB-Soil	-	-	-	-	-	-	-	-	-	-	-	LOR	LOR	LOR	LOR	-	-	-	-	-
RBW	LOR	LOR	LOR	LOR	LOR	LOR	LOR	LOR	-	-	-	-	-	-	-	-	-	-	-	-

* HSLD+ (silt, silty clay and silty clay loam)

Table 10: Laboratory Test Results and Site Assessment Criteria

Boreholes/SAC	Phenol	Pentachlorophenol	Cresol	TCE	1,1,1-TCA	Cis-1,2-dichloroethene	Vinyl chloride
Soil Samples (mg/kg)							
BH1-0.5-1	1.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH1-1.0	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH2-0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH2-1.0	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH3-0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH5-0.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH5-1.0	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH6-0.4	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
BH7-0.4	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
HIL B	**50,000**	**150**	**5,500**	**2**	**260**	**2**	**0.3**
HSL D	**-**	**-**	**-**	**-**	**-**	**-**	**-**
EIL	**-**	**-**	**-**	**-**	**-**	**-**	**-**
ESL	**-**	**-**	**-**	**-**	**-**	**-**	**-**
BH1-0.5-2	-	-	-	-	-	-	-
RPD %	-	-	-	-	-	-	-
TB-Soil	-	-	-	-	-	-	-
RBW	-	-	-	-	-	-	-

7. Data Gaps

Based on the PSI findings, the following data gaps were identified:

- Additional soil sampling under the existing commercial structures.
- Additional sampling for the fill material beneath the surface must be analysed for the identified COPCs (including BTEX, PAH, TPH/TRH).
- Groundwater contamination must be laterally and vertically assessed with additional groundwater samples.
- The confirmation of the presence of an Underground Petroleum Storage System (UPSS) at the location of the previous petrol station in block 215.
- Additional soil vapor samples must be analysed for hydrocarbons in the vicinity of BH1. The samples must be compared against the soil vapor HSL-D criteria from the NEPM (2013).
- Field parameters using a photoionization detector (PID) should be used for the detection of residual chlorinated volatiles in soil and groundwater samples.
- Natural Attenuation parameters were not considered in this report, to assess for natural degradation. However, natural attenuation must be analysed in future contamination investigations.

To assess groundwater flow at the site and its surroundings, a detailed hydrogeological study may be required.

8. Conclusions and Recommendations

CEC Geotechnical has prepared this report to provide a Stage 1 Preliminary Site Investigation (PSI) or Contamination Assessment at 215, 229-239 Pitt St, Merrylands. The works included a preliminary site investigation study with a scope following the request from our client (Anglicare).

CEC Geotechnical understood that the proposed development will comprise the demolition of existing structures and the construction of a multi-storey mixed-use building, including commercial shops, residential flats and a 4-level basement.

The aerial photographs indicated that the existing structures in blocks 229-239 were constructed before 1978. Additionally, existing structures in block 215 were constructed before 1998. Therefore, the risk of contamination associated with asbestos on the site was assessed and may present.

Additionally, a preliminary search in the Cumberland City Council DA tracker showed a previous preliminary, detailed site investigation and remedial action plan prepared for the subject site. The DSI identified a former petrol station in block 215. However, the report did not identify relevant contamination within the collected samples. However, the RAP noted that the former UPSS infrastructure and associated contamination may be present beneath the existing buildings and pavements. Therefore, the risk of contamination associated with oil/hydrocarbons on the site was assessed and may be present.

Following the potential risk of concerns, twelve (12) discrete soil samples, including 1 soil sample for intra-lab duplicate, 2 for QA/QC and 2 deep samples were collected systematically across the site from 6 sampling locations. The main outcomes of the laboratory results are summarised below:

- BH1-0.5 showed exceedance of TRH C6-C10 for the adopted human health assessment criteria for HSL D. The exceedances over the criteria were 2.4 and 3.88 times.
- Exceedance for the ecological assessment ESL was observed for the samples BH1-0.5 for TRH C6-C10, TRH C10-C16, and C16-C34.

- BH5-0.3 and BH5-1.0 showed exceedance of TRH C10-C16 for the ecological assessment ESL.

Furthermore, the location of BH1 and BH5 corresponded to the approximate location of the former service location. Therefore, the observed TRH contamination was associated with the potential presence of the UPSS from the former service station.

Based on the findings of this PSI report, a Detailed Site Investigation (DSI) is necessary to assess the potential presence of an underground petroleum storage system (UPSS), delineate soil and groundwater area contamination, and conduct a vapour intrusion assessment if warranted by the results. However, it is important to note that the DSI can only proceed after the demolition of the existing structures, as this is essential for effectively addressing the identified data gaps. The potential existence of a UPSS poses significant risks for drilling operations, and no additional sampling should be carried out until the presence or absence of a UPSS has been confirmed. This confirmation can be achieved using Ground Penetrating Radar (GPR), although accurate results require the removal of the existing structure and the footing slab, which can reduce GPR accuracy. Therefore, CEC Geotechnical recommends that the DSI be conducted following the demolition of the current buildings and the clearance of the footing slab.

Due to the current access constraints, it is not possible to complete these investigations prior to the submission of the State Significant Development Application (SSDA). Consequently, it is advisable to prepare a Framework Remedial Action Plan (FRAP) to support the development application. This FRAP should identify potential outcomes from the data gaps noted in section 7 and recommend remediation strategies in response to possible contamination scenarios. Furthermore, the FRAP must incorporate a Data Gap Assessment plan to be carried out post-demolition to address the identified data gaps. Finally, a detailed Remedial Action Plan (RAP) should be developed based on the FRAP and the findings of the data gap assessment.

In conclusion, CEC Geotechnical considered that the site can be made suitable for the proposed multi-storey mixed-use development, subject to the implementation of a FRAP. Additionally, the following recommendations are put forward:

- Prior to demolishing the properties, the client must carry out a HAZMAT assessment by a licensed assessor.
- Where hazardous building materials are identified and subsequently removed, an inspection of surface soils and clearance should be completed following demolition by a suitably qualified consultant.
- Should evidence of site contamination be identified at any stage during the development process, such as staining, odorous soils, or suspect asbestos, then an experienced site contamination consultant should be contacted immediately for advice.
- Any material to be removed off-site, ENM, MUST be classified for off-site disposal in accordance with the NSW EPA (2014) Waste Classification Guidelines.
- Any material being imported to the site for backfilling purposes should be assessed for potential contamination in accordance with the EPA guidelines.
- Unexpected Finds Protocol (UFP) is required for the site. This is required to be prepared by the appropriate environmental consultant/person and submitted with the application.

9. Conditions of the Recommendation

All work conducted, and report produced by CEC Geotechnical is for a particular Client's objective and are based on a specific scope, conditions and limitations were discussed in the proposal prepared by the CEC Geotechnical and agreed by the Client. Information and/or report(s) prepared by CEC Geotechnical may therefore not be suitable for any use other than the intended objective of the project.

The results of this assessment are based on the site conditions identified at the time of the site inspection/ investigation desktop study and validation sampling (if conducted). The assessment may not identify contamination occurring in all areas of the site, or there may be special conditions pertaining to the site which have not been revealed during the investigation and not documented in the report. Subsurface conditions may vary considerably away from the sample locations where information has been obtained. Moreover, CEC Geotechnical will not be liable to revise the report to account for any changes in site characteristics, regulatory requirements, assessment criteria or the availability of additional information, subsequent to the issue date of this report.
The report and/or any information produced by CEC Geotechnical should not be reproduced and/or presented prior permission from CEC Geotechnical.

It has been assumed that data supplied by the client, or any other external data/reports have been referred by CEC Geotechnical. It is also assumed that referred information is correct unless otherwise stated. CEC Geotechnical has no obligation for incomplete or inaccurate data provided by any external source(s).

For and on behalf of CEC Geotechnical Pty Ltd.

Diego Espinosa Moreno

Environmental Engineer
B.E (Chemical), M.E. (Environmental).

Zuhaib Siddiqui

Associate Environmental Engineer
B.E. (Civil), M.E.(Environmental), PhD (Environmental)
CEnvP (General)#1574

References

- ANZG (2018). Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Canberra, ACT: Australian and New Zealand Governments and Australian state and territory governments
- Assessment Levels of Soil, Contaminated Sites Management Series, Assessment Levels for Soil, Sediment and Water (2010), Department of Environment and Conservation, Government of Western Australia
- Construction Sciences Pty Ltd (2020), Stage 1 Preliminary and Stage 2 Detailed Site Investigation
- Construction Sciences Pty Ltd (2020a), Remedial Action Plan
- Consultant Reporting on Contaminated Land, Contaminated Land Guidelines (2020), NSWEPA
- Protection of the Environments Operations Act (1997), NSWEPA
- Department of Urban Affairs and Planning – EPA (1998) "Managing Land Contamination – Planning Guidelines – SEPP 55 – Remediation of Land".
- NEPM (2013) Schedule B(1) Guideline on Investigation Levels For Soil and Groundwater , National Environmental Protection (Assessment of Site Contamination) Measure 1999 - Amendment 2013; Contaminated Land Management Act (1997)
- NEPM (2013) Schedule B(2) Guideline on Site Characterisation, National Environmental Protection (Assessment of Site Contamination) Measure 1999 - Amendment 2013; Contaminated Land Management Act (1997)
- Network Geotechnics (NG) Pty Ltd (2017), Due Diligence Contamination Assessment 215-239 Pitt Street, Merrylands
- NSW EPA. (2022). Sampling Design Part1-Application: Contaminated Land Guidelines. NSW Environment Protection Authority.
- State Environmental Planning Policy (Resilience and Hazards, 2021-Chapter 4 Remediation of Land), under the Environmental Planning and Assessment Act 1979.

APPENDIX A – Proposed Development Plan

APPENDIX B – Figures

Figure 1: Site Location

Figure 2: Geological Map of Penrith Region

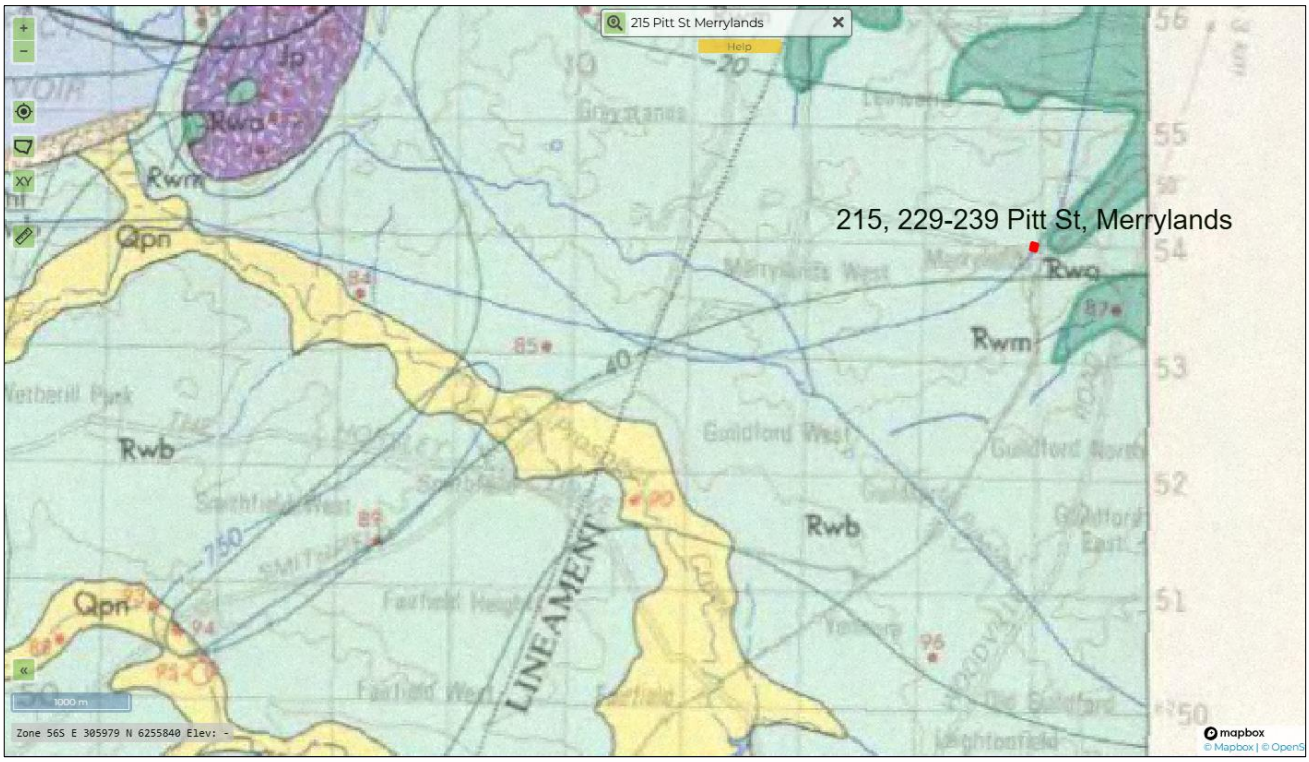


Figure 3: Type of Soil on Site

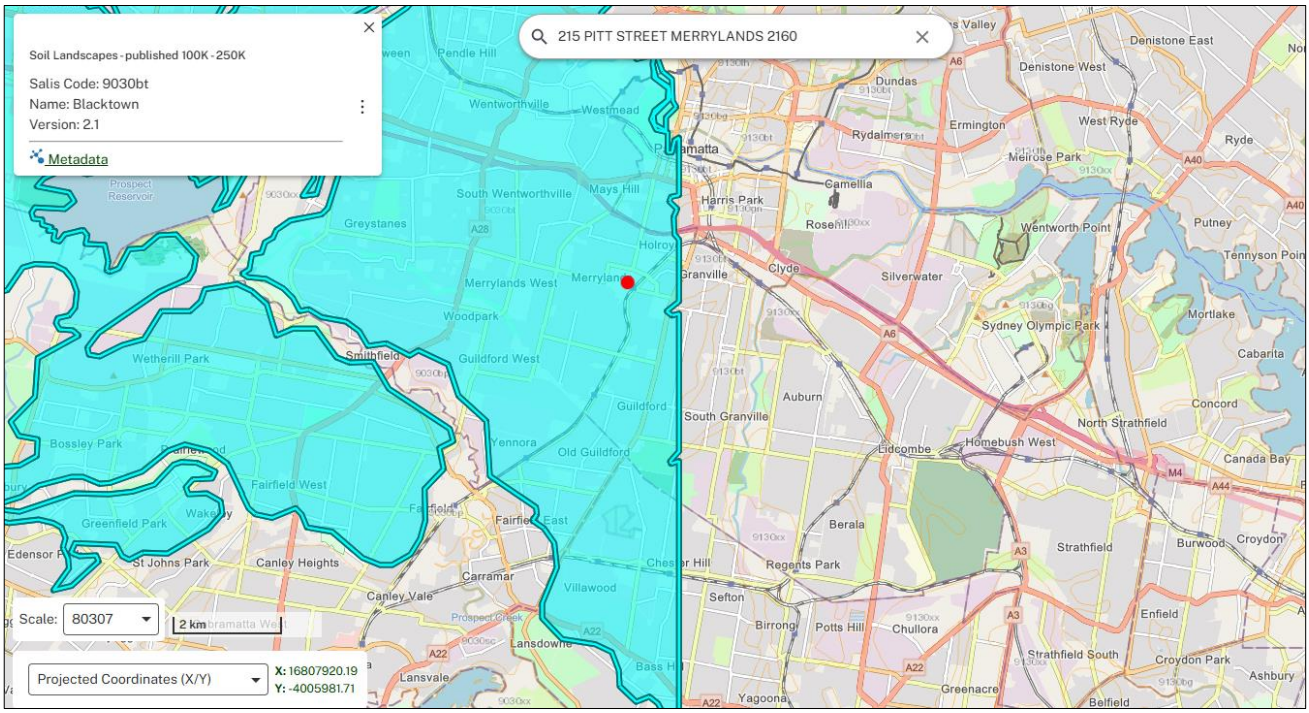


Figure 4: Extract of Groundwater/Bores Information Close to the Site

Figure 5: Extract of Groundwater/Bores Information Close to the Site

WaterNSW
Work Summary

GW105490

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 02/10/2003
Final Depth: 6.50 m
Drilled Depth: 6.50 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW
GWMA:
GW Zone:
Standing Water Level (m): 2.450
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6254420.000
Easting: 314179.000
Latitude: 33°50'02.9"S
Longitude: 150°59'30.7"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.50	100			Hand Auger
1		Hole	Hole	1.50	6.50	150			Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.50	50		0	PVC, SL: 50.0mm, A: 5.00mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	0.70	0.70	FILL,GRAVEL COARSE,BVLACK WET	Fill	
0.70	4.40	3.70	CLAY,D/BROWN,DRY	Clay	
4.40	5.40	1.00	GRAVELLY CLAY,ORANGE/BROWN	Gravel	
5.40	6.50	1.10	CLAY:L/BROWN/GREY,STIFF	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

WaterNSW
Work Summary

GW105491

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 03/10/2003
Final Depth: 6.50 m
Drilled Depth: 6.50 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW
GWMA:
GW Zone:
Standing Water Level (m): 2.300
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6254428.000
Easting: 314148.000
Latitude: 33°50'02.6"S
Longitude: 150°59'29.5"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	4.50	100			Hand Auger
1		Hole	Hole	4.50	6.50	150			Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.50	50		0	PVC, SL: 50.0mm, A: 5.00mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	3.40	3.40	CLAY,L/BROWN,DRY,MOIST	Clay	
3.40	4.40	1.00	GRAVELLY CLAY,ORANGE,BROWN	Gravel	
4.40	6.50	2.10	CLAY,L/BROWN,SOFT,WET	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

WaterNSW
Work Summary

GW105489

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 01/10/2003
Final Depth: 6.50 m
Drilled Depth: 6.50 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW
GWMA:
GW Zone:
Standing Water Level (m): 2.450
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6254431.000
Easting: 314177.000
Latitude: 33°50'02.6"S
Longitude: 150°59'30.7"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.50	100			Hand Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.50	50		0	PVC, SL: 50.0mm, A: 5.00mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	4.40	4.40	CLAY,GREY,BLACK,DRY,MOIST	Clay	
4.40	5.40	1.00	GRAVELLY CLAY,ORANGE/BROWN	Gravel	
5.40	6.50	1.10	CLAY,L/BROWN,WET	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

WaterNSW
Work Summary

GW105488

Licence: 10BL162479 **Licence Status:** CANCELLED

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status:
Construct.Method:
Owner Type:

Commenced Date:
Completion Date: 01/10/2003
Final Depth: 6.90 m
Drilled Depth: 6.90 m

Contractor Name: Terratest Pty Ltd
Driller:
Assistant Driller:

Property: MOBIL OIL AUST LTD 185 Pitt St MERRYLANDS 2160 NSW
GWMA:
GW Zone:
Standing Water Level (m): 2.100
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	CUMBERLAND	ST JOHN	61 7916
Licensed:	CUMBERLA	STJOHN	Whole Lot 61/B/7916

Region: 10 - Sydney South Coast
River Basin: - Unknown
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown
Northing: 6254437.000
Easting: 314158.000
Latitude: 33°50'02.4"S
Longitude: 150°59'29.9"E

GS Map: -
MGA Zone: 56
Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	1.50	100			Hand Auger
1		Hole	Hole	1.50	6.90	150			Auger
1	1	Casing	P.V.C.	0.00	0.00	50			
1	1	Opening	Slots - Vertical	1.50	6.90	50		0	PVC, SL: 50.0mm, A: 5.40mm

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	4.40	4.40	CLAY,L/BROWN,DRY,MOIST	Clay	
4.40	5.40	1.00	GRAVELLY CLAY/RED/BROWN	Gravel	
5.40	6.90	1.50	INTERBEDDED CLAY	Clay	

Remarks

23/09/2011: Slot Length and Width adjusted due to data entry errors with advice from Madhwan Keshwan. GDS Data Cleanup project 2011.

Figure 6: Extract of Acid Sulphate Soils Map showing Subject Site

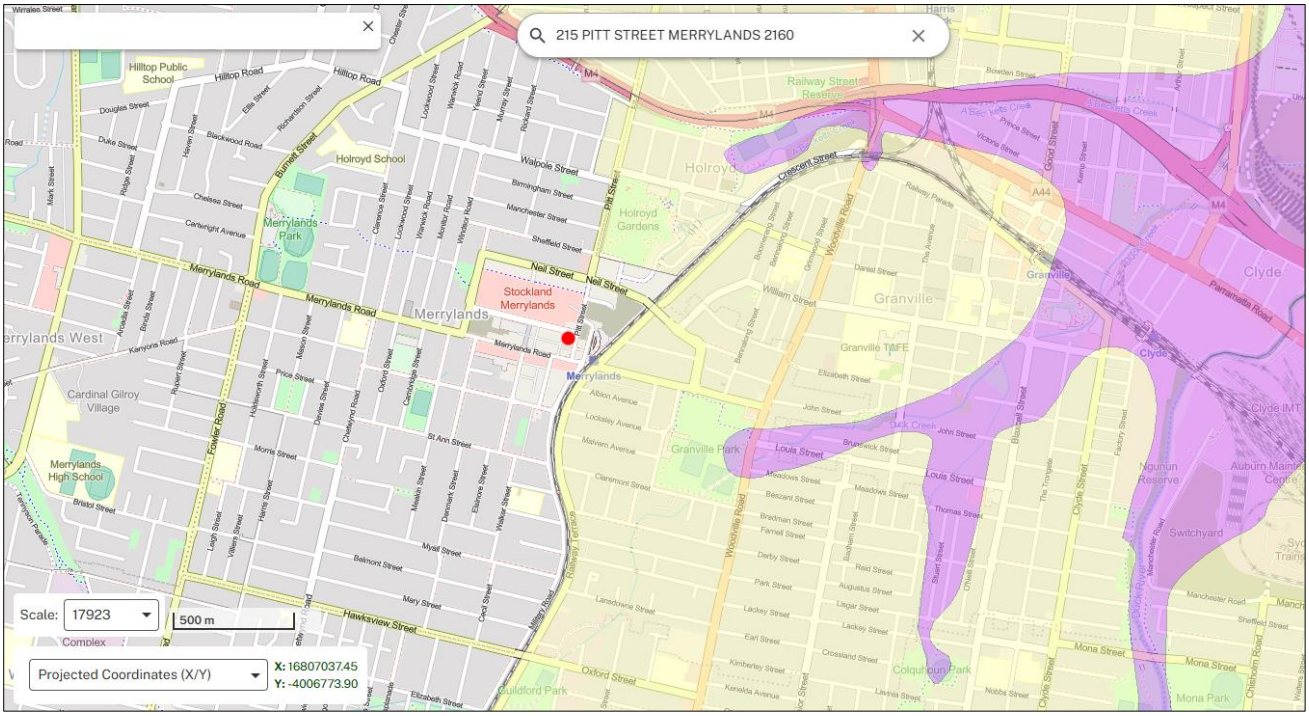


Figure 7: Sample Locations

BH1	0.5 m
TRH - C6-C10	600 / 970 (mg/kg)
TRH > 10-16	5,300 / 4,500 (mg/kg)
TRH > 16-34	5,500 / 6,700 (mg/kg)

BH5	0.3 m	1.0 m
TRH > 10-16	220 (mg/kg)	350 (mg/kg)

APPENDIX C – Planning Certificate

CUMBERLAND
CITY COUNCIL

APPLICANT: Mecone Group
12 Hassell Street
PARRAMATTA NSW 2150

PLANNING CERTIFICATE

Issued under section 10.7(2) & (5) Environmental Planning and Assessment Act 1979

Property:	**215 Pitt Street MERRYLANDS NSW 2160**
Title:	**Lot 2 DP 501597**
Land No:	101741
Certificate No:	PC2024/4561
Certificate Date:	30/08/2024
Applicant's Ref:	M001063

SECTION 10.7(2)

In accordance with the requirements of section 10.7(2) of the Environmental Planning and Assessment Act (1979) ("the Act"), the following prescribed matters relate to the land at the date of this certificate.

ITEM 1 - Names of relevant planning instruments and DCPs

1. The following environmental planning instruments apply to the carrying out of development on the land:

Cumberland Local Environmental Plan 2021

State Environmental Planning Policy (Biodiversity and Conservation) 2021
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
State Environmental Planning Policy (Industry and Employment) 2021
State Environmental Planning Policy (Planning Systems) 2021
State Environmental Planning Policy (Primary Production) 2021
State Environmental Planning Policy (Resilience and Hazards) 2021
State Environmental Planning Policy (Resource and Energy) 2021
State Environmental Planning Policy (Transport and Infrastructure) 2021
State Environmental Planning Policy No. 65 - Design Quality of Residential Apartment Development
State Environmental Planning Policy (Sustainable Buildings) 2022
State Environmental Planning Policy (Housing) 2021

The following development control plan apply to the carrying out of development on the land:

Cumberland Development Control Plan 2021

2. The following proposed environmental planning instruments and development control plans apply to the carrying out of development on the land and are or have been the subject of community consultation or on public exhibition under the Environmental Planning and Assessment Act 1979:

No proposed environmental planning instruments apply

No proposed development control plans apply

In this item - proposed environmental planning instrument means a draft environmental planning instrument and includes a planning proposal for a local environmental plan.

ITEM 2 - Zoning and land use under relevant planning instruments

1. (a) Zoning details in the environmental planning instruments identified in ITEM 1(1) above

Zone E2 Commercial Centre

1. Objectives of zone

- To strengthen the role of the commercial centre as the centre of business, retail, community and cultural activity.
- To encourage investment in commercial development that generates employment opportunities and economic growth.
- To encourage development that has a high level of accessibility and amenity, particularly for pedestrians.

- To enable residential development only if it is consistent with the Council's strategic planning for residential development in the area.
- To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse and functional streets and public spaces.

2. Permitted without consent
Home occupations

3. Permitted with consent
Amusement centres; Artisan food and drink industries; Backpackers' accommodation; Boarding houses; Centre-based child care facilities; Commercial premises; Community facilities; Entertainment facilities; Function centres; Group homes; Home industries; Hostels; Hotel or motel accommodation; Information and education facilities; Local distribution premises; Medical centres; Mortuaries; Oyster aquaculture; Passenger transport facilities; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Registered clubs; Respite day care centres; Restricted premises; Shop top housing; Tank-based aquaculture; Vehicle repair stations; Veterinary hospitals; Any other development not specified in item 2 or 4

4. Prohibited
Agriculture; Air transport facilities; Airstrips; Animal boarding or training establishments; Boat building and repair facilities; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Electricity generating works; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Freight transport facilities; Heavy industrial storage establishments; Helipads; Highway service centres; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Jetties; Marinas; Mooring pens; Moorings; Open cut mining; Port facilities; Recreation facilities (major); Research stations; Residential accommodation; Rural industries; Sewerage systems; Sex services premises; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Warehouse or distribution centres; Waste or resource management facilities; Water recreation structures; Water supply systems; Wharf or boating facilities; Wholesale supplies

(b) Additional permitted uses

No additional uses apply

(c) Are there development standards applying to the land, which fix minimum land dimensions for the erection of a dwelling house on the land?

No fixed minimum land dimensions apply to this land

(d) Is the land within an area of outstanding biodiversity value under the Biodiversity Conservation Act 2016?

The land is not within an area of outstanding biodiversity value (Biodiversity Conservation Act 2016).

(e) Is the land within a heritage conservation area?

The land is not within a heritage conservation area

(f) Is there a heritage item situated on the land?

There are no heritage items situated on the land

2. (a) Zoning details in the proposed environmental planning instruments identified in ITEM 1(2) above

No draft zoning applies to the land

(b) Additional permitted uses

No draft additional uses apply

(c) Are there development standards applying to the land, which fix minimum land dimensions for the erection of a dwelling house on the land?

No fixed minimum land dimensions apply to the land under a draft environmental planning instrument

(d) Is the land within an area of outstanding biodiversity value under the Biodiversity Conservation Act 2016?

The land is not within an area of outstanding biodiversity value (Biodiversity Conservation Act 2016) under a draft environmental planning instrument.

(e) Is the land within a draft heritage conservation area?

The land is not within a draft heritage conservation area

(f) Is there a draft heritage item situated on the land?

There are no draft heritage items situated on the land

ITEM 3 - Contributions plans

1. ***The name of the contributions plan applying to the land is:***

Cumberland Local Infrastructure Contributions Plan 2020

The subject land is within Greater Sydney to which the Environmental Planning and Assessment (Housing and Productivity Contribution) Order 2023 applies.

2. ***The name of the draft contributions plan applying to the land is:***

No draft contributions plan applies.

ITEM 4 - Complying Development Exclusions

Is the land, land on which complying development may be carried out under clauses 1.17A(1)(c) to (e),(2),(3) and (4), 1.18 (1)(c3) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008?

Housing Code
Yes, under the Housing Code complying development may be carried out on the land.

Note: The land is within former Holroyd City. There is a variation to the Housing code in former Holroyd City land as it is listed in Schedule 3 of the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. Please refer to Schedule 3 - Cumberland/Parramatta (formerly Holroyd City) for further details.

Rural Housing Code
Yes, under the Rural Housing Code complying development may be carried out on the land.

Low Rise Housing Diversity Code
Yes, under the Low Rise Housing Diversity Code complying development may be carried out on the land.

Housing Alterations Code
Yes, under the Housing Alterations Code complying development may be carried out on the land.

General Development Code
Yes, under the General Development Code complying development may be carried out on the land.

Industrial and Business Alterations Code
Yes, under the General Commercial and Industrial Code complying development may be carried out on the land.

Industrial and Business Buildings Code
Yes, under the General Commercial and Industrial (New Buildings and Additions) Code complying development may be carried out on the land.

Container Recycling Facilities Code
Yes, under the Container Recycling Facilities Code complying development may be carried out on the land.

Subdivisions Code
Yes, under the Subdivisions Code complying development may be carried out on the land.

Demolition Code
Yes, under the Demolition Code complying development may be carried out on the land.

Fire Safety Code
Yes, under the Fire Safety Code complying development may be carried out on the land.

Agritourism and Farm Stay Accommodation Code
Yes, under the Agritourism and Farm Stay Accommodation Code complying development may be carried out on the land.

ITEM 5 - Exempt Development Exclusions

Is the land, land on which exempt development may be carried out under clauses 1.16(1)(b1) to (d) and 1.16A of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008?

Yes

ITEM 6 - Affected building notices and building product rectification orders

1. Is any affected building notice in force in respect of the land?

No

2. Is any building product rectification order in force in respect of the land that has not been fully complied with?

No

3. Has a notice of intention to make a building product rectification order been given in respect of that land that is outstanding?

No

In this item –

affected building notice has the same meaning as in the Building Products (Safety) Act 2017, Part 4.

building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

ITEM 7 - Land reserved for acquisition

Does an environmental planning instrument, or proposed environmental planning instrument referred to in item 1 makes provision in relation to the acquisition of the land by an authority of the State, as referred to in the Act, section 3.15.

No

ITEM 8 - Road widening and road realignment

Is the land affected by any road widening or road realignment under:

(a) Division 2 of Part 3 of the Roads Act 1993; or
(b) Any environmental planning instrument; or
(c) Any resolution of the Council?

The land is affected by road widening or road realignment. Refer to the development control plan in Item 1.

ITEM 9 - Flood related development controls information

1. Is development on the land or part of the land located within a flood planning area and subject to flood related development controls.

Yes

2. Is the land or part of the land between the flood planning area and the probable maximum flood (PMF) and subject to flood-related development controls.

No

In this item-

flood planning area has the same meaning as in the Flood Risk Management Manual.

Flood Risk Management Manual means the Flood Risk Management Manual (ISBN 978-1-923076-17-4) published by the NSW Government in June 2023.

probable maximum flood has the same meaning as in the Flood Risk Management Manual.

ITEM 10 - Council and other public authority policies on hazard risk restrictions

(a) Whether or not the land is affected by a policy adopted by the Council that restricts the development of the land because of the likelihood of:-

(i)	land slip	No
(ii)	bushfire	No
(iii)	tidal inundation	No
(iv)	subsidence	No
(v)	acid sulphate soils	No, see below
(vi)	land contamination	No
(vii)	aircraft noise	No
(viii)	salinity	No, see below
(ix)	coastal hazards	No
(x)	sea level rise	No
(xi)	Other Risk	No

Acid Sulphate Soils: Council has not adopted a policy on Acid Sulphate Soils, however Acid Sulphate Soils have been mapped (refer to Cumberland Local Environmental Plan 2021 Acid Sulphate Soils Maps). Clause 6.1 of the LEP must be addressed if development is proposed where there are Acid Sulphate Soils.

Salinity: Council has not adopted a policy on Salinity, however Salinity have been mapped (refer to Cumberland Local Environmental Plan 2021 Salinity Maps). Clause 6.9 of the LEP states that Salinity must be considered prior to the approval of the development if the land is identified in the Salinity Map.

(b) Whether or not the land is affected by a policy adopted by another public authority (if the public authority has notified the council that the policy will be included in a planning certificate issued by the council) that restricts the development of the land because of the likelihood of:-

(i)	land slip	No
(ii)	bushfire	No
(iii)	tidal inundation	No
(iv)	subsidence	No
(v)	acid sulphate soils	No
(vi)	land contamination	No
(vii)	aircraft noise	No
(viii)	salinity	No
(ix)	coastal hazards	No
(x)	sea level rise	No
(xi)	Other Risk	No

ITEM 11 - Bush fire prone land

None of the land is bush fire prone land.

ITEM 12 - Loose - fill asbestos insulation

Has Council been notified that the land includes any residential premises (within the meaning of Division 1A of Part 8 of the Home Building Act 1989) that are listed on the register that is required to be maintained under that Division?

No. Contact NSW Fair Trading for more information.

ITEM 13 - Mine subsidence

Is the land proclaimed to be in a mine subsidence district within the meaning of the Coal Mine Subsidence Compensation Act 2017?

No

ITEM 14 - Paper subdivision information

Has a development plan been adopted that applies to the land or that is proposed to be subject to a consent ballot?

No

ITEM 15 - Property vegetation plans

Has Council been notified (by the person or body that approved the plan) of the existence of a property vegetation plan approved under Part 4 of the Native Vegetation Act 2003 (and that continues in force) applying to the land?

No

ITEM 16 - Biodiversity stewardship sites

Has Council been notified by the Biodiversity Conservation Trust that the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the Biodiversity Conservation Act 2016?

No

Note - Biodiversity stewardship agreements include biobanking agreements under the Threatened Species *Conservation Act 1995*, Part 7A that are taken to be biodiversity stewardship agreements under the *Biodiversity Conservation Act 2016*, Part 5.

ITEM 17 - Biodiversity certified land

Is the land biodiversity certified land under Part 8 of the Biodiversity Conservation Act 2016?

No

Note - Biodiversity certified land includes land certified under the *Threatened Species Conservation Act 1995*, Part 7AA that is taken to be certified under the *Biodiversity Conservation Act 2016,* Part 8.

ITEM 18 - Orders under Trees (Disputes Between Neighbours) Act 2006

Has Council been notified that an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land?

No

ITEM 19 - Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works

Has the owner (or any previous owner) of the land consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act)?

No

ITEM 20 - Western Sydney Aerotropolis

State Environmental Planning Policy (Precincts—Western Parkland City) 2021, Chapter 4 Western Sydney Aerotropolis does not apply to the land.

ITEM 21 - Development consent conditions for seniors housing

If State Environmental Planning Policy (Housing) 2021, Chapter 3, Part 5 applies to the land, are there any conditions from a development consent (granted after 11 October 2007) in relation to the land that are of the kind set out in clause 88(2) of the Policy.

Conditions from a development consent (granted after 11 October 2007) are registered on title if they are of a kind set out in clause 88(2) of the State Environmental Planning Policy (Housing) 2021.

ITEM 22 - Site compatibility certificates and development consent conditions for affordable rental housing.

1. Is Council aware of a current site compatibility certificate under State Environmental Planning Policy (Housing) 2021, or a former site compatibility certificate in relation to proposed development on the land?

No

2. If of State Environmental Planning Policy (Housing) 2021, Chapter 2, Part 2, Division 1 or 5 applies to the land, are there any conditions from a development consent in relation to the land that are of the kind set out in clause 21(1) or 40(1) of the Policy.

Conditions from a development consent are registered on title if they are of a kind set out in clause 22(1) or 40 (1) of the State Environmental Planning Policy (Housing) 2021.

3. *Have any terms of a kind referred to in clause 17(1) or 38(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 been imposed as a condition of development consent in relation to the land?*

Conditions from a development consent are registered on title if they are of a kind set out in clause 17(1) or 38(1) of the State Environmental Planning Policy (Affordable Rental Housing) 2009.

In this item –

former site compatibility certificate means a site compatibility certificate issued under *State Environmental Planning Policy (Affordable Rental Housing) 2009*.

ITEM 23 - Water or sewerage services

Are water or sewerage services provided or are to be provided to the land under the Water Industry Competition Act 2006.

No

Matters arising under Section 59(2) of the Contaminated Land Management Act 1997(CLM Act).

At the date of this certificate, is the land (or part of the land) to which this certificate relates to:

(a) Significantly contaminated land within the meaning of the CLM Act?

No

(b) Subject to a management order within the meaning of the CLM Act?

No

(c) Subject to an approved voluntary management proposal within the meaning of the CLM Act?

No

(d) Subject to an ongoing maintenance order within the meaning of the CLM Act?

No

(e) Subject of a site audit statement and a copy of such a statement has been provided to the Council?

No

Note: This information was sourced from the record under section 58 of the Contaminated Land Management Act 1997. If the land does not appear on the record, it may still be affected by contamination. For example: Contamination may be present, but the site has not been regulated by the EPA under the *Contaminated Land Management Act 1997*.

The EPA may be regulating contamination at the site through a license or notice under the Protection of the *Environment Operations Act 1997*.

Contamination at the site may be managed under the *State Environmental Planning Policy No 55-Remediation of Land.*

SECTION 10.7(5) INFORMATION

In accordance with section 10.7(5) of the Act the following advice is given on other relevant matters affecting the land.

1. Coastal matters and projected sea level rise

Council has been notified that the Department of Planning has adopted the New South Wales Coastal Planning Guideline: Adapting to Sea Level Rise (August 2010). The guideline can be viewed at www.planning.nsw.gov.au. The applicant should also refer to projected sea level rise low, medium and high scenario maps on http://www.ozcoasts.org.au/climate/Map_images/Sydney/mapLevel2.jsp for further information.

2. Acid Sulfate

No, the land is not affected by Acid Sulfate Soils

3. Other Advice

Other advice will be detailed below if applicable.

GENERAL INFORMATION

The absence of any reference to a matter affecting the land shall not imply that the land is not affected by that matter not referred to in this certificate.

Information provided under section 10.7(2) is in accordance with the matters prescribed under schedule 2 of the Environmental Planning and Assessment Regulation 2021 and is provided only to the extent that the Council has been notified by the Department of Public Works or Department of Planning.

When advice in accordance with section 10.7(5) is requested, the Council is under no obligation to furnish any advice. If advice is provided Council draws your attention to section 10.7(6) and schedule 6 of the *Environmental Planning and Assessment Act 1979* which have the effect that Council shall not incur any liability in respect of advice provided in good faith pursuant to section 10.7(5), including the furnishing of advice in respect of contaminated land.

Any enquiries regarding State and Regional Environmental Planning Policies should be directed to the Department of Planning at **http:// www.planning.nsw.gov.au**

Please contact Council's Strategic Planning section for further information about this Planning Certificate.

Peter J. Fitzgerald
GENERAL MANAGER

APPENDIX D – Site Photographs

Photograph 1 – North View: North Elevation of Block 215 Pitt St

Photograph 2 – East View: East Elevation of Block 215 Pitt St

Photograph 3 – Rear View: Rear Elevation of Block 215 Pitt St

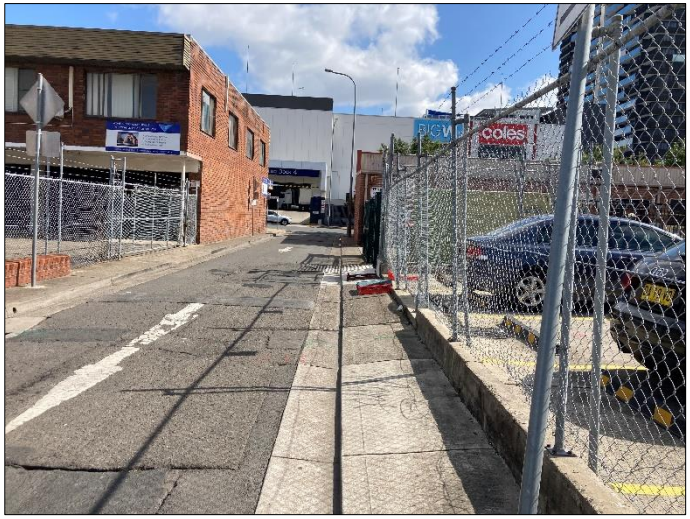
Photograph 4 – Rear View: Rear Parking of Block 215 Pitt St

Photograph 5 – Rear View: Waste Drums and Containers of Food Supplies

Photograph 6 – East View: East Elevation of Block 229-239 Pitt St

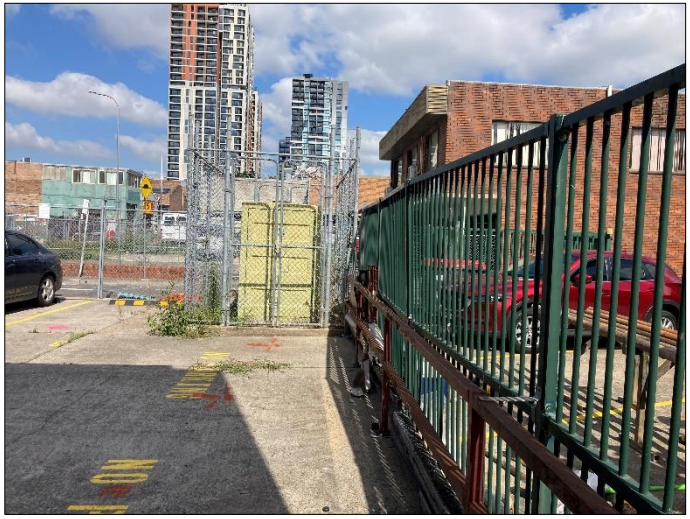
Photograph 7 – South View: South Elevation of Block 229-239 Pitt St

Photograph 8 – West View: West Elevation of Block 229-239 Pitt St



Photograph 9 – West View: West End from the Site

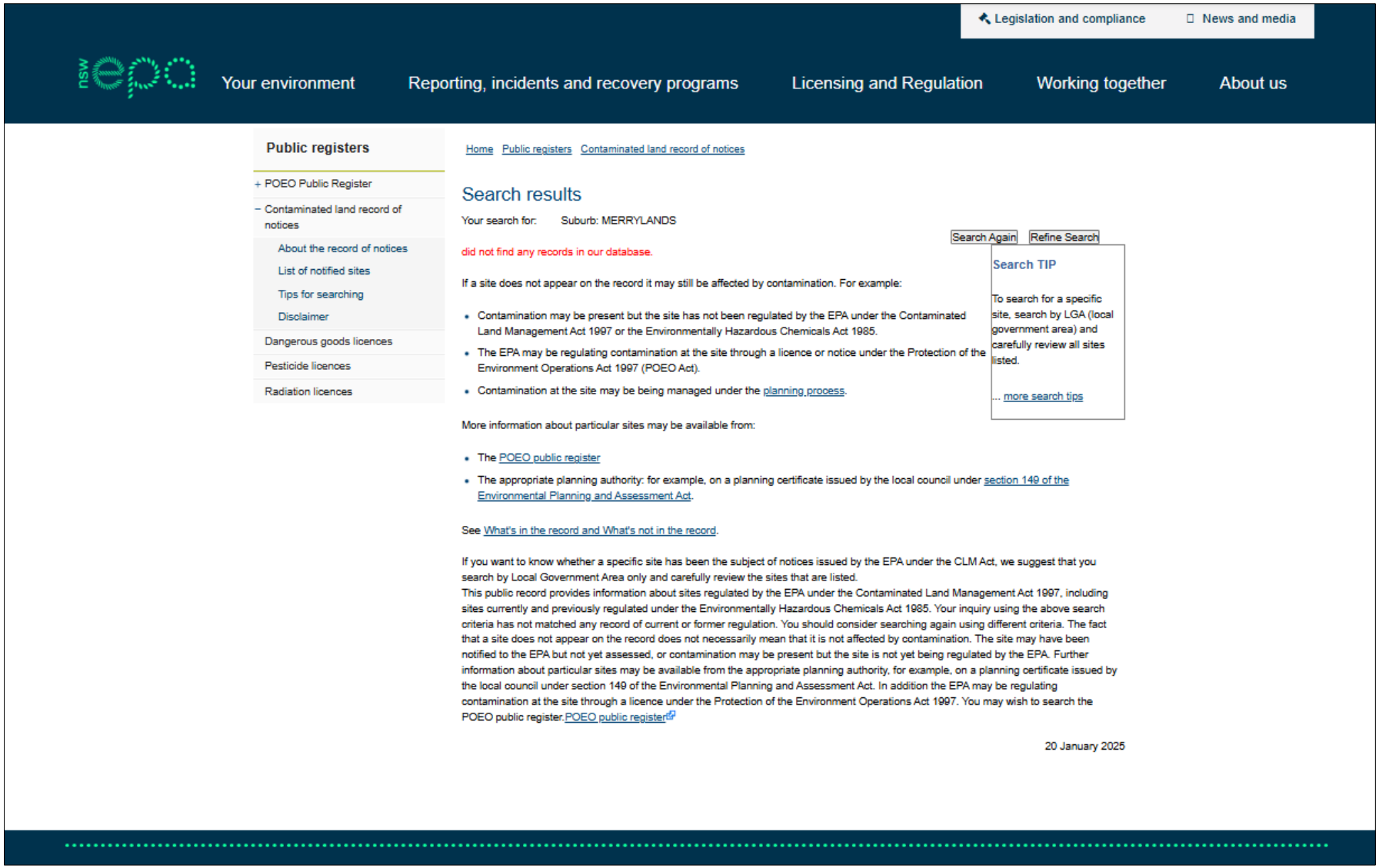
Photograph 10 – Rear View: Rear Elevation of Block 229-239 Pitt St



Photograph 11 – West View: Electrical Substation at the Rear of Block 229-239 Pitt St

Photograph 12 – Rear View: Rear Parking of Block 229-239 Pitt St

APPENDIX E – Search of the NSW EPA Contaminated Land Management Record



Legislation and compliance | News and media

Your environment | Reporting, incidents and recovery programs | Licensing and Regulation | Working together | About us

Public registers

+ POEO Public Register
− Contaminated land record of notices
  - About the record of notices
  - List of notified sites
  - Tips for searching
  - Disclaimer
- Dangerous goods licences
- Pesticide licences
- Radiation licences

Home > Public registers > Contaminated land record of notices

Search results

Your search for: Suburb: MERRYLANDS

Search Again | Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

20 January 2025

APPENDIX F – Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises

Legislation and compliance | News and media

Your environment | Reporting, incidents and recovery programs | Licensing and Regulation | Working together | About us

Public registers

- POEO Public Register
  - Licences, applications and notices search
  - Penalty notices search
  - Enforceable undertakings search
  - Enforceable undertakings media releases
  - Exemptions and approvals search
  - Prosecutions or civil proceedings search
  - Terms of use: POEO public register
  - Licensing FAQs
  - List of licences
  - Unlicensed premises regulated by the EPA
- + Contaminated land record of notices
- Dangerous goods licences
- Pesticide licences
- Radiation licences

Home Public registers POEO Public Register Licences, applications and notices search

Search results

Your search for: **General Search** with the following criteria

Suburb - Merrylands

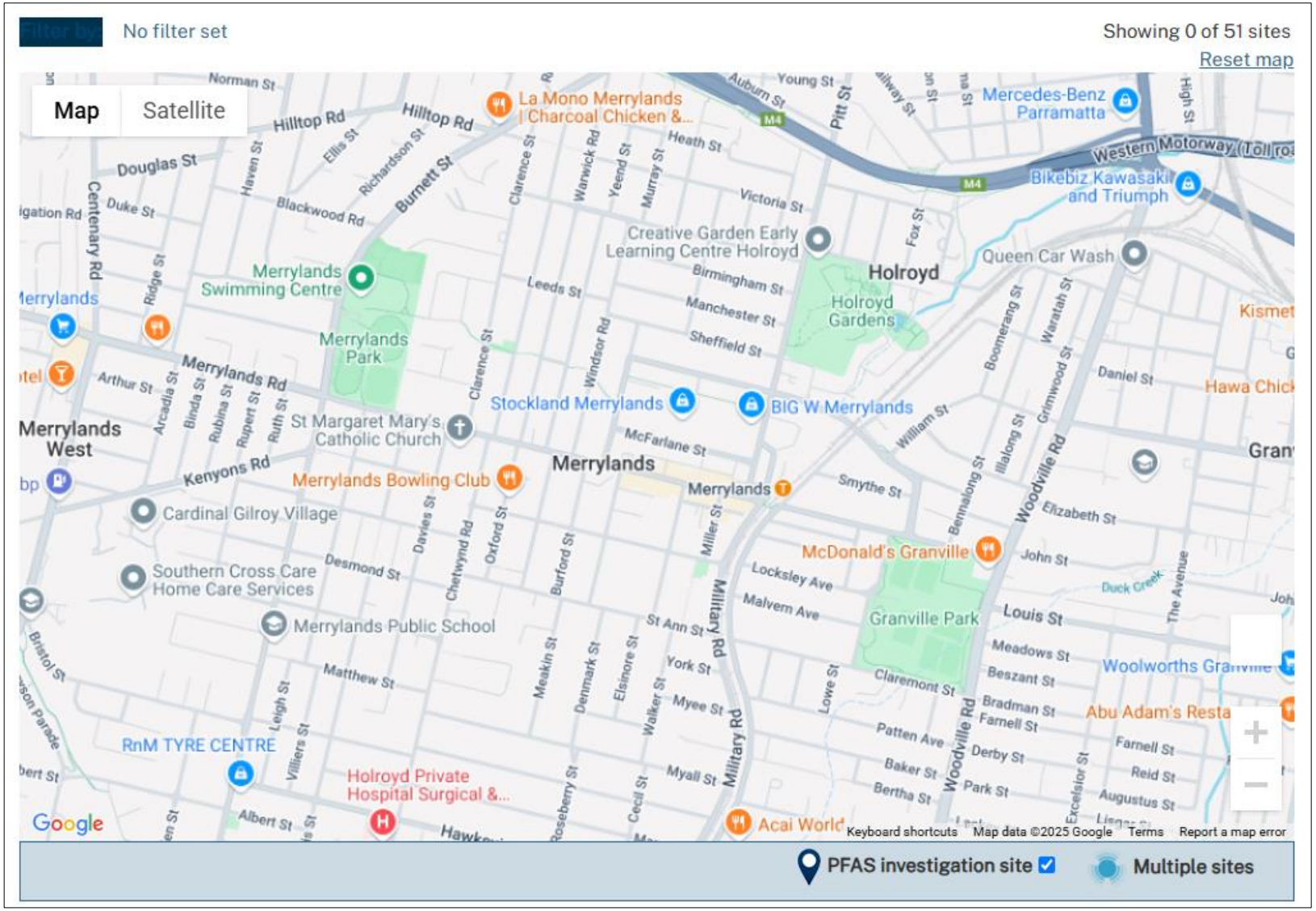
returned 6 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
3085769684	Amigos Civil Group Pty Ltd	19 Badham Street, MERRYLANDS, NSW 2160	Penalty Notice	Issued	22 Mar 2013
2172	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	POEO licence	Surrendered	03 Apr 2000
1002735	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.58 Licence Variation	Issued	17 Nov 2000
1011040	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.58 Licence Variation	Issued	12 Mar 2002
1019845	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.58 Licence Variation	Issued	15 Aug 2002
1020470	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.80 Surrender of a Licence	Issued	16 Sep 2002

20 January 2025

APPENDIX G – Search for NSW Government PFAS Investigation Programme



APPENDIX H – Certificates of Historical Title Review

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

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

Summary of Owners Report

Re: - 215, 229-239 Pitt Street, Merrylands, NSW

Description: - Lot 2 D.P. 501597, Lot 2 D.P. 537031, Lot J D.P. 10354 & Lot 1 D.P. 1079960

As regards to Lot 2 D.P. 501597: -

As regards to the part numbered 1 on attached Cadastral Records Enquiry Report: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
05.11.1928 (1928 to 1930)	John Miller (Land Surveyor) Neil Donald McAulay (Gentleman)	Volume 4212 Folio 172
21.11.1930 (1930 to 1932)	Neil Donald McAulay (Gentleman)	Volume 4212 Folio 172 Now Volume 4453 Folio 104
20.04.1932 (1932 to 1939)	Hugh Luxton Milne (Timber Merchant) Annie Maud Amy Milne (Married Woman now Widow)	Volume 4453 Folio 104
19.07.1939 (1939 to 1943)	Annie Maud Amy Milne (Widow) (Notice of Death)	Volume 4453 Folio 104
18.01.1943 (1943 to 1962)	Herbert Harold Jackson (Tyre Merchant/Garage Proprietor)	Volume 4453 Folio 104
17.01.1962 (1962 to 1986)	Amoco Australia Pty. Limited	Volume 4453 Folio 104 Now Volume 9423 Folio 177

As regards to the part numbered 2 on attached Cadastral Records Enquiry Report: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
29.01.1923 (1923 to 1942)	William Forrest Marshall (Civil Engineer)	Volume 2864 Folio 190
28.04.1942 (1942 to 1954)	Hannah Rose Nicolson (Spinster)	Volume 2864 Folio 190
24.11.1954 (1954 to 1962)	Herbert Harold Jackson (Tyre Merchant/Garage Proprietor)	Volume 2864 Folio 190
17.01.1962 (1962 to 1986)	Amoco Australia Pty. Limited	Volume 2864 Folio 190 Now Volume 9423 Folio 177

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

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

Continued as to the whole: -

Date of Acquisition and term held	**Registered Proprietor(s) & Occupations where available**	**Reference to Title at Acquisition and sale**
16.12.1986 (1986 to 1988)	Sabalo Holdings Pty. Limited	Volume 9423 Folio 177
03.02.1988 (1988 to 2014)	Tedwood Pty Limited	Volume 9423 Folio 177 Now 2/501597
24.11.2014 (2014 to 2019)	Havana Property Holdings Pty Ltd	2/501597
17.01.2019 (2019 to Date)	# Anglican Community Services	2/501597

 # Denotes current registered proprietor(s)

Leases, excluding premises: -

- Various leases and sub-leases were found from 14.03.1990 that have since been surrendered or expired by effluxion of time.

Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

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

As regards to Lot 2 D.P. 537031: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
29.04.1920 (1920 to 1946)	Elizabeth Ellen Kookoosachi (Chief Cook)	Volume 3045 Folio 131
28.02.1946 (1946 to 1957)	Peter Babladimos (Greengrocer)	Volume 3045 Folio 131
12.09.1957 (1957 to 1971)	Maria Babladimos (Widow) (Section 94 Application not investigated)	Volume 3045 Folio 131
06.09.1971 (1971 to 1974)	Denholm Pty. Limited	Volume 3045 Folio 131 Now Volume 11712 Folio 249
16.12.1974 (1974 to 2014)	John James Vicelich (Builder) Mac Vicelich (Driver)	Volume 11712 Folio 249 Then Volume 13392 Folio 175 Now Auto Consol 13392-175
04.07.2014 (2014 to 2019)	Havana Property Holdings Pty Ltd	Auto Consol 13392-175
17.01.2019 (2019 to Date)	# Anglican Community Services	Auto Consol 13392-175

 # Denotes current registered proprietor(s)

Leases, excluding premises: -

- Various leases and sub-leases were found from 28.06.2005 that have since been surrendered or expired by effluxion of time.

Easements: - NIL

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

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

As regards to Lot J D.P. 10354 & Lot 1 D.P. 1079960: -

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
16.04.1921 (1921 to 1927)	Neil Donald McAulay (Gentleman)	Volume 3173 Folio 15
19.07.1927 (1927 to 1935)	Harry Walker Benson (Manufacturer)	Volume 3173 Folio 15
12.03.1935 (1935 to 1935)	Percy William Nette	Volume 3173 Folio 15
12.03.1935 (1935 to 1943)	Ernest Albert Constantine Koosache (Retired)	Volume 3173 Folio 15
20.09.1943 (1943 to 1945)	Thelma Joyce Koosache (Spinster) (Transmission Application not investigated)	Volume 3173 Folio 15
02.11.1945 (1945 to 1957)	Peter Babladimos (Greengrocer)	Volume 3173 Folio 15
12.09.1957 (1957 to 1971)	Maria Babladimos (Widow) (Section 94 Application not investigated)	Volume 3173 Folio 15 Now Volume 11635 Folio 131
06.09.1971 (1971 to 1974)	Denholm Pty. Limited	Volume 11635 Folio 131
16.12.1974 (1974 to 2014)	John James Vicelich (Builder) Mac Vicelich (Driver)	Volume 11635 Folio 131 Then Volume 13392 Folio 175 Now Auto Consol 13392-175
04.07.2014 (2014 to 2019)	Havana Property Holdings Pty Ltd	Auto Consol 13392-175
17.01.2019 (2019 to Date)	# Anglican Community Services	Auto Consol 13392-175

 # Denotes current registered proprietor(s)

Leases: -

- 24.06.1952 (F657536): Lease to Kenneth Wilfred Barnett (Manager) of part of the land within described. Expired by effluxion of time – 18.02.1964.

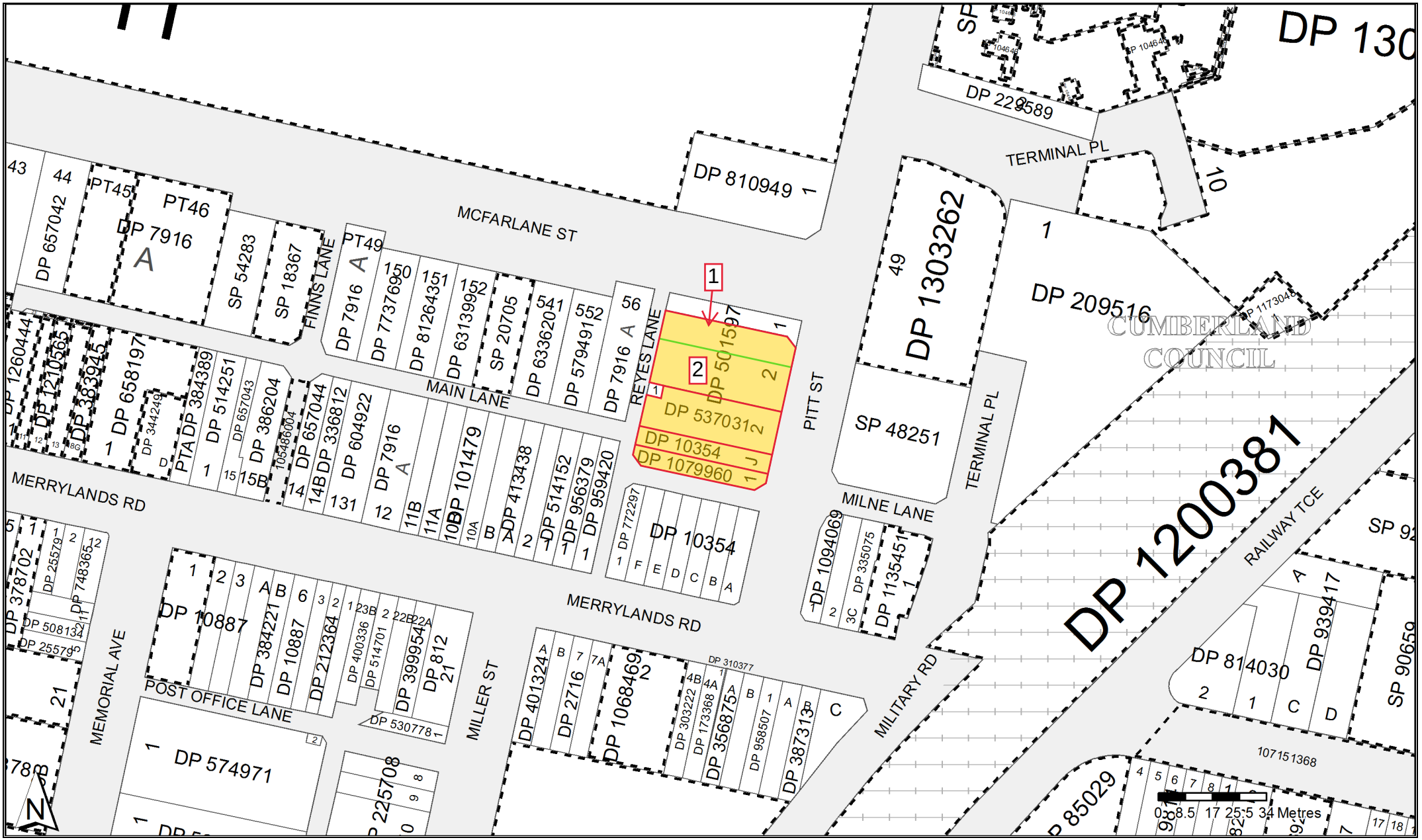
Easements: - NIL

Yours Sincerely,
Taylor Wilson
17th March 2025

Cadastral Records Enquiry Report : Lot 2 DP 537031

Ref : 215, 229-239 Pitt St, Merrylands

Locality : MERRYLANDS
Parish : ST JOHN
LGA : CUMBERLAND
County : CUMBERLAND



Copyright © Crown in right of New South Wales, 2017

This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

InfoTrack

Req:R956849 /Doc:DP 0501597 P /Rev:17-Aug-1992 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:46 /Seq:1 of 1
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Form 1

DP 2012dJ

OFFICE USE ONLY

DP 501597
Substituted Plan

PLAN OF Subdivision of Lots 5 & 6 Sec A D. P 7916

Mun. Shire City..... Holroyd.....

Town or Locality..... Merrylands.....

Parish..... St John.....

County..... Cumberland..... Scale..... 30 feet to an inch.

Registered: 22.4.63

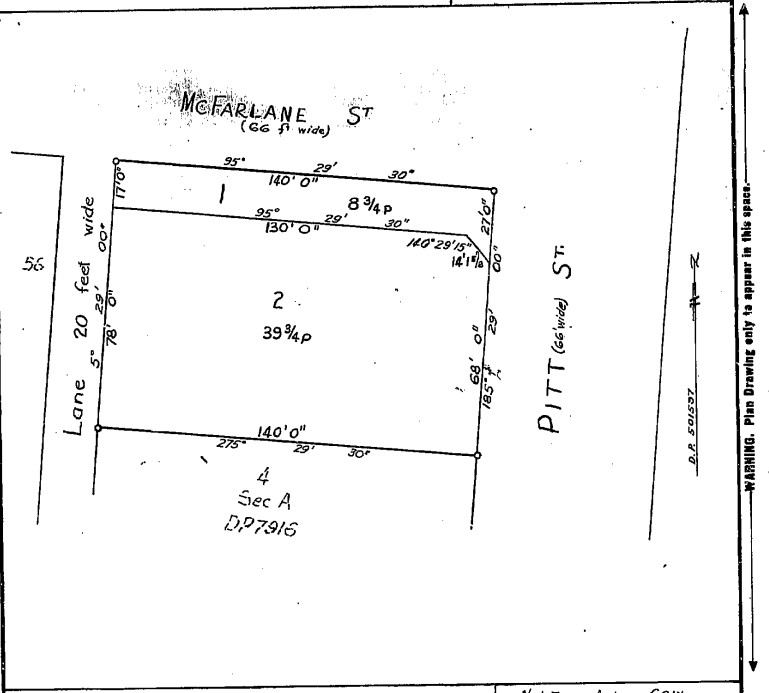
C.A...2661 of 27.11.62.....

Title System:.....Torrens.....

Purpose:.....Subdivision.....

Ref. Map:....Holroyd...Sh.19.....

Last Plan: D. P 7916



Signatures, Seals and Statements of Dedications and Easements.

I, Noel James Andrew GRAY..... of 8m5 Durban Court Princes Hwy Sutherland..... a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made * (1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933 and was completed on † .....

Signature, ...
Surveyor registered under Surveyors Act, 1929 as amended.
Datum Line of Azimuth.

Approved by Council. I hereby certify that the requirements of the Local Government Act, 1919 (other than the requirements for registration of plans), have been complied with by the applicant in relation to the proposed subdivision and/or new roads set out herein.

Subdivision No...2661.....Date.....27.11.62

Council Clerk.....

* Strike out either (1) or (2). † Insert date of survey.

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 501597

FEET	INCHES	METRES
-	8 3/8	0.213
4	1 5/8	1.260
14	1 5/8	4.308
17	-	5.182
20	-	6.096
27	-	8.230
60	-	18.288
66	-	20.117
68	-	20.726
78	-	23.774
130	-	39.624
140	-	42.672

AC	RD	P	SQ M
-	-	8 3/4	221.3
-	-	39 3/4	1005

I, Jack Hayward Watson, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 10th day of February, 1976.

J.H.Watson

InfoTrack
Req:R956851 /Doc:DP 0537031 P /Rev:24-Sep-1992 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:46 /Seq:1 of 1
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Plan Form 2—This form must NOT be used where it is intended to dedicate public roads or public reserves or create drainage reserves, easements, or restrictions as to user.—See Form 3. WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION.

D.P. 537031

Registered: 11-8-1969

Title System: Torrens

Purpose: Resumption

Ref. Maps: Holroyd Sh. 19

Last Plan: D.P. 7916

PLAN OF
Resumption of part of Lot A in D.P. 7916 being land in C.T. Vol. 3045 Fol. 131

Scale: 30 feet to an Inch

Mun./Shire:
City: Holroyd
Locality: Merrylands
Parish: St. John
County: Cumberland

I, Hugh Campbell McCubbin of The Prospect County Council of Miller St., Merrylands, a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made * (1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on 7-11-69. H.C.M.

Signature: H Cubbin

Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth: N-S

Drawn by: R.G.J.
Examined by: H.C.M.
H C Daughton
Supervising Draughtsman
(The Prospect County Council)
Field Book 6/47
Calc. Book B/37

Council Clerk's Certificate.

I hereby certify that—
(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and
*(b) the requirements of section 348 of the Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended,
have been complied with by the applicant in relation to the proposed .....
.....(insert "new road" or "subdivision") set out hereto.
Subdivision No.....
Date.....
(Signature).....
Council Clerk.

* NOTE.—This part of certificate to be deleted where the application is only for the opening of a new road or where the land to be subdivided is wholly outside the area of operations of the Metropolitan Water Sewerage and Drainage Board.

* Strike out either (1) or (2). † Insert date of survey.

SURVEYORS REFERENCE R.P.77

OFFICE USE ONLY
N 0 0 2 E / A

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

D.P. 537031

FEET	INCHES	METRES
-	0 1/4	0.006
-	0 5/8	0.016
-	0 3/4	0.019
-	1 1/4	0.032
-	1 1/2	0.038
-	2	0.051
-	2 3/4	0.070
-	3	0.076
-	3 1/4	0.083
-	3 3/4	0.095
-	4	0.102
-	4 1/4	0.108
-	5 3/4	0.146
-	6 3/4	0.171
-	8 3/4	0.222
-	10 1/4	0.260
2	-	0.610
3	-	0.914
3	3 5/8	1.006
6	7 1/4	2.013
11	5	3.505
12	-	3.658
15	-	4.572
19	8 3/4	6.013
20	-	6.096
33	-	10.058
39	9	12.116
40	-	12.192
40	0 1/2	12.205
40	1 1/2	12.230
40	-	12.243
40	-	12.294
40	5	12.319
42	-	12.802
45	-	13.716
56	-	20.117
56	3	20.193
95	2 1/4	29.013
101	0 1/4	30.791
125	0 1/8	38.103
140	0 1/4	42.678
140	0 5/8	42.682

AC	RD	P	SQ M
-	-	1/2	12.6
-	-	22 1/4	562.8

WARNING. Plan Drawing only to appear in this space.

M.P.D.

MERRYLANDS (66 FT. Not Aligned WIDE) RD.

McFARLANE (66 FT. Not Aligned WIDE) ST.

WALPOLE ST. (66'0" occns.)

FINNS LANE (20 FT. WIDE)

MAIN LANE (20 FT. WIDE)

SHORT LANE (20 FT. WIDE)

REYES ST. (66 FT. WIDE)

PITT ST. (66 FT. WIDE)

Lots 49, 50, 51, 52, 53, 54, 55, 56 — Sec. A — D.P. 7916

Lots 1, 2, 3, 4 — D.P. 501597

Lots H, J — D.P. 10354

AMOCO SERVICE STATION

R.C. Cottage Tile Roof

Brick Shop

BILLABONG HOTEL

Lots A, B, C, D, E, F, G — Sec. D.

DIAGRAM Not To Scale

1 ½ Par.

See Diagram

22½ Per.

R.M. D.H. & Wing 95° 28' 30" 3'0" in Gutter

R.M. D.H. & Wing in Kerb 275° 28' 30" 11"6"

Encroaches 2¾"

Encroaches 3½"

I, Jack Hayward Watson, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 9th day of July, 1976.

Req:R956852 /Doc:DP 0010354 P /Rev:19-Feb-2019 /NSW LRS /Prt:14-Mar-2025 13:46 /Seq:1 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:215, 229-239 Pitt St, Merrylands

Municipality of Prospect & Sherwood.

A657954
12-1-21

D.P 10354

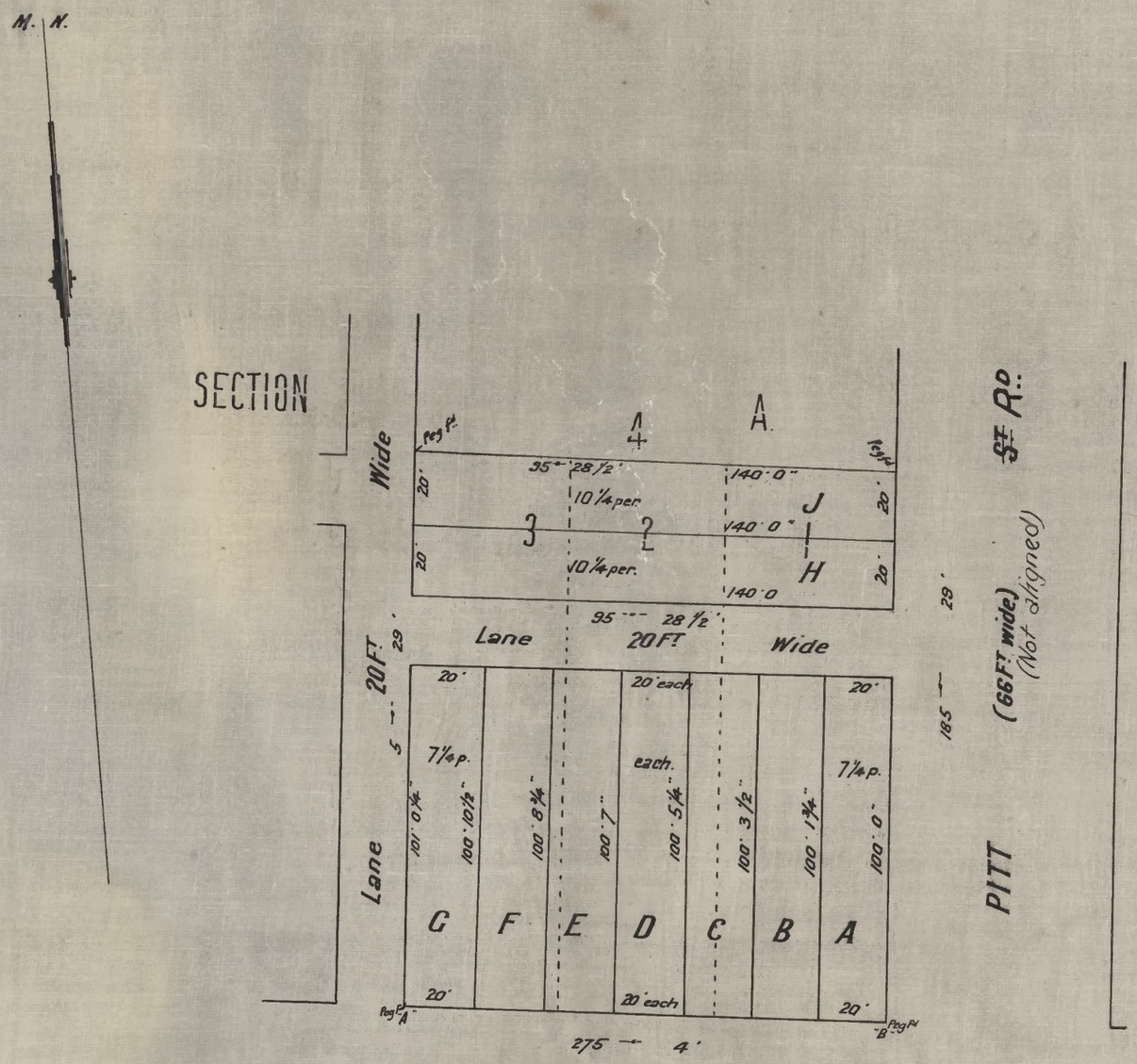
PLAN

of subdivision of lots 1. 2. & 3. Sec A on Dep.d Plan No. 7916

Station Estate, Merrylands,

Parish of St John County of Cumberland,

Scale 40 feet to an inch.



Datum Line of Azimuth A. B.

I Albert John Trier of 3 Castlereagh St Sydney, Licensed Surveyor, specially Licensed under the Real Property Act, do hereby solemnly and sincerely declare that the boundaries and measurements shown in this plan are correct for the purposes of the said Act, and that the survey of the land to which the plan relates has been made by me and under my immediate supervision and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Oaths Act, 1900.

A. J. Trier
Licensed Surveyor.

Subscribed and declared before me at Sydney this 10th day of January A.D. 1921.

J.P.

Date of Survey October 1918

E. 3110.

e-departmental

DP 1079960

Registered : 3.3.2005

Title System : TORRENS

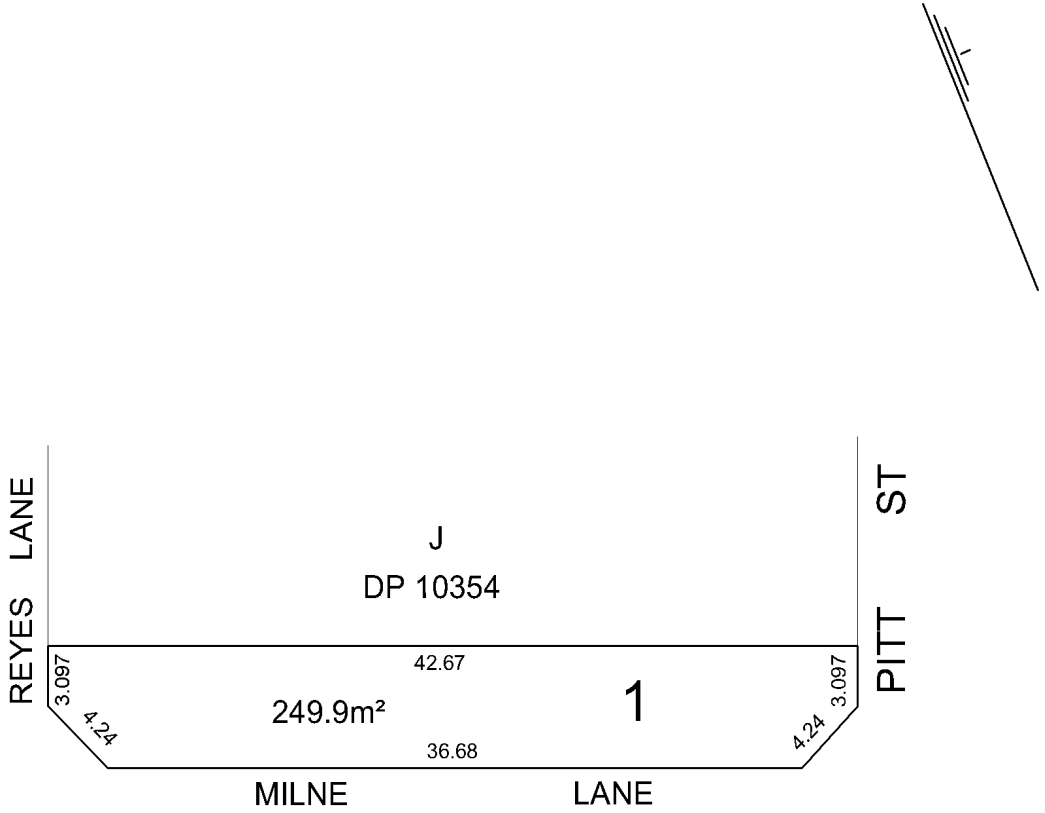
Purpose : DEPARTMENTAL

Ref. Map : U9152-92

Last Plan : DP10354

PLAN OF PART OF LOT H IN DP10354

COMPRISED IN VOL.13392 FOL.175



Lengths are in metres. Reduction Ratio - NTS
LPI Ref. : TCB55

Sheet 1 of 1 sheets

L.G.A. : HOLROYD

LOCALITY : MERRYLANDS

PARISH : ST JOHN

COUNTY : CUMBERLAND

LOT	PRIOR IDENTITY

THIS PLAN HAS BEEN PREPARED TO PROVIDE AN UNIQUE IDENTITY FOR THE LAND IN THE CERTIFICATE OF TITLE REFERRED TO ABOVE.

IT IS NOT A CURRENT PLAN IN THE TERMS OF 7A OF THE CONVEYANCING ACT, 1919.

InfoTrack
Req:R956853 /Doc:DP 1079960 P /Rev:23-Mar-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:46 /Seq:1 of 1
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Req:R956903 /Doc:CT 09423-177 CT /Rev:17-Feb-2011 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:1 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

09423177

M

NEW SOUTH WALES

(For Grant and title reference prior to first edition see Deposited Plan.)

[redacted]FICATE OF TITLE

[redacted]ERTY ACT, 1900, as amended.

Vol. 9423 Fol. 177

1st Edition issued 6-5-1963.

CANCELLED

Vol. 9423 Fol. 177

(Page 1)

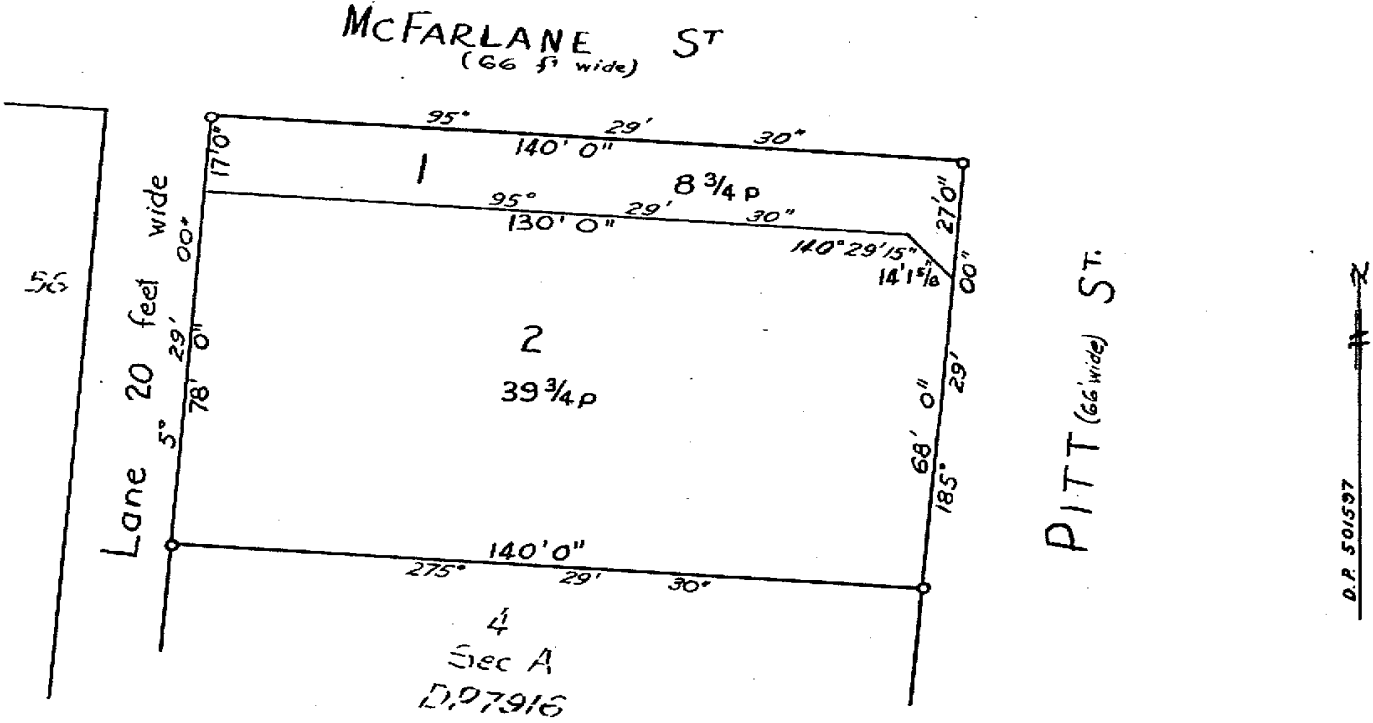
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

SEE AUTO FOLIO

Witness B Bailey

Registrar-General.

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO.

Estate in Fee Simple in Lot 2 in Deposited Plan 501597 at Merrylands in the Municipality of Holroyd Parish of St. John and County of Cumberland.

FIRST SCHEDULE (Continued overleaf)

AMOCO AUSTRALIA [redacted] LIMITED.

Registrar General.

SECOND SCHEDULE (Continued overleaf)

GRY

1. Reservations and conditions, if any, contained in the Crown Grant(s) referred to in the said Deposited Plan.

Registrar General.

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

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

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

70929 1 62 ST 160F V. C. N. BLIGHT, GOVERNMENT PRINTER

FIRST SCHEDULE (continued)

W655726
X342912

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
~~Sabalo Holdings Pty. Limited by Transfer W655726. Registered 16-12-1986.~~ Tedwood Pty Limited by Transfer X342912. Registered 3-2-1988.					

CANCELLED

SEE AUTO FOLIO

Vol. 9423 Fol 177

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION	
~~W655727 Mortgage to Mercantile Credits Limited. Registered 16-12-1986.~~						Discharged	X342911
X342913 Mortgage to National Australia Bank Limited. Registered 3-2-1988.							

MM

(Page 2 of 2 pages)

FORM No. 184A

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

Req:R956903 /Doc:CT 09423-177 CT /Rev:17-Feb-2011 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:2 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

LAND REGISTRY SERVICES Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
14/3/2025 1:45PM

FOLIO: 2/501597

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 9423 FOL 177

Recorded	Number	Type of Instrument	C.T. Issue
28/3/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
24/6/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
4/11/1988	X964582	CAVEAT	
27/4/1989	Y323762	WITHDRAWAL OF CAVEAT	
27/4/1989	Y323763	DISCHARGE OF MORTGAGE	
27/4/1989	Y323764	MORTGAGE	EDITION 1
14/3/1990	Y883496	LEASE	EDITION 2
21/9/1990	Z237961	LEASE	EDITION 3
20/6/1991	Z716413	LEASE	EDITION 4
13/2/1992	E257663	DEPARTMENTAL DEALING	
13/2/1992	E223902	LEASE	EDITION 5
22/6/1992	E544573	LEASE	EDITION 6
19/11/1992	E907145	SURRENDER OF LEASE	
19/11/1992	E906054	LEASE	
19/11/1992	E906055	LEASE	EDITION 7
12/1/1993	I38651	REQUEST	
12/1/1993	I38652	LEASE	EDITION 8
27/1/1993	I72937	LEASE	EDITION 9
10/11/1993		AMENDMENT: LOCAL GOVT AREA	
14/10/1994	U703867	LEASE	EDITION 10
10/11/1995	O679680	TRANSFER OF LEASE	
13/2/1997	2834237	LEASE	EDITION 11

END OF PAGE 1 - CONTINUED OVER

Recorded	Number	Type of Instrument	C.T. Issue
6/3/1997	2885206	LEASE	EDITION 12
3/7/1998	5100133	LEASE	EDITION 13
11/5/1999	5810951	LEASE	EDITION 14
9/8/1999	6075256	LEASE	EDITION 15
20/12/1999	6437459	TRANSFER OF LEASE	EDITION 16
17/2/2000	6573171	LEASE	EDITION 17
13/12/2000	7283395	LEASE	EDITION 18
14/2/2001	7411446	LEASE	EDITION 19
9/4/2002	8492035	SURRENDER OF LEASE	
9/4/2002	8492036	LEASE	EDITION 20
17/9/2003	9982332	DISCHARGE OF MORTGAGE	
17/9/2003	9982333	MORTGAGE	EDITION 21
8/1/2004	AA306607	LEASE	EDITION 22
21/3/2004	AA501351	DEPARTMENTAL DEALING	
21/2/2007	AC954451	DISCHARGE OF MORTGAGE	
21/2/2007	AC954452	MORTGAGE	EDITION 23
21/2/2007	AC954514	DEPARTMENTAL DEALING	EDITION 24
20/4/2007	AD44678	WITHDRAWN - TRANSFER OF LEASE	
4/4/2008	AD869071	LEASE	EDITION 25
10/2/2009	AE490518	LEASE	
10/2/2009	AE490531	LEASE	
10/2/2009	AE490532	LEASE	EDITION 26
12/2/2010	AF312032	LEASE	
12/2/2010	AF312033	LEASE	
12/2/2010	AF312034	LEASE	
12/2/2010	AF312035	LEASE	EDITION 27

END OF PAGE 2 - CONTINUED OVER

SEARCH DATE
14/3/2025 1:45PM

FOLIO: 2/501597 PAGE 3

Recorded	Number	Type of Instrument	C.T. Issue
30/9/2010	AF673313	LEASE	EDITION 28
16/4/2013	AH588329	DISCHARGE OF MORTGAGE	
16/4/2013	AH588330	LEASE	
16/4/2013	AH588331	LEASE	
16/4/2013	AH588332	LEASE	
16/4/2013	AH588333	LEASE	EDITION 29
9/7/2013	AH862606	LEASE	EDITION 30
4/12/2013	AI209897	LEASE	EDITION 31
31/7/2014	AI736517	LEASE	
31/7/2014	AI736518	LEASE	
31/7/2014	AI736519	SURRENDER OF LEASE	
31/7/2014	AI736520	LEASE	EDITION 32
24/11/2014	AJ64927	TRANSFER	
24/11/2014	AJ64928	MORTGAGE	EDITION 33
15/6/2016	AK509587	DEPARTMENTAL DEALING	
1/5/2018	AN301910	CAVEAT	
24/8/2018	AN607157	WITHDRAWAL OF CAVEAT	
24/8/2018	AN607158	VARIATION OF LEASE	
9/9/2018	AN695392	DEPARTMENTAL DEALING	EDITION 34 CORD ISSUED
2/11/2018	AN832099	CAVEAT	
17/1/2019	AP771	DISCHARGE OF MORTGAGE	
17/1/2019	AP772	TRANSFER	EDITION 35

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2025

Received: 14/03/2025 13:45:41

Req:R957086 /Doc:DL AJ064927 /Rev:04-Dec-2014 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 14:09 /Seq:1 of 1
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Form: 01T
Licence: 01-05-025
Licensee: LEAP Legal Software Pty Limited
Firm name: M.L.C. Conveyancing

TRANSFER

New South Wales
Real Property Act 1900

AJ64927C

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar-General to collect 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: 111671648 2988
Duty: $10.00 Trans No: 7755578-001
Asst details:

(A) **TORRENS TITLE** 2/501597

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
45A	Level 5, Building C 1 Homebush Bay Drive Rhodes NSW 2138 LLPN: 123011G Reference: 14JS2801	T TW

(C) **TRANSFEROR** Tedwood Pty Limited ACN 003 423 523

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $3,950,000.00 and as regards

(E) **ESTATE** the abovementioned land transfers to the transferee an estate in fee simple.

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** Havana Property Holdings Pty Ltd ACN 166 414 277

TENANCY: Sole Tenant

(I) **DATE**

(J) Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Corporation: Tedwood Pty Limited ACN 003 423 523
Authority: section 127 of the Corporations Act 2001

Signature of authorised person:

Name of authorised person: TOM ZAVVOS
Office held: Director

Signature of authorised person:

Name of authorised person: HARRY DELIS
Office held: ~~Director~~ Secretary

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

Signature:

Signatory's name: Jennifer Kiraz
Signatory's capacity: Licensed Conveyancer for the Transferee

(K) The transferee's agent certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 679795 Full name: Jennifer Kiraz Signature:

** s 117 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.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 2/501597

SEARCH DATE	TIME	EDITION NO	DATE
14/3/2025	1:45 PM	35	17/1/2019

LAND

LOT 2 IN DEPOSITED PLAN 501597
AT MERRYLANDS
LOCAL GOVERNMENT AREA CUMBERLAND
PARISH OF ST JOHN COUNTY OF CUMBERLAND
TITLE DIAGRAM DP501597

FIRST SCHEDULE

ANGLICAN COMMUNITY SERVICES (T AP772)

SECOND SCHEDULE (5 NOTIFICATIONS)

---

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 AH862606 LEASE TO CHOCOLATES DEL MONDO PTY LIMITED OF SHOPS 8 & 9, 215 PITT ST, MERRYLANDS. EXPIRES: 30/4/2018. OPTION OF RENEWAL: 5 YEARS.
AN607158 VARIATION OF LEASE AH862606 OPTION OF RENEWAL: 30/6/2020.
3 AI209897 LEASE TO GLOBAL PREMIUM FINANCIAL SOLUTIONS PTY LIMITED OF SHOP 1 & 2, 215 PITT STREET, MERRYLANDS. EXPIRES: 20/11/2018. OPTION OF RENEWAL: 5 YEARS.
4 AI736517 LEASE TO MANDOH DANIAL KHAIR TAWADROS OF SHOP 4, 215 PITT STREET, MERRYLANDS. EXPIRES: 31/8/2018.
5 AI736520 LEASE TO SARA TRAVEL PTY LIMITED OF SHOP 10, 215 PITT STREET, MERRYLANDS. EXPIRES: 4/9/2016. OPTION OF RENEWAL: 3 YEARS.

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

Copyright © Office of the Registrar-General 2025

Received: 14/03/2025 13:45:22

Req:R956948 /Doc:CT 11712-249 CT /Rev:11-Jan-2011 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:53 /Seq:1 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

11712249

NEW SOUTH WALES

[redacted]ICATE OF TITLE
[redacted]L PROPERTY ACT, 1900.

Appln.No.18368

Prior Title Vol.3045 Fol.131

Vol. 11712 Fol. 249

Edition issued 11-11-1971

CANCELLED W

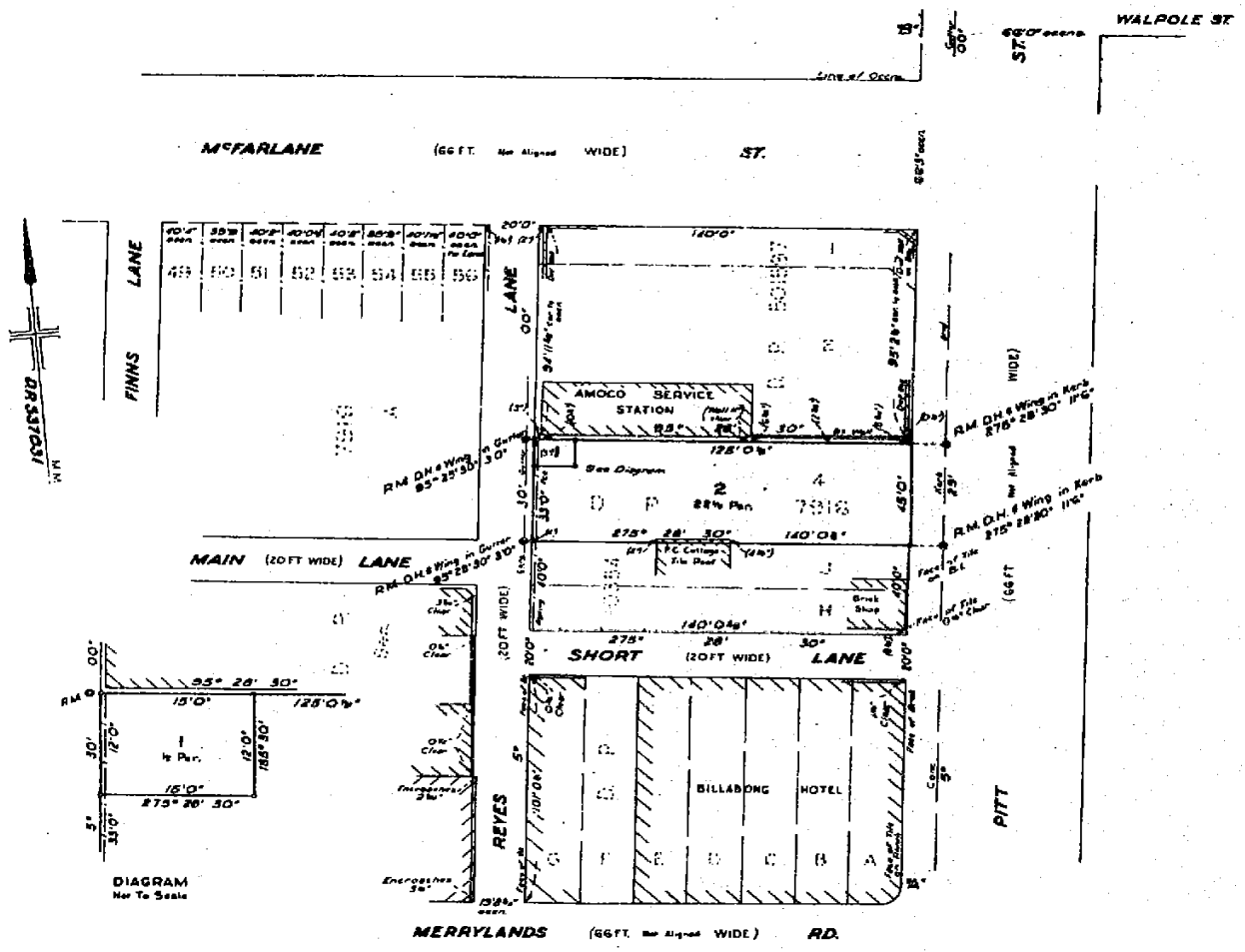
~~See new edition~~

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.

Registrar General.

(Page 1) Vol. 11712 Fol. 249

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 537031 at Merrylands in the Municipality of Holroyd Parish of St.John and County of Cumberland being part of Portion 104 granted to James Bowman on 25-8-1812.

FIRST SCHEDULE

~~DENHOLM PTY LIMITED.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
~~2. Mortgage No.M335354 to Clyde Securities Limited. Entered 6-9-1971.~~ Cancelled P99742

Registrar General

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

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

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

Req:R956948 /Doc:CT 11712-249 CT /Rev:11-Jan-2011 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:53 /Seq:2 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

V. C. N. BLIGHT, GOVERNMENT PRINTER

Vol 11712 Fol 249

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
John Vicelich, Builder and Max Vicelich, Driver, both of Liverpool, as tenants in common in equal shares	Transfer	P99742	26-11-1974	16-12-1974	

This Deed is cancelled and Certificate of Title issued.
Vol. 13392 Fol. 176 dated
Vide Q 230122
REGISTRAR GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
~~Mortgage~~	~~M858174~~	~~21-7-1972~~	~~to Frederick William Arnold of Beverley, Retired~~	~~25-8-1972~~		~~Discharged~~	~~N514623~~	
~~Caveat~~	~~N759944~~	~~13-3-1974~~		~~2-4-1974~~		~~Lapsed~~	~~N770526~~	
Lease	Q117322	-------	of premises known as No.239 (Shop 1) Pitt Street, Merrylands shown hatched black on plan annexed to Lease No. Q117322 (together with rights) to L.J. Hooker Limited (date of expiry 28-3-1979)	5-5-1977				

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

Req:R956947 /Doc:CT 11635-131 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:53 /Seq:1 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

11635131

[redacted]ICATE OF TITLE

NEW SOUTH WALES [redacted]PERTY ACT, 1900, as amended.

Appln.No.18368

Prior Title Vol.3173 Fol.15

Vol. 11635 Fol. 131

Edition issued 26-7-1971

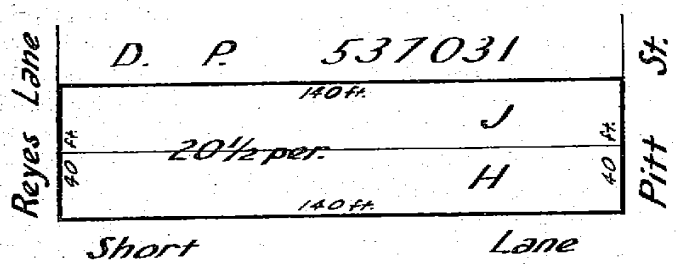
M221621 CANCELLED R

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

Registrar General.

PLAN SHOWING LOCATION OF LAND



M221621

Scale: 40 feet to one inch

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lots H and J in Deposited Plan 10354 at Merrylands in the Municipality of Holroyd Parish of St.John and County of Cumberland being part of Portion 104 to James Bowman on 25-8-1812.

FIRST SCHEDULE

~~MARIA BABLADIMOS of Merrylands, Widow.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. ~~Mortgage No.L94795 to A.G.C.(General Finance) Limited.~~
~~Entered 11-7-1968.~~ Discharged M206139

Registrar General

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

(Page 1) Vol. 11635 Fol. 131

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

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

V. C. N. BLIGHT, GOVERNMENT PRINTER

Vol. 11635 Fol 131

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
Denholm Pty Limited	Transfer	~~20-M206140~~	20-3-1971	6-9-1971	
John Vicelich, Builder and Max Vicelich, Driver, both of Liverpool, as tenants in common in equal shares	Transfer	P99742	26-11-1974	16-12-1974	

This Deed is cancelled and Certificate of Title issued.
Vol. 13392 Fol. 175 dated 17-8-1977
Vide Q230122.

REGISTRAR GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
~~Mortgage~~	~~M206141~~	12-3-1971	to Australia ~~and~~ New Zealand Banking Group Limited	6-9-1971		Discharged	M335353	
~~Mortgage~~	~~M335354~~	25-6-1971	to Clyde Securities Limited	6-9-1971		Cancelled	P99742	
Mortgage	M851874	21-7-1972	to Frederick Walter ~~Heald~~ of Bexley, Retired	25.8.1972		Discharged	N514623	
Caveat	N759944	13-3-1974		2-4-1974		Lapsed	N770526	
			The interest of the Council of the Municipality of Holroyd in the addition to existing road shown on D.P. 585117.	4-8-1976				
Lease	Q117322	------	of premises known as No.239 (Shop 1) Pitt Street, Merrylands shown hatched black on plan annexed to Lease No. Q117322 (together with rights) to L.J. Hooker Limited (date of expiry 28-3-1979)	5-5-1977				

The residue of land in this folio comprises ROAD

REGISTRAR GENERAL

(Page 2 of 2 pages)

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

Req:R956947 /Doc:CT 11635-131 CT /Rev:10-Jan-2011 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:53 /Seq:2 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:1 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

NEW SOUTH WALES

B CERTIFICATE OF TITLE

REAL PROPERTY ACT, 1900

CT13392-175

Appln. No. 18368

Vol. 13392 Fol. 175

Prior Titles Vol. 11635 Fol. 131
Vol. 11712 Fol. 249

CANCELLED
SEE AUTO FOLIO

EDITION ISSUED
17 8 1977

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.

Registrar General.

(Page 1) Vol. 13392 Fol. 175

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

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 537031 and Lot J and the part of Lot H in Deposited Plan 10354 shown in the plan hereon at Merrylands in the Municipality of Holroyd Parish of St. John and County of Cumberland being part of Portion 104 granted to James Bowman on 25-8-1812.

FIRST SCHEDULE

JAMES JOHN VICELICH, Builder and MAX VICELICH, Driver, both of Liverpool, as Tenants in Common in equal shares.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. ~~Q117322 Lease to Ltd. Hooker Limited of premises known as No. 239 (Shop 1) Pitt Street, Merrylands shown hatched black on plan annexed to Lease No. Q117322 (together with rights). Expires 28-3-1979.~~ Expired 25-6-1980.

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE REGISTRAR GENERAL'S OFFICE.

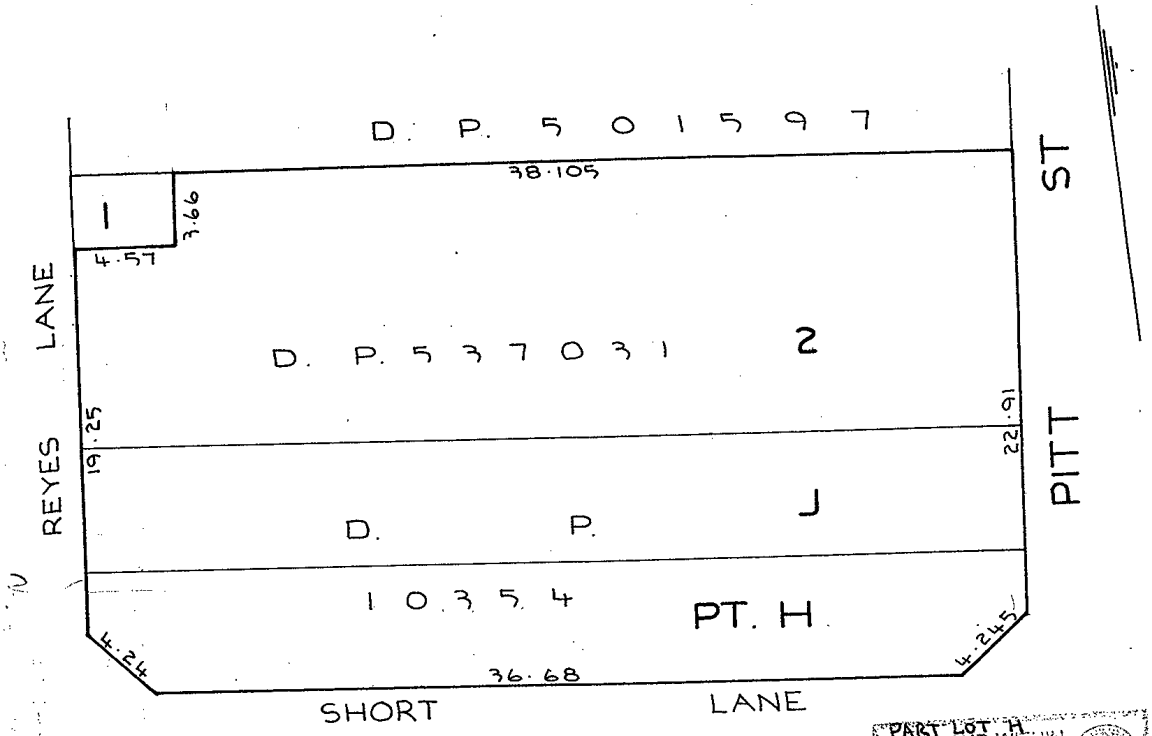
 NOTE: ENTRIES RULED THROUGH AND NOT AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:2 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Vol. 13392 Fol. 175

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



PART LOT H
~~THIS PLAN WITHIN~~
DESCRIBED IS
LOT 1 IN DP 1079960

5.4.2005

AREA : 1072 m²

REDUCTION RATIO 1:250

Q230122 M.X

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General

FOLIO CANCELLED - NEW FOLIO IS AC 13392-175

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
~~Lease~~	~~Q223876~~	~~of premises being Shop No. 5, 229 Pitt Street, Merrylands, together with two car parking bays, as shown cross hatched black on plan annexed to Lease No. Q223876, together with rights, to Avco Financial Services Ltd. Date of Expiry 31-5-1981.~~	~~24-8-1977.~~		Expired	9-11-1982
~~Lease~~	~~Q223878~~	~~of premises being Shop No. 3, 233 Pitt Street, Merrylands, together with two car parking bays, as shown cross hatched black on plan annexed to Lease No. Q223878, together with rights, to Femeko Pty. Limited. Date of Expiry 28-2-1978.~~	~~24-8-1977.~~		Expired	15-5-1978
~~Lease~~	~~Q227946~~	~~of premises being Shop No.2, 237 Pitt Street, Merrylands, together with rights, to James Lindsay Ferguson of Long Cove, Retailer and Winifred Ferguson, his wife. Date of Expiry 19-4-1978~~	~~12-10-1977~~		Expired	15-5-1978
~~Lease~~	~~Q675661~~	~~of premises known as 1st. Floor 229 Pitt Street, Merrylands, shown hatched black on the plan annexed to Lease No. Q675661 (together with rights and reserving rights) to Western Medical Services Pty. Limited. Date of Expiry 31-3-1985.~~	~~15-5-1978~~		Expired	4-11-1986
~~Lease~~	~~Q759811~~	~~of premises known as Shop 4, 229 Pitt Street, Merrylands, together with rights, to Allen Bruce Evans of Picnic Point, Real Estate Agent, and Barbara May Evans, his wife. Date of expiry 4-3-1980.~~	~~13-7-1978~~		Expired	25-7-1983.

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

Q223876 Lse — CCL
Q — 8 L
— 9 ccl
Raises
Q227946 Lse — 947 ccl
Q675661 Lse a c/c
+expire 2 leases
Q759811 Lse
- 2 CCL
- 3 Lse
- 4 CCL
- 5 Lse
- 6 CCL
R548602
R559285 Lse
Shop DRism
— 286 cc
R644523 L
2 ccc
— 25 L
— 26 ccc.
R753849 Request

Vol. 13392 Fol. 175

B

(Page 3 of 4 pages)

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:3 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:4 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Vol. 13392 Fol. 175

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General

CT-26.10.79.
R644523 L
Prem No 237
— 524 ccc
525 L
Prem No. 239
— 526 ccc
(Exp P611730)
R 753849 Request
(Exp P 711985)
C.T 28.4.82
~~F893634~~
Prem Hap3
~~J644~~
Prem Hap5
Registered 7/9/82
C.T.S.D.82
~~T477477 Lse~~
~~LT644672 Lse~~
~~2 Lse~~
~~(F644720)~~
8039086 SL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
~~Lease~~	~~Q759813~~	~~of premises known as Shop No. 3, 233 Pitt Street, Merrylands, shown hatched in black on plan annexed to Lease Q759813, together with rights, to General Auto Spares & Accessories Pty. Limited. Date of expiry 28-2-1980.~~	13-7-1978		Expired	9-11-1982
~~Lease~~	~~Q759815~~	~~of premises known as Shop 4, 237 Pitt Street, Merrylands, together with rights, to James Lindsey Ferguson of Lane Cove, Retailer, and Winifred Ferguson, his wife. Date of expiry 28-2-1981.~~	13-7-1978		Re-entered	R753849
Mortgage	R54866	~~to Bank of New South Wales~~	8.2.1978		Discharged	W950946
~~Lease~~	~~R559285~~	~~of premises being Shop No. 4, 231 Pitt Street, Merrylands, together with rights together with option of renewal to Lee Boulger, Sales Manager in 1/4 share, Darryll Wills, Salesman in 1/4 share, Jean Boulger, Married Woman in 1/4 share and Linda Wills, Married Woman in 1/4 share, all of Mount Pritchard, tenancy in common. Expires 28-2-1982.~~	14-1-1980		Expired	25-7-1983.
~~Lease~~	~~R644523~~	~~of premises being lock-up shop known as No. 237 Pitt Street, Merrylands, together with rights, together with option of renewal, to Mark Howarth of Merrylands, Solicitor. Expires 31-7-1982~~	25-6-1980		Expired	25-7-1983.
~~Lease~~	~~R644525~~	~~of premises being lock-up shop No. 1, No. 239 Pitt Street, Merrylands, together with rights, together with option of renewal, to L.J. Hooker Limited. Expires 28-2-1982~~	25-6-1980		Expired	25-7-1983.

(Page 4 of 10 pages)

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

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:5 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:2152 229-239 Pitt St? Merrylands

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
T288326			Lease to John Contos of premises being Shop 3, No.233 Pitt Street, Merrylands with right to use two car parking bays, together with and reserving rights and option of renewal. Expires 29-2-1984. Registered 9-11-1982			Expired	29.6.1984	
T288327			Lease to Avco Financial Services Ltd. of premises being Shop 5, No.229 Pitt Street, Merrylands with two car parking bays, together with and reserving rights and option of Expires 31-5-1986. Registered 9-11-1982			Expired	4-11-1986	
T646726			Lease to Vicelich Pty. Limited, together with option of renewal. Expires 31-10-1986. Registered 25-7-1984.			Expired	4-11-1986	
T646726	Lease.	T927971	Lease to Macquarie Curtain Co. Pty. Ltd. of premises known as Lock-Up Shop of 231 Pitt Street, Merrylands, together with 2 car parking bays. Expires: 28.2.1986. Registered 26.1.1984.			Cancelled	4-11-1986	
T646726	Lease.	T927972	Lease to L.J. Hooker Ltd of premises known as 239 Pitt Street, Merrylands, together with 2 car spaces and together with right, with an Option of Renewal. Expires: 28.2.1986 (30.10.1986) Registered 26.1.1984.			Cancelled	4-11-1986	
T646726	Lease	V61601	Sub-Lease to Waters & Carpenter Pty. Ltd. of lock up shop 233 Pitt Street, Merrylands, with car parking bays 6 and 11, with and reserving rights. Expires 30-10-1986. Registered 29-6-1984.			Cancelled	4-11-1986	
T646726	Lease	V246175	Sub-Lease to Roxanne Hilton and Roy Leonard Hilton as joint tenants of lock-up shop No.237 Pitt Street, Merrylands together with 1 car space, together with rights. Expires 30-10-1986 Option of Renewal 3 years and 6 months Registered 31-8-1984			Cancelled	4-11-1986	
W549162	Lease	W573929	Lease to Roy Hilton and Roxanne Hilton as joint tenants of premises being lock-up shop, 237 Pitt Street, Merrylands together with 1 car Space, together with rights. Expires 31-10-1989. Registered 10-11-1986.			Cancelled	28-2-1997	
W549162	Lease	W573930	Lease to Avco Financial Services Ltd of premises being lock-up shop 3, 229 Pitt Street, Merrylands, together with 2 car parking bays. Expires 30-5-1991. Option of renewal 5 years. Registered 10-11-1986.			Cancelled	15-1-1990	
W549162	Lease	W950498	Lease to Pacific Dunlop Ltd of premises being lock-up shop 233 Pitt St. Merrylands together with Carparking bays 6. & 11 Option of renewal 3 years Expires 31-1-1996 Registered 15-9-1987.				Z8-19186	
W549162	Lease.	X359261	Sub-Lease to Latola Pty. Ltd of office Suite 6, 1st Floor, 235 Pitt Street, Merrylands Together with and Reserving Rights. Expires 30-9-1990. Option of renewal 3 years. Registered 11-2-1988				E174710	
W549162	Lease.	X887818	Sub-Lease to Theodore Simos of premises being Suite 5 on the 1st Floor, 235, Pitt St. Merrylands. Expires 14-8-1991. Option of renewal 3 years. Registered 12-10-1988.			29-5-1992	E486621	
Z502091			Lease to Vicelich Pty. Limited. Expires 31-10-1996 option of renewal 5 years. Registered 14-2-1991.			29-5-1992	E486621	

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

RG 2/74

T288326 — 27 L R
C.T. 23.5.83
T646726 L R
(Page 5 of 10 pages)
T927971 Sub Lse 2 Sub Lse (T646726)
V61601 S/L (T646726)
V246175 S/L (T646726)
W549162 L R
W573929 S/L 30 S/L
W950498 Withdrawn 31/8/87 — 8 S/L R
X359261 S/L R
X887818 S/L R
V739534 S/L R
Z502091 L R

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:6 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION	
~~W549162 LEASE~~	~~Y739534~~		~~SUB-LEASE TO ROY HILTON AND ROXANNE HILTON AS JOINT TENANTS OF PREMISES BEING LOCK UP SHOP 237 PITT STREET, MERRYLANDS WITH 1 CAR SPACE. EXPIRES 30-10-1991. OPTION OF RENEWAL FOR 7 YEARS. REGISTERED 15-1-1990.~~			Cancelled	Z502091.
Z502091	Lease		to Vicelich PTY Limited. Expires 31-10-1996 ~~option of renewal~~ for 5 years. Registered 14-2-1991				
W549162	Lease	Y739534	~~Sublease to Roy Hilton and Roxanne Hilton as joint tenants of premises being lock up shop 237 Pitt Street, Merrylands with 1 car space. Expires 30-10-1991 option of renewal for 7 years. Registered 15-1-1990.~~			29-5-1992	E486621
Z502091	Lease		to Vicelich PTY Limited. Expires 31-10-1996 option of renewal for 5 years. Registered 14-2-1991.			0548882	21.9.1995
Z502091	LEASE	Z582691	~~SUBLEASE TO [illegible] PTY LTD OF PREMISES BEING SHOPS 1 AND 6 FIRST FLOOR 235 PITT STREET, MERRYLANDS TOGETHER WITH 4 CAR PARKING SPACES. EXPIRES 31.1.1994 OPTION OF RENEWAL~~ 3 YEARS. REGISTERED 16.4.1991.			16-3-1994	U34677
~~W549162~~	Lease	Z819186	~~Lease to Avco Financial Services Ltd. of shop 5, 229 Pitt St, Merrylands with rights. Expires 31-5-1996. Option of renewal 5 years. Registered 11-9-1991.~~			23-1-1997	2770745
~~Z502091~~	~~Lease~~	~~Z819186~~	~~Lease to Avco Financial Services Ltd. of shop 5, 229 Pitt St, Merrylands with rights. Expires 31-5-1996. Option of renewal 5 years. Registered 11-9-1991.~~			23-1-1997	2770745
~~Z502091~~	~~Lease,~~	~~Z999332~~	~~Lease to Barbara Fraser of Office Suite No 4 on 1st Floor 235 Pitt Street, Merrylands with and reserving rights. Expires 30.10.1991 30.9.1992 option of Renewal 3 Years. Registered [illegible].1991~~			29-5-1992	E486621
~~Z502091~~	~~Lease,~~	~~E74359~~	~~Sub Lease to Roy Hilton and Roxanne [illegible] of lock up shop, No 237 Pitt St, Merrylands together with 1 car space. Expires 30-10-1996 Option of Renewal 3 Years. Registered 10-12-1991~~			21.9.1995	0548882
~~Z502091~~ W549162	Lease,	E74710	Sub-Lease to Macedonia Contos of Shop being 233 Pitt St, Merrylands and Parking Bays 6 & 11. Expires 31-11-1994. Option of renewal 5yrs. Registered 17-1-1992.			21.9.1995	0548883
~~Z502091~~	~~Lease~~	~~E425056~~	~~Sub-Lease of 229 Pitt Street Merrylands together with out reserving rights. Expires 28.2.1992. Option of renewal 5yrs. Registered 18-2-1992.~~				E945902
~~Z502091~~	~~Lease~~	~~E425040~~	~~Sub-Lease to Bernard Richard~~ Condon ~~of suite 4, 235 Pitt street, Merrylands, together with & reserving rights. Expires 28-2-1995. Option of renewal 3yrs. Registered 29-5-1992~~			1.3.2002	8348255
~~Z502091~~	~~Lease~~	~~E8102~~	~~Sub-Lease to John Contos of Suite 5, 1st Floor, 235 Pitt. Street Merrylands, With Car Space. Expires 28-2-1995. Option of renewal 5yrs. Registered 15-10-1992~~			1.3.2002	8348255
~~Z502091~~	Lease.	~~E[illegible]902~~	~~Variation of Lease Expiry date now 31.10.1997 Registered 10-12-1992~~			1.3.2002	8348255

~~(Page 1 of 2 pages)~~

RG 2/74

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

Z582691 S/L (R)
Z819186 S/L (R)
Z999332 L
E743592 L (R)
E475056 S/L (Z502091) (R)
E486621 R.
E810235 S/L
14.2.1991
2.6.1992

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:7 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Vol. 13332 Fol. 175

B

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR

Registrar General

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
~~Z 502091 Lease E945903 Sub-Lease to John Contos of 239 Pitt Street, Merrylands. Expires 28-2-1997. Option of renewal 5 years. Registered 16-12-1992.~~		8348255 12.3.2002
~~Z 502091 Lease U34677 Sub. Lease to Latola Pty Limited. of Suite 1 & 6 First Floor 235 Pitt St. Merrylands together with 4 Car parking Spaces Expires 31-1-1997. Option of renewal 3 yrs. Registered 16-3-1994.~~		8039086 5.12.2001
2502091 ~~0548883~~ Lease ~~0548883 sub-lease~~ to Mipala ~~of shop~~ Pty Ltd. of shop 233 Pitt Street, Merrylands together with 2 car spaces. Expires 31.5.2000. Option of renewal 5yrs. Registered 21.9.1995		
~~Z 502091 0548884~~ Lease ~~0548884 sub-lease~~ to ~~Mipa~~ Mipala pty Ltd. of shop ~~231~~ Pitt St, Merrylands together with ~~2 car spaces~~ Expires 31.5.1998. Option of renewal 3yrs. Registered 21.9.1995		8348255 12.3.2002
~~Z 502091 0548885~~ Lease ~~0548885 sub-leased~~ to George Andreas Coutsoudes of shop 237 pitt st, Merrylands together with 2 car spaces. Expires 31.8.1998. Option of renewal 3yrs. Registered 22.9.1995		5160619 22-9-1998
~~Z 502091 Lease 0548886 Variation of Lease. Expiry date Now 31-10-2004. Registered 22.9.1995.~~		AB297502 22.2.2005
2502091 Lease, 2770745 Sub-Lease to Avco Financial Services Ltd. of Lock-up shop 5, 229 Pitt St, Merrylands together with 2 car spaces. Expires 31-5-2001 option of renewal 5 years. Registered 23-1-1997.		
~~2502091 Lease U34677 Sub Lease. 2854726 Variation of Lease. Date of Expiry Now 31-1-2001. Registered 28-2-1997.~~		8348255 12.3.2002

NOTATIONS AND UNREGISTERED DEALINGS

E945902 V/L -3 S/L (2502091) R
U34677 SLR 0548882 P/L (E74359) -83 S/L -84 S/L -85 S/L -86 V/L (2502091) 2770745 SLR (2502091)
AR557626 V/L @ 5073708 SLR 5160619 VL 5168383 VL 5673794 SLR
6648539 SLR (2502091) R
8039086 SLR
8348255 SLR
8554492 SLR
9198821 SLR

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

RG2/70

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:8 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Vol. 13332 Fol. 175

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR | Registrar General

SECOND SCHEDULE (continued)

PARTICULARS | Registrar General | CANCELLATION

Z502091 ~~Lease 5073708 Sub-Lease to H & R Block Limited of shop No 237 Pitt Street, Merrylands. Expires 31-10-1999. Option of renewal 2 years. Registered 22-9-1998.~~ 6648539 24-3-2000

Z502091 Lease 5168533 ~~5073708~~ Variation of Lease. Date of expiry now 31-10-2010. Registered 22-9-1998. RGE CEN 2.3.2000

Z502091 Lease 5673794 Sub-Lease to Mipala Pty Ltd of lock-up shop No 231 Pitt Street, Merrylands. Expires 31-5-2003. Option of renewal 5 years. Registered 16-3-1999.

Z502091 ~~Lease 6648539 Sub-Lease to H+R Block Limited, of Lock up shop No 237. Expires 31-10-2000. 2001. Registered 21-3-2000.~~ 8855492 19-8-2002

Z502091 Lease 8039086 Sub-Lease to Robert O'Connell and Partners Pty Limited of Suite 1, 1st floor, 235 Pitt Street, Merrylands. Expires 9.7.2004. Option of renewal 3 years. Registered 5.12.2001.

~~8348255 Lease to Avco Financial Services Ltd of Shop 5 No 229 Pitt Street Merrylands Expires 31.5.2002. Option of renewal 1 year. Registered 1.3.2002.~~ 12.3.2002

~~Z502091 Lease 8348255 Sub Lease to Avco Financial Services Ltd Shop 5 229 Pitt Street, Merrylands Expires 31.5.2002. Option of renewal 1 year. Registered 1.3.2002.~~ AB297502 22.2.2005

~~Z 502091 Lease 8855492 Sub Lease to H & R Block Limited of lock-up shop 231 Pitt Street, Merrylands, Expires 14-11-2004. Option of renewal 3 years~~ AB297502 22.2.2005

~~Z502091 Lease to E~~

~~Z502091 Lease 9192821 Sub-Lease to Eternity Holdings Pty Limited of being Suite 6, Level 1, 235 Pitt Street, Merrylands. Expires 31.10.2005. Option of renewal 3 years. Registered 18.12.2002.~~ AB173728 6-1-2005

95 Z502091 Lease 9570452 Sub-Lease to Hussein El Khadoan of being lock-up shop 239 Pitt Street, Merrylands. Expires 27.3.2006. Option of renewal 3 years. Registered 8.5.2003.

NOTATIONS AND UNREGISTERED DEALINGS

AB 114884 (Suite 6, 1st Fl.) AB 173728 (Shop)

95 7045 2

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

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:9 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Vol. 13392 Fol. 175

8227E 10.82 D. West, Government Printer

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
2502091 LEASE AB114882 SUB-LEASE TO MASTERCON & PTY LTD OF OFFICE SUITE NO. 6, LEVEL 1, 235 PITT STREET, MERRYLANDS. EXPIRES 8 AUGUST 2006. OPTION OF RENEWAL 3 YEARS. REGISTERED 6-1-2005 2502091 LEASE AB297502. SUBLEASE TO H & R BLOCK LIMITED. OF LOCK UP SHOP No 237 PITT STREET, MERRYLANDS. EXPIRES 30.11.2007. REGISTERED 22.2.2005. FOLIO CANCELLED - NEW FOLIO IS AC 13392-175		

NOTATIONS AND UNREGISTERED DEALINGS

AB297502 SL (R) (SL 4237) DP1079960 Dept'l /R

RG3/48

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

Req:R956902 /Doc:CT 13392-175 CT /Rev:06-Apr-2005 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:50 /Seq:10 of 10
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Vol. 13392 Fol. 175

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
CANCELLED SEE AUTO FOLIO		

NOTATIONS AND UNREGISTERED DEALINGS

RG3/48

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

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
14/3/2025 1:50PM

FOLIO: AUTO CONSOL 13392-175

Recorded	Number	Type of Instrument	C.T. Issue
3/3/2005	AB328571	CONSOL HISTORY RECORD CREATED FOR AUTO CONSOL 13392-175	EDITION 1
		PARCELS IN CONSOL ARE: J/10354, 2/537031, 1/1079960.	
28/6/2005	AB580179	SUB-LEASE	EDITION 2
10/3/2006	AC170152	SURRENDER OF LEASE	
10/3/2006	AC170153	SUB-LEASE	EDITION 3
13/3/2008	AD828187	SUB-LEASE	
17/11/2008	AE330502	VARIATION OF LEASE	
17/11/2008	AE330503	SUB-LEASE	EDITION 4
8/10/2010	AF714933	REQUEST	
8/10/2010	AF714934	SUB-LEASE	EDITION 5
17/5/2011	AG235001	SUB-LEASE	EDITION 6
4/7/2014	AI715377	TRANSFER	
4/7/2014	AI715378	MORTGAGE	EDITION 7
13/5/2015	AJ479268	CAVEAT	
3/8/2018	AN558932	WITHDRAWAL OF CAVEAT	
9/9/2018	AN695392	DEPARTMENTAL DEALING	EDITION 8 CORD ISSUED
2/11/2018	AN832099	CAVEAT	
17/1/2019	AP770	DISCHARGE OF MORTGAGE	
17/1/2019	AP772	TRANSFER	EDITION 9

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2025

Received: 14/03/2025 13:50:38

Req:R956926 /Doc:DL AI715377 /Rev:09-Jul-2014 /NSW LRS /Pgs:ALL /Prt:14-Mar-2025 13:51 /Seq:1 of 1
© Office of the Registrar-General /Src:InfoTrack /Ref:215? 229-239 Pitt St? Merrylands

Form: 01T
Licence: 01-05-025
Licensee: LEAP Legal Software Pty Limited
Firm name: M.L.C. Conveyancing

TRANSFER

New South Wales
Real Property Act 1900

AI715377L

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information 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: 111671648 2988
Duty: $10.00 Trans No: 7652504
Asst details:

(A) **TORRENS TITLE** Auto Consol 13392-175

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
45A	LEVEL 5, BUILDING C, 1 HOMEBUSH BAY DRIVE RHODES NSW 2138 LLPN: 123011G Reference: 14AM2101	T TW

(C) **TRANSFEROR** JOHN JAMES VICELICH AND MAX VICELICH

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $4,040,000.00 and as regards
(E) **ESTATE** the abovementioned land transfers to the transferee an estate in fee simple
(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** HAVANA PROPERTY HOLDINGS PTY LTD (A.C.N 166 414 277)

(I) **DATE** TENANCY: ~~Sole Tenant~~

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

Signature of witness:

Name of witness: CHRISTIAN KOLMAC
Address of witness: 842 King Georges Road
South Hurstville NSW 2221

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 on behalf of the transferee by the person whose signature appears below.

Signature:

Signatory's name: Jennifer Kiraz
Signatory's capacity: Licensed Conveyancer for the Transferee

(K) The transferee's licensed conveyancer certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 634601 Full name: Jennifer Kiraz 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.

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: AUTO CONSOL 13392-175

SEARCH DATE	TIME	EDITION NO	DATE
14/3/2025	1:45 PM	9	17/1/2019

LAND

LAND DESCRIBED IN SCHEDULE OF PARCELS
AT MERRYLANDS
LOCAL GOVERNMENT AREA CUMBERLAND
PARISH OF ST JOHN COUNTY OF CUMBERLAND
TITLE DIAGRAM SEE SCHEDULE OF PARCELS

FIRST SCHEDULE

ANGLICAN COMMUNITY SERVICES (T AP772)

SECOND SCHEDULE (1 NOTIFICATION)

---

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

NOTATIONS

UNREGISTERED DEALINGS: NIL

SCHEDULE OF PARCELS	TITLE DIAGRAM
LOT J IN DP10354	DP10354
LOT 2 IN DP537031	DP537031
LOT 1 IN DP1079960	DP1079960.

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

Copyright © Office of the Registrar-General 2025

Received: 14/03/2025 13:45:23

APPENDIX I – GIPA

Outlook

Final Response - Informal GIPA IC2025/0083: 215, 229-239 Pitt Street, Merrylands

From Lesa Claire Mulholland <LesaClaire.Mulholland@cumberland.nsw.gov.au>
Date Wed 1/29/2025 3:35 PM
To CEC Admin <admin@cec-au.com>
Cc Zuhaib Siddiqui <zuhaib@cec-au.com>; Diego Espinosa <diego@cec-au.com>

You don't often get email from lesaclaire.mulholland@cumberland.nsw.gov.au. Learn why this is important

29 January 2025

Our Reference IC2025/0083
Contact LESA-CLAIRE MULHOLLAND
Telephone (02) 8757 9333

Dear Ms Touma,

RE: GOVERNMENT INFORMATION (PUBLIC ACCESS) ACT 2009
215, 229-239 PITT STREET, MERRYLANDS / CEC GEOTECHNICAL /
INFORMAL APPLICATION

Thank you for your Application for Access to Information received by Council 21 January 2025, requesting:

- Land Contamination Consultant Reports
- Statement of Environmental Effects

Additionally,

"We require details about any events of contamination (fires, oil spill etc) at the subject site in order to carry out a Preliminary Site Investigation"

Please know the documents you require are available on the Cumberland City Council Web site DA TRACKER
https://cumberland-eplanning.t1cloud.com/Pages/XC.Track/SearchApplication.aspx?id=195066

DA2020/0308

I trust the above information is of assistance.
If you have any questions, please email me.

Regards,

Lesa-Claire Mulholland
ACCESS TO INFORMATION OFFICER

LESA CLAIRE MULHOLLAND
ACCESS TO INFORMATION OFFICER

16 Memorial Avenue, PO Box 42 Merrylands NSW 2160
T +61 2 8757 9333
E LesaClaire.Mulholland@cumberland.nsw.gov.au
W www.cumberland.nsw.gov.au

From: CEC Admin <admin@cec-au.com>
Sent: Tuesday, 21 January 2025 9:18 AM
To: Records Department <council@cumberland.nsw.gov.au>
Cc: Zuhaib Siddiqui <zuhaib@cec-au.com>; Diego Espinosa <diego@cec-au.com>
Subject: [EXTERNAL] GIPA - 215, 229-239 Pitt St, Merrylands

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi,

Please find attached the application for GIPA at the above-mentioned site.

Should you have any queries, please do not hesitate to contact me.

Thanks & Kind Regards,

Daniella Touma
Office Administrator – Geotechnical
9630 0121
8 Buller Street, North Parramatta, NSW 2151

www.cec-au.com

Please consider the environment before printing this email
Disclaimer: This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you are not the intended addressee please contact the sender and dispose of this email.
Copyright: The concepts & information contained in these drawings are Copyright of CEC Geotechnical Pty Ltd. Use or duplication in part or full without written permission of CEC Geotechnical Pty Ltd constitutes infringement of copyright.

Disclaimer

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this unintentionally, please contact the sender and delete the material from all computers. Cumberland City Council does not warrant the material contained in this message is free from Computer virus or defect. Loss or damage incurred in use is not the responsibility of Cumberland City Council. Cumberland City Council respects your privacy and is committed to protecting it. To view our Privacy Policy please visit www.cumberland.nsw.gov.au

CUMBERLAND CITY COUNCIL

THESE ENDORSED PLANS ARE TO BE READ IN CONJUNCTION WITH DEVELOPMENT CONSENT NO. DA2020/0308

CONSENT DATE 23/12/2020

Stage 1 Preliminary and Stage 2 Detailed Site Investigation

Proposed Merrylands Vertical Village,
215-239 Pitt Street, Merrylands

Prepared for
Anglican Community Services (Anglicare)
c/- Artazan Property Group
7/05/2020

Construction Sciences

Contact Information

Construction Sciences Pty Ltd
ABN 74 128 806 735

31 Anvil Road
Seven Hills NSW 2147

Telephone: + 612 8646 2000
Facsimile: + 612 8646 2025

www.constructionsciences.net

Document Information

Prepared for	Anglican Community Services (Anglicare) c/- Artazan Property Group
Project Name	Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands
File Reference	5046200053-R01
Job Reference	5046200053-R01
Date	7/05/2020

Document History

Version	Date	Prepared by:	Reviewed By:	Authorised By
Final	7/05/2020	Ammar Dawood	Nalin De Silva	Nalin De Silva

© Construction Sciences 2018. Copyright in the whole and every part of this document belongs to Construction Sciences and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person other than by agreement with Construction Sciences.

This document is produced by Construction Sciences solely for the benefit and use by the client in accordance with the terms of the engagement. Construction Sciences does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document.

Executive Summary

Construction Sciences Pty Ltd (CS) was engaged by Anglican Community Services ('Anglicare' or the 'Client'), to undertake a combined stage 1 preliminary site investigation (PSI) and stage 2 detailed site investigation (DSI) for land located at 215-239 Pitt Street, Merrylands (the site).

At the commencement of this work, CS understood:

> The site is currently a commercial property comprising multiple shops and businesses with open space carpark;

> The site is proposed for development of the 'Merrylands Vertical Village', with works to include demolition of the existing buildings and construction of a high-rise building, with combined commercial and residential occupancy. The proposed development is to include a three level basement car park;

> Network Geotechnics Pty Ltd (NG) previously conducted a *Due Diligence Contamination Assessment* of the site (NG, 2017), that included the collection and analysis of soil and groundwater samples from readily accessible areas. The report concluded that the soils are unlikely to contain widespread contamination, however it noted the groundwater was to be impacted with petroleum hydrocarbon; and

> This combined PSI / DSI is required to accompany a future development application.

The objectives of this project are to:

> Assess the nature and extent of soil and groundwater contamination, including a preliminary assessment of whether contaminated groundwater is likely to be migrating offsite;

> Assess the suitability of the site, from a contamination perspective, for the proposed development; and

> Make recommendation of additional assessment or remediation works that may be required.

The scope of work undertaken to address the project objectives included:

> A desktop review;

> Drilling of five soil bores (4 shallow hand auger bores HA103 to HA106 and a deep bore hole BH104) within the building footprints and the conversion of BH104 to a groundwater monitoring well;

> Collection of soil samples at regular depth intervals and laboratory analysis for contaminants of concern;

> Collection and analysis of ground water from the new monitoring well (BH104) and three existing monitoring wells (installed by Net Geo – MW1, 2 and 3) for COPC; and

> Data assessment and preparation of this combined Stage 1 and Stage 2 contamination assessment report.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013a), NEPC (2013b), NSW OEH (2011), WA DOH (2009), NSW EPA (1995) and Department of the Environment and Energy (2018).

Based on CS's assessment of desktop review information, fieldwork observations and laboratory analytical data, in the context of the proposed land use scenario, CS makes the following conclusions:

> The potential for unacceptable soil and groundwater contamination to be present on the site, as a result of the former service station at No.215-239 Pitt Street, Merrylands, is low;

> The potential for unacceptably contaminated to be migrating offsite is low; and

> The site is suitable for the proposed development, from a contamination perspective, in general accordance with the requirements of SEPP55 and NEPM (2013).

This report must be read in conjunction with the explanatory notes, limitations and general notes, as set out in Appendix A.

Table of Contents

1 Introduction 1
1.1 General 1
1.2 Objectives 1
1.3 Scope of Work 1
2 Site Identification 3
2.1 Site Locality 3
2.2 Site Layout 3
2.3 Lot Number and Deposited Plan 3
2.4 Zoning 3
2.5 Geographic Coordinates 3
2.6 Detail and Level Survey 3
3 Geology, Hydrogeology, Topography and Acid Sulfate Soils 4
3.1 Topography and Elevation 4
3.2 Geology 4
3.3 Hydrogeology and Hydrology 4
3.4 Acid Sulfate Soils 4
4 Regulatory Records 5
4.1 Contaminated Land Management (CLM) Act 1997 5
4.1.1 Record of Notices 5
4.1.2 Register of Notified Sites 5
4.2 Protection of the Environment Operations (POEO) Act 1997 5
4.2.1 Register of Licences, Applications, Notices, Audits or Pollution Studies and Reduction Programs 5
4.3 Environmental Planning and Assessment (EP&A) Act 1979 6
4.3.1 Section 10.7 Planning Certificate 6
4.4 Work Health and Safety (WHS) Regulation 2017 6
4.4.1 Schedule 11 Hazardous Chemicals 6
5 Site History 7
5.1 Aerial Photography 7
5.2 Historical Land Titles 19
5.3 Complaints 19
5.4 Incident Reports 19
5.5 Previous Contamination Assessments 19
5.5.1 NG (2017) 19
6 Site Condition 20
6.1 Current Land Use 20
6.2 Buildings and Infrastructure 20
6.3 Site Boundaries 22
6.4 Drainage 22
6.5 Staining and Odours 22
6.6 Chemical Handling and Storage 22
6.7 Aboveground and Underground Storage Tanks 22
6.8 Wastes 23
6.9 Hazardous Materials 23
6.10 Fill Material 23

6.11 Phytoxicity 23
6.12 Activities on Adjacent Land 24
7 Emerging Contaminants of Concern and Chemical Control Orders 25
7.1 Per and Poly-Fluoroalkyl Substances (PFAS) 25
7.2 Chemical Control Orders 25
8 Conceptual Site Model 26
8.1 Areas of Environmental Concern and Contaminants of Potential Concern 26
8.2 Land Use Scenario and Receptors 26
8.3 Exposure Pathways 26
8.3.1 Human Health – Direct Contact 26
8.3.2 Human Health – Vapour Intrusion / Inhalation 27
8.3.3 Human Health – Asbestos 27
8.3.4 Human Health – Aesthetics 27
8.3.5 Groundwater – Drinking 27
8.3.6 Groundwater – Recreational 27
8.3.7 Groundwater – Agricultural (Irrigation and Stock Watering) 28
8.3.8 Groundwater – Aquatic Ecosystems 28
8.3.9 Ecological – Terrestrial Ecosystems 28
8.3.10 Management Limits for Petroleum Hydrocarbons 28
9 Data Quality Objectives 29
9.1 Step 1: State the problem 29
9.2 Step 2: Identify the decision/goal of the study 29
9.3 Step 3: Identify the information inputs 29
9.4 Step 4: Define the boundaries of the study 30
9.5 Step 5: Develop the analytical approach 31
9.5.1 Duplicates and Triplicates 31
9.5.2 Trip Blanks and Trip Spikes 31
9.5.3 Rinsate Blanks 31
9.5.4 Laboratory Quality Assurance and Quality Control 31
9.5.5 Data Quality Indicators 31
9.5.6 If/Then Statements 32
9.6 Step 6: Specify the performance or acceptance criteria 33
9.7 Step 7: Develop the plan for obtaining data 33
9.7.1 Sampling Point Density and Locations 33
9.7.2 Sampling Methods 33
9.7.3 Field Screening 34
9.7.4 Decontamination 34
9.7.5 Sample Identification, Preservation, Handling and Transport 35
9.7.6 Laboratory Selection 35
9.7.7 Laboratory Analytical Schedule 35
9.7.8 Laboratory Holding Times, Analytical Methods and Limits of Reporting 36
10 Fieldwork 37
10.1 Soils 37
10.1.1 Sampling 37
10.1.2 Site Specific Geology 37
10.1.3 Potential Asbestos Containing Materials 39
10.1.4 Odours 39
10.1.5 Staining 39

10.1.6 Headspace Screening 39
10.2 Groundwater 39
10.2.1 Monitoring Well Installation 39
10.2.2 Groundwater Sampling 39
11 Laboratory 40
12 Assessment of Data Quality Indicators 41
13 Discussion 44
13.1 Human Health – Vapour Intrusion / Inhalation 44
13.2 Aesthetics 44
13.3 Management Limits for Petroleum Hydrocarbons 44
14 Revised Conceptual Site Model 45
15 Conclusions and Recommendations 46
16 References 47

Figures

Figure 1 – Site Locality
Figure 2 – Site Layout
Figure 3 – Borehole Locations

Tables

LR01 – Soil Chemical Analysis Results Summary
LR02 – Water Chemical Analysis Results Summary
LR03 – Relative Percent Difference

Appendices

Appendix A General notes and limitations
Appendix B LotSearch Report
Appendix C Extracts of Previous Assessments
Appendix D Borehole Logs
Appendix E Water Quality Parameters
Appendix F Laboratory Certificates

1 Introduction

1.1 General

Construction Sciences Pty Ltd (CS) was engaged by Anglican Community Services ('Anglicare' or the 'Client'), to undertake a combined stage 1 preliminary site investigation (PSI) and stage 2 detailed site investigation (DSI) for land located at 215-239 Pitt Street, Merrylands (the site).

At the commencement of this work, CS understood:

> The site is currently a commercial property comprising multiple shops and businesses with open space carpark;

> The site is proposed for development of the 'Merrylands Vertical Village', with works to include demolition of the existing buildings and construction of a high-rise building, with combined commercial and residential occupancy. The proposed development is to include a three level basement car park;

> Network Geotechnics Pty Ltd (NG) previously conducted a *Due Diligence Contamination Assessment* of the site (NG, 2017), that included the collection and analysis of soil and groundwater samples from readily accessible areas. However, due to the time constraints suggested by Anglicare, a detailed site history review could not be conducted. The report concluded that the soils are unlikely to contain widespread contamination, however it noted that isolated contamination near former underground fuel infrastructure could not be precluded. Furthermore, the groundwater appeared to be impacted with both volatile and semi volatile hydrocarbon contamination, with elevated levels towards the north of the Site. NG reported that the proposed basement excavation will likely excavate and remove offsite the contaminated soil and groundwater, but the potential for vapour intrusion could not be precluded without additional assessment; and

> This combined PSI / DSI is required to accompany a future development application, to satisfy State Environmental Planning Policy (SEPP) No. 55.

1.2 Objectives

The objectives of this project are to:

> Assess the nature and extent of soil and groundwater contamination, including a preliminary assessment of whether contaminated groundwater is likely to be migrating offsite;

> Assess the suitability of the site, from a contamination perspective, for the proposed development; and

> Make recommendation of additional assessment or remediation works that may be required to render the site suitable for the proposed land use.

1.3 Scope of Work

The scope of work undertaken to address the project objectives included:

> A desktop review of the following:

  > A Due Diligence Contamination Assessment, 215-239 Pitt Street, Merrylands by Network Geotechnics Pty Ltd (NG) dated 5 December 2017; and

  > Lotsearch Enviro Lite (Lotsearch) site history and environmental data package.

> Drilling of five soil bores (4 shallow hand auger bores HA103 to HA106 and a deep bore hole BH104) within the building footprints and the conversion of BH104 to a groundwater monitoring well;

> Collection of soil samples at regular depth intervals and laboratory analysis for contaminants of concern related to service station operations, uncontrolled decommissioning of service station, uncontrolled demolition and uncontrolled fill;

- Collection and analysis of ground water from the new monitoring well (BH104) and three existing monitoring wells (installed by Net Geo – MW1, 2 and 3) for lead, petroleum hydrocarbons, poly aromatic hydrocarbons; and
- Data assessment and preparation of this combined Stage 1 and Stage 2 contamination assessment report.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013a), NEPC (2013b), NSW OEH (2011), WA DOH (2009), NSW EPA (1995) and Department of the Environment and Energy (2018).

2 Site Identification

2.1 Site Locality

The locality of the site is presented in **Figure 1**.

2.2 Site Layout

The general layout of the Site is present in **Figure 2**.

Lotsearch (2020) stated that the site covers an area of approximately 2,097m^2.

2.3 Lot Number and Deposited Plan

The Site encompasses land currently identified as Lot 1 and 2 in DP501597, Lot 1 and 2 in DP537031, Lot J in DP10354 and Lot 1in DP1079960, in the Cumberland City Council Local Government Area.

2.4 Zoning

The site is zoned B4 mixed use under the Holroyd Local Environmental Plan 2013 (Amendment No 17).

2.5 Geographic Coordinates

The geographic coordinates of the general centre of the site obtained from Google Earth were 33°50'9" S and 150°59'28" E.

2.6 Detail and Level Survey

A copy of a detail and level survey of the site was not presented to CS by the client.

3 Geology, Hydrogeology, Topography and Acid Sulfate Soils

3.1 Topography and Elevation

A search of Nearmap Elevation indicates the topography of the site is generally flat with slight slope to the north.

CS notes that Lotsearch (2020) Elevation Contour map indicates the surface of the Site is located at an elevation of approximately 17m Australian Height Datum (AHD).

3.2 Geology

NG (2017) reported that the geological map for Penrith indicates that the area is underlain by Wiannamatta Group Bringelly Shale, comprising claystone, laminite and fine to medium grained sandstone, bordering on Ashfield shale.

3.3 Hydrogeology and Hydrology

The hydrogeology map of Australia provided by GeoScience Australia describes the hydrogeology at the site as porous, extensive aquifers of low to moderate productivity (refer to LotSearch Report attached in Appendix B). A search of the groundwater bore data base provided by the NSW Office of Water identified 17 groundwater bores to the north (approximately 200m), west (approximately 600m) and to the east (approximate 800m) from the site. All but one of the 17 bores were monitoring bores, which appeared to be associated with various service stations surrounding the site. Where reported, the standing water level ranged between 2m and 4m below ground level.

A copy of the LotSearch report is presented in **Appendix B**.

A total of four bores were converted to monitoring wells in the investigations undertaken by Network Geotechnical (NG, 2017) and CS. The standing water level measured in the shallower (approximately 6m) bores installed by NG ranged from approximately 1.6m to 3.2m below ground level. This water is considered likely to be perched water situated at the interface of the clay residual soil and the shale bedrock. The water level measured in the deeper bore installed by CS was 6.9m below ground level, and is likely to be representative of the local groundwater. Based on the observed water levels, the inferred groundwater flow direction appeared to be to the north.

A review of readily available maps held on file by CS, indicated that surface water bodies near the site included:

> A'becketts Creek (tributary to Duck River), located approximately 320m to the north-east; and

> Duck Creek (tributary to Duck River), located approximately 740m to the south.

Based on the location of the identified surface water courses and site topography, the inferred groundwater flow direction at the site is considered likely to be towards Duck Creek, which flows ultimately into the Parramatta River.

3.4 Acid Sulfate Soils

A review of the NSW Department of Land and Water Conservation's Acid Sulfate Soil Risk Map for Botany Bay (Edition 2, 1997), indicated that:

> the site is located in a map class description of 'no known occurrence' where acid sulfate soils are not known or expected to occur in these environments; and

> land management activities are not likely to be affected by acid sulfate soil materials.

Further assessment of acid sulfate soils, in the context of this project is considered not warranted.

4 Regulatory Records

4.1 Contaminated Land Management (CLM) Act 1997

4.1.1 Record of Notices

The NSW EPA online contaminated land record of notices indicated that the Site (and land located immediately adjacent to the site) was not the subject of:

> orders made under Part 3 of the Contaminated Land Management Act 1997;

> notices available to the public under section 58 of the CLM Act

> an approved voluntary management proposal under the CLM Act that has not been fully carried out and where NSW EPA approval has not been revoked;

> site audit statements provided to the NSW EPA under section 53B of the CLM Act that relate to significantly contaminated land;

> where practicable, copies of anything formerly required to be part of the public record; or

> actions taken by NSW EPA (or the previous State Pollution Control Commission) under section 35 or 36[1] of the Environmentally Hazardous Chemicals Act 1985.

The records did indicate a 'former' notice issued to Merrylands Substation PCB Storage (1997), located at the corner of Walpole and Peel Street, 394m north east of the Site. There were no 'current' notices found within a 500m buffer of the Site.

A copy of the search record is presented within the LotSearch report attached in **Appendix B.**

4.1.2 Register of Notified Sites

A search of the NSW EPA online list of NSW contaminated sites notified to NSW EPA indicated that the site (and land located immediately adjacent to the site) was not on the list. However, there were three sites located within a 513m buffer of the Site, listed as 'Regulation under CLM Act not required'.

4.2 Protection of the Environment Operations (POEO) Act 1997

4.2.1 Register of Licences, Applications, Notices, Audits or Pollution Studies and Reduction Programs

A search of the NSW EPA online POEO public register indicated that the site (and land located immediately adjacent to the site) was not the subject of a licence, application, notice, audit, pollution study or reduction program.

The records indicated a penalty notice (Ref: 3085769684) issued May 2013, to Amigos Civil Group Pty Ltd located 1.3km south west. The notice was for neglect/fail to comply with requirement under Chapter 7 of the POEO Act 1997 (Investigation) – Corporation.

A copy of the search record is presented in **Appendix B**.

Further, a review of the historical business directories by LotSearch identified the following potentially contaminating activities surrounding the site:

> Three service stations under 215-239 Pitt Street, Merrylands can be found between 1965 and 1982; Dry cleaners, pressers or dyers back in 1975;

> Dry cleaners 19m east and 31m north of the site back between 1975 and 1978, 39m southeast of the site back in 1986;

> Photographers 22m south east of the site back in 1965;

[1] Sections 35 and 36 of the Environmentally Hazardous Chemicals Act 1985 have been repealed. Notices under these sections are treated by the CLM Act as management orders.

> Photographic developing, printing and/or colouring services 31m north of the site back in 1986;
> Paint, varnish/colour supplier 39m south east of the site between 1965 and 1970; and
> Four service stations were located approximately 294m to the north east, 313m and 513 to the west, and 783mm to the east.

4.3 Environmental Planning and Assessment (EP&A) Act 1979

4.3.1 Section 10.7 Planning Certificate

The Lotsearch report provided information related to section 10.7(2) of the EP&A Act, and indicated that, within the meaning of the CLM Act, the Site was not:

> listed as containing items of environmental state or national heritage and the land is not located in a heritage conservation area;
> affected by any of the matters contained in Clause 59(2) as amended of the Contaminated Land Management Act 1997;
> proclaimed to be within a mine subsidence district;
> bushfire prone land; or
> including or comprising an area of outstanding biodiversity value.

Details are presented in **Appendix B**.

4.4 Work Health and Safety (WHS) Regulation 2017

4.4.1 Schedule 11 Hazardous Chemicals

CS understands by reviewing NG (2017) which mentions anecdotal evidence provided from the client that the site comprised a former service station. The LotSearch report attached in Appendix B confirms that an Amoco service station was located at the site from 1965 to 1985. Historical aerial images (Refer to Section 5.1 below) suggest that the service station was located on McFarlane Street. Based on the aerial images, CS considers that the fuel tank farm is likely to have been located in the north western corner of the site, although the potential for these to have been located within the north eastern corner cannot be precluded.

5 Site History

5.1 Aerial Photography

A selection of historical aerial photographs of the site, were reviewed. A copy of each historical aerial photograph reviewed is presented below.

Figure 5.1 View of 1943 Historical Photograph

Figure 5.2 View of 1955 Historical Photograph

Figure 5.3 View of 1961 Historical Photograph

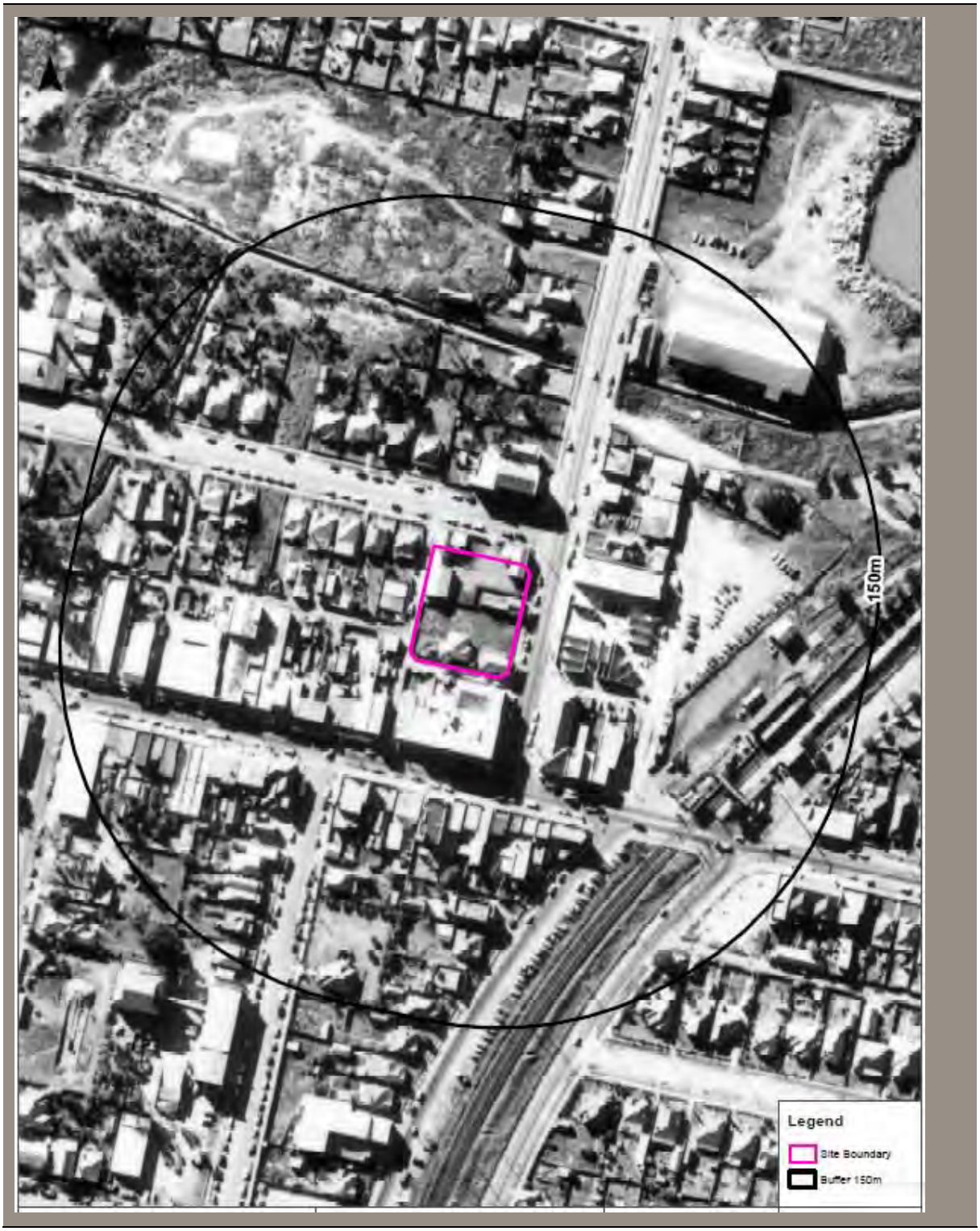


Figure 5.4 View of 1965 Historical Photograph

Figure 5.5 View of 1970 Historical Photograph

Figure 5.6 View of 1982 Historical Photograph

Figure 5.7 View of 1991 Historical Photograph

Figure 5.8 View of 2000 Historical Photograph

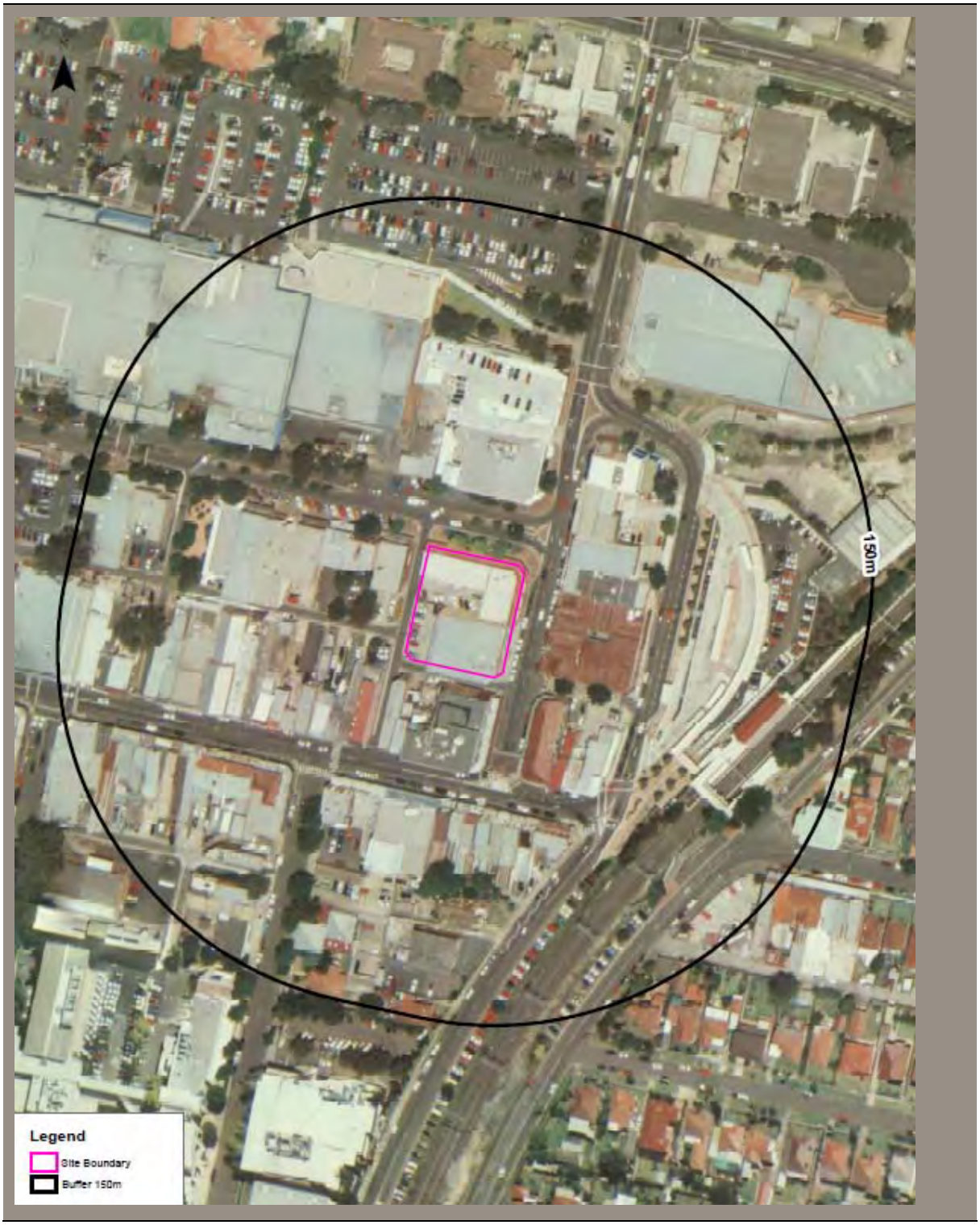


Figure 5.9 View of 2007 Historical Photograph

Figure 5.10 View of 2014 Historical Photograph

Figure 5.11 View of 2019 Historical Photograph

Observations made during that review (considered relevant to this project) are presented in Table 5.1.

Table 5.1 Aerial Photography

Photo Date	Site Observations	Surrounding Land Observations
1943	The southern portion of the site appears to be undeveloped. The northern half contains what could be residential or commercial buildings.	Scattered residential and industrial buildings
1955	One new shed was built in the north eastern corner of the site. The southern boundary appears to be developed into two houses or commercial buildings, one on the east and one close to the west corner.	No significant change since previous image.
1961	No significant changes observed, compared to 1955 image.	Some minor development to the east of the site, one structure appears to being developed and in progress.
1965	The residential or commercial buildings at the northern portion have been demolished and the service station has been built. No major changes observed in the southern portion of the site.	Some minor changes east of the site, the in progress structure east of the site from 1961 appears to be completed.
1970	No significant change since previous image.	No significant change since previous image. With the exception of some demolishing and rebuilding of new structures not immediately north of the site.
1982	The buildings in the southern portion have been demolished and new commercial building had been constructed occupying most of the southern portion of the site. The service station at the northern portion appears similar to the previous image.	It appears that buildings were demolished and shopping centres and commercial development north and west of the site. Car parking beyond the north.
1991	The service station in the northern portion has been demolished, and a new commercial building has been constructed with paved car parking occupying all of the northern portion. The southern portion appears to be similar to the previous image.	It appears that buildings were demolished and commercial development around the site.
2000	No significant change since previous image.	No significant change since previous image. With the exception of some scattered commercial development around the site.
2007	No significant change since previous image.	No significant change since previous image.
2014	No significant change since previous image.	Shopping centre north of the site extended encroaching on the car parking.
2019	No significant change since previous image.	No significant change since previous image.

The review of historical aerial photography indicated a potential for land contaminating activities to have been undertaken on the site, specifically:

> uncontrolled demolition of structures between 1961 and 1991; and

> use of the northern portion of the site as a service station.

Further assessment of these identified potential land contaminating activities, in the context of other historical evidence reviewed during this project, and observations made during the site walkover (refer Section 6 of this report), is considered warranted.

5.2 Historical Land Titles

A historical land title ownership record review of the site has not been conducted by CS. However, the business directory search conducted by LotSearch shows that the site (or part of the site, as shown by the aerial images) was used as a service station from 1965 to 1985. Other than the service station use, the site appears to have been used for commercial purposes since around 1950s.

5.3 Complaints

There was no evidence provided to CS during the project, regarding historical complaints about the site.

5.4 Incident Reports

There was no evidence provided to CS during the project, regarding historical incidents at the site.

5.5 Previous Contamination Assessments

CS reviewed the following previous investigation report:

> NG, 2017, '*Due Diligence Contamination Assessment, 215-239 Pitt Street, Merrylands*' dated 5 December 2017, ref: G09-2639.

5.5.1 NG (2017)

Extracts of NG (2017) due diligence report are attached in Appendix C.

The objectives of NG (2017) were to:

> assess the soil and groundwater contamination levels within the accessible areas of the site; and

> provide an appreciation of the contamination risks for the acquisition and development of the site.

NG (2017) conducted the following works to achieve the aforementioned objectives:

> drilling four boreholes extending to depths ranging from 4.3m to 6m bgl, below the anticipated invert levels of the former underground storage tanks (USTs).

> conversion of three bores to groundwater monitoring wells;

> collection of 11 primary soil samples from appropriate depths within each borehole;

> two groundwater samples were collected (one monitoring well was reported to be dry and could not be sampled),

> All samples were analysed for lead, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylene (BTEX) and additional analysis for the presence of asbestos in soils;

Based on these results NG (2017) made the following conclusions:

> The site soils are unlikely to contain widespread contamination, however, deeper, isolated patches of contamination in the vicinity of the former underground fuel infrastructure could not be precluded;

> The presence of soil contamination is unlikely to pose a risk to the future site users but may increase waste disposal costs;

> The groundwater at the site appears to be impacted with volatile and semi-volatile hydrocarbon contamination, with elevated concentrations towards the northern portions of the site;

> The potential for the contaminated groundwater to pose a vapour intrusion risk to the future development, unless appropriately designed to mitigate such risks, cannot be precluded; and

> The groundwater may pose a contamination liability to Anglicare due to costs associated with management; including vapour intrusion risks, construction dewatering, water treatment and disposal, and preventing off-site migration.

> The report recommended an additional assessment, including the installation and sampling of additional groundwater monitoring wells, to increase the level of certainty in the groundwater contamination data.

6 Site Condition

CS conducted a site walkover in March 2020, during the course of the intrusive assessment. The walkover was conducted by Nalin De Silva, who is a Principal Environmental Consultant at CS.

6.1 Current Land Use

The land use scenario at the time of the walkover was commercial, comprising of a number of shops, offices, restaurants, cafes, travel agents and salons and adjacent open space carpark with concrete hardstand. There was also a medical centre and child care centre in the southern portion of the site.

6.2 Buildings and Infrastructure

The following buildings were observed during the walkover:

> A one storey building in the northern portion of the site with shops on Pitt street and McFarlane St, open space carpark with concrete hardstand on Reyes Ln; a

> A two storey building in the southern portion of the site; and

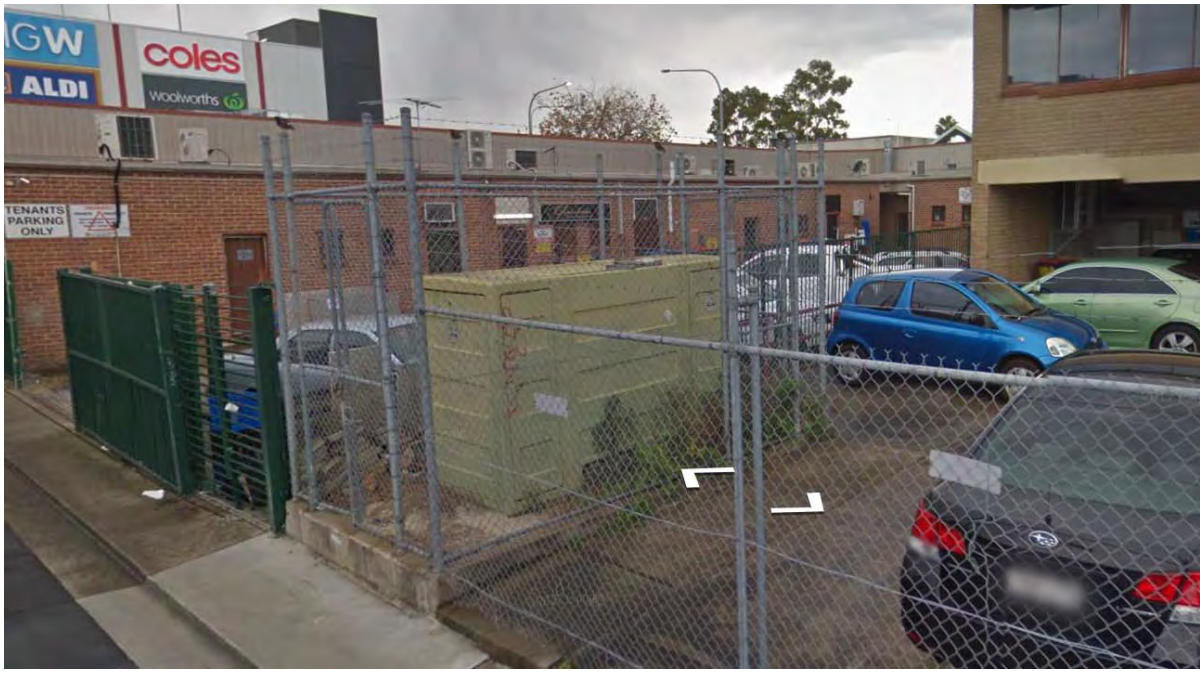
> An electrical substation unit along the western boundary, within the property. .

Image 6.2.1 View of one storey building on Pitt street

Image 6.2.2 View of two storey building on pit street

Image 6.2.3 View of open space car parking and training and education suite on Reyes Ln

Image 6.2.4 View of the electrical substation on the western boundary



6.3 Site Boundaries

The commercial buildings extended to the site boundaries on the entire northern and eastern boundaries, and partially on the western boundary. The open car parks were fenced on the southern boundary and remaining portion of the western boundary.

6.4 Drainage

Based on observations made during the walkover, site drainage mechanisms on site are considered likely to include:

> Overland surface flow following site topography, towards subsurface drainage pipes; and

> Inflow to downpipes attached to building roofs and gutters, into subsurface drainage pipes.

6.5 Staining and Odours

There was no visual evidence observed during fieldworks of significant or widespread staining on the surface of the site.

There was no olfactory evidence detected during fieldworks of significant or widespread odours at the site.

6.6 Chemical Handling and Storage

There was no visual evidence of chemicals observed during fieldworks on the site, other than the food additives and domestic and commercial grade cleaning products observed within the shops inspected.

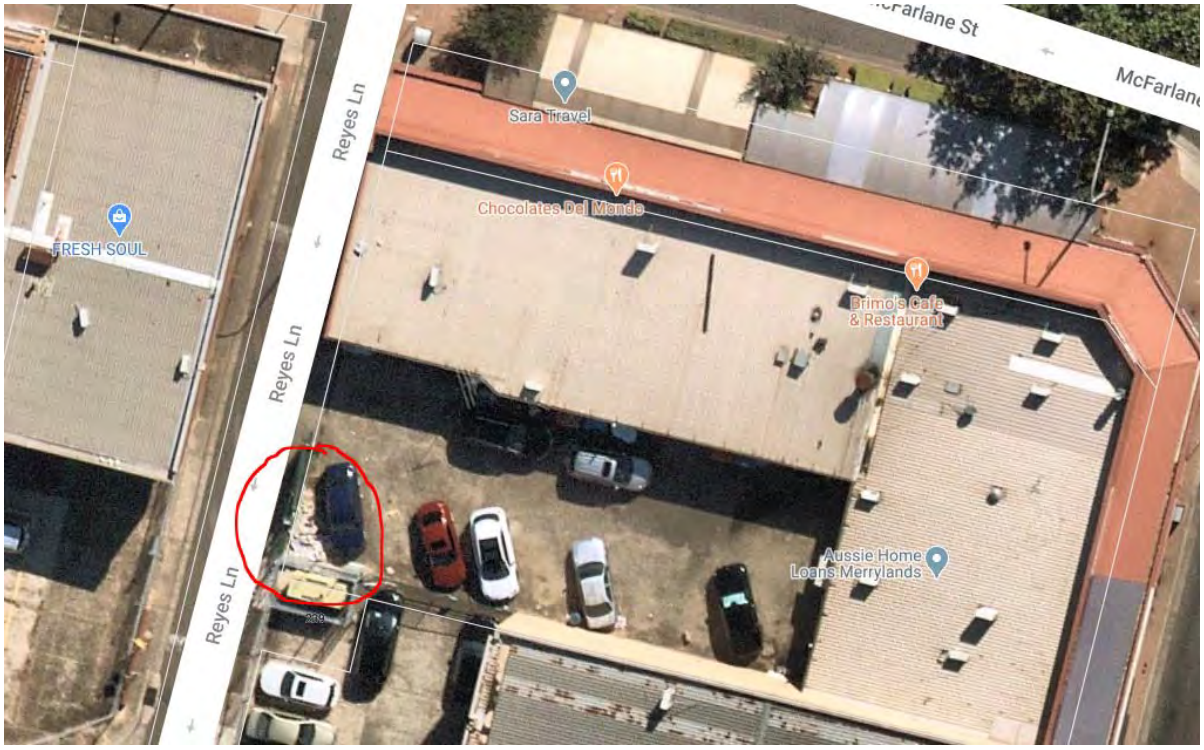
6.7 Aboveground and Underground Storage Tanks

There was no visual evidence observed during fieldworks, of aboveground storage tanks (AST) and underground storage tanks (UST) on site. What appeared to be two underground grease traps were observed to the south of the restaurant and café along McFarlane Street.

6.8 Wastes

Waste material from the offices, restaurants and cafes were stored in appropriate bins for collection. However, there was a pile of what appeared to be dumped material, comprising of carpets, tarps, and broken tiles, to the north of the electrical substation, in the corner of the open car park on the northern portion of the property.

Image 6.8.1 View of waste materials



6.9 Hazardous Materials

There was no visual evidence observed during fieldworks, of potential asbestos containing materials on the surface of the site.

A hazardous building materials survey was not within the scope of this project.

6.10 Fill Material

There was no visual evidence observed during fieldworks and from aerial images to suggest widespread or significant filling observed at the site. However, previous assessment by NG (2017) indicated the presence of a thin layer of fill underlying the concrete.

6.11 Phyto-toxicity

The site was generally covered in hardstand materials and building footprints. There was no vegetation observed on site to facilitate a qualitative assessment of potential phytotoxic impact on site.

6.12 Activities on Adjacent Land

Observations made from the site boundary, indicated land use activities on adjacent properties were comprised of the following:

> North –commercial properties with Caltex service station, located approximately 180m from the Site;

> East – commercial properties, railway and low density residential beyond;

> West – low density commercial properties and low density residential beyond; and

> South –commercial properties and low density residential beyond.

7 Emerging Contaminants of Concern and Chemical Control Orders

7.1 Per and Poly-Fluoroalkyl Substances (PFAS)

Per and Poly-Fluoroalkyl Substances (PFAS) are a group of chemicals that are manufactured for their unique properties. There are numerous PFASs that may be present in the environment. Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) are two major PFASs, that were originally found as components in products used to provide stain resistance or as firefighting foams.

Some PFASs have been recognised as highly persistent, potentially bio-accumulative and toxic, and have been detected in the environment, wildlife, people and food. CS uses the decision matrix presented in Table 7.1 (based on EnRisk (2016)), to facilitate an assessment of the potential for PFAS to be present on site.

Table 7.1 PFAS Decision Matrix

Preliminary PFAS Screening Question	Decision
Is there evidence of fire training occurring at the site	No
Is there evidence of fire training occurring, or the presence of an airport or fire station, up-gradient of, or adjacent to, the site	No
Is there evidence of fuel[3] fires having occurred on site	No
Is there evidence to suggest PFAS being stored, or used, for manufacturing on site	No

CS also considered guidance in the PFAS National Environmental Management Plan (NEMP) 2018 as prepared by HEPA. Section 9 of the NEMP advises that consideration should be given to the presence of primary sources of PFAS, including firefighting training areas, landfills and waste water treatment plants. The historical records reviewed for this project, and the observations made during the site walkover, did not indicate a potential for these primary sources to be present on the site. Furthermore, the Lotsearch report did not indicate any known PFAS investigations undertaken by the Department of Defence or the NSW EPA.

7.2 Chemical Control Orders

Chemical control orders (CCO) are created under Part 3, Division 5 of the Environmentally Hazardous Chemicals Act 1985, and are used to selectively and specifically control particular chemicals or chemical wastes to limit their potential or actual impact on the environment. CS uses the decision matrix presented in Table 7.2 (based on the NSW EPA CCO available at the time of this project), to facilitate an assessment of the potential for those control chemicals to be present on site.

Table 7.2 CCO Decision Matrix

Preliminary CCO Screening Question	Decision
Were aluminium smelter wastes used or stored on site?[4]	No
Were dioxin contaminated wastes generated or stored on site?[5]	No
Were organotin wastes generated or stored on site?[6]	No
Were polychlorinated biphenyls (PCB) used or stored on site?[7]	No
Were scheduled chemicals[8] used, or wastes stored, on site?[9]	No

[3] Fuels could include solvents, petrol, diesel and kerosene.
[4] SPCC 1986, 'Chemical Control Order In Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide' dated 21 March 1986
[5] NSW EPA 1986, 'Chemical Control Order In Relation to Dioxin-Contaminated Waste Materials' dated 14 March 1986
[6] NSW EPA 1989, 'Chemical Control Order In Relation to Organotin Wastes' dated 11 March 1989
[7] NSW EPA 1997, 'Polychlorinated Biphenyl Chemical Control Order' dated 20 June 1997
[8] Primarily organochlorine pesticide (OCP) compounds, with some industrial by-products
[9] NSW EPA 2004, 'Chemical Control Order in Relation to Scheduled Chemical Wastes

8 Conceptual Site Model

The results of the previous report review were assessed in the context of the project objectives, in order to develop a conceptual site model (CSM) for the site.

8.1 Areas of Environmental Concern and Contaminants of Potential Concern

A number of areas of environmental concern (AEC) on the site, and contaminants of potential concern (COPC) associated with those AEC, were identified for the site.

The identified AECs are within the boundary of the site presented in Figure 3, and the COPC associated with those AEC are presented below.

Table 8.1 AEC and COPC

ID	AEC	Land Use Activity	COPC
AEC01	Soils underlying 215-239 Pitt Street, Merrylands	Potential uncontrolled demolition and uncontrolled filling. Potential improper decommissioning of fuel station.	TRH, BTEX, metals PAH, OCP, Asbestos
AEC02	Ground water at the site		TRH, BTEX and lead

However, it is worth noting that the soils and perched groundwater that may be contaminated, will be excavated and removed offsite as part of the proposed basement excavation, thereby reducing potential for the proposed development to be impacted by contamination that may have resulted from the previous use of No.215-239 Pitt Street Merrylands as a service station.

8.2 Land Use Scenario and Receptors

The proposed land use is commercial from ground floor up to level two, with offices from level three up to level seven, apartments from level eight up to level twenty-three and a three level basement car park.

CS considers receptors at the site may include construction workers, residents, visitors and commercial workers.

CS does not consider that terrestrial ecosystems require consideration as a receptor of site contamination, given that the proposed three level basement and the overall development will occupy the majority of the site and that any landscaping will be limited to plantings on media imported to the site.

Offsite receptors could include aquatic ecosystems within the above identified surface water bodies.

8.3 Exposure Pathways

8.3.1 Human Health – Direct Contact

Site history information and walkover observations indicated a potential for contaminants that may present a direct contact exposure risk, may be present on site. However, given that the proposed basement excavation will extend across most of the site, the potential for exposure to contaminants that may be present in soil via direct contact is likely to be significantly diminished.

Any fill material that may be retained on site may need to be assessed for contamination risk, given that the proposed commercial workers, visitors and residences will not have direct access to site soils. **A direct contact pathway is unlikely to be complete for future site users. However, construction workers may be exposed to a direct contact risk**.

8.3.2 Human Health – Vapour Intrusion / Inhalation

Vapour intrusion / inhalation exposure risks can occur when a primary or secondary vapour source[2] is present. Site history information indicated a likelihood for secondary sources (i.e. TRH, BTEX, PAH, VOC, Phenol, MTBE migration from the previous service station business at 215-239 Pitt Street), to be present on the site. Contamination may be present in the underlying soil and the extremely weathered shale and shallow perched water. The potential for the groundwater within the moderately to slightly weathered bedrock to be contaminated by the former service station is considered to be low. However, given that the groundwater within the shale bedrock is likely to be intercepted by the basement excavation, potential for vapour intrusion through potentially contaminated groundwater within the bedrock has been considered in this assessment.

Whilst the proposed basement excavation will remove the potentially contaminated soils and perched water, a vapour **intrusion / inhalation exposure pathway is considered likely to be complete** given that the basement excavation will likely intercept groundwater within the shale bedrock.

8.3.3 Human Health – Asbestos

Bonded asbestos containing materials (ACM) comprises asbestos which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin.

Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material, which can be broken or crumbled by hand pressure.

Asbestos fines (AF) include free fibres, small fibre bundles and small fragments of bonded ACM that can pass through a 7mm x 7mm sieve.

Asbestos poses a risk to human health when asbestos fibres are made airborne and inhaled. The assessment of sites contaminated with asbestos in soil should aim to describe the nature and quantity of asbestos in soil in sufficient detail to enable a risk management plan to be developed for the proposed land use scenario.

Site history information and walkover observations indicate a potential for bonded ACM, FA and AF to be present in selected areas of the site.

An **asbestos human health exposure pathway is likely to be complete for the construction workers**.

8.3.4 Human Health – Aesthetics

Section 3.6.3 of NEPC (2013a) indicates that there are no specific numeric aesthetic guidelines, however site assessment requires balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity. For example, higher expectations for soil quality would apply to residential properties with gardens compared with industrial settings.

If groundwater within the shale bedrock is significantly contaminated, similar to vapour intrusion risk, an **aesthetics exposure pathway is also likely to be complete** (strong odours in the basement) for the proposed land use scenario.

8.3.5 Groundwater – Drinking

Site history information indicated a potential for contaminants, which may present a drinking water risk, may be present on site.

Given that reticulated drinking water system is available on the site and the surrounds, groundwater within the shale is unlikely to be used for drinking or domestic uses. And since there were no groundwater bore registered for domestic use (see Section 3.3), **a drinking water exposure pathway is unlikely to be complete**.

8.3.6 Groundwater – Recreational

Site history information and walkover observations indicated a potential for contaminants, which may present a recreational water risk, may be present on site.

The nearest surface water body is located in an inferred down gradient location approximately 320m (A'becketts Creek tributary of Duck River, tributary of Parramatta River) north east from the site. This creek is

unlikely to be used for primary or secondary contact recreational purposes. As such, **recreational water** exposure pathway is considered unlikely to be complete.

8.3.7 Groundwater – Agricultural (Irrigation and Stock Watering)

Site history information and walkover observations indicated a potential for contaminants, which may present an agricultural water risk, may be present on site.

However, commercial and urban development on the site and on nearby properties is likely to prevent agricultural land use activities from being undertaken. Further, Section 3.3 of this report did not identify any registered groundwater bores within a 500m radius of the site, authorised for irrigation or stock purposes.

An agricultural groundwater exposure pathway is considered unlikely to be complete.

8.3.8 Groundwater – Aquatic Ecosystems

Site history information indicated a potential for contaminants, which may present an aquatic ecosystems risk, may be present on site.

As groundwater from the site likely discharges to the above mentioned surface water bodies, **an aquatic ecosystems groundwater exposure pathway is likely to be complete**.

8.3.9 Ecological – Terrestrial Ecosystems

Site history information indicated a potential for contaminants, which may present an ecological risk, may be present on site.

Given that the proposed basement excavation will extend across most of the site (and that excavated soil/rock will be disposed off site), the potential for contaminants that may be present in soil to pose an unacceptable risk to terrestrial ecosystems is likely to be significantly diminished.

As such, **soil exposure pathway to terrestrial ecosystems is considered unlikely to be complete**.

8.3.10 Management Limits for Petroleum Hydrocarbons

Section 2.9 of NEPC (2013a) indicates that there are a number of policy considerations which reflect the nature and properties of petroleum hydrocarbons:

> Formation of observable light non-aqueous phase liquids (LNAPL);

> Fire and explosive hazards; and

> Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services by hydrocarbons.

Section 2.9 of NEPC (2013a) notes that CME (2008) includes management limits to avoid or minimise these potential effects. Application of management limits requires consideration of site specific factors such as depth of building basements and services, and depth to groundwater, to determine the maximum depth to which the limits should apply. NEPC (2013a) also states that:

> management limits may have less relevance at operating industrial sites (including mine sites) which have no or limited sensitive receptors in the area of potential impact.

> the presence of site total petroleum hydrocarbon (TPH) contamination at the levels of the management limits does not imply that there is no need for administrative notification or controls in accordance with jurisdiction requirements.

Site history information and walkover observations **does indicate a potential** for one or more these **petroleum hydrocarbon** policy considerations to be associated with relevant identified AEC at the site, in the context of the proposed future land use scenario.

9 Data Quality Objectives

Appendix B in NEPC (2013b) provides guidance on the data quality objective (DQO) process, which is a seven step iterative planning approach that can be used to define the type, quantity and quality of data needed to inform decisions relating to the environmental condition of a site.

9.1 Step 1: State the problem

The reasons the project is being undertaken, is set out in Section **Error! Reference source not found.** of this report.

The objectives of this project are set out in Section 1.2 of this report.

The project team and technical support experts identified for the project include the CS project director, CS project manager, CS field staff and CS's subcontractors.

The design and undertaking of this project will be constrained by the client's financial and time budgets.

The regulatory authorities associated with this project include NSW EPA and the local Council.

9.2 Step 2: Identify the decision/goal of the study

The decisions that need to be made during this project, to address the project objectives, include:

> Is the data collected for the project, suitable for assessing land contamination exposure risks?

> Do the detected concentrations of contaminants of potential concern identified in the CSM, present an unacceptable exposure risk to the receptors identified in the CSM, based on the proposed land use scenario?

> Is the site suitable, in the context of land contamination, for the proposed land use scenario?

9.3 Step 3: Identify the information inputs

The information inputs required to make the decisions for the project set out in Section 9.2, include:

> Data obtained during the site history review and site walkover;

> Identification of sample media that needs to be collected, as set out in Section 9.7.2;

> Parameters that will be measured in each relevant sample, as set out in Section 9.7.7;

> The analytical methods required for each identified COPC, so that assessment can be made relative to adopted site criteria. These are set out in Section 0 of this report; and

> The basis for decisions to be made from field screening, including photo-ionisation detector (PID) data, and what action is to be taken if a defined concentration is attained, as set out in Section 9.7.3; and

> The site criteria for the media of concern. These criteria are set out in Table 9.3 and will be adopted based on the proposed land use scenario[10] and identified receptors.

Table 9.3 Adopted Site Assessment Criteria

Exposure Pathway	Land Use Setting[11]	Reference
Human health direct contact	HIL B – residential with minimal access to soils HIL D – commercial and industrial	Table 1A(1) in NEPC (2013a) Table B4 in Friebel, E & Nadebaum P (2011) Table 2 in DoEE (2018)

[10] The land use scenarios in Section 2.2 of NEPC (2013a) will be considered when adopting human health assessment criteria. The land use scenarios i
assessment criteria.
[11] Consideration will be given to soil type, soil texture, soil depth, groundwater depth and appropriate species protection levels.

Exposure Pathway	Land Use Setting[11]	Reference
Human health inhalation/intrusion	HSL B – residential with minimal access to soils HSL D – commercial and industrial	Table 1A(2) in NEPC (2013a)[12] Table 1A(3) in NEPC (2013a) Table 1A(4) in NEPC (2013a) Table 1A(5) in NEPC (2013a)
Human health (asbestos)	HSL B – residential with minimal access to soils HSL D – commercial and industrial	Table 7 in NEPC (2013a)[13]
Human health (aesthetics)	All	Characteristics and processes in Section 3.6.2 and 3.6.3 in NEPC (1991a)
Groundwater	Aquatic	Table 1C in NEPC (2013a) Section 8.3.7 of ANZECC (2000) Table 5 in DoEE (2018)
Ecological	Areas of Ecological Significance Urban residential / public open space Commercial / industrial	Table 1B(1) in NEPC (2013a) Table 1B(2) in NEPC (2013a) Table 1B(3) in NEPC (2013a) Table 1B(4) in NEPC (2013a) Table 1B(5) in NEPC (2013a) Table 1B(6) in NEPC (2013a) Table 3 in DoEE (2018)
Management Limits (petroleum hydrocarbons)	Residential, parkland and public open space Commercial / industrial	Table 1B(7) in NEPC (2013a)

9.4 Step 4: Define the boundaries of the study

The geographical and spatial extent of the project will be limited to:

> the site as defined by the boundaries set out in Section 2; and

> physical constraints or existing infrastructure on site that prevents safe and reasonable access by the project team and/or typical industry equipment used for projects of this nature.

The time and budget constraints of the project will be as per those set out in the contract (and subsequent variations) between CS and the client.

The temporal boundaries of the project will include:

> Weather conditions including rain, wind, heat and cold, which may adversely affect execution of fieldwork tasks and/or data quality;

> Availability of the site for access to execute fieldwork tasks; and

> Availability of project team members to execute the project.

The lateral and vertical intervals in which contamination distribution is believed to be uniformly distributed, based on the CSM, will be:

> The inferred lateral boundaries of each AEC, including groundwater down gradient of primary / secondary sources (where applicable);

> The inferred vertical extent of each AEC, likely to be to the base of fill material, and to ~2m below inferred standing water level (where applicable).

The scale of the decisions required will be based on the site, as defined by its boundaries.

[12] Secondary school buildings should be assessed using the Residential A / Residential B HILs for vapour intrusion purposes.
[13] A depth of up to 10cm below ground level is adopted to define 'surface soil'.

9.5 Step 5: Develop the analytical approach

9.5.1 Duplicates and Triplicates

Field duplicates and triplicates will be collected at a rate of one set per 20 samples collected (an equivalent of 5%). Sample collection will include splitting of one bulk sample across three separate sample containers. Soil samples will not be homogenised, particularly where the COPC are volatile or semi volatile in nature.

Collection of duplicates and triplicates of groundwater samples (where applicable), will ensure that containers for volatile and semi-volatile analysis, are filled first.

Analysis of the duplicate and triplicates will be based on at least one of the analytes that the parent sample is being analysed for (excluding asbestos).

The relative percent difference (RPD) of the detected concentrations in the parent and duplicate, and the parent and triplicate, will be calculated.

9.5.2 Trip Blanks and Trip Spikes

One trip blank and trip spike will be used for each day of sampling[14]. A minimum of one trip blank and one trip spike will be scheduled for BTEX analysis, during the project, provide sample handling, preservation and storage procedures the same for each day of sampling.

9.5.3 Rinsate Blanks

One rinsate and rinsate blank will be collected for each day of sampling[15].

Analysis of the rinsates will be based on at least one of the analytes that the parent sample is being analysed for (excluding asbestos).

9.5.4 Laboratory Quality Assurance and Quality Control

The quality assurance and quality control (QA/QC) program of the primary analytical laboratory will typically include analysis of method blanks, matrix spikes, surrogate spikes, laboratory control samples and laboratory duplicates. The laboratory will report on whether the QA/QC analysis meets the laboratory's adopted data quality objectives.

9.5.5 Data Quality Indicators

Data quality indicators (DQI) will be adopted to facilitate an assessment of the completeness, comparability, representativeness, precision and accuracy (bias) of the field and laboratory data collected. These DQI are set out in Table 9.5.5.

Table 9.5.5 Data Quality Indicators

Completeness[16]			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Critical locations sampled	95%	Critical samples analysed	95%
Critical samples collected	95%	Analysis addresses COPC	95%
SOPs appropriate	SOPs used	Methods and LORs	Refer Section 0
Experienced sampler	Experienced CS staff	Sample documentation	SRA and COA supplied
Documentation complete	Logs, calibration, COC	Holding times	Refer Section 0

[14] Where samples being collected on that day are expected to be analysed for BTEX and/or TRH C6-C10.

[15] Where non-disposable sampling equipment is being used on that day.

[16] Percentage criterion adopted is reflective of the significance level adopted for the decision, e.g. significance level of 0.05 indicates a 95% confidence l NEPC (1999b))

Comparability			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Same SOPs used	SOPs used	Comparable methods	Refer Section 0
Experienced sampler	Experienced CS staff	Comparable LORs	Refer Section 0
Climatic conditions	Sampling not affected by weather	Same laboratories	Primary samples to one lab
Same sample types	Same collection, preservation and handling	Same units of measure	Refer Section 9.7.5

Representativeness			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Appropriate media sample	Refer Section 9.7.2	Samples analysed	Refer Section 9.7.7
Identified media sampled	Refer Section 9.7.2		

Precision[17]			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
SOP compliance	SOPs used	Laboratory duplicates	95% pass
Duplicate / triplicate RPD	Minimum 10% duplicates Minimum 5% triplicates No RPD limit <10 times LOR 50% RPD limit 10-20 times LOR 30% RPD limit >20 times LOR		

Accuracy (bias)[18]			
Field Considerations	Assessment Criteria	Laboratory Considerations	Assessment Criteria
Trip blanks	Analytes less than LOR	Method blanks	95% pass
Trip spikes	Recoveries between 60% and 140%	Matrix spikes	95% pass
Rinsate blanks	Analytes less than LOR	Surrogate spikes	95% pass

9.5.6 If/Then Statements

If field and laboratory analytical dataset is within the DQI assessment parameters, then the data may be considered to be adequately complete, comparable, representative, precise and accurate, for decision making within the objectives of this project.

If field and laboratory analytical dataset is outside the DQI assessment parameters, then additional data may be collected to address identified data gaps.

If field and laboratory analytical results are within adopted contamination assessment criteria, then the site may be considered suitable for the proposed land use scenario.

[17] Percentage criterion adopted is reflective of the significance level adopted for the decision, e.g. significance level of 0.05 indicates a 95% confidence level that the data is adequate for decision making (Ref: Section 18.3 and Section 19.5 in NEPC (1999b))
[18] Percentage criterion adopted is reflective of the significance level adopted for the decision, e.g. significance level of 0.05 indicates a 95% confidence level that the data is adequate for decision making (Ref: Section 18.3 and Section 19.5 in NEPC (1999b))

If field and laboratory analytical results are outside adopted contamination assessment criteria, then the site may be considered unsuitable for the proposed land use scenario, or additional data collected to further inform the decision making process.

9.6 Step 6: Specify the performance or acceptance criteria

There are two types of decision error:

> sampling errors occur when the sampling program does not adequately detect the variability of a contaminant from point to point across the site. That is, the samples collected are not representative of site conditions (e.g. an appropriate number of representative samples have not been collected from each stratum to account for estimated variability); and

> measurement errors occur during sample collection, handling, preparation, analysis and data reduction. In the assessment of land contamination, these errors can result in either:

> a Type I error, where contamination exposure risks are considered to be acceptable, when they are not; or

> a Type II error, where contamination exposure risks are considered to be not acceptable, when they are.

In order for decision rules to be sound, they should be designed to minimise decision errors. The risk of decision error will be mitigated by:

> Ensuring fieldwork tasks are undertaken by suitably experienced field staff and sub-contractors, with reference to the DQO presented in this report;

> Ensuring laboratory analyses are undertaken by NATA accredited laboratories; and

> Ensuring interpretation of data is undertaken by suitably experienced environmental consultants and/or outsourcing interpretation to technical experts (if warranted).

9.7 Step 7: Develop the plan for obtaining data

9.7.1 Sampling Point Density and Locations

Table A in NSW EPA (1995) includes guidance on minimum sampling point densities required characterising a site, based on detecting circular hot spots by using a systematic sampling pattern. Application of this guidance is recommended when

> There is little knowledge about the probable locations of the contamination;

> The distribution of the contamination is expected to be random (e.g. landfill sites); or

> The distribution of the contamination is expected to be fairly homogenous (e.g. agricultural lands).

Section 3.1 of NSW EPA (1995) states that judgemental or stratified sampling methods can be used if there is sufficient information about the probable distribution of the contamination. Additionally, Section 6.2.1 in NEPC (2013b) states that judgemental sampling, the selection of samples (number, location, timing, etc) is based on knowledge of the site and professional judgement. Sampling would be expected to be localised to known or potentially contaminated areas identified from knowledge of the site either from the site history or an earlier phase of site assessment. Judgemental sampling can be used to investigate sub-surface contamination issues in site assessment.

The scope of this project has included collection of data that provides an understanding of site history and the locations of potentially contaminated areas. On that basis, it is considered reasonable to adopt a judgemental sampling pattern within the physical constraints imposed by the existing building structures and underground services, using the sampling point densities set out in Section 9.7.2.

The locations of the sampling points are presented in Figure 3.

9.7.2 Sampling Methods

The sampling methods set out in Table 9.7.2 will be used on this project. These methods are based on a number of factors that are relevant to this project, based on site history, and include:

> The identified COPC;

> The assessed laydown mechanisms for COPC in each AEC;

> The assessed likely lateral and vertical extent of potential contamination in each AEC; and

> Constraints on site which may restrict the use of certain sampling techniques.

Table 9.7.2 Sampling Methods

ID	AEC	Sampling Point ID	Method[19]	Target Depth (mbgs)
AEC01	Soils underlying 215-239 Pitt Street, Merrylands	BH104 and HA103-HA106	Borehole (SFA, PT and HA)	BH104 to at least 12m (to assist the geotechnical assessment) Hand augers to 1m below ground level or prior refusal
AEC02	Ground water at the site	BH104 from this assessment and MW1, MW2 and MW3 from NG (2017)	Low flow sampling	Pump intake depth approximately midway within water below ground level

The monitoring well will be constructed using 50mm Class 18 PVC machine slotted screen and casing, gravel pack from the base to approximately 0.5m above the top of the screen, followed by approximately 0.5m of hydrated bentonite, grout to the surface and a lockable cast iron road box. The wells will be screened to capture both the perched water and groundwater. Monitoring wells will be developed following installation, and allowed to equilibrate before sampling (preferably 5 days later).

At the start of the groundwater monitoring event (GME), depth to standing water level in previous NG wells MW1 to MW3 and new well BH104 will be gauged, and then each well purged using a low flow pump (<0.5L/min) until field groundwater quality parameters stabilise. Field groundwater quality parameters including dissolved oxygen, conductivity, oxygen reduction potential, pH and temperature, will be measured using a calibrated water quality meter and flow cell. Observations will also be made of colour, clarity, odour and sheen. Field water quality measurements and observations will be recorded on a groundwater monitoring event field sheet.

Groundwater samples will be collected using low flow sampling techniques, using disposable LDPE tubes dedicated to each well. Headspace in sample containers will be avoided.

Samples will be submitted to a NATA accredited laboratory for analysis.

9.7.3 Field Screening

When identified COPC include volatiles (e.g. BTEX, TRH or VOC), collected soil samples will be screening for ionisable volatile organic compounds using a photo-ionisation detector (PID). A sub sample from each sample collected at each sampling point will be placed in a zip lock bag, sealed, and shaken. Each zip lock bag will then be pierced with the tip of a PID and the results recorded on the relevant sampling point log.

9.7.4 Decontamination

Non-disposable sampling equipment will be decontaminated between sampling points to mitigate potential for cross contamination of samples. The decontamination method to be used will be:

> Wash of the non-disposable sampling equipment with a solution of potable water and phosphate free detergent (e.g. Decon 90), noting that Decon 90 will not be used on equipment used for collection of samples that will be analysed for PFAS compounds;

> Rinse the washed equipment with distilled or de-ionised water; and

[19] EX = excavation, PT = push tube auger, SFA = solid flight auger, HA = hand auger, SS = surface sample

> Air dry the rinsed equipment.

9.7.5 Sample Identification, Preservation, Handling and Transport

Soil samples will be identified using the CS project number, sampling point identification number and sampling depth interval (e.g. BH104/0.2-0.4), and date the sample was collected.

Groundwater samples will be identified using the CS project number, sampling point identification number (e.g. MW03) and date the sample was collected.

Vapour samples will be identified using the CS project number, sampling point identification number and the sampling depth interval (e.g. SV01/0.6-0.8), and date the sample was collected.

Samples will be placed in laboratory prepared containers (containing preservatives as appropriate), bulk sample bags and zip lock bags.

Soil, water and vapour samples will be stored in insulated containers with ice.

Samples will be transported to the analytical laboratory by CS field staff or a third party courier, using the analytical laboratory's chain of custody (COC) documentation.

9.7.6 Laboratory Selection

Analytical laboratories used for this project will be NATA accredited for the analytical methods used.

9.7.7 Laboratory Analytical Schedule

Samples scheduled for laboratory analysis will be selected based on:

> The COPC identified for the AEC the sample was collected from;

> Observations made of the sample when collected (including staining, odour and discolouration); and

> The results of PID headspace screening (if applicable).

The proposed laboratory analytical schedule (including upper limiting sample quantities) for the project is set out in Table 9.7.7.

Table 9.7.7 Laboratory Analytical Schedule

ID	AEC	Sampling Point ID	TRH / BTEX	PAH	OCP	Metals (8)	Asbestos (ID)	Asbestos in material	CEC / pH
AEC01	Soils underlying 215-239 Pitt Street, Merrylands	BH104 and HA103-HA106	10	10	8	10	6	1	1
AEC02	Ground water at the site	BH104 MW1-MW3 from NG (2017)	4	0	0	4 lead only	0	0	0

9.7.8 Laboratory Holding Times, Analytical Methods and Limits of Reporting

Sample holding times, laboratory analytical methods and limits of reporting applicable to this project, are set out in Table **0**.

Table 0 Laboratory Holding Times, Analytical Methods and Limits of Reporting

Analyte	Holding Time	Method	LOR (mg/kg)	LOR (µg/L)
BTEX and TRH C6-C10	14 days	USEPA 5030, 8260B and 8020	0.2-0.5	1-2 and 50
TRH C10-C40	14 days	USEPA 8015B & C	20-100	50-500
VOC	14 days	USEPA 8260	0.1-0.5	-
PAH	14 days	USEPA 8270	0.1-0.2	0.5-10
OCP	14 days	USEPA 8081	0.2	-
PCB	14 days	USEPA 8270	0.2	-
Metals	6 months	USEPA 8015B & C	0.05-2	0.1-5
Asbestos ID	No limit	AS4926	Absence / presence	-
Asbestos (WA DOH)	No limit	In-house	0.001% w/w	-

10 Fieldwork

10.1 Soils

10.1.1 Sampling

Drilling of hand auger bore holes (HA103 to HA106) within the buildings was conducted on 7 April 2020. Drilling of the deep bore hole BH104 inside barber shop was commenced in the evening of 17 April 2020 and was completed on the following morning. These works included:

> Surveying of each sampling point by a service locating contractor for buried services;

> Concrete coring at each bore hole location to access the underlying soils;

> Drilling of 4 soil bores (HA103 to HA106) using a hand auger; and

> Drilling of the deep bore BH104 using a track mounted drilling rig fitted with push tubes and solid flight augers. Shale bedrock from 7m depth was penetrated for geotechnical purposes using a diamond tipped corer.

Soil samples were collected at each sampling point, at the surface and at regular intervals thereafter, throughout the residual soils and extremely weathered shale horizon.

Samples were collected using a split spoon sampler, using a fresh pair of nitrile gloves. Samples were placed in labelled suitable laboratory prepared containers and placed in eskies filled with ice. Duplicate samples were collected by splitting the primary sample across three sample containers (without homogenising, to avoid loss of volatiles). Sampling point locations were confirmed on a site plan. The sampling point location plan is presented in Figure 3.

10.1.2 Site Specific Geology

Observations made of soils encountered during intrusive investigation works were recorded on logs. These logs are presented in Appendix D.

A summary of subsurface conditions is presented in Table **10.1.2.**

Table 10.1.2 Summary of Subsurface Conditions

Layer	Description	Depth (m)
Surface Cover	Tiles/Concrete	0.0 to 0.2
Fill	Gravelly CLAY, high plasticity, pale brown, fine to coarse gravel (traces of Asphalt)	0.2-0.5
Natural	CLAY, Clayey SILT low to high plasticity, grey mottled brown mottled yellow, mottled orange with fine to coarse grained gravel (iron stone)	0.2 to 6.5
Bedrock	SHALE: slightly to moderately weathered, grey	6.5>

10.1.2.1 View of fill soils encountered at HA103

10.1.2.2 View of fill and natural soils encountered at HA104

10.1.3 Potential Asbestos Containing Materials

Potential asbestos containing material (PACM) was observed during fieldworks in soils in sampling point BH105. One fragment was collected and submitted to the lab for testing. The results reported the presence of Chrysotile asbestos in the fragment sample.

Further assessment of potential asbestos containing material is considered warranted.

10.1.4 Odours

No olfactory evidence of potential contamination was observed in the soil cuttings or the samples collected.

10.1.5 Staining

There was no visual evidence of staining observed in the soil samples collected.

10.1.6 Headspace Screening

Headspace readings undertaken during the assessment did not report readings greater than 5ppm, indicating that significant ionisable volatile organic compounds are unlikely to be present in the assessed soils.

10.2 Groundwater

10.2.1 Monitoring Well Installation

Monitoring well installation works were undertaken by the drilling contractor under the supervision of CS. Each well was constructed using 50mm Class 18 PVC machine slotted screen and casing, gravel pack, bentonite seal, grout and a lockable cast iron road box. The well was screened from 6m to 9m, with a blank casing extending from 9m to the base of the bore, which was 14m below ground level. The sand filter pack was placed to 5.5m below ground level (0.5m above the screen). Bentonite seal extended from 5.5m to the surface concrete.

The well was developed using a Waterra foot valve on 18 April 2020. Approximately 80L was removed within a period of 15 minutes using the foot valve.

10.2.2 Groundwater Sampling

Standing water levels in each of the monitoring wells were gauged by CS on 24 April 2020 and the results recorded on the field groundwater quality parameter forms presented in Appendix E. Based on the well survey data and measured standing water levels, the inferred groundwater flow direction is towards the south.

Each well was then purged using a peristaltic pump and dedicated HDPE / LDPE and silicon tubing, water quality parameters stabilised. The results were recorded on the field groundwater quality parameter forms presented in Appendix E.

The same pump and dedicated tubing was used to collect a sample from each monitoring well. Samples were placed in suitable laboratory prepared containers and labelled. The samples collected for metal analysis were not filtered in the field. However, the acid in the metals analysis bottle was rinsed out prior to filling. The laboratory was requested to undertake filtering of the sample prior to analysis.

There was no visual evidence of staining, sheen or non-aqueous phase liquids (NAPL) in the groundwater samples collected.

Duplicate samples were collected by splitting the primary sample across two sample containers.

11 Laboratory

The samples were transported to the analytical laboratory using chain of custody protocols. A selection of those samples were scheduled for laboratory analysis, taking into consideration the laboratory analytical schedule presented in Table 9.7.7 and observations made in the field.

A copy of the sample receipts and certificates of analysis, is presented in Appendix F.

The relevant laboratory analytical results were tabulated and presented in the attached Table LR01, Table LR02 and Table LR03.

12 Assessment of Data Quality Indicators

An assessment of performance against the data quality indicators (DQI) set out in Section 9.5.5, is presented in Table 12.1 to Table 12.5.

Table 12.1 Completeness DQI

Field Considerations	Target	Actual	Comment
Critical locations sampled	95%	100%	Performance against DQI considered acceptable.
Critical samples collected	95%	100%	Performance against DQI considered acceptable.
SOPs appropriate	SOPs used	SOPs used	Performance against DQI considered acceptable.
Experienced sampler	Experienced CS staff	Samin Mortuza and Sam Scully	Performance against DQI considered acceptable.
Documentation complete	Logs, calibration, COC	Documentation presented in relevant appendices	Documentation presented in relevant appendices.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Critical samples analysed	95%	100%	Performance against DQI considered acceptable.
Analysis addresses COPC	95%	100%	Performance against DQI considered acceptable.
Methods and LORs	Refer Section 0	Complied	Performance against DQI considered acceptable.
Sample documentation	SRA and COA supplied	Documentation presented in relevant appendices	Performance against DQI considered acceptable.
Holding times	Refer Section 0	Complied	Performance against DQI considered acceptable.

Table 12.2 Comparability DQI

Field Considerations	Target	Actual	Comment
Same SOPs used	SOPs used	Complied	Performance against DQI considered acceptable.
Experienced sampler	Experienced CS staff	Samin Mortuza and Sam Scully	Performance against DQI considered acceptable.
Climatic conditions	Sampling not affected by weather	Relevant samples stored in insulated containers with ice	Performance against DQI considered acceptable.
Same sample types	Same collection, preservation and handling methods	Complied	Performance against DQI considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Comparable methods	Refer Section 0	Complied	Performance against DQI considered acceptable.
Comparable LORs	Refer Section 0	Complied	Performance against DQI considered acceptable.
Same laboratories	Primary samples to one lab	Samples sent to Eurofins Scientific	Performance against DQI considered acceptable.

Same units of measure	Refer Section 9.7.5	Complied	Performance against DQI considered acceptable.

Table 12.3 Representativeness DQI

Field Considerations	Target	Actual	Comment
Appropriate media sample	Refer Section 9.7.2	Complied	Performance against DQI considered acceptable.
Identified media sampled	Refer Section 9.7.2	Complied	Performance against DQI considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Samples analysed	Refer Section 9.7.7	Complied	Performance against DQI considered acceptable.

Table 12.4 Precision DQI

Field Considerations	Target	Actual	Comment
SOP compliance	SOPs used	Complied	Performance against DQI considered acceptable.
Duplicate / triplicate RPD	Minimum 5% duplicates	14.28% duplicates	Performance against DQI considered acceptable.
	Minimum 5% triplicates	14.28% triplicates	Performance against DQI considered acceptable.
	No RPD limit where concentrations are <10 times LOR	Nil	Performance against DQI considered acceptable.
	50% RPD limit where concentrations are 10-20 times LOR	Nil	Performance against DQI considered acceptable.
	30% RPD limit where concentrations are >20 times LOR	Nil	Performance against DQI considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Laboratory duplicates	95% pass	100%	Performance against DQI considered acceptable.

Table 12.5 Accuracy (bias) DQI

Field Considerations	Target	Actual	Comment
Trip blanks	Analytes less than LOR	Trip blanks used did not report volatile contaminants above LOR	Acceptable
Trip spikes	Recoveries between 60% and 140%	Trip spikes reported concentrations within acceptable recovery range	Acceptable
Rinsate blanks	Analytes less than LOR	No rinsate samples were collected during this assessment	Acceptable, as only dedicated disposable sampling tools were used
Laboratory Considerations	**Target**	**Actual**	**Comment**
Method blanks	95% pass	100%	Performance against DQI considered acceptable.

Matrix spikes	95% pass	100%	Performance against DQI considered acceptable.
Surrogate spikes	95% pass	100%	Performance against DQI considered acceptable.
Laboratory control samples	95% pass	100%	Performance against DQI considered acceptable.

13 Discussion

13.1 Human Health – Direct Contact

The concentrations of contaminants reported in the samples analysed were less than the adopted

13.2 Human Health – Vapour Intrusion / Inhalation

The detected concentrations of the relevant COPC in the soil samples analysed, were less than the adopted human health vapour intrusion / inhalation assessment criteria.

The concentrations of the relevant COPC in the groundwater samples analysed, were less than the laboratory limit of reporting and thus less than the adopted human health vapour intrusion / inhalation assessment criteria.

It should be noted that the volatile and semi volatile contamination reported in the two groundwater monitoring wells sampled by NG (2017) was not identified in the 2020 sampling round. Those reported concentrations of petroleum hydrocarbon compounds are likely to be attributable to potential temporal variations of residual contaminants in the groundwater. CS considers that the groundwater at the site is unlikely pose an unacceptable vapour intrusion risk.

Further assessment of vapour intrusion / inhalation human health exposure risks is considered not warranted.

13.3 Aesthetics

Visual and olfactory observations made of the soils and groundwater encountered during fieldwork, did not present circumstances, which would trigger further assessment of aesthetics. The potential for isolated patches of asbestos impacted soils to be encountered during the proposed basement excavation cannot be precluded. However, such occurrences can be managed by preparing and implementation an unexpected finds protocol (UFP).

Further assessment of aesthetic risks is considered not warranted.

13.4 Management Limits for Petroleum Hydrocarbons

The detected concentrations of the relevant COPC in the soil samples analysed, were less than the adopted management limits for petroleum hydrocarbon assessment criteria.

Further assessment of petroleum hydrocarbon related risks, in the context of formation of light non-aqueous phase liquids, fire and explosion hazards, or effects on buried infrastructure, is considered not warranted.

14 Revised Conceptual Site Model

Based on CS's assessment of desktop review information, fieldwork observations and laboratory analytical data, in the context of the proposed land use scenario, a revised conceptual site model for the site is presented in Table 14.

Table 14 Revised Conceptual Site Model

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
AEC01	Soils underlying 215-239 Pitt Street, Merrylands	TRH, BTEX, PAH, metals, OCP, Asbestos	Vapour Intrusion (human health) Ground water (recreational) Aesthetics (human health)	residents, visitors, commercial workers and club users Ecological	Yes – unacceptable contamination risks not detected
AEC02	Ground water at the site	TRH, BTEX, lead			Yes – unacceptable contamination risks not detected

15 Conclusions and Recommendations

Based on CS's assessment of desktop review information, fieldwork observations and laboratory analytical data, in the context of the proposed land use scenario, CS makes the following conclusions:

> The potential for unacceptable soil and groundwater contamination to be present on the site, as a result of the former service station at No.215-239 Pitt Street, Merrylands, is low;

> The potential for unacceptably contaminated to be migrating offsite is low; and

> The site is suitable for the proposed development, from a contamination perspective, in general accordance with the requirements of SEPP55 and NEPM (2013).

This report must be read in conjunction with the explanatory notes, limitations and general notes, as set out in Appendix A.

16 References

ANZECC 2000, 'Fresh and Marine Water Quality' date October 2000.

Berkman D A 1989, 'Field Geologist's Manual, Third Edition' published by The Australasian Institute of Mining and Metallurgy.

CCME 2008, 'Canada-wide standard for petroleum hydrocarbons (PHC) in soil, technical supplement' dated January 2008.

Department of Urban Affairs and Planning 1998, 'Managing Land Contamination Planning Guidelines SEPP55 – Remediation of Land', dated April 1999, ref: 98/65.

Friebel, E & Nadebaum, P 2011, 'Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document', CRC CARE Technical Report No. 10.

NG, 2017, '*Due Diligence Contamination Assessment, 215-239 Pitt Street, Merrylands*' dated 5 December 2017, ref: G09-2639.

NEPM (NEPC) 2013a, 'Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater, National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

NEPM (NEPC) 2013b, 'Schedule B(2) Guideline on Site Characterisation, National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

NSW DECCW 2010, 'Vapour Intrusion: Technical Practice Note', dated September 2010, ref: DECCW 2010/774.

NSW EPA 1995, 'Contaminated Sites: Sampling Design Guidelines', dated September 1995, ref: EPA 95/59.

NSW EPA 2015, 'Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997' dated September 2015, ref: EPA 2015/0164.

NSW EPA 2017, 'Contaminated Land Management, Guidelines for the NSW Site Auditor Scheme (3rd edition)', dated October 2017, ref: EPA 2017P0269.

NSW OEH 2011, 'Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites' dated August 2011, ref: OEH 2011/0650.

Tables

Table LR01 - Soil Chemical Analysis Results Summary

		Asbestos	BTEX				Metals							
		ACM - Comment	Benzene	Toluene	Ethylbenzene	Xylene Total	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc
		Comment	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.1	0.1	0.1	0.3	2	0.4	5	5	5	0.1	5	5
CRC Care HSL-B Residential (High Density)			140	21,000	5,900	17,000								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, C			4 | 6 | 9 | 20	NL [#2] | NL [#2] | NL [#2] | NL [#2]	NL [#2] | NL [#2] | NL [#2] | NL [#2]	NL [#2] | NL [#2] | NL [#2] | NL [#2]								
NEPM 2013 Table 1A(1) HILs Residential B							500[#4]	150		30000	1200[#5]	120[#6]	1,200	60,000
Field ID	**Date**													
DUP-01	**7/04/2020**		<0.1	<0.1	<0.1	<0.3	5.7	<0.4	36	16	53	<0.1	15	62
HA103-0.2-0.4	**7/04/2020**	ND	<0.1	<0.1	<0.1	<0.3	3.9	<0.4	7.5	14	59	<0.1	6.4	70
HA104-0.2-0.4	**7/04/2020**	ND	<0.1	<0.1	<0.1	<0.3	5.6	<0.4	11	14	24	<0.1	6.0	26
HA104-0.5-0.7	**7/04/2020**	ND	<0.1	<0.1	<0.1	<0.3	6.0	<0.4	18	6.6	19	<0.1	5.3	11
HA105-0.5-0.7	**7/04/2020**	ND	<0.1	<0.1	<0.1	<0.3	8.5	<0.4	18	8.7	19	<0.1	<5	6.3
HA105-0.15-0.3	**7/04/2020**	ND	<0.1	<0.1	<0.1	<0.3	8.8	0.5	28	37	120	0.2	10	250
HA105-0.15-0.3-FCS	**7/04/2020**	Detected												
HA106-0.15-0.3	**7/04/2020**	ND	<0.1	<0.1	<0.1	<0.3	5.7	<0.4	14	12	33	0.1	<5	46
BH104_0.8-1.0	**17/04/2020**		<0.1	<0.1	<0.1	<0.3	7.2	< 0.4	14	16	19	< 0.1	6.6	17
BH104_1.8-2.0	**18/04/2020**		<0.1	<0.1	<0.1	<0.3	8.6	< 0.4	11	16	15	< 0.1	< 5	18
BH104_2.8-3.0	**19/04/2020**		<0.1	<0.1	<0.1	<0.3	13	< 0.4	21	16	25	< 0.1	< 5	21
BH104_3.8-4.0	**20/04/2020**		<0.1	<0.1	<0.1	<0.3	19	< 0.4	22	24	22	< 0.1	5.4	20
DUPA	**21/04/2020**	ND	<0.1	<0.1	<0.1	<0.3	22	< 0.4	29	19	39	< 0.1	5.2	13

* A Non Detect Multiplier of 0.5 has been applied.

Comments

#1 Aged values apply to arsenic contamination present in soil > 2 years. Refer Schedule B5c for < 2 years.
#2 Derived soil HSL exceeds soil saturation concentraiton
#3 Revised as per NEPC errata 6 Feb 2014
#4 Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability maybe important and should be considered where appropriate (refer Shedule B7).
#5 Lead: HILs A,B,C based on blood lead models (IEUBK & HIL D on adult lead model for where 50% bioavailability considered. Site-specific bioavailability should be considered where appropriate.
#6 Elemental mercury: HIL does not address elemental mercury. a site specific assessment should be considered if elemental mercury is present, or suspected to be present.
#7 Carcinogenic PAHs: HIL based on 8 carc. PAHs & their TEFs (rel to BaP ref Schedule 7) BaP TEQ calc by multiplying the conc of each carc. PAH in sample by its BaP TEF (ref Table 1A(1)) & summing
#8 Total PAHs: Based on sum of 16 most common reported (WHO 98). HIL application should consider presence of carcinogenic PAHs (should meet BaP TEQ HIL) & napthalene (should meet relevant HSL)

Environmental Standards

CRC Care, 2011, CRC Care HSL-B Residential (High Density)
CRC Care, 2011, CRC Care HSL-D Commercial / Industrial

Table LR01 - Soil Chemical Analysis Results Summary

Construction Sciences

		Organochlorine Pesticides								PAH	
		Aldrin + Dieldrin	Chlordane	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Heptachlor	Methoxychlor	Toxaphene	Benzo(a)pyrene TEQ calc (Zero)	PAHs (Sum of total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.05	0.1	0.05	0.05	0.05	0.05	0.2	1	0.5	0.5
CRC Care HSL-B Residential (High Density)											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapou											
NEPM 2013 Table 1A(1) HILs Residential B		10	90	600	400	400	10	500	30	4[#7]	400[#8]
Field ID	**Date**										
DUP-01	**7/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
HA103-0.2-0.4	**7/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
HA104-0.2-0.4	**7/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
HA104-0.5-0.7	**7/04/2020**									<0.5	<0.5
HA105-0.5-0.7	**7/04/2020**									<0.5	<0.5
HA105-0.15-0.3	**7/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
HA105-0.15-0.3-FCS	**7/04/2020**										
HA106-0.15-0.3	**7/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
BH104_0.8-1.0	**17/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
BH104_1.8-2.0	**18/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
BH104_2.8-3.0	**19/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
BH104_3.8-4.0	**20/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5
DUPA	**21/04/2020**	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5

* A Non Detect Multiplier of 0.5 has been applied.

Comments

#1 Aged values apply to arsenic contamination present
#2 Derived soil HSL exceeds soil saturation concentraitc
#3 Revised as per NEPC errata 6 Feb 2014
#4 Arsenic: HIL assumes 70% oral bioavailability. Site-sp
#5 Lead: HILs A,B,C based on blood lead models (IEUBK
#6 Elemental mercury: HIL does not address elemental
#7 Carcinogenic PAHs: HIL based on 8 carc. PAHs & thei
#8 Total PAHs: Based on sum of 16 most common repor

Environmental Standards

CRC Care, 2011, CRC Care HSL-B Residential (High Densi
CRC Care, 2011, CRC Care HSL-D Commercial / Industria

Table LR02 - Groundwater Chemical Analysis Results Summary

Construction Sciences

Sample ID	MW1	MW2	MW3	BH104	DUP X_1
Date	24/04/2020	24/04/2020	24/04/2020	24/04/2020	24/04/2020
BTEX					
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
Heavy Metals					
Lead (filtered)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
TRH C6-C10 less BTEX (F1)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16 less Naphthalene (F2)	< 0.05	0.25	< 0.05	< 0.05	< 0.05
TRH >C16-C34	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	< 0.1	0.25	< 0.1	< 0.1	< 0.1

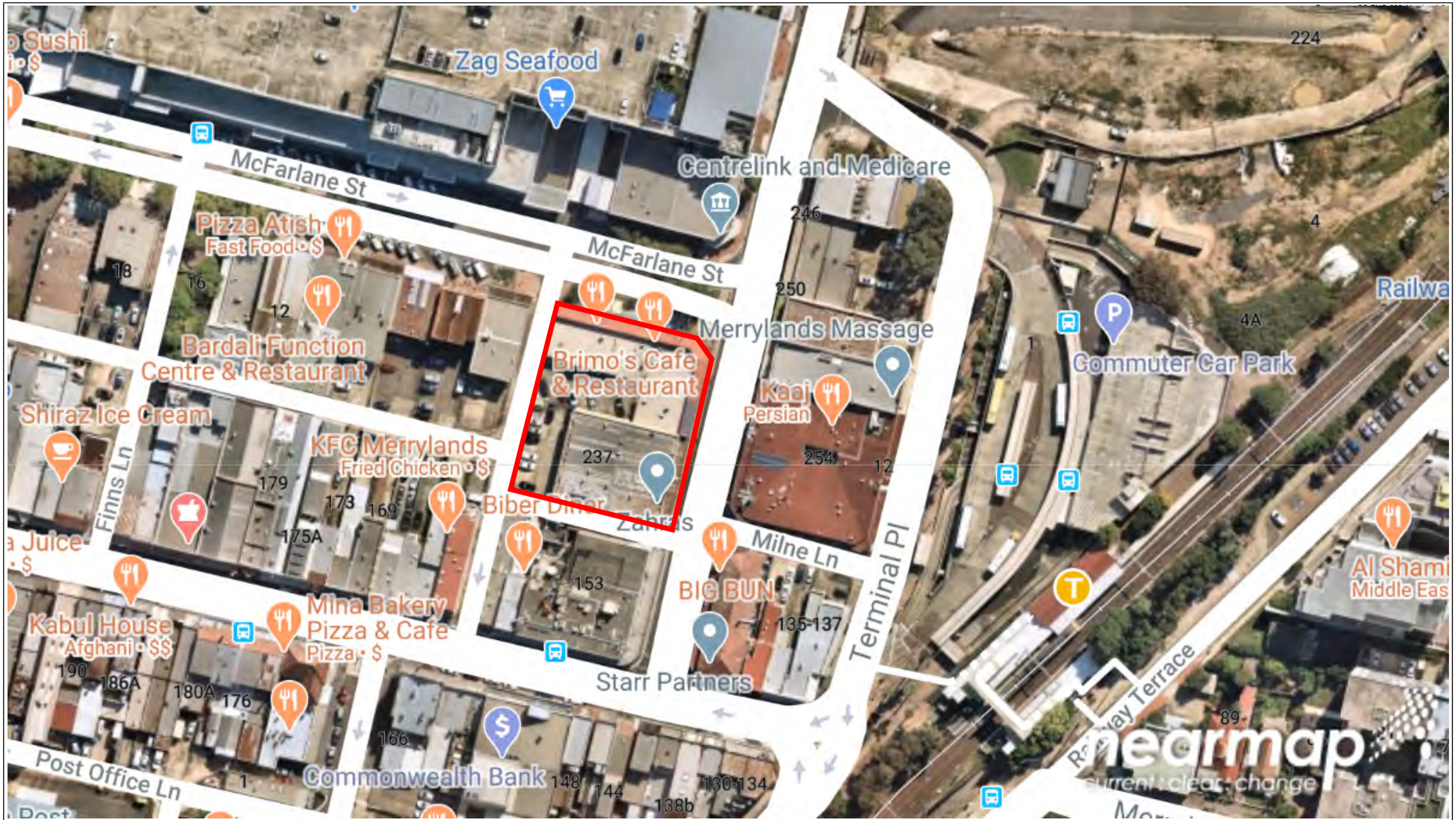
LR03 - Relative Percent Difference

Construction Sciences

Field Duplicates

			BTEX				Metals								PAH		TPH
			Benzene	Toluene	Ethylbenzene	Xylene Total	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Benzo(a) pyrene	PAHs (Sum of total)	C10-C36 (Sum of total)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
			0.1	0.1	0.1	0.3	2	0.4	5	5	5	0.1	5	5	0.5	0.5	50
Field ID	**Matrix Type**	**Date**															
HA106-0.15-0.3	**soil**	**7/04/2020**	<0.1	<0.1	<0.1	<0.3	5.7	<0.4	14	12	33	0.1	<5	46	<0.5	<0.5	<50
DUP-01	**soil**	**7/04/2020**	<0.1	<0.1	<0.1	<0.3	5.7	<0.4	36	16	53	<0.1	15	62	<0.5	<0.5	<50
RPD %			0	0	0	0	0	0	88	29	47	0		30	0	0	0
BH104	**water**	**7/04/2020**	< 0.001	< 0.001	< 0.001	< 0.003					<0.001						
DUP X_1	**water**	**7/04/2020**	< 0.001	< 0.001	< 0.001	< 0.003					<0.001						
RPD %																	

Figures



LEGEND:

Site Boundary

Construction Sciences

31 Anvil Road
SEVEN HILLS NSW 2147
Tel: (02) 8646 2000
Fax: (02) 8646 2025
Web: www.constructionsciences.net

Scale: A4 - NOT TO SCALE	Client: Anglican Community Services c/- Arazan Property Group
Date: 25/04/2020	Project: Combined Stage 1 & Stage 2 Contamination Asessment
Drawn by: AD	Location: 215-239 Pitt Street, Merrylands
Drawing no.: 5046200053 - Figure 1	Sheet: 1 of 1 — **Site Location Plan**

LEGEND:

Site Boundary

Construction Sciences

31 Anvil Road
SEVEN HILLS NSW 2147
Tel: (02) 8646 2000
Fax: (02) 8646 2025
Web: www.constructionsciences.net

Scale: A4 - NOT TO SCALE	Client: Anglican Community Services c/- Arazan Property Group
Date: 25/04/2020	Project: Combined Stage 1 & Stage 2 Contamination Asessment
Drawn by: AD	Location: 215-239 Pitt Street, Merrylands
Drawing no.: 5046200053 - Figure 2	Sheet: 1 of 1

Site Layout

LEGEND:

- Bore Locations (CS, 2020)
- Monitoring Well (CS, 2020)
- Monitoring Well (NG, 2017)

Construction Sciences

31 Anvil Road
SEVEN HILLS NSW 2147
Tel: (02) 8646 2000
Fax: (02) 8646 2025
Web: www.constructionsciences.net

Scale: A4 - NOT TO SCALE	Client: Anglican Community Services c/- Arazan Property Group
Date: 07.05.2020	Project: Combined Stage 1 & Stage 2 Contamination Asessment
Drawn By: NDS	Location: 215-239 Pitt Street, Merrylands
Drawing No: 5046200053.001	Sheet: 1 of 1

Figure 3
Sample Location Plan

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

APPENDIX A

GENERAL NOTES AND LIMITATIONS

Information About This Report

LIMITATIONS

Scope of Services: The report has been prepared in accordance with the scope of services set out in CS's Proposal under CS's Terms of Engagement, or as otherwise agreed with the Client. The scope of services may have been limited and/or amended by a range of factors including time, budget, access and site constraints.

Specific Purpose: The report is provided for the specific development and purpose as described in the report. The report may not contain sufficient information for developments or purposes other than that described in the report.

Currency of Information: The information in this report is considered accurate at the date of issue with regard to the current conditions of the site.

Reliance on Information: In preparing the report CS has necessarily relied upon information provided by the Client and/or their Agents. Such data may include surveys, analyses, designs, maps and plans. CS has not verified the accuracy or completeness of the data except as stated in this report.

Copyright and Reproduction: The contents of this document are and remain the intellectual property of CS. This document should only be used for the purpose for which it was commissioned and should not be used for other projects or by a third party. This report shall not be reproduced either totally or in part without the permission of CS. Where information from this report is to be included in contract documents or engineering specification for the project, the entire report should be included in order to minimise the likelihood of misinterpretation.

Construction Specifications: Unless otherwise stated, the report, or sections of the report, should not be used as part of a specification for a project, without review and agreement by CS.

Report Should Not be Separated: The report must be read in conjunction with the attached Information Sheets and any other explanatory notes and should be kept in its entirety without separation of individual pages or sections.

Review by Others: CS cannot be held responsible for interpretations or conclusions from review by others of this report or test data, which are not otherwise supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

GENERAL NOTES

Geotechnical and Environmental Reporting: Geotechnical and environmental reporting relies on the interpretation of factual information based on judgment and opinion and is far less exact than other engineering or design disciplines. Geotechnical and environmental reports are for a specific purpose, development and site as described in the report and may not contain sufficient information for other purposes, developments or sites (including adjacent sites) other than that described in the report.

Subsurface Conditions: Subsurface conditions can change with time and can vary between test locations. For example, the actual interface between the materials may be far more gradual or abrupt than indicated and contaminant presence may be affected by spatial and temporal patterns. Therefore, actual conditions in areas not sampled may differ from those predicted since no subsurface investigation, no matter how comprehensive, can reveal all subsurface details and anomalies. Construction operations at or adjacent to the site and natural events such as floods, earthquakes or groundwater fluctuations can also affect subsurface conditions and thus the continuing adequacy of a geotechnical report. CS should be kept informed of any such events and should be retained to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Groundwater: Groundwater levels indicated on borehole and test pit logs are recorded at specific times. Depending on ground permeability, measured levels may or may not reflect actual levels if measured over a longer time period. Also, groundwater levels and seepage inflows may fluctuate with seasonal and environmental variations and construction activities.

Interpretation of Data: Data obtained from nominated discrete locations, subsequent laboratory testing and empirical or external sources are interpreted by trained professionals in order to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions in accordance with any relevant industry standards, guidelines or procedures.

Soil and Rock Descriptions: Soil and rock descriptions are based on AS 1726 – 1993, using visual and tactile assessment except at discrete locations where field and / or laboratory tests have been carried out. Refer to the accompanying soil and rock terms sheet for further information.

Further Advice: CS would be pleased to further discuss how any of the above issues could affect a specific project. We would also be pleased to provide further advice or assistance including:

- Assessment of suitability of designs and construction techniques;
- Contract documentation and specification;
- Construction control testing (earthworks, pavement materials, concrete);
- Construction advice (foundation assessments, excavation support).

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

APPENDIX B

LOTSEARCH REPORT

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 09 Apr 2020 14:03:34

Reference: LS011915 EP

Address: 215-239 Pitt Street, Merrylands, NSW 2160

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

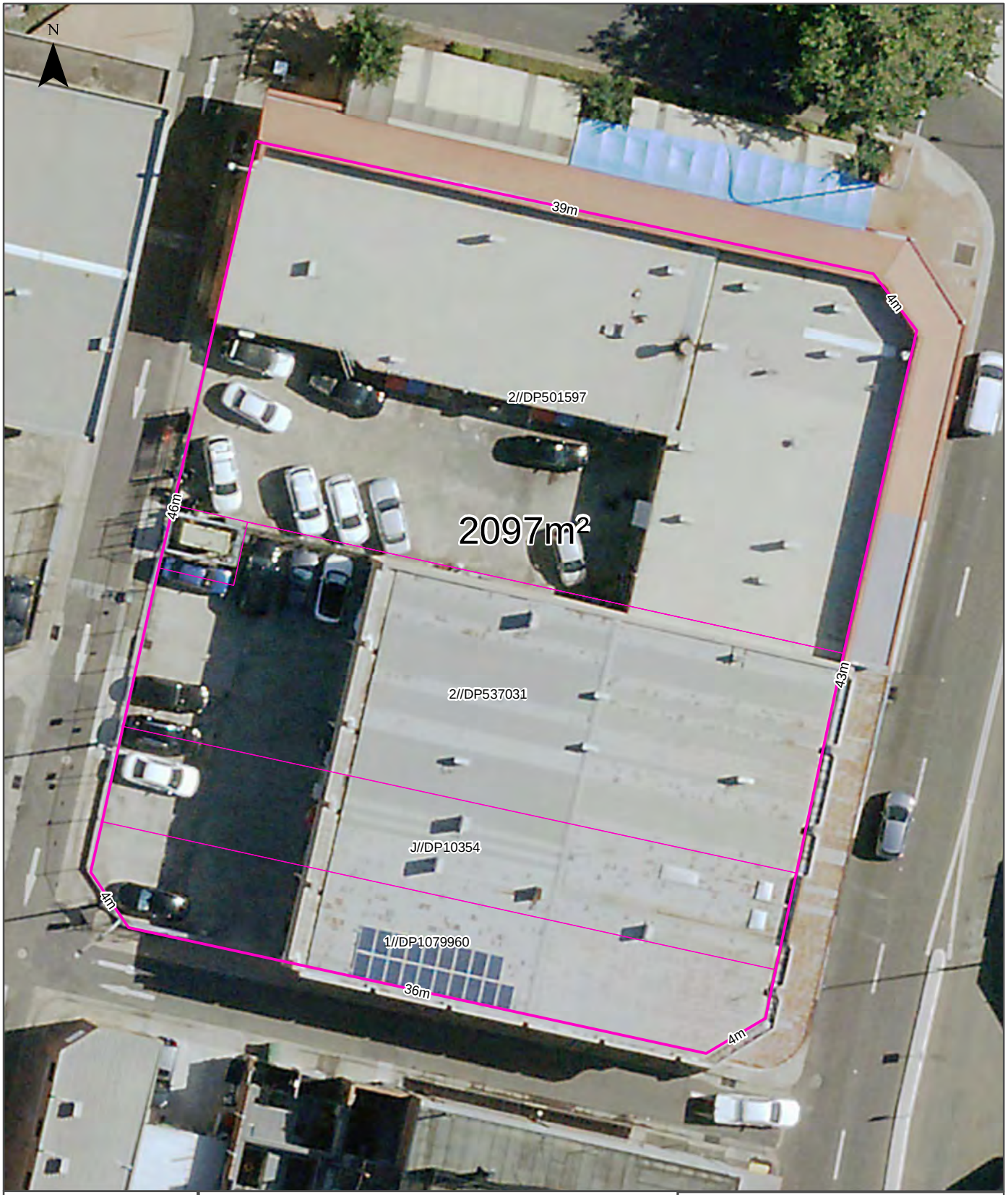
Datasets contained within this report, detailing their source and data currency:

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	24/02/2020	24/02/2020	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	16/03/2020	16/03/2020	Monthly	1000	0	0	4
Contaminated Land Records of Notice	Environment Protection Authority	17/03/2020	17/03/2020	Monthly	1000	0	0	1
Former Gasworks	Environment Protection Authority	16/03/2020	11/10/2017	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	12/02/2020	07/03/2017	Quarterly	1000	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	05/02/2020	13/07/2012	Quarterly	1000	0	0	3
EPA PFAS Investigation Program	Environment Protection Authority	18/03/2020	18/03/2020	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	12/02/2020	12/02/2020	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	12/02/2020	12/02/2020	Monthly	2000	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	20/03/2020	20/03/2020	Monthly	2000	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	03/04/2020	03/04/2020	Monthly	2000	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	04/02/2020	13/12/2018	Annually	1000	0	1	1
Licensed Activities under the POEO Act 1997	Environment Protection Authority	11/03/2020	11/03/2020	Monthly	1000	0	1	1
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	13/03/2020	13/03/2020	Monthly	1000	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	13/03/2020	13/03/2020	Monthly	1000	0	0	6
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	50	32	561	561
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	50	-	136	136
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500	15	49	159
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500	-	102	173
Points of Interest	NSW Department of Finance, Services & Innovation	19/02/2020	19/02/2020	Quarterly	1000	0	2	77
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	19/02/2020	19/02/2020	Quarterly	1000	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	19/02/2020	19/02/2020	Quarterly	1000	0	0	0
Major Easements	NSW Department of Finance, Services & Innovation	19/02/2020	19/02/2020	Quarterly	1000	0	1	16
State Forest	Forestry Corporation of NSW	18/01/2018	18/01/2018	As required	1000	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	21/01/2020	30/09/2019	Annually	1000	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Botany Groundwater Management Zones	NSW Department of Planning, Industry and Environment	15/03/2018	01/10/2005	As required	1000	0	0	0

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000	0	0	43
Geological Units 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		None planned	1000	1	-	5
Geological Structures 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		None planned	1000	0	-	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000	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	1000	1	1	1
Soil Landscapes	NSW Department of Planning, Industry and Environment	12/08/2014		None planned	1000	1	-	4
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	26/03/2020	28/02/2020	Monthly	500	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	2
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Department of Planning, Industry and Environment	12/05/2017	01/01/2002	None planned	1000	1	1	1
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	19/02/2020	19/02/2020	Quarterly	1000	0	0	0
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	26/03/2020	07/12/2018	Monthly	1000	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	26/03/2020	13/03/2020	Monthly	1000	1	3	63
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	04/02/2020	31/07/2018	Quarterly	1000	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	04/02/2020	20/11/2019	Quarterly	1000	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	12/02/2020	09/11/2018	Quarterly	1000	0	0	0
Environmental Planning Instrument Heritage	NSW Department of Planning, Industry and Environment	26/03/2020	28/02/2020	Monthly	1000	0	0	25
Bush Fire Prone Land	NSW Rural Fire Service	04/02/2020	14/12/2019	Quarterly	1000	0	0	0
Native Vegetation of the Sydney Metropolitan Area	NSW Office of Environment & Heritage	01/03/2017	16/12/2016	As required	1000	0	0	2
Ramsar Wetlands of Australia	Department of the Agriculture, Water and the Environment	08/10/2014	24/06/2011	As required	1000	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	0
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	0
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	06/04/2020	06/04/2020	Weekly	10000	-	-	-

Site Diagram

215-239 Pitt Street, Merrylands, NSW 2160



Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 2097m^2

Total Perimeter: 179m

Scale: 0 5 10 Meters

Data Sources: Aerial Imagery: © Aerometrex Pty Ltd

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

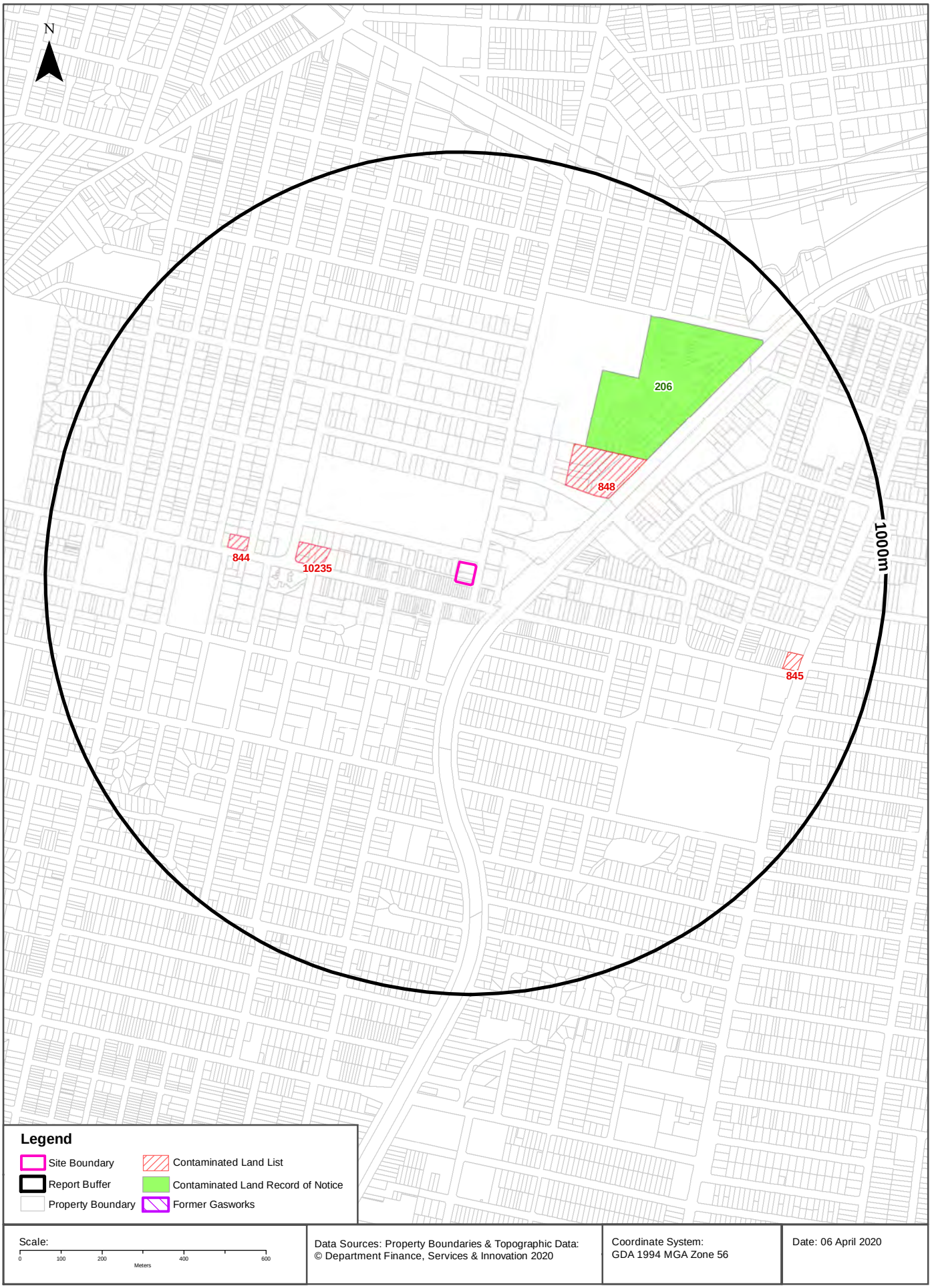
Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Coordinate System: GDA 1994 MGA Zone 56

Date: 06 April 2020

Contaminated Land

215-239 Pitt Street, Merrylands, NSW 2160



Contaminated Land

215-239 Pitt Street, Merrylands, NSW 2160

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 (m)	Direction
848	Former Stockfeed Manufacturing Site	1-7 & 9-11 Neil Street	Merrylands	Other Petroleum	Regulation under CLM Act not required	Current EPA List	Premise Match	294m	North East
10235	Stockland Merrylands Court	249-259 Merrylands Road	Merrylands	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	313m	West
844	7-Eleven Merrylands Service Station	295-297 Merrylands Road, corner Windsor ROAD	Merrylands	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	513m	West
845	Caltex Service Station Merrylands	148 Woodville Road	Merrylands	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	783m	East

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.

EPA site management class	Explanation
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

215-239 Pitt Street, Merrylands, NSW 2160

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
206	Merrylands Substation PCB Storage	Corner Walpole and Peel Street	Merrylands	3 former	3053	Premise Match	394m	North East

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

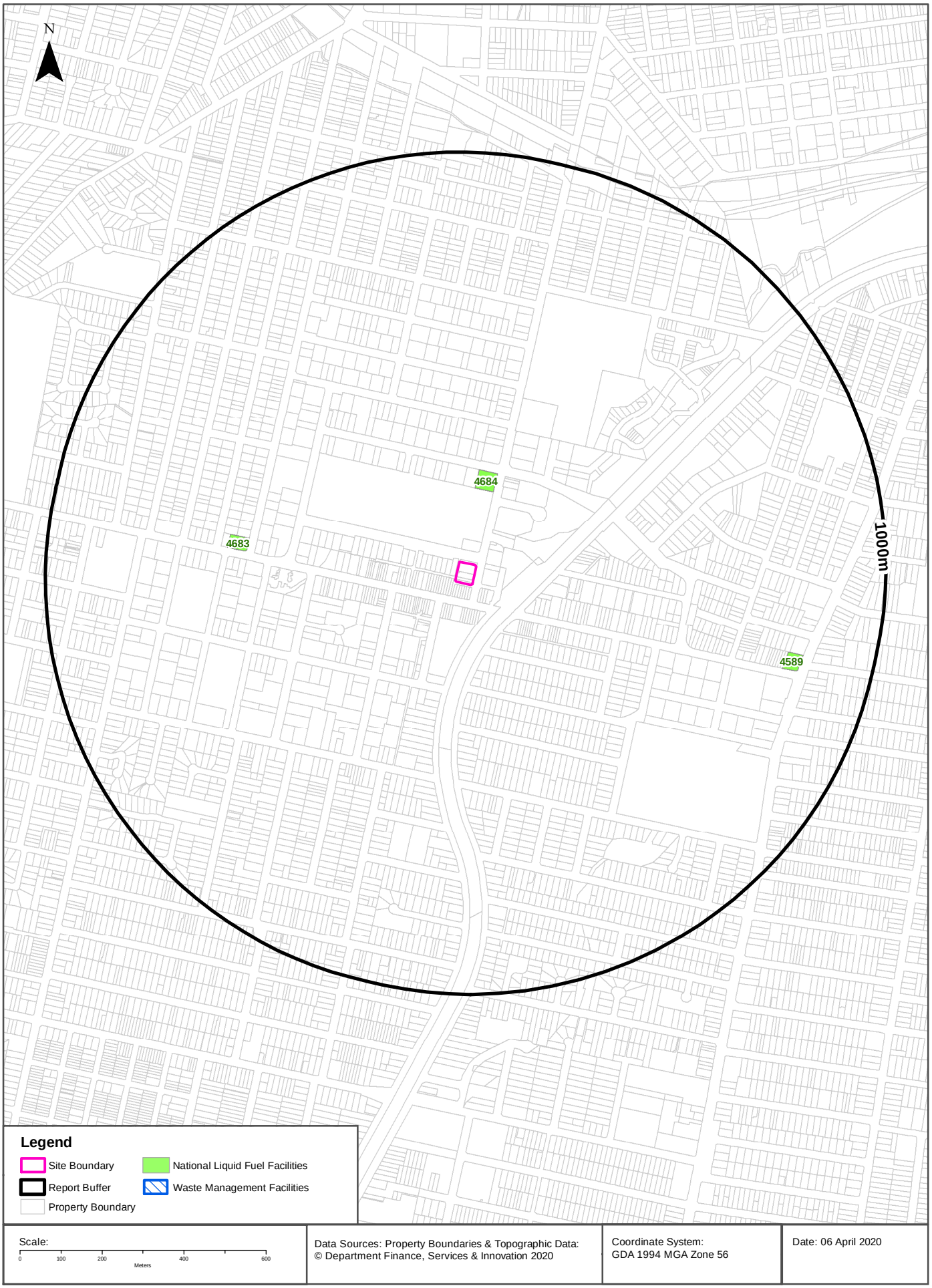
Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

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

Waste Management & Liquid Fuel Facilities

215-239 Pitt Street, Merrylands, NSW 2160



Waste Management & Liquid Fuel Facilities

215-239 Pitt Street, Merrylands, NSW 2160

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 (m)	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

National Liquid Fuel Facilities

National Liquid Fuel Facilties within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist (m)	Direction
4684	7-Eleven Pty Ltd	Caltex Merrylands	20 Neil Street	Merrylands	Petrol Station	Operational		13/07/2012	Premise Match	184m	North
4683	7-Eleven Pty Ltd	Merrylands	295-297 Merrylands Road	Merrylands	Petrol Station	Operational		13/07/2012	Premise Match	513m	West
4589	Caltex	Caltex Woolworths Merrylands	148 Woodville Road	Merrylands	Petrol Station	Operational		25/07/2011	Premise Match	783m	East

National Liquid Fuel Facilities Data Source: Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

PFAS Investigation & Management Programs

215-239 Pitt Street, Merrylands, NSW 2160

EPA PFAS Investigation Program

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

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 Sites

215-239 Pitt Street, Merrylands, NSW 2160

Defence 3 Year Regional Contamination Investigation Program

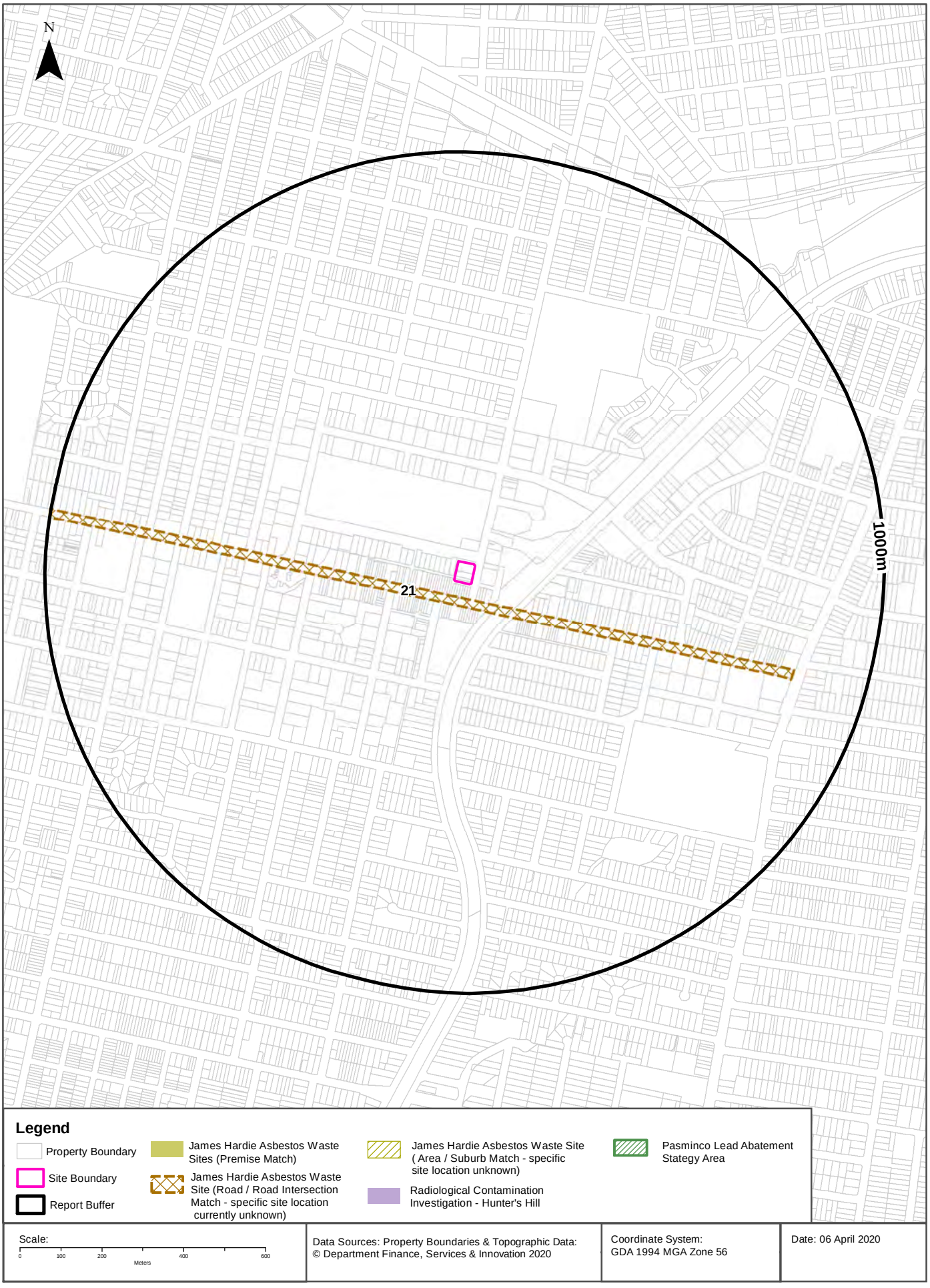
Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

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

EPA Other Sites with Contamination Issues

215-239 Pitt Street, Merrylands, NSW 2160



EPA Other Sites with Contamination Issues

215-239 Pitt Street, Merrylands, NSW 2160

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

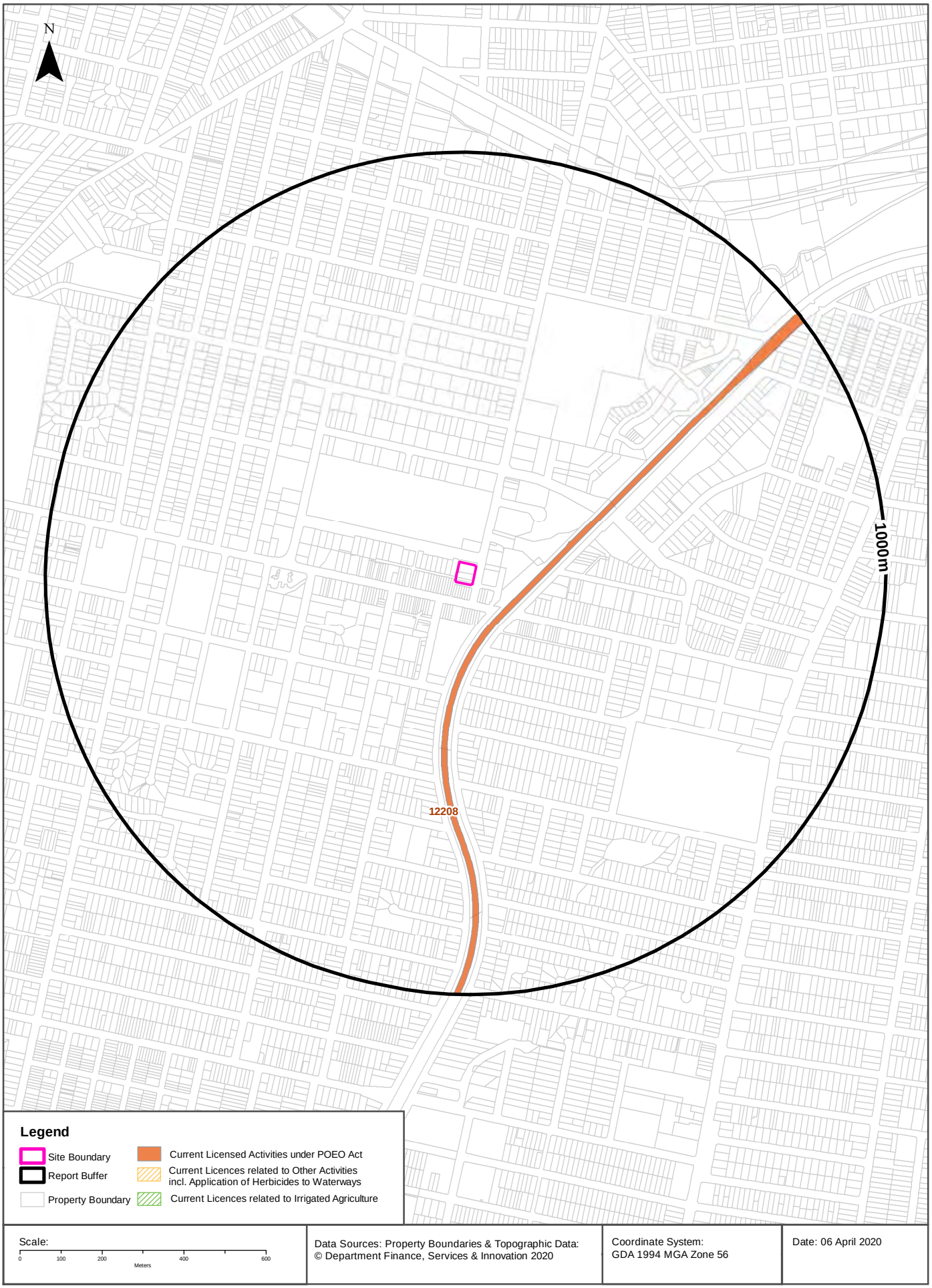
Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
21	Pacific Transport	Merrylands Rd, Merrylands	James Hardie Asbestos Waste Sites		Road Match	37m	West

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

Current EPA Licensed Activities

215-239 Pitt Street, Merrylands, NSW 2160



EPA Activities

215-239 Pitt Street, Merrylands, NSW 2160

Licensed Activities under the POEO Act 1997

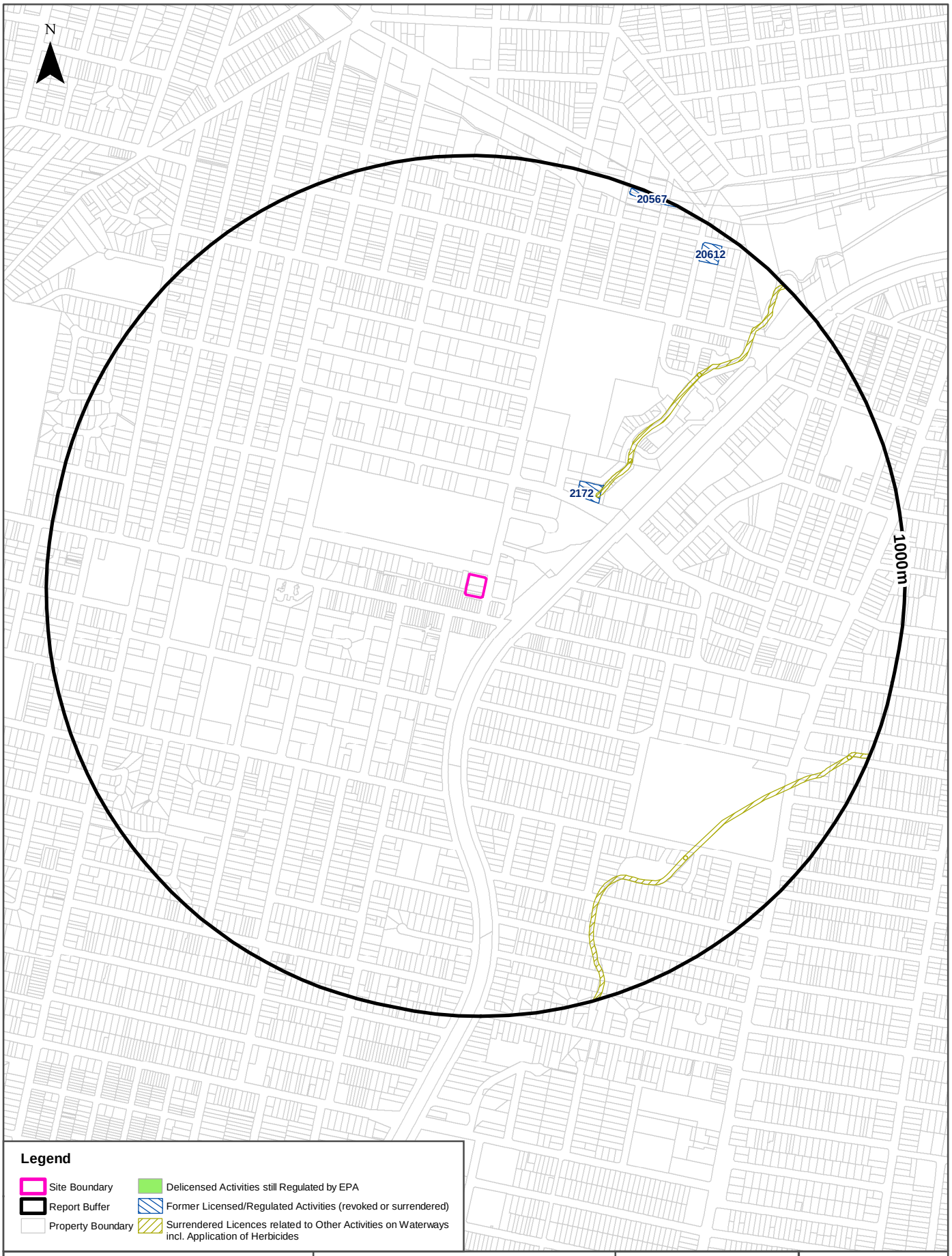
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
12208	SYDNEY TRAINS		PO BOX K349, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	96m	East

POEO Licence Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Delicensed & Former Licensed EPA Activities

215-239 Pitt Street, Merrylands, NSW 2160



EPA Activities

215-239 Pitt Street, Merrylands, NSW 2160

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
N/A	No records in buffer							

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

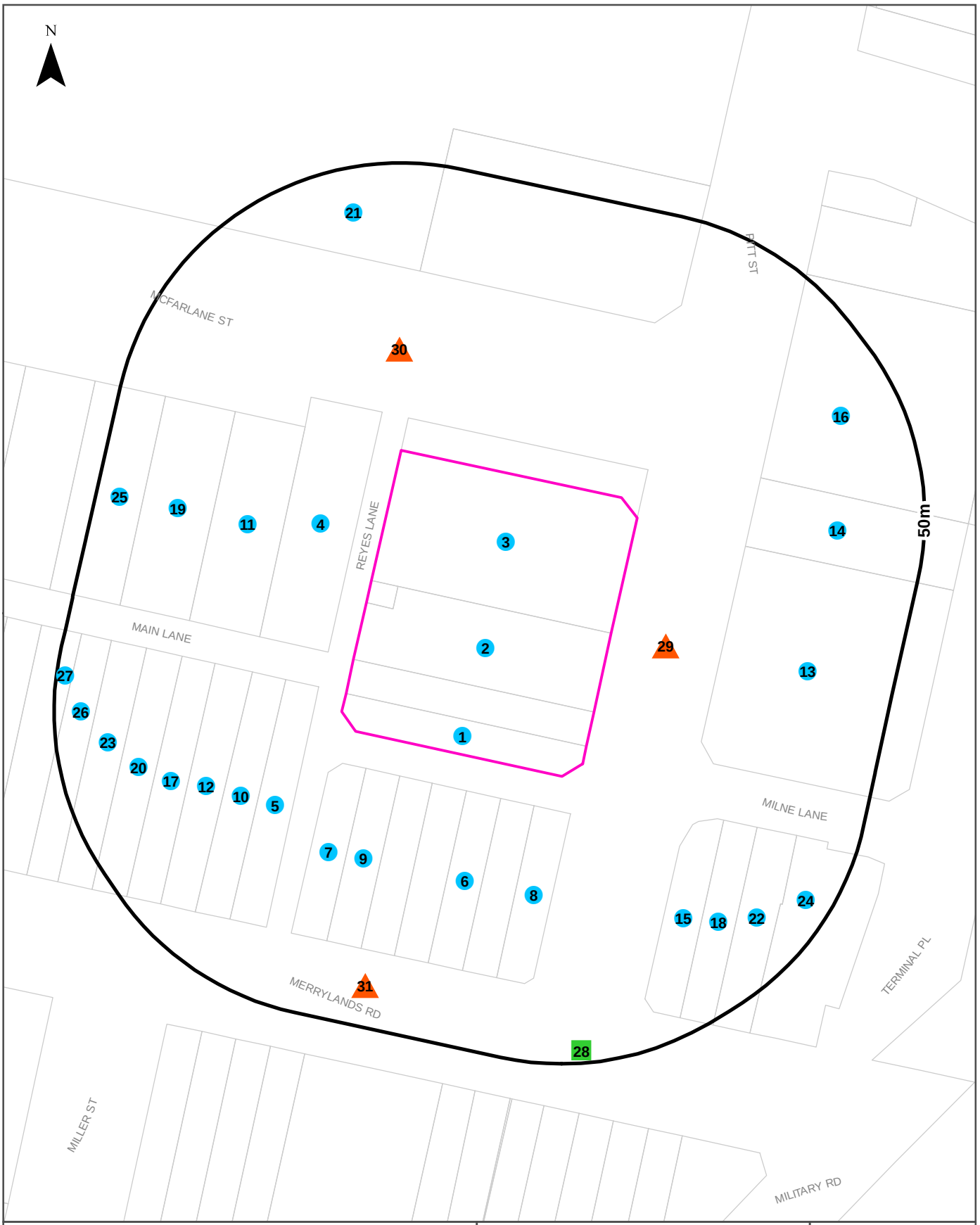
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
2172	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	Surrendered	03/04/2000	General agricultural processing	Premise Match	294m	North East
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	328m	-
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	328m	-
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	328m	-
20612	PHILLIPS SKIP BINS PTY LIMITED	, 15- 19 ROBERT ST, HOLROYD, NSW 2142, HOLROYD, NSW 2142	Surrendered	04/12/2015	Waste storage - other types of waste; Non-thermal treatment of liquid waste	Premise Match	913m	North East
20567	CPB CONTRACTORS PTY LIMITED	, Between Pitt Street, Parramatta and Homebush Bay Drive, Homebush , PARRAMATTA, NSW 2150,	Surrendered	20/04/2015	Road Construction	Road Match	979m	North East

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

Historical Business Directories

215-239 Pitt Street, Merrylands, NSW 2160



Legend

- Site Boundary
- Buffer 50m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 10 20 30 40 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 09 April 2020

Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018
Property Boundaries © NSW Department Finance, Services & Innovation 2020

Historical Business Directories

215-239 Pitt Street, Merrylands, NSW 2160

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	Real Estate Agents	Hooker, L. J. Merrylands, 239 Pitt St., Merrylands 2160	60330	1991	Premise Match	0m	On-site
	Auctioneers Real Estate	Hooker, L.J. Merrylands, 239 Pitt St., Merrylands 2160	34733	1991	Premise Match	0m	On-site
	AUCTIONEERS REAL ESTATE	Hooker, L. J. Merrylands, 239 Pitt St., Merrylands. 2160	4486	1986	Premise Match	0m	On-site
	PROPERTY MANAGEMENT.	Hooker, L. J. Merrylands, 239 Pitt St., Merrylands. 2160	77671	1986	Premise Match	0m	On-site
	REAL ESTATE AGENTS.	Hooker, L. J. Merrylands, 239 Pitt St., Merrylands. 2160	79663	1986	Premise Match	0m	On-site
	REAL ESTATE AGENTS. (R2555)	Hooker, L. J. Merrylands, 239 Pitt St., Merrylands. 2160.	69171	1982	Premise Match	0m	On-site
	REAL ESTATE AGENTS &/OR VALUERS.	Hooker, L. J., 239 Pitt St., Merrylands. 2160	61819	1978	Premise Match	0m	On-site
2	MEDICAL PRACTITIONERS.	Aho, A., 229 Pitt St., Merrylands. 2160	53388	1986	Premise Match	0m	On-site
	MEDICAL PRACTITIONERS.	Bennett, R., 229 Pitt St., Merrylands. 2160	53669	1986	Premise Match	0m	On-site
	PROPERTY MANAGEMENT.	Calarbro, G. Real Estate, 233 Pitt St., Merrylands. 2160	77465	1986	Premise Match	0m	On-site
	REAL ESTATE AGENTS.	Calarbro, G. Real Estate, 233 Pitt St., Merrylands. 2160	79221	1986	Premise Match	0m	On-site
	CONFECTIONERS-RETAIL.	Confection Gallery, The, 231 Pitt St., Merrylands. 2160	20008	1986	Premise Match	0m	On-site
	CONFECTIONERY MFRS. &/OR W/SALERS.	Confection Gallery, The, 231 Pitt St., Merrylands. 2160	20114	1986	Premise Match	0m	On-site
	MEDICAL PRACTITIONERS.	Hudson, P., 229 Pitt St., Merrylands. 2160	55476	1986	Premise Match	0m	On-site
	MEDICAL PRACTITIONERS.	Torkington, p., 229 Pitt St., Merrylands. 2160	58005	1986	Premise Match	0m	On-site
	MEDICAL PRACTITIONERS. (M2020)	Aho, A., 229 Pitt St., Merrylands. 2160.	46943	1982	Premise Match	0m	On-site
	DRESS FABRIC RETAILERS. (D7150)	Barlows, 231 Pitt St., Merrylands. 2160.	22313	1982	Premise Match	0m	On-site
	REAL ESTATE AGENTS. (R2555)	Contos, John Real Estate, 233 Pitt St., Merrylands. 2160.	68799	1982	Premise Match	0m	On-site
	AUCTIONEERS - REAL ESTATE.(A8430)	Evans, B. Real Estate, 231 Pitt St., Merrylands, 2160.	3928	1982	Premise Match	0m	On-site
	BUSINESS AGENTS &/OR BROKERS. (B7920)	Evans, B. Real Estate, 231 Pitt St., Merrylands. 2160.	10274	1982	Premise Match	0m	On-site
	MEDICAL PRACTITIONERS. (M2020)	Hudson, P., 229 Pitt St., Merrylands. 2160.	48635	1982	Premise Match	0m	On-site
	MEDICAL PRACTITIONERS. (M2020)	Torkington, P., 229 Pitt St., Merrylands. 2160.	50628	1982	Premise Match	0m	On-site
	AUCTIONEERS-REAL ESTATE.	Evans, B. Real Estate, 231 Pitt St, Merrylands. 2160	3708	1978	Premise Match	0m	On-site
	BUSINESS AGENTS &/OR BROKERS.	Evans, B. Real Estate, 231 Pitt St, Merrylands. 2160	8656	1978	Premise Match	0m	On-site
	GIFT SHOPS.	Olympia Gifts., 229 Pitt St., Merrylands. 2160.	38253	1975	Premise Match	0m	On-site

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
2	GIFT SHOPS (G180)	Olympia Gifts., 229 Pitt St., Merrylands	310938	1970	Premise Match	0m	On-site
	FISH MERCHANTS-RETAIL	Original Fish Shop, 227 Pitt St., Merrylands	311134	1961	Premise Match	0m	On-site
	TYRE & TUBE DEALERS	Jacksons Tyre Service, 225 Pitt St., Merrylands	110849	1950	Premise Match	0m	On-site
	TYRE RETREADERS & VULCAN ISERS	Jacksons Tyre Service, 225 Pitt St., Merrylands	111003	1950	Premise Match	0m	On-site
3	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Amoco McFarlane, McFarlane St., Merrylands. 2160.	55975	1982	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Amoco Service Station., McFarlane St., MERRYLANDS	340761	1970	Premise Match	0m	On-site
	Motor Service Stations - Petrol, Oil, Etc.	Amoco Service Station, McFarlane St. Merrylands	125914	1965	Premise Match	0m	On-site
4	Tile Floor &/or Wall Mfrs &/or Imps &/or Merchants	Go to Ceramics, 2/2 McFarlane St Merrylands 2160	64199	1991	Premise Match	5m	North West
	TILE - FLOOR &/OR WALL - DISTS. &/OR MERCHANTS.	Go To Ceramics, 2/2 McFarlane St., Merrylands. 2160	93321	1986	Premise Match	5m	North West
	BOOKSELLERS-SECONDHAND.	Merrylands Book Exchange, 2 McFarlane St., Merrylands. 2160	7255	1986	Premise Match	5m	North West
5	CHEMISTS - PHARMACEUTICAL.(C4110)	Reye's Pharmacy, 161 Merrylands Rd., Merrylands. 2160.	15567	1982	Premise Match	5m	South West
	CHEMISTS-PHARMACEUTICAL.	Reys Pharmacy, 161 Merrylands Rd., Merrylands. 2160	13749	1978	Premise Match	5m	South West
	CHEMISTS-PHARMACEUTICAL	Reye's Pharmacy, 161 Merrylands Rd., Merrylands. 2160	15829	1975	Premise Match	5m	South West
	CHEMISTS-PHARMACEUTICAL	Reye's Pharmacy., 161 Merrylands Rd., Merrylands	281039	1970	Premise Match	5m	South West
	Chemists - Pharmaceutical	Reyes Pharmacy, 161 Merrylands Rd., Merrylands	65542	1965	Premise Match	5m	South West
	CHEMISTS-PHARMACEUTICAL	Reye's Pharmacy, 161 Merrylands Rd., Merrylands	288041	1961	Premise Match	5m	South West
	CHEMISTS-PHARMACEUTICAL	Reye, O. B., 161 Merrylands Rd., Merrylands	21976	1950	Premise Match	5m	South West
6	HOTELS-LICENSED.	Billabong Hotel, 145 Merrylands Rd., Merrylands. 2160	46558	1986	Premise Match	6m	South
	HOTELS - LICENSED. (H7150)	Billabong Hotel, 145 Merrylands Rd., Merrylands. 2160.	40599	1982	Premise Match	6m	South
	HOTELS-LICENSED.	Billabong Hotel, 145 Merrylands Rd., Merrylands. 2160	36000	1978	Premise Match	6m	South
	HOTELS-LICENCED	Billabong Hotel., 145 Merrylands Rd., Merrylands. 2160	42724	1975	Premise Match	6m	South
	HOTELS-LICENSED (H690)	Billabong Hotel., 145-155 Merrylands Rd., Merrylands	317107	1970	Premise Match	6m	South
	Hotels - Licensed	Billabong Hotel, 145-155 Merrylands Rd., Merrylands	101423	1965	Premise Match	6m	South
	HOTELS—LICENSED	Billabong Hotel, Cnr. Merrylands Rd. & Pitt St., Merrylands	325179	1961	Premise Match	6m	South
	HOTELS-LICENSED	Merrylands Hotel, Cnr. Merrylands Rd. and Pitt St., Merrylands	63246	1950	Premise Match	6m	South
7	VIDEO RECORDER &/OR CASSETTE SALES &/OR HIRE &/OR SERVICE.	Home Pics, 159 Merrylands Rd. Merrylands. 2160	97601	1986	Premise Match	6m	South West
	TRAVEL GOODS-RETAILERS.	Imbesi & Pellegrino, 159 Merrylands Rd, Merrylands. 2160	72564	1978	Premise Match	6m	South West
	BOOT &/OR SHOE REPAIRERS.	Imbesi & Pellegrino, 159 Merrylands Rd., Merrylands. 2160	7104	1978	Premise Match	6m	South West
	TRAVEL GOODS., RETAILERS.	Imbesi & Pellegrino, 159 Merrylands Rd., Merrylands. 2160	85219	1975	Premise Match	6m	South West
	BOOT &/OR SHOE REPAIRERS.	Imbesi & Pellegrino, 159 Merrylands Rd., Merrylands. 2160.	7719	1975	Premise Match	6m	South West
	FOOTWEAR RETAILERS.	J. & P, Fashion Shoe Centre, 159 Merrylands Rd., Merrylands. 2160	34013	1975	Premise Match	6m	South West
	BOOT & SHOE REPAIRERS	Anderson, A., 159 Merrylands Rd., Merrylands	268684	1970	Premise Match	6m	South West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
7	DELICATESSENS (D080)	Dantes Continental Delicatessen., 159 Merrylands Rd., Merrylands	287313	1970	Premise Match	6m	South West
	TRAVEL GOODS RETAILERS (T655)	Imbesi & Pelligrino, 159a Merrylands Rd., Merrylands	371274	1970	Premise Match	6m	South West
	BOOT & SHOE REPAIRERS	Imbesi & Pelligrino., 159a Merrylands Rd., Merrylands	268930	1970	Premise Match	6m	South West
	BOOT & SHOE REPAIRERS	Anderson, A, 159 Merrylands Rd.,Merrylands	53080	1965	Premise Match	6m	South West
	DELICATESSENS	Dandy Continental Delicatessen, 159 Merrylands Rd., Merrylands	72058	1965	Premise Match	6m	South West
	BOOT & SHOE REPAIRERS	Imbesi & Pelligrino, 159a Merrylands Rd., Merrylands	53388	1965	Premise Match	6m	South West
	Travel Goods Retailers	Imbesi & Pelligrino, 159a Merrylands Rd., Merrylands	154070	1965	Premise Match	6m	South West
	BOOT & SHOE REPAIRERS	Anderson, A., 159 Merrylands Rd., Merrylands	274591	1961	Premise Match	6m	South West
	FLORISTS-RETAIL	Linden Tree (The), 159 Merrylands Rd., Merrylands	311954	1961	Premise Match	6m	South West
	FLORISTS-RETAIL	Linden Tree (The), 159 Merrylands Rd., Merrylands	46023	1950	Premise Match	6m	South West
	BOOT & SHOE REPAIRERS	Mayall, C. P., 159 Merrylands Rd., Merrylands	10422	1950	Premise Match	6m	South West
8	FISH MERCHANTS-RETAIL	Wing, G. & Co., 147 Merrylands Rd., Merrylands. 2160	32673	1975	Premise Match	6m	South
9	DELICATESSENS (D080)	Wing, G & Co., 157 Merrylands Rd., Merrylands	288120	1970	Premise Match	6m	South West
	FISH MERCHANTS-RETAIL (F245)	Wing, G.& Co., 157 Merrylands Rd., Merrylands	303849	1970	Premise Match	6m	South West
	DELICATESSENS	Wing, G. & Co., 157 Merrylands Rd., Merrylands	72887	1965	Premise Match	6m	South West
	Fish Merchants - Retail	Wing, G. & Co., 157 Merrylands Rd., Merrylands	87181	1965	Premise Match	6m	South West
	GROCERS-RETAIL	Wing, G. and Co., 157 Merrylands Rd., Merrylands	321425	1961	Premise Match	6m	South West
	DELICATESSENS & SMALLGOODS DEALERS	Bidwell, D. R., 157 Merrylands Rd., Merrylands	55370	1950	Premise Match	6m	South West
	SANDWICH & LUNCHEON SHOPS	Bidwell, D. R., 157 Merrylands Rd., Merrylands	100252	1950	Premise Match	6m	South West
	DELICATESSENS & SMALLGOODS DEALERS	Giblins, E. and R., 157 Merrylands Rd., Merrylands	30527	1950	Premise Match	6m	South West
	GROCERS-RETAIL	Wing, G. and Co., 157 Merrylands Rd., Merrylands	56195	1950	Premise Match	6m	South West
10	GUNSMITHS.	Gunsmith, N. & S., 163 Merrylands Rd., Merrylands. 2160	41335	1986	Premise Match	11m	South West
	GUNSMITHS. (G8500)	Gunsmith, N. & S., 163 Merrylands Rd., Merrylands. 2160.	38226	1982	Premise Match	11m	South West
	GUNSMITHS.	Gunsmith, N. & S., 163 Merrylands Rd., Merrylands.	34376	1978	Premise Match	11m	South West
	GUNSMITHS.	No.5 Gunsmith, 163 Merrylands Rd. Merrylands	40103	1975	Premise Match	11m	South West
	STOCK/STATION AGENTS (S754)	Smith Bros. & Son Pty. Ltd., 163 Merrylands Rd., Merrylands	366119	1970	Premise Match	11m	South West
	STOCK/STATION AGENTS	Smith Bros. & Son Pty. Ltd., 163 Merrylands Rd., Merrylands	148925	1965	Premise Match	11m	South West
	REAL ESTATE AGENTS/VALUERS	Smith Bros. & Son Pty. Ltd., 163 Merrylands Rd. MERRYLANDS	244783	1961	Premise Match	11m	South West
	INSURANCE AGENTS	Smith Bros. & Son Pty. Ltd., 163 Merrylands Rd., Merrylands	328009	1961	Premise Match	11m	South West
	AUCTIONEERS-GENERAL	Smith Bros. & Son Pty. Ltd., 163 Merrylands Rd., Mrylnds	270082	1961	Premise Match	11m	South West
	STOCK/STATION AGENTS	Smith Bros. & Son Pty. Ltd., 163 Merrylands Rd., Mrylnds	254341	1961	Premise Match	11m	South West
	AUCTIONEERS-REAL ESTATE	Smith Bros. &Son Pty. Ltd., 163 Merrylands Rd., Mrylnds	270179	1961	Premise Match	11m	South West
	AUCTIONEERS-GENERAL	Smith Bros. and Co., 163 Merrylands Rd., Merrylands	4164	1950	Premise Match	11m	South West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
10	BUSINESS AGENTS &/OR BROKERS	Smith Bros. and Co., 163 Merrylands Rd., Merrylands	12933	1950	Premise Match	11m	South West
	INSURANCE AGENTS	Smith Bros. and Co., 163 Merrylands Rd., Merrylands	65001	1950	Premise Match	11m	South West
	REAL ESTATE AGENTS	Smith Bros. and Co., 163 Merrylands Rd., Merrylands	98812	1950	Premise Match	11m	South West
	STOCK & STATION AGENTS	Smith Bros. and Co., 163 Merrylands Rd., Merrylands	105647	1950	Premise Match	11m	South West
	VALUERS	Smith Bros. and Co., 163 Merrylands Rd., Merrylands	111722	1950	Premise Match	11m	South West
	REAL ESTATE AGENTS	Smith, A. H., Maclaurin Ave., East Hills	98811	1950	Premise Match	11m	South West
11	ACCOUNTANTS & AUDITORS.	Connolly, R. & Co., 4 McFarlane St., Merrylands. 2160	310	1986	Premise Match	17m	West
	LAUNDRIES &/OR LAUNDRETTES.	Merrylands Drive-In Laundry, 4 McFarlane St., Merrylands. 2160	51208	1986	Premise Match	17m	West
	ACCOUNTANTS & AUDITORS. (A0360)	Connolly, R. & Co., 4 McFarlane St., Merrylands. 2160.	280	1982	Premise Match	17m	West
	BUILDERS &/OR BUILDING CONTRACTORS. (B6920)	Knight, A. & B. Pty, Ltd., 4 McFarlane St., Merrylands. 2160.	9320	1982	Premise Match	17m	West
	LAUNDRIES &/OR LAUNDRETTES.(L1850)	Merrylands Drive-In Laundry, 4 McFarlane St., Merrylands. 2160.	44846	1982	Premise Match	17m	West
	ACCOUNTANTS & AUDITORS.	Connolly, R. & Co., 4 McFarlane St., Merrylands. 2160	243	1978	Premise Match	17m	West
	BUILDERS &/OR BUILDING CONTRACTORS.	Knight. A. & B. Pty. Ltd., 4 McFarlane St., Merrylands. 2160	7777	1978	Premise Match	17m	West
	LAUNDRIES &/OR LAUNDRETTES.	Merrylands Drive-In Laundry. 4 McFarlane St., Merrylands.	39812	1978	Premise Match	17m	West
	BUILDERS &/OR BUILDING CONTRACTORS (M.M.B.A.)	Knight. A. & B. Pty. Ltd., 4 McFarlane St., Merrylands. 2160.	8857	1975	Premise Match	17m	West
	BUILDERS &/OR BUILDING CONTRACTORS (M.M.B.A.)	Knight. A. B. Pty. Ltd., 4 MacFarlane St., Merrylands. 2160.	8858	1975	Premise Match	17m	West
12	DENTISTS.	Taylor, K. L., 165 Merrylands Rd., Merrylands. 2160	23426	1986	Premise Match	17m	South West
	DENTISTS.	Taylor, N. A., 165 Merrylands Rd., Merrylands. 2160	23427	1986	Premise Match	17m	South West
	DENTISTS.	Taylor, R. F., 165 Merrylands Rd., Merrylands. 2160	23431	1986	Premise Match	17m	South West
	DENTISTS. (D1800)	Taylor, K. L., 165 Merrylands Rd., Merrylands. 2160.	20913	1982	Premise Match	17m	South West
	DENTISTS. (D1800)	Taylor, N. A., 165 Merrylands Rd., Merrylands. 2160.	20915	1982	Premise Match	17m	South West
	DENTISTS. (D1800)	Taylor, R. F., 165 Merrylands Rd., Merrylands. 2160.	20917	1982	Premise Match	17m	South West
	DENTISTS.	Taylor, R.F., 165 Merrylands Rd., Merrylands. 2160	18540	1978	Premise Match	17m	South West
	DENTISTS.	Taylor, R. F., 165 Merrylands Rd., Merrylands. 2160	21419	1975	Premise Match	17m	South West
	DENTISTS (D140)	Taylor, R. F., 165 Merrylands Rd., Merrylands	289076	1970	Premise Match	17m	South West
	Dentists	Taylor, R. F., 165 Merrylands Rd., Merrylands	73775	1965	Premise Match	17m	South West
	DENTISTS	Taylor, R. F., 165 Merrylands Rd., Merrylands	296465	1961	Premise Match	17m	South West
	BANKS	Bank of N.S.W, 165 Merrylands Rd, Merrylands	5652	1950	Premise Match	17m	South West
	DENTISTS	Shapiro, Kathleen, 165 Merrylands Rd., Merrylands	32285	1950	Premise Match	17m	South West
	DENTISTS	Taylor, R. F., 165 Merrylands Rd., Merrylands	32343	1950	Premise Match	17m	South West
13	TRAVEL AGENCIES &/OR BOOKING OFFICES.	Alpha Travel, 8 Piccadilly Arc., Merrylands. 2160.	95161	1986	Premise Match	19m	East
	RESTAURANTS.	Cafe D'Amitie, 258 Pitt St., Merrylands 2160	81207	1986	Premise Match	19m	East
	TAXATION CONSULTANTS.	Comet Taxation Service, 5 Piccadilly Arc., Merrylands. 2160	92201	1986	Premise Match	19m	East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
13	HAIRDRESSERS-MENS.	Continental Barber Shop, 254 Pitt St., Merrylands. 2160	43570	1986	Premise Match	19m	East
	MEDICAL PRACTITIONERS.	Girgis, Dawoud, M., 8 Piccadilly Arc., Merrylands. 2160	55032	1986	Premise Match	19m	East
	COIN DEALERS.	Merrylands Coin Centre, 9 Piccadilly Arc., Merrylands. 2160	19125	1986	Premise Match	19m	East
	STAMP DEALERS.	Merrylands Coin Centre, 9 Piccadilly Arc., Merrylands. 2160	88140	1986	Premise Match	19m	East
	PET SHOPS &/OR SUPPLIES.	Merrylands Pet Centre, 256 Pitt St., Merrylands. 2160	72575	1986	Premise Match	19m	East
	HAIRDRESSERS-LADIES &/OR BEAUTY SALONS.	Page & Gales, 258 Pitt St., Merrylands. 2160	42888	1986	Premise Match	19m	East
	HAIRDRESSERS-MENS.	Page & Gales, 258 Pitt St., Merrylands. 2160	43976	1986	Premise Match	19m	East
	RESTAURANTS.	Piccadilly Restaurant, 10 Piccadilly Arc., Merrylands. 2160	82575	1986	Premise Match	19m	East
	PHYSIOTHERAPISTS.	Rogerson, A. J., 18 Piccadilly Arc., Merrylands. 2160	73589	1986	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands. 2160	25518	1986	Premise Match	19m	East
	PHYSIOTHERAPISTS.	Williams, J, 18 Piccadilly Arc., Merrylands. 2160	73631	1986	Premise Match	19m	East
	TRAVEL AGENCIES &/OR BOOKING OFFICES. (T7425)	Alpha Travel, 8 Piccadilly Arc., Merrylands. 2160.	81729	1982	Premise Match	19m	East
	HAIRDRESSERS - GENTS. (H0550)	Continental Barber Shop, 254 Pitt St., Merrylands. 2160.	38446	1982	Premise Match	19m	East
	FLORISTS - RETAIL. (F4125)	Elizabeth Florist, 10 Piccadilly Arc., Merrylands. 2160.	31441	1982	Premise Match	19m	East
	ANIMAL &/OR BIRD DEALERS. (A5850)	Paramount Pet Foods, 5 Piccadilly Arc., Merrylands. 2160.	2672	1982	Premise Match	19m	East
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS. (B2000)	Piccadilly Coiffure, 9 Piccadilly Arc., Merrylands. 2160.	6345	1982	Premise Match	19m	East
	PHYSIOTHERAPISTS. (P4060)	Rogerson, A. J., 18 Piccadilly Arc., Merrylands. 2160.	64014	1982	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.(D8500)	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands. 2160.	24051	1982	Premise Match	19m	East
	PHYSIOTHERAPISTS. (P4060)	Williams, J, 18 Piccadilly Arc., Merrylands. 2160.	64036	1982	Premise Match	19m	East
	HAIRDRESSERS-GENTS.	Continental Barber Shop, 254 Pitt St., Merrylands. 2160	34526	1978	Premise Match	19m	East
	FLORISTS-RETAIL.	Elizabeth Florist, 10 Piccadilly Arc., Merrylands. 2160	28483	1978	Premise Match	19m	East
	ANIMAL &/OR BIRD DEALERS.	Paramount Pet Foods, 5 Piccadilly Arc., Merrylands, 2160	2490	1978	Premise Match	19m	East
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS.	Piccadilly Coiffure, 9 Piccadilly Arc., Merrylands. 2160	5464	1978	Premise Match	19m	East
	PHYSIOTHERAPISTS.	Rogerson. A. J., 18 Piccadilly Arc., Merrylands. 2160	56962	1978	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands.	20956	1978	Premise Match	19m	East
	DRESS SHOPS & ACCESSORIES.	Specialty Boutique, Piccadilly Arc., Merrylands. 2160.	20459	1978	Premise Match	19m	East
	PHYSIOTHERAPISTS.	Williams. J., 18 Piccadilly Arc., Merrylands. 2160	56982	1978	Premise Match	19m	East
	DRESS SHOPS & ACCESSORIES.	Co-ed's Fashions, Piccadilly Arc., Merrylands. 2160	23064	1975	Premise Match	19m	East
	HAIRDRESSERS-GENTS.	Continental Barber Shop. 254 Pitt St., Merrylands. 2160	40405	1975	Premise Match	19m	East
	BOOKSELLERS RETAIL	Davaine Bookshop, 8 Piccadilly Arc., Merrylands. 2160.	7301	1975	Premise Match	19m	East
	CHEMISTS-PHARMACEUTICAL	Drach, N., Piccadilly Arc., Merrylands. 2160	15203	1975	Premise Match	19m	East
	REAL ESTATE AGENTS &/OR VALUERS.	Evans, & Real Estate., 254 Pitt St., Merrylands. 2160	72285	1975	Premise Match	19m	East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
13	BUSINESS AGENTS &/OR BROKERS.	Evans, B. Real Estate, 254 Pitt St, Merrylands. 2160.	9752	1975	Premise Match	19m	East
	PROPERTY MANAGEMENT.	Evans, B. Real Estate., 254 Pitt St., Merrylands. 2160	70609	1975	Premise Match	19m	East
	STOCK &/OR STATION AGENTS.	Evans, B. Real Estate., 254 Pitt St., Merrylands. 2160.	81129	1975	Premise Match	19m	East
	CAFES, TEA ROOMS &/OR COFFEE LOUNGES.	Expresso Coffee Lounge, 6 Piccadilly Arc., Merrylands. 2160.	11965	1975	Premise Match	19m	East
	FLORISTS-RETAIL	Florist. 19 Piccadilly Arc., Merrylands. 2160	33039	1975	Premise Match	19m	East
	ANIMAL &/OR BIRD FOOD SUPPLIES.	Palmers Pet & Food Supplies, 258 Pitt St., Merrylands. 2160.	2427	1975	Premise Match	19m	East
	FOOTWEAR RETAILERS.	Puccini Shoes, Piccadilly Arc., Merrylands. 2160	34110	1975	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Smith's Drycleaners, 14 Piccadilly Arc., Merrylands.	24336	1975	Premise Match	19m	East
	SECOND-HAND DEALERS.	St. Vincent De Paul Store., Piccadilly Arc., Merrylands. 2160	76476	1975	Premise Match	19m	East
	DRESS SHOPS & ACCESSORIES.	Thelma's Bazaar, 7 Piccadilly Arc., Merrylands. 2160	23684	1975	Premise Match	19m	East
	VETERINARY SURGEONS.	Zita Haidressers, 9 Piccadilly Arc., Merrylands. 2160	86295	1975	Premise Match	19m	East
	BABY & CHILDREN'S WEAR-RETAIL(B005)	Ann Marie., 14 Piccadilly Arc., Merrylands	264005	1970	Premise Match	19m	East
	HABERDASHERY-RETAIL (H010)	Ann-Marie., 14 Piccadilly Arc., Merrylands	313351	1970	Premise Match	19m	East
	GIFT SHOPS (G180)	Carousel Card Centre., 19 Piccadilly Arc., Merrylands	310728	1970	Premise Match	19m	East
	DRESS SHOPS (D595)	Co-ed Fashions., 3 Piccadilly Arc., Merrylands	291153	1970	Premise Match	19m	East
	HAIRDRESSERS (GENT.'S) (H070)	Continental Barber Shop., 7 Piccadilly Arc., Merrylands	313766	1970	Premise Match	19m	East
	BOOKSELLERS-RETAIL	Davaine Bookshop., 8 Piccadilly Arc., Merrylands	268352	1970	Premise Match	19m	East
	CHEMISTS-PHARMACEUTICAL	Drach's Chemist., 1 Piccadilly Arc., Merrylands	280304	1970	Premise Match	19m	East
	CAFES, COFFEE LOUNGES, Etc. (C030)	Espresso Coffee Lounge., 6 Piccadilly Arc., Merrylands	275582	1970	Premise Match	19m	East
	ANIMAL & BIRD DEALERS (A370)	Harry's Pet Shop, 5 Piccadilly Arc., Merrylands	261425	1970	Premise Match	19m	East
	ANIMAL & BIRD FOOD SUPPLIES (A375)	Harry's Pet Shop, 5 Piccadilly Arcade, Merrylands	261532	1970	Premise Match	19m	East
	BEAUTY SALONS &/OR LADIES' HAIRDRESSERS (B260)	Zita Hairdressers., 9 Piccadilly Arc., Merrylands.	266824	1970	Premise Match	19m	East
	TIMBER MERCHANTS	Merrylands Timber Yards, 258 Pitt St., Merrylands	78253	1950	Premise Match	19m	East
14	DISCOUNT HOUSES.	Bonds & Kirbys, 252 Pitt St., Merrylands. 2160	24143	1986	Premise Match	19m	East
	DISCOUNT HOUSES. (D4040)	Bonds & Kirbys, 252 Pitt St., Merrylands. 2160.	21544	1982	Premise Match	19m	East
	FURNITURE-HOUSEHOLD RETAIL	Bond's Furniture, 252 Pitt St., Merrylands. 2160	36847	1975	Premise Match	19m	East
15	DENTISTS.	Daley, J. F., 268 Pitt St., Merrylands. 2160	22484	1986	Premise Match	22m	South East
	DENTISTS.	Kirby. W. K., 264 Pitt St., Merrylands. 2160	22848	1986	Premise Match	22m	South East
	MEDICAL PRACTITIONERS.	Meguid, H., 268 Pitt St., Merrylands. 2160	56473	1986	Premise Match	22m	South East
	BUTCHERS-RETAIL.	Osijek Butchery, 262 Pitt St., Merrylands. 2160	10385	1986	Premise Match	22m	South East
	TAKE-AWAY FOODS.	Tal-Hing, 260 Pitt St., Merrylands. 2160	91840	1986	Premise Match	22m	South East
	DENTISTS. (D1800)	Daley, J. F., 266 Pitt St., Merrylands. 2160.	20149	1982	Premise Match	22m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
15	DRESS SHOPS & ACCESSORIES.(D7450)	Du' Kiss, 143 Merrylands Rd., Merrylands. 2160.	22722	1982	Premise Match	22m	South East
	DENTISTS. (D1800)	Kirby, W. K., 264 Pitt St., Merrylands. 2160.	20445	1982	Premise Match	22m	South East
	MEDICAL PRACTITIONERS. (M2020)	Meguid, H., 268 Pitt St., Merrylands. 2160.	49388	1982	Premise Match	22m	South East
	BUTCHERS - RETAIL. (B8040)	Merrylands Butchery, 262 Pitt St., Merrylands. 2160.	11236	1982	Premise Match	22m	South East
	TAKE-AWAY FOODS. (T0235)	Tai-Hing, 260 Pitt St., Merrylands. 2160.	78938	1982	Premise Match	22m	South East
	TOBACCONISTS - RETAIL. (T5150)	Tom Thumb Kiosk, The, 266 Pitt St., Merrylands 2160.	80539	1982	Premise Match	22m	South East
	DRESS SHOPS & ACCESSORIES.	Annabelle Fashions, 143 Merrylands Rd., Merrylands. 2160	19889	1978	Premise Match	22m	South East
	DENTISTS.	Daley, J. F., 266 Pitt St., Merrylands. 2160	18018	1978	Premise Match	22m	South East
	ANTIQUE DEALERS.	Merrylands Antiques. 260 Pitt St., Merrylands. 2160	2706	1978	Premise Match	22m	South East
	BUTCHERS-RETAIL.	Merrylands Butchery. 262 Pitt St., Merrylands. 2160	9572	1978	Premise Match	22m	South East
	FISH MERCHANTS-RETAIL.	Merrylands Sea Foods, 260 Pitt St., Merrylands 2160	28064	1978	Premise Match	22m	South East
	TOBACCONISTS-RETAIL.	Tom Thumb Kiosk, The, 266 Pitt St, Merrylands.2160	71114	1978	Premise Match	22m	South East
	WALLPAPER MERCHANTS.	Witchcraft Wallpapers, 264 Pitt St., Merrylands.2160	73792	1978	Premise Match	22m	South East
	SOLICITORS.	MacLaren, D. C., 266 Pitt St., Merrylands. 2160	78474	1975	Premise Match	22m	South East
	BUTCHERS-RETAIL	Merrylands Butchery, 262 Pitt St., Merrylands. 2160.	10825	1975	Premise Match	22m	South East
	CAFES, TEA ROOMS &/OR COFFEE LOUNGES.	Merrylands Espresso Coffee Lounge. 266 Pitt St., Merrylands. 2160.	12122	1975	Premise Match	22m	South East
	FISH MERCHANTS-RETAIL	Merrylands Sea Foods, 260 Pitt St., Merrylands. 2160	32484	1975	Premise Match	22m	South East
	DENTISTS.	Oaley, J. F., 266 Pitt St., Merrylands. 2160	20880	1975	Premise Match	22m	South East
	TOBACCONISTS., RETAIL	Tom Thumb Kiosk, The, 266 Pitt St., Merrylands. 2160	83689	1975	Premise Match	22m	South East
	DRESS SHOPS (D595)	Annabelle Fashions., 143 Merrylands Rd., Merrylands	291009	1970	Premise Match	22m	South East
	BEAUTY SALONS &/OR LADIES' HAIRDRESSERS (B260)	Merrylands Beauty Salon (M. Burden)., 266 Pitt St., Mrylands	266339	1970	Premise Match	22m	South East
	BUTCHERS-RETAIL (B860)	Merrylands Butchery., 262 Pitt St., Merrylands	274092	1970	Premise Match	22m	South East
	CAFES, COFFEE LOUNGES, Etc. (C030)	Merrylands Espresso Coffee Lounge., 266 Pitt St., Merrylands	275850	1970	Premise Match	22m	South East
	FISH MERCHANTS-RETAIL (F245)	Moulos Modern (The)., 260 Pitt St., Merrylands	303595	1970	Premise Match	22m	South East
	TOBACCONISTS-RETAIL	Tom Thumb Kiosk (The), 266 Pitt St., Merrylands	369345	1970	Premise Match	22m	South East
	FRUITERERS/GREENGROCERS (F640)	Zappavigna, D.& V., 264 Pitt St., Merrylands	308210	1970	Premise Match	22m	South East
	Frock & Coat Salons	Annabelle Fashions, 143 Merrylands Rd., Merrylands	89695	1965	Premise Match	22m	South East
	Jewellers/Watchmakers - Retail	Hamilton, A., 266 Pitt St., Merrylands	106023	1965	Premise Match	22m	South East
	Beauty Salons &/or Ladies Hairdressers	Merrylands Beauty Salon (M. Burden)., 266 Pitt St., Merrylands	50975	1965	Premise Match	22m	South East
	Butchers - Retail	Merrylands Butchery, 262 Pitt St., Merrylands	58854	1965	Premise Match	22m	South East
	Cafes, Tea Rooms, Coffee Lounges, Etc.	Merrylands Espresso Coffee Lounge, 266 Pitt St., Merrylands	60576	1965	Premise Match	22m	South East
	Fish Merchants - Retail	Moulos Moderne (The), 260 Pitt St., Merrylands	86942	1965	Premise Match	22m	South East
	TOBACCONISTS—RETAIL	Tom Thumb Kiosk (The), 266 Pitt St., Merrylands	152258	1965	Premise Match	22m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
15	Photographers - Portrait	Whitford Studios, 266 Pitt St., Merrylands	132521	1965	Premise Match	22m	South East
	Fruiterers & Greengrocers	Zappavigna, D. & V., 264 Pitt St., Merrylands	92415	1965	Premise Match	22m	South East
16	DENTISTS.	Condon, B., 250 Pitt St., Merrylands. 2160	22436	1986	Premise Match	23m	North East
	REAL ESTATE AGENTS.	Contos, John Real Estate, 246 Pitt St, Merrylands. 2160	79302	1986	Premise Match	23m	North East
	AUCTIONEERS REAL ESTATE	Contos, John Real Estate, 246 Pitt St., Merrylands. 2160	4380	1986	Premise Match	23m	North East
	BUSINESS AGENTS &/OR BROKERS.	Contos, John Real Estate, 246 Pitt St., Merrylands. 2160	9335	1986	Premise Match	23m	North East
	PROPERTY MANAGEMENT.	Contos, John Real Estate, 246 Pitt St., Merrylands. 2160	77499	1986	Premise Match	23m	North East
	WINE &/OR SPIRIT MERCHANTS RETAIL.	Liquorland Cellars, 250 Pitt St., Merrylands. 2160	99412	1986	Premise Match	23m	North East
	DENTISTS.	Miles, Raymond A., 250 Pitt St., Merrylands. 2160	23026	1986	Premise Match	23m	North East
	CHIROPRACTORS.	Noble, Kathryn, R., 250 Pitt St., Merrylands. 2160	15261	1986	Premise Match	23m	North East
	ACCOUNTANTS & AUDITORS.	Van Bruinessen, J. & Co., 250 Pitt St., Merrylands. 2160	1091	1986	Premise Match	23m	North East
	WINE &/OR SPIRIT MERCHANTS -. RETAIL. (W5960)	Colonial Cellars, 250 Pitt St., Merrylands. 2160,	84687	1982	Premise Match	23m	North East
	REAL ESTATE AGENTS. (R2555)	Foran Real Estate Pty. Ltd., 246 Pitt St., Merrylands. 2160.	68936	1982	Premise Match	23m	North East
	WINE &/OR SPIRIT MERCHANTS- RETAIL.	Colonial Cedars, 250 Pitt St., Merrylands. 2160	74689	1978	Premise Match	23m	North East
17	BUTCHERS-RETAIL.	High Quality Meats, 167 Merrylands Rd., Merrylands, 2160	10041	1986	Premise Match	23m	South West
	BUTCHERS - RETAIL. (B8040)	Thursfield's Meats, 167 Merrylands Rd., Merrylands. 2160.	11708	1982	Premise Match	23m	South West
	BUTCHERS-RETAIL.	McDonald. F. A. Pty. Ltd., 167 Merrylands Rd., Merrylands. 2160	9550	1978	Premise Match	23m	South West
	BUTCHERS-RETAIL	Uncle Bert's, 167 Merrylands Rd., Merrylands. 2160.	11330	1975	Premise Match	23m	South West
	HARDWARE DEALERS/IRONMONGERS (H230)	Merrylands Hardware Co., 167 Merrylands Rd. MERRYLANDS	315195	1970	Premise Match	23m	South West
	China, Crockery, Crystal, Cutlery, Earthenware, Glassware & Silverware Dealers	Sutton's Kitchenware, 167 Merrylands Rd., Merrylands	66070	1965	Premise Match	23m	South West
	CHINA, CROCKERY, GLASSWARE, CRYSTAL, EARTHENWARE & CUTLERY DEALERS	Merrylands Hardware Co. (A. W. Sutton, Propr.), 167 Merrylands Rd., Merrylands	22424	1950	Premise Match	23m	South West
	HARDWARE DEALERS &/OR IRONMONGERS	Merrylands Hardware Co., 167 Merrylands Rd., Merrylands	61233	1950	Premise Match	23m	South West
18	DELICATESSENS, (D1250)	M. & C. Deli, 141 Merrylands Rd., Merrylands. 2160.	19558	1982	Premise Match	26m	South East
	DELICATESSENS.	Mitravich, T., 141 Merrylands Rd., Merrylands. 2160	17586	1978	Premise Match	26m	South East
	DELICATESSENS (D080)	They Have Everything Delicatessen., 141 Merrylands Rd., Merrylands	288030	1970	Premise Match	26m	South East
	DELICATESSENS	They Have Everything Delicatessen, 141 Merrylands Rd., Merrylands	72795	1965	Premise Match	26m	South East
19	Photographic Developing Printing &/or Colouring Services	Blow-Up Photo & Reproductions, 6 McFarlane St. Merrylands 2160	57370	1991	Premise Match	29m	West
	Photographers General	Cumberland Photographics, 6 McFarlane St., Merrylands. 2160	57285	1991	Premise Match	29m	West
	HAIRDRESSER LADIES &/OR BEAUTY SALONS	20th Century Hair, 6 McFarlane St., Merrylands. 2160	43348	1986	Premise Match	29m	West
	PHOTOGRAPHERS – GENERAL.	Cumberland Photographers, 6 McFarlane St., Merrylands. 2160	72920	1986	Premise Match	29m	West
	ACCOUNTANTS & AUDITORS.	Laureti, S. P. & Co., 6 McFarlane St., Merrylands. 2160	667	1986	Premise Match	29m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
19	ACCOUNTANTS & AUDITORS.	Simon, T. G. & Co., 6 McFarlane St., Merrylands. 2160	989	1986	Premise Match	29m	West
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS. (B2000)	20th Century Hair, 6 McFarlane St., Merrylands. 2160.	6684	1982	Premise Match	29m	West
	MOTOR ACCESSORIES DEALERS.(M4690)	Autogo Performance Equipment, 6 McFarlane St., Merrylands. 2160.	53710	1982	Premise Match	29m	West
	MOTOR SPARE PARTS DEALERS -RETAIL. (M7840)	Autogo Performance Equipment, 6 McFarlane St., Merrylands. 2160.	59043	1982	Premise Match	29m	West
20	RESTAURANTS.	Enrico's Osterla, 169 Merrylands Rd., Merrylands. 2160	81555	1986	Premise Match	29m	South West
	RESTAURANTS. (R5180)	Enrico's Osteria, 169 Merrylands Rd., Merrylands. 2160.	70800	1982	Premise Match	29m	South West
	MILK, FRUIT JUICE BARS &/OR CONFECTIONERS.	Spot Cafe, 169 Merrylands Rd., Merrylands. 2160	46180	1978	Premise Match	29m	South West
	CAFES, COFFEE LOUNGES, Etc. (C030)	Spot Milk & Cafe Bar., 169 Merrylands Rd., Merrylands	276099	1970	Premise Match	29m	South West
	Cafes, Tea Rooms, Coffee Lounges, Etc.	Spot Milk & Cafe Bar, 169 Merrylands Rd., Merrylands	60825	1965	Premise Match	29m	South West
	MILK, FRUIT JUICE BARS/CONFECTIONERS	Tasses, Jim, 169 Merrylands Rd., Merrylands	339678	1961	Premise Match	29m	South West
	FRUITERERS & GREENGROCERS	Tasses, J., 169 Merrylands Rd., Merrylands	51343	1950	Premise Match	29m	South West
	MILK BARS & CONFECTIONERS	Tasses, Jim, 169 Merrylands Rd., Merrylands	77439	1950	Premise Match	29m	South West
21	Photographic Developing Printing &/or Colouring Services	Colour-Care Photographics, G20, Gallery Level, Stocklands Mall, Merrylands 2160	57383	1991	Premise Match	31m	North
	Cosmetic Mfrs &/or W/Salers	Maggie Jay Discount Cosmetics, A27, Stocklands Mall, Merrylands 2160	40902	1991	Premise Match	31m	North
	Bakers	Oran Hot Bread, G10, Gallery Level, Stocklands Level Merrylands 2160	35331	1991	Premise Match	31m	North
	Detergent Mfrs &/or Dists	Soap Collection, The, G8, Gallery level, Stocklands Mall, Merrylands 2160	41354	1991	Premise Match	31m	North
	Building Societies	St. George Building Society, Merrylands, A8, Stocklands Mall, Merrylands 2160	37445	1991	Premise Match	31m	North
	SCHOOLS &/OR COLLEGES - PRIVATE &/OR PUBLIC	Towradgi Public School., Carters La	103705	1991	Premise Match	31m	North
	FURNISHINGS-SOFT-RETAIL.	Ace Curtain & Interiors, G.5 Gallery Level, Stocklands Mall, Merrylands. 2160	36645	1986	Premise Match	31m	North
	FLORISTS-RETAIL.	All Western Suburbs Floral Service, 1 Stocklands Mall, Merrylands. 2160	33627	1986	Premise Match	31m	North
	HAIRDRESSERS-MENS.	Antons His & Hers Styling, A43 Stocklands Mall, Merrylands. 2160	43473	1986	Premise Match	31m	North
	HAIRDRESSERS-LADIES &/OR BEAUTY SALONS.	Antons His & Hers Styling, A43 Stocklands Mall, Merrylands.2160	41598	1986	Premise Match	31m	North
	CAKE SHOPS &/OR PASTRYCOOKS.	Carlos Cakes, 32 Stocklands Mall, Merrylands. 2160	11576	1986	Premise Match	31m	North
	CLOTHING-RETAIL-LADIES &/OR GIRLS WEAR.	Cobolt, A38 Stocklands Mall, Merrylands. 2160	16975	1986	Premise Match	31m	North
	GROCERS-RETAIL.	Coles New World, Merrylands, Stocklands Mall, Merrylands. 2160	40555	1986	Premise Match	31m	North
	PHOTOGRAPHIC DEVELOPING, PRINTING &/OR COLOURING SERVICES.	Colour-Care Photographics, Gallery Level, Stocklands Mall, Merrylands. 2160	73043	1986	Premise Match	31m	North
	RESTAURANTS.	Copper Grill, A49 Stocklands Mall, Merrylands. 2160	81388	1986	Premise Match	31m	North
	DELICATESSENS.	Cut Price Deli, 33 Stocklands Mall, Merrylands. 2160	21636	1986	Premise Match	31m	North
	HAIRDRESSERS-LADIES &/OR BEAUTY SALONS.	Dormays Hair Centre, C9 Stocklands Mall, Merrylands. 2160	41963	1986	Premise Match	31m	North
	TYRE DEALERS &/OR RETREADERS &/OR VULCANISERS.	Dowlings Tyre Service Pty. Ltd., 205 Pitt St., Merrylands. 2160	96334	1986	Premise Match	31m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	RECORDS BARS.	Eke's Record Bar, 22 Stocklands Mall, Merrylands. 2160	80455	1986	Premise Match	31m	North
	BUTCHERS-RETAIL.	Farm Fresh Quality Meats, 17 Stocklands Mall, Merrylands. 2160	9891	1986	Premise Match	31m	North
	FOOTWEAR RETAILERS.	Fays Shoes, A40 Stocklands Mall, Merrylands. 2160	34706	1986	Premise Match	31m	North
	FOOTWEAR RETAILERS.	Flints, G 14 Gallery Level, Stocklands Mall, Merrylands. 2160	34731	1986	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS-RETAIL.	Florentine's Jewellery & Lapidary, 26 Stocklands Mall, Merrylands. 2160	49705	1986	Premise Match	31m	North
	LAPIDARIES &/OR GEM CUTTERS.	Florentine's Jewellery & Lapidary, 26 Stocklands Mall, Merrylands. 2160	51030	1986	Premise Match	31m	North
	DEPARTMENTAL STORES.	Fosseys, G.2 Gallery Level, Stocklands Mall, Merrylands. 2160	23656	1986	Premise Match	31m	North
	GROCERS-RETAIL.	G.I. Franklins, Merrylands, Gallery Level, Stocklands Mall, Merrylands. 2160	40813	1986	Premise Match	31m	North
	DRAPERS-RETAIL.	Galls, 23 Stocklands Mall, Merrylands. 2160	24796	1986	Premise Match	31m	North
	CLOTHING-RETAIL-BABY &/OR CHILDRENS WEAR.	Grace Baby Wear. A4 Stocklands Mall, Merrylands. 2160	16513	1986	Premise Match	31m	North
	GIFT SHOPS.	Harts Clock & Gift Centre, A59 Stocklands Mall, Merrylands. 2160	39128	1986	Premise Match	31m	North
	RESTAURANTS.	Harveys Coffee Shop, G. 15 Gallery Level, Stocklands Mall, Merrylands. 2160	81781	1986	Premise Match	31m	North
	HEALTH FOODS-RETAIL.	Honeysuckle, The, 36 Stocklands Mall, Merrylands. 2160	45310	1986	Premise Match	31m	North
	GIFT SHOPS.	International Discounters, Stocklands Mall, Merrylands. 2160	39163	1986	Premise Match	31m	North
	TAKE-AWAY FOODS.	J.D.'s Cafe, G.6 Gallery Level, Stocklands Mall, Merrylands. 2160.	91038	1986	Premise Match	31m	North
	GIFT SHOPS.	Jullian Gallery, A62 Stocklands Mall, Merrylands. 2160	39193	1986	Premise Match	31m	North
	CLOTHING-RETAIL-JEANS & DENIMS.	Just Jeans, A7 Stocklands Mall, Merrylands. 2160	16709	1986	Premise Match	31m	North
	DISCOUNT HOUSES.	K Mart (Aust.) Ltd., 1 McFarlane St., Merrylands. 2160	24164	1986	Premise Match	31m	North
	CLOTHING-RETAIL-LADIES &/OR GIRLS WEAR.	La-Modelle, A47 Stocklands Mall, Merrylands. 2160	17468	1986	Premise Match	31m	North
	RESTAURANTS.	Lara's, A11 Stocklands Mall, Merrylands, 2160	82078	1986	Premise Match	31m	North
	CLOTHING-RETAIL-MENS &/OR BOYS WEAR.	Las Vegas Mens & Boys Wear, A16 Stocklands Mall, Merrylands. 2160	18502	1986	Premise Match	31m	North
	CLOTHING-RETAIL-MENS &/OR BOYS WEAR.	Lowes, G.18 Gallery Level, Stocklands Mall, Merrylands. 2160	18524	1986	Premise Match	31m	North
	COSMETIC MFRS. &/OR W/SALERS.	Maggie Jay, A27 Stocklands Mall, Merrylands. 2160	20538	1986	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS-RETAIL.	Mall Fashion Jewellery, A20 Stocklands Mall, Merrylands. 2160	49837	1986	Premise Match	31m	North
	NEWSAGENTS.	Mall Newsagency, C10 Stocklands Mall, Merrylands. 2160	69485	1986	Premise Match	31m	North
	TOY DEALERS - RETAIL.	Mall Toyland, A6 Stockiands Mall, Merrylands. 2160	94465	1986	Premise Match	31m	North
	TRAVEL AGENCIES &/OR BOOKING OFFICES.	Mall Travel, 39A Stocklands Mall, Merrylands. 2160.	95444	1986	Premise Match	31m	North
	HOSPITAL &/OR MEDICAL BENEFITS FUNDS.	Medicare Medibank, G16 Stocklands Mall, Merrylands. 2160	46218	1986	Premise Match	31m	North
	BUTCHERS-RETAIL.	Merrylands Meat Market, G.12 Gallery Level, Stocklands Mall, Merrylands. 2160	10298	1986	Premise Match	31m	North
	CLOTHING-RETAIL-LADIES &/OR GIRLS WEAR.	Mirella's Boutique, A21 Stocklands Mall, Merrylands. 2160	17573	1986	Premise Match	31m	North
	MILK, FRUIT JUICE BARS &/OR CONFECTIONERS.	Mr. Whippy, A24 Stocklands Mall, Merrylands. 2160	59262	1986	Premise Match	31m	North
	BAKERS-BREAD.	Oran Hot Bread, G.10 Gallery Level, Stocklands Level, Merrylands. 2160	5128	1986	Premise Match	31m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	CLOTHING-RETAIL-LADIES &/OR GIRLS WEAR.	Paradise Palm, G.22 Gallery Level, Stocklands Mall, Merrylands. 2160	17669	1986	Premise Match	31m	North
	BUTCHERS-RETAIL.	Peters Meats, A37 Stocklands Mall, Merrylands. 2160	10453	1986	Premise Match	31m	North
	FRUITERERS &/OR GREENGROCERS.	Quality Fruit Shop, 35 Stocklands Mall, Merrylands. 2160	36284	1986	Premise Match	31m	North
	BOOKSELLERS-RETAIL.	Read N Write, A28 Stocklands Mall, Merrylands. 2160	7170	1986	Premise Match	31m	North
	STATIONERS - RETAIL.	Read N Write, A28 Stocklands Mall, Merrylands. 2160	88554	1986	Premise Match	31m	North
	POULTRY DEALERS - RETAIL.	Red-Lea, A15 Stocklands Mall, Merrylands. 2160	75628	1986	Premise Match	31m	North
	FRUITERERS &/OR GREENGROCERS.	Rizzo's, 29 Stocklands Mall, Merrylands. 2160	36302	1986	Premise Match	31m	North
	CLOTHING-RETAIL-LADIES &/OR GIRLS WEAR.	Ronnies Fashions, A2 Stocklands Mall, Merrylands. 2160	17810	1986	Premise Match	31m	North
	FASHION ACCESSORIES.	Rose Handbags, G15 Stocklands Mall, Merrylands. 2160	32051	1986	Premise Match	31m	North
	HANDBAG &/OR GLOVE SPECIALISTS.	Rose Handbags, G15 Stocklands Mall, Merrylands. 2160	44346	1986	Premise Match	31m	North
	GIFT SHOPS.	San-Remo, G.21 Gallery Level, Stocklands Mall, Merrylands. 2160	39461	1986	Premise Match	31m	North
	OPTOMETRISTS &/OR OPTICIANS.	Schaffer, Brian, A62A Stocklands Mall, Merrylands. 2160	71008	1986	Premise Match	31m	North
	DETERGENTS, DISINFECTANTS, CLEANING AIDS, MFRS. &/OR DISTS.	Soap Collection, The, G.8 Gallery Level, Stocklands Mall, Merrylands. 2160	23877	1986	Premise Match	31m	North
	CHEMISTS-PHARMACEUTICAL.	Soul Pattinson Chemist, A9 Stocklands Mall, Merrylands. 2160	14880	1986	Premise Match	31m	North
	BUILDING SOCIETIES.	St. George Building Society, Merrylands, A8 Stocklands Mall, Merrylands. 2160	9025	1986	Premise Match	31m	North
	CHEMISTS-PHARMACEUTICAL.	Steadson, Judy & Keith, G.19 Gallery Level, Stocklands Mall, Merrylands. 2160	14927	1986	Premise Match	31m	North
	CLOTHING-RETAIL-SPORTSWEAR.	Sussan Lingerie & Sportswear, 52A Stocklands Mall, Merrylands. 2160	18859	1986	Premise Match	31m	North
	CONFECTIONERS-RETAIL.	Sweet Shop, The, A19 Stocklands Mall, Merrylands. 2160	20078	1986	Premise Match	31m	North
	TOBACCONISTS - RETAIL.	Sweet Shop, The, A19 Stocklands Mall, Merrylands. 2160	93787	1986	Premise Match	31m	North
	ELECTRICAL SUPPLIES &/OR APPLIANCES-RETAIL.	Tandy Electronics, A60 Stocklands Mall, Merrylands. 2160	27549	1986	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS-RETAIL.	Watch Centre, K5 Stocklands Mall, Merrylands. 2160	50023	1986	Premise Match	31m	North
	FLORISTS - RETAIL. (F4125)	All Western Suburbs Floral Service, 1 Merrylands Mall., Merrylands.2160.	31367	1982	Premise Match	31m	North
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS. (B2000)	Antons His & Hers Styling, A43 Merrylands Mall, Merrylands. 2160.	5217	1982	Premise Match	31m	North
	HAIRDRESSERS - GENTS. (H0550)	Antons His & Hers Styling, A43 Merrylands Mall, Merrylands. 2160.	38384	1982	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.(D7450)	Bonnie Blair Fashions, 38 Merrylands Mall, Merrylands. 2160.	22549	1982	Premise Match	31m	North
	GROCERS - RETAIL. (G7850)	Coles New World, Merrylands Mall, Merrylands. 2160.	37484	1982	Premise Match	31m	North
	DELICATESSENS, (D1250)	Cut Price Deli, 33 Merrylands Mall, Merrylands. 2160.	19337	1982	Premise Match	31m	North
	TAKE-AWAY FOODS. (T0235)	Donut Bar, A1 Merrylands Mall, Merrylands. 2160.	78296	1982	Premise Match	31m	North
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS. (B2000)	Dormays Hair Centre, 9 Merrylands Mall, Merrylands. 2160.	5549	1982	Premise Match	31m	North
	TYRE DEALERS &/ORRETREADERS &/OR VULCANISERS. (T8830)	Dowlings Tyre Service Pty. Ltd., 205 Pitt St., Merrylands. 2160.	82625	1982	Premise Match	31m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	RECORD BARS. (R2835)	Elke's Record Bar, 22 Merrylands Mall, Merrylands. 2160.	69941	1982	Premise Match	31m	North
	FOOTWEAR RETAILERS (F5575)	Fays Shoes, A40 Merrylands Mall, Merrylands. 2160.	32364	1982	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS RETAIL. (J0550)	Florentine's Jewellery & Lapidary, 26 Merrylands Mall, Merrylands. 2160	43552	1982	Premise Match	31m	North
	LAPIDARIES &/OR GEM CUTTERS.(L1450)	Florentine's Jewellery & Lapidary, 26 Merrylands Mall, Merrylands. 2160	44675	1982	Premise Match	31m	North
	DRAPERS - RETAIL. (D6600)	Gails, 23 Merrylands Mall, Merrylands. 2160.	22091	1982	Premise Match	31m	North
	DRESS FABRIC RETAILERS. (D7150)	Galls Fabrics, 50 Merrylands Mall, Merrylands. 2160.	22345	1982	Premise Match	31m	North
	FURNITURE-CANE-RETAIL (F7360)	Green Fever, A27 Merrylands Mall, Merrylands. 2160.	34420	1982	Premise Match	31m	North
	NURSERYMEN (N1700)	Green Fever, A27 Merrylands Mall, Merrylands. 2160.	61159	1982	Premise Match	31m	North
	GIFT SHOPS. (G3350)	Harts Clock & Gift Centre, A59 Merrylands Mall, Merrylands. 2160.	36298	1982	Premise Match	31m	North
	HEALTH FOODS - RETAIL. (H3000)	Honeysuckle, The, 36 Merrylands Mall, Merrylands. 2160.	39714	1982	Premise Match	31m	North
	BUTCHERS - RETAIL. (B8040)	Ideal Meats. A37 Merrylands Mall, Merrylands. 2160.	11026	1982	Premise Match	31m	North
	JEANS & DENIMS. (J0130)	Just Jeans, 18 Merrylands Mall, Merrylands. 2160.	43218	1982	Premise Match	31m	North
	DISCOUNT HOUSES. (D4040)	K Mart (Aust.) Ltd., 1 McFarlane St., Merrylands. 2160.	21570	1982	Premise Match	31m	North
	TOY DEALERS - RETAIL. (T6200)	Kids Love Playtime, 54 Merrylands Mall, Merrylands. 2160.	81120	1982	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS RETAIL. (J0550)	Kimberley Jewellers, 47 Merrylands Mall, Merrylands. 2160.	43638	1982	Premise Match	31m	North
	RESTAURANTS. (R5180)	Lara's, 11 Merrylands Mall, Merrylands. 2160.	71173	1982	Premise Match	31m	North
	MERCERS - MENS &/OR BOYS OUTFITTERS. (M2120)	Las Vegas Mens & Boys Wear, 16 Merrylands Mall, Merrylands. 2160.	51278	1982	Premise Match	31m	North
	SPORTSWEAR RETAILERS. (S4905)	Louise, 47 Merrylands Mall, Merrylands. 2160.	75701	1982	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.(D7450)	Luise Boutique, 48 Merrylands Mall, Merrylands. 2160.	23096	1982	Premise Match	31m	North
	TRAVEL AGENCIES &/OR BOOKING OFFICES. (T7425)	Mall Travel, 39A Merrylands Mall, Merrylands. 2160.	81992	1982	Premise Match	31m	North
	ANIMAL &/OR BIRD FOOD SUPPLIES. (A5880)	Pets World, C16 Merrylands Mall, Merrylands. 2160.	2769	1982	Premise Match	31m	North
	FRUITERERS &/OR GREENGROCERS. (F6775)	Quality Fruit Shop, 35 Merrylands Mall, Merrylands. 2160.	33861	1982	Premise Match	31m	North
	FRUITERERS &/OR GREENGROCERS. (F6775)	Rizzo's, 29 Merrylands Mall, Merrylands. 2160.	33887	1982	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.(D7450)	Ron-Ton Fashions, A2 Merrylands Mall, Merrylands. 2160.	23370	1982	Premise Match	31m	North
	CAKE SHOPS &/OR PASTRYCOOKS. (C0465)	Saint Honore Cakes, 32 Merrylands Mall, Merrylands. 2160.	12812	1982	Premise Match	31m	North
	CHEMISTS - PHARMACEUTICAL.(C4110)	Soul Pattinson Chemist, 19 Merrylands Mall, Merrylands. 2160.	15687	1982	Premise Match	31m	North
	SPORTSWEAR RETAILERS. (S4905)	Sussan Lingerie & Sportswear, 52A Merrylands Mall, Merrylands. 2160.	75749	1982	Premise Match	31m	North
	BUTCHERS - RETAIL. (B8040)	Terry Beach Quality Meats, 17 Merrylands Mall, Merrylands. 2160.	11695	1982	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.(D7450)	Tully Fashions, 37 Merrylands Mall, Merrylands. 2160.	23567	1982	Premise Match	31m	North
	SPORTS GOODS RETAILERS. (S4875)	Unisport, 31 Merrylands Mall, Merrylands. 2160.	75590	1982	Premise Match	31m	North
	OPTOMETRISTS &/OR OPTICIANS.(O3600)	Veitch & Wilson, 62A Merrylands Mall, Merrylands. 2160.	61959	1982	Premise Match	31m	North
	DEPARTMENTAL STORES. (D1950)	Venture Stores (Retailers) Pty. Ltd., 52 Merrylands Mall, Merrylands. 2160.	21169	1982	Premise Match	31m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	JEWELLERS &/OR WATCHMAKERS RETAIL. (J0550)	Watch Centre, K5 Merrylands Mall, Merrylands. 2160.	43822	1982	Premise Match	31m	North
	MILK, FRUIT JUICE BARS &/OR CONFECTIONERS, (M3180)	Whippy, Mr. Pty. Ltd., 46 Merrylands Mall, Merrylands. 2160.	52522	1982	Premise Match	31m	North
	FOOTWEAR RETAILERS (F5575)	Williams The Shoe Man, 60 Merrylands Mall, Merrylands. 2160.	32667	1982	Premise Match	31m	North
	FLORISTS-RETAIL.	All Western Suburbs Floral Service, 75 Merrylands Mall, Merrylands. 2160	28417	1978	Premise Match	31m	North
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS.	Anne Peters Hair Centre, Merrylands Mall, Merrylands. 2160	4693	1978	Premise Match	31m	North
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS.	Antons His & Hers Styling, 16 Merrylands Mall, Merrylands. 2160	4707	1978	Premise Match	31m	North
	DELICATESSENS.	Bobs Dell, 2 Merrylands Mall, Merrylands. 2160	17304	1978	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Bonnie Blair Fashions, 38 Merrylands Mall, Merrylands. 2160	19935	1978	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Bonnie Blair Pty. Ltd., A4 Merrylands Mall, Merrylands. 2160	19937	1978	Premise Match	31m	North
	MUSIC SHEET &/OR RECORDS DEALERS.	Caroles Record Bar, 22 Merrylands Mall Merrylands 2160	53493	1978	Premise Match	31m	North
	CAKE SHOPS &/OR PASTRYCOOKS.	Centre Cake Shop, The, 4 Merrylands Mall. Merrylands. 2160	10753	1978	Premise Match	31m	North
	BUTCHERS-RETAIL.	Chamberlain, H. B., 17 Merrylands Mall, Merrylands. 2160	9006	1978	Premise Match	31m	North
	CHEMISTS-PHARMACEUTICAL.	Chem-Mart, 27 Merrylands Mall. Merrylands. 2160	13060	1978	Premise Match	31m	North
	RESTAURANTS.	Copper Grill Restaurant, 18 Merrylands Mall, Merrylands. 2160	62896	1978	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Davids World of Fashions, 29 Merrylands Mall, Merrylands. 2160	20025	1978	Premise Match	31m	North
	WALLPAPER MERCHANTS.	Decorator Wallpapers Pty. Ltd., 42 Merrylands Mall, Merrylands.2160	73738	1978	Premise Match	31m	North
	TAKE-AWAY FOODS.	Donut Bar, 76 Merrylands Mall, Merrylands. 2160	69303	1978	Premise Match	31m	North
	CAKE SHOPS &/OR PASTRYCOOKS.	Donut Bar. A1 Merrylands Mall. Merrylands. 2160	10788	1978	Premise Match	31m	North
	TYRE DEALERS &/OR RETREADERS &/OR VULCANISERS	Dowlings Tyre Service Pty. Ltd., 205 Pitt St., Merrylands. 2160	72899	1978	Premise Match	31m	North
	FOOTWEAR RETAILERS.	Fays Shoes. 12 Merrylands Mall. Merrylands. 2160	29318	1978	Premise Match	31m	North
	DRESS FABRIC RETAILERS.	Galls Fabrics, 50 Merrylands Mall, Merrylands. 2160	19798	1978	Premise Match	31m	North
	GIFT SHOPS.	Harts Clock & Gift Centre, 34 Merrylands Mall, Merrylands. 2160	32858	1978	Premise Match	31m	North
	TAKE-AWAY FOODS.	Homestead Golden Chickens, 71 Merrylands Mall, Merrylands. 2160	69357	1978	Premise Match	31m	North
	BUTCHERS-RETAIL.	Ideal Meats. 9 Merrylands Mall. Merrylands. 2160	9364	1978	Premise Match	31m	North
	DRY CLEANERS, PRESSERS &/OR DYERS	Jolly Frog Dry Cleaners, C12 Merrylands Mall, Merrylands.	20814	1978	Premise Match	31m	North
	DRY CLEANERS, PRESSERS &/OR DYERS	Jolly Frog Drycleaners, 57 Merrylands Mall, Merrylands.	20819	1978	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS-RETAIL.	Kimberley Jewellers. 47 Merrylands Mall, Merrylands. 2160	38891	1978	Premise Match	31m	North
	MERCERS-MENS &/OR BOYS OUTFITTERS.	Las Vegas Mens & Boys Wear, 62 Merrylands Mall, Merrylands. 2160	45000	1978	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Luise Boutique, 48 Merrylands Mall, Merrylands. 2160	20266	1978	Premise Match	31m	North
	MUSIC SHEET &/OR RECORDS DEALERS.	Music Centre Merrylands Mall, Merrylands 2160	53540	1978	Premise Match	31m	North
	FRUITERERS &/OR GREENGROCERS.	Quality Fruit Shop. 35Merrylands Mall, Merrylands. 2160	30756	1978	Premise Match	31m	North
	CHEMISTS-PHARMACEUTICAL.	Ron Natoli Chemist, 54 Merrylands Mall, Merrylands. 2160	13768	1978	Premise Match	31m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	DRESS SHOPS & ACCESSORIES.	Ron Ton Fashions, 37 Merrylands Mall, Merrylands. 2160	20417	1978	Premise Match	31m	North
	HIRING SERVICES.	Social Wear Hire, 73 Merrylands Mall, Merrylands. 2160	35625	1978	Premise Match	31m	North
	CHEMISTS-PHARMACEUTICAL.	Soul Pattinson Chemist, 43 Merrylands Mall, Merrylands. 2160	13843	1978	Premise Match	31m	North
	SPORTSWEAR RETAILERS.	Sportique, 47 Merrylands Mall, Merrylands. 2160	67073	1978	Premise Match	31m	North
	BUTCHERS-RETAIL.	Springfield Meats, 1 Merrylands Mall, Merrylands. 2160	9914	1978	Premise Match	31m	North
	SPORTSWEAR RETAILERS.	Sussan Lingerie & Sportswear, 52a Merrylands Mall. Merrylands. 2160	67082	1978	Premise Match	31m	North
	DISCOUNT HOUSES.	Sydney Wide Stores, Merrylands Mall, Merrylands. 2160	19092	1978	Premise Match	31m	North
	INTERIOR DECORATORS.	Topaz Decor Pty. Ltd., 47a Merrylands Mall. Merrylands. 2160	38399	1978	Premise Match	31m	North
	TOY DEALERS-RETAIL.	Toy Castle, 54 Merrylands Mall, Merrylands.2160	71731	1978	Premise Match	31m	North
	AQUARIUMS & SUPPLIES.	Toy Fisheries, 16 Merrylands Mall, Merrylands. 2160	2827	1978	Premise Match	31m	North
	DEPARTMENTAL STORES.	Venture Stores Ltd., 52 Merrylands Mall, Merrylands. 2160	18679	1978	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS-RETAIL.	Watch Centre. 3 Merrylands Mall. Merrylands. 2160	39040	1978	Premise Match	31m	North
	MILK, FRUIT JUICE BARS &/OR CONFECTIONERS.	Whippy, Mr. Pty. Ltd., 46 Merrylands Mall, Merrylands. 2160	46237	1978	Premise Match	31m	North
	FOOTWEAR RETAILERS.	Williams The Shoe Man, 60 Merrylands Mall, Merrylands. 2160	29521	1978	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Witchery, 38 Merrylands Mall, Merrylands. 2160	20554	1978	Premise Match	31m	North
	FLORISTS-RETAIL	All Western Suburbs Floral Service, 75 Merrylands Mall, Merrylands. 2160	32967	1975	Premise Match	31m	North
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS.	Antons His & Hers Styling, 16 Merrylands Mall, Merrylands. 2160.	4930	1975	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Berlaine Boutique, 5 Merrylands Mall, Merrylands. 2160	22985	1975	Premise Match	31m	North
	DELICATESSENS.	Birds Smallgoods, 79 Merrylands Mall, Merrylands. 2160	19951	1975	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Bonnie Blair Fashions, 38 Merrylands Mall, Merrylands. 2160	23003	1975	Premise Match	31m	North
	BUTCHERS-RETAIL	Bush's Hy-Grade Meats, Merrylands West Shopping Centre, Merrylands. 2160.	10115	1975	Premise Match	31m	North
	CAKE SHOPS &/OR PASTRYCOOKS.	Centre Cake Shop, The, 4 Merrylands Mall. Merrylands. 2160.	12484	1975	Premise Match	31m	North
	RESTAURANTS.	Copper Grill Restaurant., 18 Merrylands Mall., Merrylands. 2160	73656	1975	Premise Match	31m	North
	FRUITERERS &/OR GREENGROCERS.	Country Growers Supermarket, 56 Merrylands Mall, Merrylands. 2160	35107	1975	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Davids World of Fashions, 29 Merrylands Mall, Merrylands. 2160	23098	1975	Premise Match	31m	North
	WALLPAPER MERCHANTS.	Decorator Wallpapers Pty. Ltd., 42 Merrylands Mall, Merrylands. 2160	86394	1975	Premise Match	31m	North
	TAKE-AWAY FOODS.	Donut Bar., 76 Merrylands Mall., Merrylands. 2160	81868	1975	Premise Match	31m	North
	TYRE DEALERS, RETREADERS &/OR VULCANIZERS.	Dowlings Tyre Service Pty. Ltd., 205 Pitt St., Merrylands. 2160	85544	1975	Premise Match	31m	North
	FOOTWEAR RETAILERS.	Fays Shoes, 12 Merrylands Mall, Merrylands. 2160	33956	1975	Premise Match	31m	North
	BUTCHERS-RETAIL	Franks Quality Meats, 64 Merrylands Mall, Merrylands. 2160.	10378	1975	Premise Match	31m	North
	FRUITERERS &/OR GREENGROCERS.	Fruit Market, 7 Merrylands Mall. Merrylands. 2160	35253	1975	Premise Match	31m	North
	DRESS FABRIC RETAILERS.	Galls Fabrics, 50 Merrylands Mall, Merrylands. 2160	22839	1975	Premise Match	31m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	ACCOUNTANTS & AUDITORS.	Greenward Associates, 69 Merrylands Mall, Merrylands. 2160.	310	1975	Premise Match	31m	North
	RESTAURANTS.	Happy Grannys Restaurant, 45 Merrylands Mall., Merrylands. 2160	73800	1975	Premise Match	31m	North
	GIFT SHOPS.	Harts Clock & Gift Centre., 34 Merrylands Mall., Merrylands. 2160.	38146	1975	Premise Match	31m	North
	TAKE-AWAY FOODS.	Homestead Golden Chickens., 71 Merrylands Mall., MerryLands. 2160	81914	1975	Premise Match	31m	North
	BUTCHERS-RETAIL	Ideal Meats, 9 Merrylands Mall, Merrylands. 2160.	10596	1975	Premise Match	31m	North
	MERCERS-MENS &/OR BOYS OUTFITTERS.	Jean Junction., 41 Merrylands Mall, Merrylands. 2160	52207	1975	Premise Match	31m	North
	DRY CLEANERS, PRESSERS &/OR DYERS.	Jolly Frog Drycleaners, 57 Merrylands Mall, Merrylands.	24095	1975	Premise Match	31m	North
	GROCERS-RETAIL	K. Mart Food Store., Merrylands Mall., Merrylands. 2160	39591	1975	Premise Match	31m	North
	TAKE-AWAY FOODS.	Kentucky Fried Chicken., Merrylands West Shopping Centre., Merrylands. 2160	81937	1975	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS-RETAIL	Kimberley Jewellers., 47 Merrylands Mall. Merrylands. 2160	45978	1975	Premise Match	31m	North
	MERCERS-MENS &/OR BOYS OUTFITTERS.	Las Vegas Mens & Boys Wear., 62 Merrylands Mall., Merrylands. 2160	52237	1975	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Luise Boutique, 48 Merrylands Mall, Merrylands. 2160	23390	1975	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Mansours Manchester, 39 Merrylands Mall, Merrylands. 2160	23403	1975	Premise Match	31m	North
	MILK, FRUIT JUICE BARS &/OR CONFECTIONERS.	Milk Bar., 68 Merrylands Mall, Merrylands. 2160	53630	1975	Premise Match	31m	North
	TAKE-AWAY FOODS.	Mr Whippy Beano Bar., 52 Merrylands Mall., Merrylands. 2160	81984	1975	Premise Match	31m	North
	BOOT &/OR SHOE REPAIRERS.	Mr. Minit Service, 78 Merrylands Mall, Merrylands. 2160.	7777	1975	Premise Match	31m	North
	MUSIC SHEET &/OR RECORDS DEALERS.	Music Centre., Merrylands Mall., Merrylands. 2160	63066	1975	Premise Match	31m	North
	GROCERS-RETAIL	New World Supermarket, Merrylands West Shopping Centre., Merrylands. 2160	39700	1975	Premise Match	31m	North
	HEALTH FOODS-RETAIL	PDF Health Foods. 3 Merrylands Mall, Merrylands. 2160	41874	1975	Premise Match	31m	North
	TAKE-AWAY FOODS.	Ray Roast Duck., 57 Merrylands Mall., Merrylands. 2160	82017	1975	Premise Match	31m	North
	MUSIC SHEET &/OR RECORDS DEALERS.	Record Bar 49 Merrylands Mall., Merrylands. 2160	63083	1975	Premise Match	31m	North
	CHEMISTS-PHARMACEUTICAL	Ron Natoli Chemist, 54 Merrylands Mall, Merrylands. 2160	15847	1975	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Ron Ton Fashions, 37 Merrylands Mall. Merrylands. 2160	23590	1975	Premise Match	31m	North
	HIRING SERVICES.	Social Wear Hire., 73 Merrylands Mall., Merrylands. 2160	42100	1975	Premise Match	31m	North
	CHEMISTS-PHARMACEUTICAL	Soul Pattinson Chemist, 43 Merrylands Mall, Merrylands. 2160	15921	1975	Premise Match	31m	North
	SPORTSWEAR RETAILERS	Sportique Womens Sportswear., 17 Merrylands Mall., Merrylands. 2160	79291	1975	Premise Match	31m	North
	BUTCHERS-RETAIL	Springfield Meats, 1 Merrylands Mall, Merrylands. 2160	11197	1975	Premise Match	31m	North
	SPORTSWEAR RETAILERS	Sussans Lingerie & Sportswear., 27 Merrylands Mall., Merrylands. 2160	79313	1975	Premise Match	31m	North
	DISCOUNT HOUSES.	Sydney Wide Stores, Merrylands Mall, Merrylands. 2160	21970	1975	Premise Match	31m	North
	JEWELLERS &/OR WATCHMAKERS-RETAIL	Tonis Jewellers., 53 Merrylands Mall., Merrylands. 2160	46115	1975	Premise Match	31m	North
	TOY DEALERS., RETAIL	Toy Castle, 54 Merrylands Mall, Merrylands. 2160	84420	1975	Premise Match	31m	North
	BEAUTY SALONS &/OR LADIES HAIRDRESSERS.	Viatque Coffure, 67 Merrylands Mall, Merrylands. 2160.	6080	1975	Premise Match	31m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	FOOTWEAR RETAILERS.	Williams The Shoe Man, 35 Merrylands Mall, Merrylands. 2160	34198	1975	Premise Match	31m	North
	DRESS SHOPS & ACCESSORIES.	Witchery, 10 Merrylands Mall, Merrylands. 2160	23744	1975	Premise Match	31m	North
	WIREWORKERS-GENERAL	Macquarie Products, 195 Pitt St., Merrylands	263453	1961	Premise Match	31m	North
	AGRICULTURAL MACHINERY MANUFACTURERS & DEALERS	Lewis, A. W., 195 Pitt St., Merrylands	1391	1950	Premise Match	31m	North
	INCUBATOR MANUFACTURERS	Macquarie Products, 195 Pitt St., Merrylands	64086	1950	Premise Match	31m	North
	SHEET METAL WORKERS	Macquarie Products, 195 Pitt St., Merrylands	101752	1950	Premise Match	31m	North
	WELDERS-ELECTRIC &/OR OXY	Macquarie Products, 195 Pitt St., Merrylands	112917	1950	Premise Match	31m	North
	WIREWORKERS-GENERAL	Macquarie Products, 195 Pitt St., Merrylands	113948	1950	Premise Match	31m	North
22	Real Estate Agents	Andrew, R.R., 139 Merrylands Rd., Merrylands 2160	97556	1991	Premise Match	32m	South East
	Real Estate Agents	Andrew, Rebert R. Pty.Ltd., 139 Merrylands Rd., Merrylands. 2160	97517	1991	Premise Match	32m	South East
	REAL ESTATE AGENTS.	Andrew, Robert R Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160	79097	1986	Premise Match	32m	South East
	VALUERS - REAL ESTATE.	Andrew, Robert R. Pty. Ltd. 139 Merrylands Rd. Merrylands. 2160	96828	1986	Premise Match	32m	South East
	BUSINESS AGENTS &/OR BROKERS.	Andrew, Robert R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160	9295	1986	Premise Match	32m	South East
	READY-CUT HOMES.	Real Estate Service 139 Merrylands Road, Merrylands.	79025	1986	Premise Match	32m	South East
	REAL ESTATE AGENTS. (R2555)	Andrew, Robert R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160.	68576	1982	Premise Match	32m	South East
	BUSINESS AGENTS &/OR BROKERS. (B7920)	Andrew. Robert R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160.	10213	1982	Premise Match	32m	South East
	BUSINESS AGENTS &/OR BROKERS.	Andrew, Robert R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160	8587	1978	Premise Match	32m	South East
	PROPERTY MANAGEMENT.	Andrew, Robert R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160	60030	1978	Premise Match	32m	South East
	REAL ESTATE AGENTS &/OR VALUERS.	Andrew, Robert R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160	61340	1978	Premise Match	32m	South East
	REAL ESTATE AGENTS &/OR VALUERS.	Robert R. Andrew Pty. Ltd. 139 Merrylands Rd, Merrylands	61589	1978	Premise Match	32m	South East
	PROPERTY MANAGEMENT.	Andrew, R, R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160	70522	1975	Premise Match	32m	South East
	REAL ESTATE AGENTS &/OR VALUERS.	Andrew, R. R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160	71964	1975	Premise Match	32m	South East
	BUSINESS AGENTS &/OR BROKERS.	Andrew, R. R. Pty. Ltd., 139 Merrylands Rd., Merrylands. 2160.	9669	1975	Premise Match	32m	South East
	BUTCHERS-RETAIL	Station Butchery, 139 Merrylands Rd., Merrylands. 2160.	11214	1975	Premise Match	32m	South East
	BUTCHERS-RETAIL (B860)	Station Butchery., 139 Merrylands Rd., Merrylands	274600	1970	Premise Match	32m	South East
	Butchers - Retail	Station Butchery, 139 Merrylands Rd., Merrylands	59328	1965	Premise Match	32m	South East
	BUTCHERS-RETAIL	Taylor, C. & R., 139 Merrylands Rd., Merrylands	281252	1961	Premise Match	32m	South East
	BUTCHERS-RETAIL	Taylor, C. and R., 139 Merrylands Rd., Merrylands	14398	1950	Premise Match	32m	South East
23	Beauty Salons &/or Ladies Hairdressers	Burston, B. J., 171 Merrylands Rd., Merrylands	50414	1965	Premise Match	36m	West
	Hairdressers (Gent.'s)/Tobacconists	Burston, B., 171 Merrylands Rd., Merrylands	97822	1965	Premise Match	36m	West
	RADIO &/OR TELEVISION SALES & SERVICEMEN	Burston, B., 171 Merrylands Rd. MERRYLANDS	364341	1961	Premise Match	36m	West
	HAIRDRESSERS (GENT.'S) /TOBACCONISTS	Burston, B., 171 Merrylands Rd., Merrylands	321871	1961	Premise Match	36m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
23	HAIRDRESSERS (GENT.'S) &/OR TOBACCONISTS	Burston, B., 171 Merrylands Rd., Merrylands	59259	1950	Premise Match	36m	West
	RADIO SALES &/OR SERVICEMEN	Burston, B., 171 Merrylands Rd., Merrylands	97022	1950	Premise Match	36m	West
24	Real Estate Agents	Briscoe Town & Country Real Estate., 137 Merrylands Rd., Merrylands. 2160	60150	1991	Premise Match	39m	South East
	AUCTIONEERS-GENERAL.	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160	4204	1986	Premise Match	39m	South East
	REAL ESTATE AGENTS.	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160	79193	1986	Premise Match	39m	South East
	DRY CLEANERS & PRESSERS.	Pattys Dry Cleaning, 135 Merrylands Rd, Merrylands. 2160	25475	1986	Premise Match	39m	South East
	AUCTIONEERS-GENERAL. (A8310)	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160.	3751	1982	Premise Match	39m	South East
	REAL ESTATE AGENTS. (R2555)	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160.	68688	1982	Premise Match	39m	South East
	AUCTIONEERS-GENERAL.	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160	3560	1978	Premise Match	39m	South East
	REAL ESTATE AGENTS &/OR VALUERS.	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160	61438	1978	Premise Match	39m	South East
	STOCK &/OR STATION AGENTS.	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160	68599	1978	Premise Match	39m	South East
	AUCTIONEERS-GENERAL	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands.	3305	1975	Premise Match	39m	South East
	STOCK &/OR STATION AGENTS.	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands.	81099	1975	Premise Match	39m	South East
	REAL ESTATE AGENTS &/OR VALUERS.	Briscoe, G. E. & Co. Pty. Ltd., 137 Merrylands Rd., Merrylands. 2160	72064	1975	Premise Match	39m	South East
	REAL ESTATE AGENTS/VALUERS(R205)	Briscoe, G. & Co., 137 Merrylands Rd., MERRYLANDS	355039	1970	Premise Match	39m	South East
	STOCK/STATION AGENTS (S754)	Briscoe, G. E. & Co., 137 Merrylands Rd., Merrylands	366018	1970	Premise Match	39m	South East
	AUCTIONEERS-GENERAL (A620)	Briscoe, G.E. & Co., 137 Merrylands Rd., Merrylands	263623	1970	Premise Match	39m	South East
	BUILDERS' SUPPLIERS (B814)	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	271478	1970	Premise Match	39m	South East
	GLASS MERCHANTS (G260)	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	311201	1970	Premise Match	39m	South East
	PAINT,VARNISH,OILS/COLOUR MERCHANTS (P074)	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	346289	1970	Premise Match	39m	South East
	PAINT,VARNISH/COLOUR MFRS/SUPPLIES (P056)	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	346445	1970	Premise Match	39m	South East
	PLUMBERS' SUPPLIES (P612)	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	350319	1970	Premise Match	39m	South East
	Real Estate Agents/Valuers	Briscoe, G. & Co., 137 Merrylands Rd., Merrylands	139419	1965	Premise Match	39m	South East
	Auctioneers - General	Briscoe, G. E. & Co., 137 Merrylands Rd., Merrylands	48342	1965	Premise Match	39m	South East
	STOCK/STATION AGENTS	Briscoe, G. E. & Co., 137 Merrylands Rd., Merrylands	148789	1965	Premise Match	39m	South East
	Hardware Dealers &/or Iron Mongers	Merrylands Hardware Co., 135 & 167 Merrylands Rd. Merrylands	99329	1965	Premise Match	39m	South East
	Builders' Suppliers	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	56245	1965	Premise Match	39m	South East
	Glass Merchants	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	95257	1965	Premise Match	39m	South East
	Paint, Varnish/Colour Manufacturers Supplies	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	130668	1965	Premise Match	39m	South East
	Plumbers' Supplies	Merrylands Hardware Co., 135 Merrylands Rd., Merrylands	135033	1965	Premise Match	39m	South East
	REAL ESTATE AGENTS/VALUERS	Briscoe, G. & Co., 137 Merrylands Rd. MERRYLANDS	244780	1961	Premise Match	39m	South East
	AUCTIONEERS-GENERAL	Briscoe, G. E. & Co., 137 Merrylands Rd., Merrylands	269966	1961	Premise Match	39m	South East
	HARDWARE DEALERS/IRONMONGERS	Merrylands Hardware Co., 135 & 167 Merrylands Rd. MERRYLANDS	323368	1961	Premise Match	39m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
24	AUCTIONEERS-GENERAL	Styles, E. G. and Co., 137 Merrylands Rd., Merrylands	4176	1950	Premise Match	39m	South East
	REAL ESTATE AGENTS	Styles, E. G. and Co., 137 Merrylands Rd., Merrylands	98854	1950	Premise Match	39m	South East
25	TAXATION CONSULTANTS.	Anderson Keith J. & Associates, 8 McFarlane St., Merrylands. 2160	92137	1986	Premise Match	42m	West
	ACCOUNTANTS & AUDITORS.	Anderson, Keith J. & Associates, 8 McFarlane St., Merrylands. 2160	123	1986	Premise Match	42m	West
	MEDICAL PRACTITIONERS.	Arunachalin, N., 3/8 McFarlane St., Merrylands. 2160	53474	1986	Premise Match	42m	West
	BUILDING SOCIETIES & COMPANIES(B824)	Southern Districts Starr-Bowkett Co-op. Building Society Ltd., 8 McFarlane St., Merrylands	271830	1970	Premise Match	42m	West
	Building Societies & Companies	Southern Districts Starr-Bowkett Co-op. Building Society Ltd., 8 McFarlane St., Merrylands	56600	1965	Premise Match	42m	West
	BUILDING SOCIETIES & COMPANIES	Southern Districts Starr-Bowkett Co-op. Building Society Ltd., 8 McFarlane St., Merrylands	278683	1961	Premise Match	42m	West
26	CLOTHING-RETAIL-LADIES &/OR GIRLS WEAR.	Vanity Jane, 173 Merrylands Rd., Merrylands. 2160	18093	1986	Premise Match	42m	West
	BABY &/OR CHILDRENS WEAR -RETAIL. (B0080)	Kindi World, 173 Merrylands Rd., Merrylands. 2160.	4370	1982	Premise Match	42m	West
	DRESS FABRIC RETAILERS.	Blooms Fashion Fabrics, 173 Merrylands Rd., Merrylands. 2160	19779	1978	Premise Match	42m	West
	DRESS FABRIC RETAILERS.	Blooms Fashion Fabrics, 173 Merrylands Rd., Merrylands. 2160	22806	1975	Premise Match	42m	West
	DRAPERS-RETAIL (D540)	Merrylands Drapery., 173 Merrylands Rd., Merrylands	290518	1970	Premise Match	42m	West
	Drapers - Retail	Merrylands Drapery, 173 Merrylands Rd., Merrylands	75196	1965	Premise Match	42m	West
	DRAPERS-RETAIL	Coorey, J. P. & Co., 173 Merrylands Rd., Merrylands	297823	1961	Premise Match	42m	West
27	FRUITERERS &/OR GREENGROCERS.	Fruit Market, Rositano, G. & C., 175 Merrylands Rd., Merrylands. 2160	35970	1986	Premise Match	47m	West
	FRUITERERS &/OR GREENGROCERS. (F6775)	Fruit Market, 175 Merrylands Rd., Merrylands. 2160.	33549	1982	Premise Match	47m	West
	FRUITERERS &/OR GREENGROCERS.	Fruit Market, 175 Merrylands Rd., Merrylands. 2160	30456	1978	Premise Match	47m	West
	FRUITERERS &/OR GREENGROCERS.	Fruit Market, 175 Merrylands Rd., Merrylands. 2160	35251	1975	Premise Match	47m	West
	FRUITERERS/GREENGROCERS (F640)	Fruit Market., 175 Merrylands Rd., Merrylands	307107	1970	Premise Match	47m	West
	Health Food Retailers	Tip Top Delicatessen Services Pty. Ltd., 175 Merrylands Rd., Merrylands	100145	1965	Premise Match	47m	West
	GROCERS-RETAIL	Buttle, S. R. Pty. Ltd., 175 Merrylands Rd., Merrylands	56652	1950	Premise Match	47m	West
	KITCHENWARE RETAILERS	Buttle, S. R. Pty. Ltd., 175 Merrylands Rd., Merrylands	66992	1950	Premise Match	47m	West
	BOOT & SHOE REPAIRERS	Paul, E. J., 175 Merrylands Rd., Merrylands	10521	1950	Premise Match	47m	West
28	BUILDING SOCIETIES & COMPANIES	Holroyd Co-op. Building Society, Cnr. Pitt St. & Merrylands Rd., Merrylands	278618	1961	Road Intersection	48m	South

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

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
29	MOTOR GARAGES & SERVICE STATIONS.	Bell & Fenton Automotive Mechanical Repairs, Pitt St., Merrylands. 2160	64032	1986	Road Match	0m
	TYRE DEALERS &/OR RETREADERS &/OR VULCANISERS.	Doug's Discount Tyre Bar, Pitt St., Merrylands. 2160	96331	1986	Road Match	0m
	BOAT, LAUNCH &/OR YACHT SALES &/OR SERVICE.	Merrylands Marine, Pitt St., Merrylands. 2160	6493	1986	Road Match	0m
	VETERINARY SURGEONS. (V2000)	Deraz, M., 14 Pitt St., Merrylands. 2160.	83464	1982	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Golden Fleece Merrylands Service Station, Pitt St., Merrylands 2160.	56852	1982	Road Match	0m
	BOAT, LAUNCH &/OR YACHT SALES &/OR SERVICE. (B3660)	Merrylands Marine, Pitt St., Merrylands. 2160.	7350	1982	Road Match	0m
	VETERINARY SURGEONS.	Deraz, M., 14 Pitt St., Merrylands.2160	73571	1978	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Service Station, Pitt St., Merrylands. 2160	50135	1978	Road Match	0m
	BOAT, LAUNCH &/OR YACHT SALES &/OR SERVICE.	Merrylands Marine. Pitt St., Merrylands. 2160	6369	1978	Road Match	0m
	DISCOUNT HOUSES.	Sydney Wide Stores Pty. Ltd., Pitt St., Merrylands. 2160	19089	1978	Road Match	0m
	MOTOR PAINTERS.	BP Waratah Service Station., Pitt St., Merrylands. 2160	60013	1975	Road Match	0m
	MOTOR PANEL BEATERS.	BP Waratah Service Station., Pitt St., Merrylands. 2160	60656	1975	Road Match	0m
	DRY CLEANERS, PRESSERS &/OR DYERS.	Drycleaners, 263 Pitt St., Merrylands. 2160	24002	1975	Road Match	0m
	MOTOR SERVICE STATIONS - PETROL, OIL	Golden Fleece Service Station., Pitt St., Merrylands. 2160	61778	1975	Road Match	0m
	MOTOR ACCESSORIES DEALERS.	Merrylands Auto Accessories Pty. Ltd., Pitt St., Merrylands. 2160	56235	1975	Road Match	0m
	MOTOR SPARE PARTS DEALERS- RETAIL	Merrylands Auto Accessories Pty. Ltd., Pitt St., Merrylands. 2160	62278	1975	Road Match	0m
	BOAT, LAUNCH &/OR YACHT SALES &/OR SERVICE	Merrylands Marine, Pitt St., Merrylands. 2160.	6809	1975	Road Match	0m
	MUSIC SHEET &/OR RECORDS DEALERS.	Merrylands School of Music., Pitt St., Merrylands. 2160	63063	1975	Road Match	0m
	MOTOR PANEL BEATERS (M680)	BP Waratah Service Station., Pitt St., Merrylands	339882	1970	Road Match	0m
	DENTISTS (D140)	Daley, J. F., Pitt St., Merrylands	288514	1970	Road Match	0m
	TYRE DEALERS, RETREADERS & VULCANIZERS	Dowlings Tyre Service, Pitt St, Merrylands	371691	1970	Road Match	0m
	MOTOR PANEL BEATERS (M680)	Golden Fleece Service Station., Pitt St., Merrylands	340070	1970	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Golden Fleece Service Station., Pitt St., MERRYLANDS	341176	1970	Road Match	0m
	FLOUR MERCHANTS/MILLERS (F350)	McLeod, A.& Sons Pty. Ltd., Pitt St., Merrylands	304544	1970	Road Match	0m
	MUSIC SHEET &/OR RECORDS DEALERS	Merrylands School of Music., Pitt St., Merrylands	343190	1970	Road Match	0m
	DENTISTS	Daley, J. F., Pitt St., Merrylands	73268	1965	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
29	Motor Service Stations - Petrol, Oil, Etc.	Golden Fleece Service Station, Pitt St. Merrylands	125917	1965	Road Match	0m
	Motor Panel Beaters	Golden Fleece Service Station, Pitt St., Merrylands	124666	1965	Road Match	0m
	Flour Merchants/Millers	McLeod, A. & Sons Pty. Ltd., Pitt St., Merrylands	87915	1965	Road Match	0m
	Joinery Manufacturers	Midway Timber & Hardware Pty. Ltd., 24 Pitt St., Merrylands	106514	1965	Road Match	0m
	Tyre Dealers, Retreaders & Vulcanizers	Owlings Tyre Service, Pitt St., Merrylands	154758	1965	Road Match	0m
	Motor Garages & Engineers	Waratah Service Station, Pitt St. Merrylands	123033	1965	Road Match	0m
	Motor Panel Beaters	Waratah Service Station, Pitt St., Merrylands	125103	1965	Road Match	0m
	DENTISTS	Daley, J. F., Pitt St., Merrylands	295838	1961	Road Match	0m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Golden Fleece Service Station, Pitt St. MERRYLANDS	350634	1961	Road Match	0m
	ENGINEERS-AGRICULTURAL	McCarey-Irrigation Eng., Pitt St., Merrylands	304643	1961	Road Match	0m
	FLOUR MERCHANTS/MILLERS	McLeod, A. & Sons Pty. Ltd., Pitt St. Merrylands	312160	1961	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Waratah Service Station, Pitt St. MERRYLANDS	348392	1961	Road Match	0m
	ENGINEERS-REFRIGERATION	Cumberland Refrigeration Co., Pitt St., Merrylands	42051	1950	Road Match	0m
	FLOUR MERCHANTS &/OR MILLERS	McLeod, A. and Sons, Pitt St., Merrylands	46337	1950	Road Match	0m
	TILE MFRS. & MERCHANTS-FLOOR & WALL	Mosaic Tile and Pottery Co. Pty. Ltd., Pitt St., Merrylands	108380	1950	Road Match	0m
	DRAPERS-RETAIL	Peters Emporium, Pitt St., Merrylands	33914	1950	Road Match	0m
	MERCERS & GENT'S OUTFITTERS	Peters Emporium, Pitt St., Merrylands	74571	1950	Road Match	0m
	CLOTHING MANUFACTURERS &/OR WHOLESALERS-MEN'S & BOYS	Tip Top Tailoring, Pitt St., Merrylands	23733	1950	Road Match	0m
30	MOTOR GARAGES & SERVICE STATIONS.	BP Service Station, McFarlane St., Merrylands. 2160	64224	1986	Road Match	6m
	DISCOUNT HOUSES.	K Mart (Aust.) Ltd., McFarlane St., Merrylands. 2160	19061	1978	Road Match	6m
	MOTOR GARAGES &/OR ENGINEERS.	Saklaouis, M. Service Centre., McFarlane St., Merrylands. 2160	59504	1975	Road Match	6m
	POTTERY MFRS./DISTS	Buick, M. H. & B., McFarlane St., Merrylands	361359	1961	Road Match	6m
	TERRA COTTA MFRS.	Buick, M. H. & B., McFarlane St., Merrylands	256128	1961	Road Match	6m
	PIPE MFRS.—EARTHENWARE	Ferguson, H. D. & Company, McFarlane St., Merrylands	358667	1961	Road Match	6m
	FIBROUS PLASTER MFRS.	Oxford Fibrous Plaster Works, McFarlane St., Merrylands	310202	1961	Road Match	6m
	PIPE MANUFACTURERS-EARTHENWARE	Ferguson Bros. Pty. Ltd., McFarlane St., Merrylands	93069	1950	Road Match	6m
	POTTERY MANUFACTURERS & DISTRIBUTORS	Ferguson Bros. Pty. Ltd., McFarlane St., Merrylands	93643	1950	Road Match	6m
	TERRA COTTA MANUFACTURERS	Ferguson, McFarlane St., Merrylands	107807	1950	Road Match	6m
31	Motor Garages & Service Stations	Esso Merrylands Service Station, Merrylands Rd., Merrylands 2160	53726	1991	Road Match	37m
	Tyre Dealers &/or Retreaders &/or Vulcanisers	Tyre Giant, Merrylands Rd Merrylands 2160	65356	1991	Road Match	37m
	Auto Electricians	Westend Auto Electrics Pty. Ltd., Merrylands Rd., Merrylands 2160	35045	1991	Road Match	37m
	MOTOR PANEL BEATERS &/OR SPRAY PAINTERS.	Cambridge Auto Repairs, Merrylands Rd., Merrylands. 2160	66153	1986	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	64643	1986	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	65451	1986	Road Match	37m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
31	MOTOR PANEL BEATERS &/OR SPRAY PAINTERS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	66746	1986	Road Match	37m
	TYRE DEALERS &/OR RETREADERS &/OR VULCANISERS.	Tyre Giant, Merrylands Rd., Merrylands. 2160	96452	1986	Road Match	37m
	MOTOR ELECTRICIANS.	Westend Auto Electrics Pty. Ltd., Merrylands Rd., Merrylands. 2160	63052	1986	Road Match	37m
	AIR CONDITIONING SALES &/OR SERVICE.	Westend Auto Electrics Pty. Ltd., Merrylands Rd., Merrylands.2160	2395	1986	Road Match	37m
	MOTOR PANEL BEATERS &/OR SPRAY PAINTERS. (M7360)	Cambridge Auto Repairs, Merrylands Rd., Merrylands. 2160.	58159	1982	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	56714	1982	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Holroyd Auto Port, Merrylands Rd., Merrylands. 2160.	56969	1982	Road Match	37m
	BUTCHERS - RETAIL. (B8040)	Jolly Jumbuck Lamb Market, Merrylands Rd., Merrylands. 2160.	11066	1982	Road Match	37m
	TAKE-AWAY FOODS. (T0235)	Kentucky Fried Chicken, Merrylands Rd., Merrylands. 2160.	78553	1982	Road Match	37m
	CHEMISTS - PHARMACEUTICAL.(C4110)	Merrylands West Pharmacy, Merrylands Rd., Merrylands. 2160.	15382	1982	Road Match	37m
	REAL ESTATE AGENTS. (R2555)	Raine & Horne Merrylands, Merrylands Rd., Merrylands. 2160.	69592	1982	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Sherwood Motors, Merrylands Rd., Merrylands. 2160.	57568	1982	Road Match	37m
	MOTOR PANEL BEATERS &/OR SPRAY PAINTERS. (M7360)	Sherwood Motors, Merrylands Rd., Merrylands. 2160.	58703	1982	Road Match	37m
	TYRE DEALERS &/ORRETREADERS &/OR VULCANISERS. (T8830)	Tyre Giant, Merrylands Rd., Merrylands. 2160	82745	1982	Road Match	37m
	AIR CONDITIONING SALES &/ORSERVICE. (A3660)	Westend Auto Electrics Pty. Ltd., Merrylands Rd., Merrylands. 2160.	2102	1982	Road Match	37m
	MOTOR ELECTRICIANS, (M6580)	Westend Auto Electrics Pty. Ltd., Merrylands Rd., Merrylands. 2160.	55623	1982	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Holroyd Auto Port, Merrylands Rd., Merrylands. 2160	50257	1978	Road Match	37m
	BUTCHERS-RETAIL.	Jolly Humbuck Lamb Market. Merrylands Rd., Merrylands. 2160	9397	1978	Road Match	37m
	CHEMISTS-PHARMACEUTICAL.	Merrylands West Pharmacy, Merrylands Rd., Merrylands. 2160	13548	1978	Road Match	37m
	GROCERS-RETAIL	Red S. Stores, Merrylands Rd., Merrylands. 2160	34160	1978	Road Match	37m
	FLORISTS-RETAIL.	Sandras Florist, 14 Merrylands Rd., Merrylands. 2160	28609	1978	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	50830	1978	Road Match	37m
	MOTOR PAINTERS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	51667	1978	Road Match	37m
	MOTOR PANEL BEATERS	Sherwood Motors, Merrylands Rd., Merrylands. 2160	52348	1978	Road Match	37m
	VETERINARY SURGEONS.	Warner, A. J., Merrylands Rd., Merrylands.2160	73636	1978	Road Match	37m
	TOY DEALERS-RETAIL.	Wishing Well Toys & Gifts, Merrylands Rd, Merrylands.2160	71757	1978	Road Match	37m
	MOTOR SERVICE STATIONS - PETROL, OIL	BP Greystanes., Merrylands Rd., Merrylands West. 2160	61504	1975	Road Match	37m
	FLORISTS-RETAIL	Florist, 14 Merrylands Rd., Merrylands. 2160	33038	1975	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Holroyd Auto Port., Merrylands Rd., Merrylands. 2160	59054	1975	Road Match	37m
	DISCOUNT HOUSES.	Red S Discount Centre, Merrylands Rd., Merrylands. 2160	21963	1975	Road Match	37m

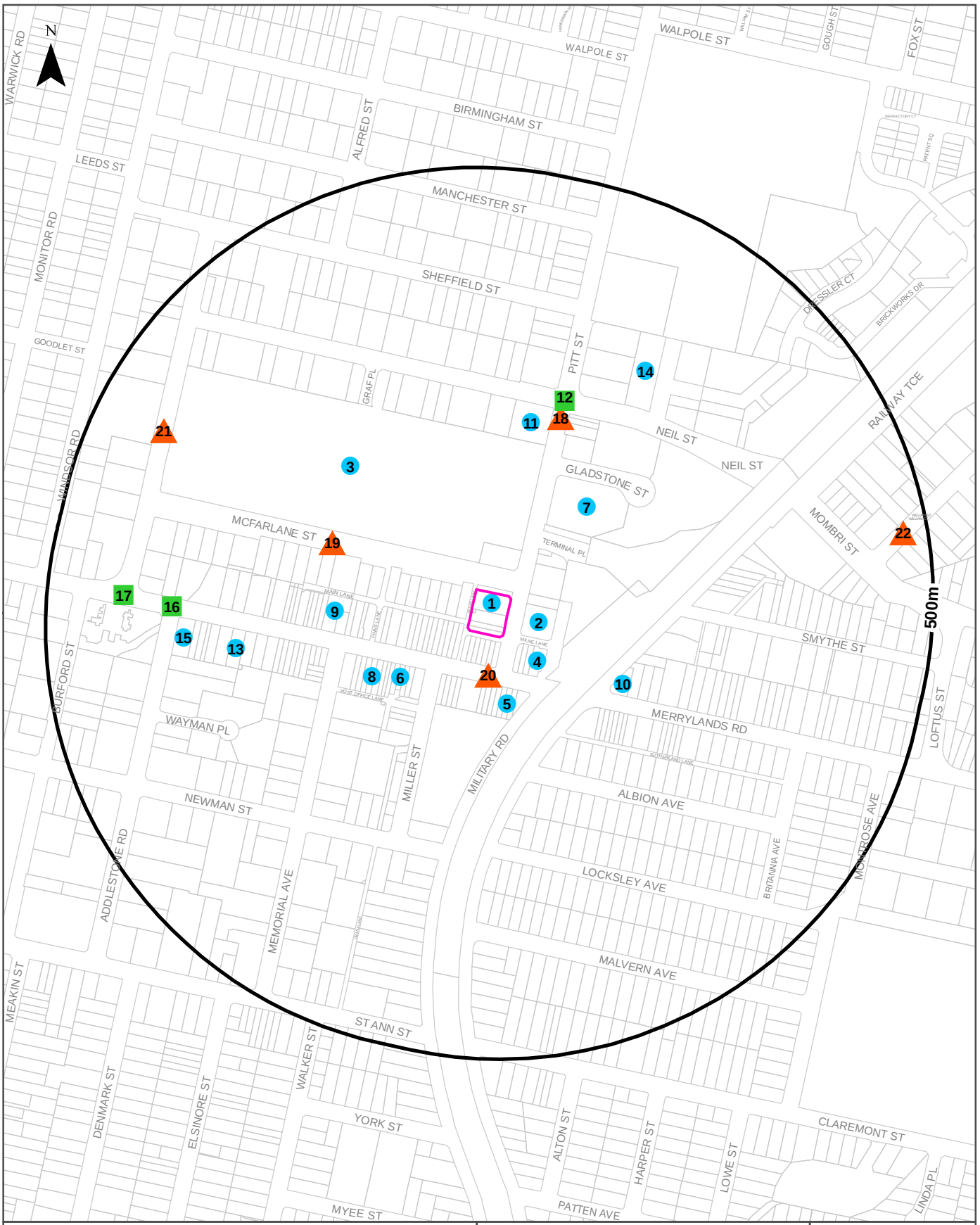
Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
31	MOTOR PANEL BEATERS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	61110	1975	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Sherwood Motors., Merrylands Rd., Merrylands. 2160	59532	1975	Road Match	37m
	MOTOR PAINTERS.	Sherwood Motors., Merrylands Rd., Merrylands. 2160	60418	1975	Road Match	37m
	MOTOR PAINTERS (M672)	Sherwood Motors, Merrylands Rd., Merrylands., 2160	339641	1970	Road Match	37m
	MOTOR GARAGES & ENGINEERS(M6S6)	Sherwood Motors., Merrylands Rd., MERRYLANDS	338599	1970	Road Match	37m
	MOTOR PANEL BEATERS (M680)	Sherwood Motors., Merrylands Rd., Merrylands, 2160	340414	1970	Road Match	37m
	PAINTERS,PAPERHANGERS/DECORATORS (P092)	Van Leeuwen., Merrylands Rd., MERRYLANDS	346752	1970	Road Match	37m
	Libraries - Lending	Acton's, Cnr. Merrylands & Chertsey Rds., Merrylands	107620	1965	Road Match	37m
	ACCOUNTANTS & AUDITORS	Robson, H. V. & Co., Merrylands Rd., Merrylands	44122	1965	Road Match	37m
	Painters, Paperhangers/Decorators	Van Leeuwen, Merrylands Rd., Merrylands	131263	1965	Road Match	37m
	FURNITURE-HOUSEHOLD-RETAILERS	Campbells Furniture, Merrylands Rd., Merrylands	317717	1961	Road Match	37m
	BANKS	Commercial Banking Company of Sydney Limited Merrylands Rd., Merrylands	271267	1961	Road Match	37m
	BOOT & SHOE REPAIRERS	Crutcher, R., Merrylands Rd., Merrylands	274723	1961	Road Match	37m
	BEAUTY SALONS & LADIES' HAIRDRESSERS	Janine, Merrylands Rd., Merrylands	272484	1961	Road Match	37m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Jarman's Service Station, Merrylands Rd., Merrylands	350728	1961	Road Match	37m
	MILK, FRUIT JUICE BARS/CONFECTIONERS	Kinema Milk Bar, Merrylands Rd., Merrylands	339230	1961	Road Match	37m
	PICTURE THEATRES	Merrylands Kinema, Merrylands Rd., Merrylands	358485	1961	Road Match	37m
	POULTRY FARMERS' SUPPLIERS	Pattens Pty. Ltd., 487 Merrylands Rd., Merrylands West	361577	1961	Road Match	37m
	PRODUCE MERCHANTS-GRAIN & SEED-RETAIL	Pattens Pty. Ltd., 487 Merrylands Rd., Merrylands West	362821	1961	Road Match	37m
	PAINTERS, PAPERHANGERS/DECORATORS	Van Leeuwen, Merrylands Rd. Merrylands	356456	1961	Road Match	37m
	MOTOR GARAGES & ENGINEERS	West Merrylands Auto Centre, Merrylands Rd. MERRYLANDS	348427	1961	Road Match	37m
	HAIRDRESSERS (GENT.'S) /TOBACCONISTS	Whitten, Ken, 481 Merrylands Rd., Merrylands West	322624	1961	Road Match	37m
	CAKE SHOPS & PASTRYCOOKS	"Marie Linden", Merrylands Rd., Merrylands	16327	1950	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS	"Swans", Merrylands Rd., Merrylands	35040	1950	Road Match	37m
	MOTOR BUS SERVICES	Barklimore, F. E., 34 Merrylands Rd., Merrylands	87204	1950	Road Match	37m
	CAFES, TEA ROOMS, COFFEE LOUNGES, Etc.	Blackmann, N. T. and Leggatt, J. R., Merrylands Rd., Merrylands	15238	1950	Road Match	37m
	MERCERS & GENT'S OUTFITTERS	Campbell, W., Merrylands Rd., Merrylands	74287	1950	Road Match	37m
	BANKS	Commonwealth Bank of Australia and Commonwealth Savings Bank of Australia, Merrylands Rd., Merrylands	5946	1950	Road Match	37m
	BEAUTY SALONS &/OR LADIES' HAIRDRESSERS	Dutton, D. J., Merrylands Rd., Merrylands	7088	1950	Road Match	37m
	DELICATESSENS & SMALLGOODS DEALERS	Fisher, R. W., Merrylands Rd., Merrylands	30486	1950	Road Match	37m
	HARDWARE DEALERS &/OR IRONMONGERS	Goldman, S. and Co., Merrylands Rd., Merrylands	61055	1950	Road Match	37m
	TAILORS-LADIES &/OR GENT.'S	Holden, C. E., Merrylands Rd., Merrylands	106432	1950	Road Match	37m
	BEAUTY SALONS &/OR LADIES' HAIRDRESSERS	Janine, Merrylands Rd., Merrylands	7300	1950	Road Match	37m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
31	MILK BARS & CONFECTIONERS	Kinema Milk Bar, Merrylands Rd., Merrylands	76890	1950	Road Match	37m
	CAFES, TEA ROOMS, COFFEE LOUNGES, Etc.	Legat, F., Merrylands Rd., Merrylands	15682	1950	Road Match	37m
	PRINTERS-GENERAL	Maguire, J., Merrylands Rd., Merrylands	95013	1950	Road Match	37m
	CAKE SHOPS & PASTRYCOOKS	Merrylands (J. Stretton), Merrylands Rd., Merrylands	16981	1950	Road Match	37m
	MOTOR BUS SERVICES	Merrylands Bus Co, Pty. Ltd., Merrylands Rd., Merrylands	87267	1950	Road Match	37m
	PICTURE THEATRES-SUBURBAN	Merrylands Cinema, Merrylands Rd., Merrylands	92844	1950	Road Match	37m
	MIXED BUSINESSES & GENERAL STORES	Mitchell, Miss, Merrylands Rd., Merrylands	80595	1950	Road Match	37m
	FRUITERERS & GREENGROCERS	O'Donnell, H. J., Merrylands Rd., Merrylands	50841	1950	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS	S. and R. Dry Cleaners, Merrylands Rd., Merrylands	35679	1950	Road Match	37m
	POULTRY FARMERS	Street, J. W., 550 Merrylands Rd., Merrylands	94301	1950	Road Match	37m
	FRUITERERS & GREENGROCERS	Wadds, T. S., Merrylands Rd., Merrylands	51468	1950	Road Match	37m
	FOOTWEAR-RETAILERS	Warrock, v., Merrylands Rd., Merrylands	47521	1950	Road Match	37m
	BUTCHERS-RETAIL	Welch E L., Merrylands Rd., Merrylands	14500	1950	Road Match	37m

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Dry Cleaners, Motor Garages & Service Stations

215-239 Pitt Street, Merrylands, NSW 2160



Legend

- Site Boundary
- Buffer 500m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 80 160 240 320 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 09 April 2020

Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018
Property Boundaries © NSW Department Finance, Services & Innovation 2020

Historical Business Directories

215-239 Pitt Street, Merrylands, NSW 2160

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 & SERVICE STATIONS.	Amoco Mcfarlane, Mcfarlane St., Merrylands. 2160	38918	1985	Premise Match	0m	On-site
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Amoco Mcfarlane, Mcfarlane St., Merrylands. 2160	22298	1984	Premise Match	0m	On-site
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Amoco McFarlane., McFarlane St., Merrylands. 2160	8891	1983	Premise Match	0m	On-site
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Amoco McFarlane, McFarlane St., Merrylands. 2160.	55975	1982	Premise Match	0m	On-site
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Amoco McFarlane., McFarlane St., Merrylands. 2160	63645	1981	Premise Match	0m	On-site
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Amoco Mcfarlane., Mcfarlane St., Merrylands. 2160	50117	1980	Premise Match	0m	On-site
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Amoco Mcfarlane., McFarlane St., Merrylands. 2160.	35632	1979	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Amoco Service Station., Mcfarlane St Merrylands	16924	1972	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Amoco Service Station., Mcfarlane St Merrylands	2385	1971	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Amoco Service Station., McFarlane St., MERRYLANDS	340761	1970	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Amoco Service Station., Mcfarlane St Merrylands	50490	1969	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Amoco Service Station., Mcfarlane St Merrylands	32516	1968	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Amoco Service Station., Mcfarlane St Merrylands	15975	1967	Premise Match	0m	On-site
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Amoco Service Station., Mcfarlane St Merrylands	1546	1966	Premise Match	0m	On-site
	Motor Service Stations - Petrol, Oil, Etc.	Amoco Service Station, McFarlane St. Merrylands	125914	1965	Premise Match	0m	On-site

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
2	DRY CLEANERS & PRESSERS.	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands. 2160	53290	1988	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands. 2160	25518	1986	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands. 2160	38796	1985	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.	Smiths Drycleaners, 14 Piccadilly Arc, Merrylands. 2160	22187	1984	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.	Smiths Drycleaners., 14 Piccadilly Arc., Merrylands 2160	8781	1983	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.(D8500)	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands. 2160.	24051	1982	Premise Match	19m	East
	DRY CLEANERS & PRESSERS.	Smiths Drycleaners., 14 Piccadilly Arc Merrylands. 2160	63540	1981	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Smiths Drycleaners., 14 Piccadilly Arc., Merrylands. 2160	50020	1980	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Smiths Drycleaners., 14 Piccadilly Arc., Merrylands. 2160.	35558	1979	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS	Smiths Drycleaners, 14 Piccadilly Arc., Merrylands.	20956	1978	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Smiths Drycleaners., 14 Piccadilly Arc., Merrylands 2160	23812	1976	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Smith's Drycleaners, 14 Piccadilly Arc., Merrylands.	24336	1975	Premise Match	19m	East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Smith Drycleaners., 14 Piccadilly Arc., Merrylands 2160	7255	1972	Premise Match	19m	East
3	DRY CLEANERS & PRESSERS.	Jolly Frog Dry Cleaners., C12 Merrylands Mall., Merrylands. 2160	63366	1981	Premise Match	31m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Jolly Frog Dry Cleaners., C12 Merrylands Mall., Merrylands. 2160	46797	1980	Premise Match	31m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Jolly Frog Dry Cleaners., C12 Merrylands Mall., Merrylands. 2160.	35390	1979	Premise Match	31m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS	Jolly Frog Dry Cleaners, C12 Merrylands Mall, Merrylands.	20814	1978	Premise Match	31m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS	Jolly Frog Drycleaners, 57 Merrylands Mall, Merrylands.	20819	1978	Premise Match	31m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Jolly Frog Drycleaners., 57 Merrylands Mall, Merrylands 2160	23569	1976	Premise Match	31m	North West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Jolly Frog Drycleaners, 57 Merrylands Mall, Merrylands.	24095	1975	Premise Match	31m	North West
4	DRY CLEANERS & PRESSERS.	Pattys Dry Cleaning, 135 Merrylands Rd., Merrylands. 2160	53245	1988	Premise Match	39m	South East
	DRY CLEANERS & PRESSERS.	Pattys Dry Cleaning, 135 Merrylands Rd, Merrylands. 2160	25475	1986	Premise Match	39m	South East
	DRY CLEANERS & PRESSERS.	Pattys Dry Cleaning, 135 Merrylands Rd., Merrylands. 2160	34689	1985	Premise Match	39m	South East
5	DRY CLEANERS, PRESSERS & DYERS	Swift Dry Cleaning Service, 138 Merrylands Rd Merrylands	35728	1950	Premise Match	61m	South
	DRY CLEANERS, PRESSERS & DYERS.	Swift Dry Cleaning Service., 138 Merrylands Rd Merrylands	17496	1948-49	Premise Match	61m	South
6	DRY CLEANERS, PRESSERS &/OR DYERS.	Swan's Dry Cleaning., 178 Merrylands Rd., Merrylands	7291	1972	Premise Match	86m	South West
	DRY CLEANERS, PRESSERS &/OR DYERS	Swan's Dry Cleaning., 178 Merrylands Rd., Merrylands	55049	1971	Premise Match	86m	South West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
6	DRY CLEANERS,PRESSERS /DYERS (D710)	Swan's Dry Cleaning, 178 Merrylands Rd., Merrylands and Branch	292539	1970	Premise Match	86m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Swan's Dry Cleaning., 178 Merrylands Rd Merrylands	37343	1969	Premise Match	86m	South West
	DRY CLEANERS, PRESSERS/DYERS	Swan's Dry Cleaning., 178 Merrylands Rd., Merrylands	20799	1968	Premise Match	86m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Swan's Dry Cleaning., 178 Merrylands Rd., Merrylands	6353	1967	Premise Match	86m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Swan's Dry Cleaning., 178 Merrylands Rd., Merrylands	55402	1966	Premise Match	86m	South West
7	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Edwards P., 238 Pitt St., Merrylands. 2160.	41399	1979	Premise Match	96m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Edwards, P., 238 Pitt St., Merrylands.	49936	1978	Premise Match	96m	North East
8	DRY CLEANERS, PRESSERS &/OR DYERS.	Gales, 188 Merrylands Rd., Merrylands. 2160	65607	1976	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Gales, 188 Merrylands Rd., Merrylands	24048	1975	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Gales., 188 Merrylands Rd., Merrylands 2160	2905	1972	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS &/OR DYERS	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	51056	1971	Premise Match	113m	South West
	DRY CLEANERS,PRESSERS /DYERS (D710)	Gales Dry Cleaning Service, 188 Merrylands Rd., Merrylands	292309	1970	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	37114	1969	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS/DYERS	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	20575	1968	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	6132	1967	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	52661	1966	Premise Match	113m	South West
	Dry Cleaners, Pressers/Dyers	Gales Dry Cleaning Service, 188 Merrylands Rd., Merrylands	76166	1965	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS/ DYERS.	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	43017	1964	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS/DYERS.	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	24766	1962	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS / DYERS	Gales Dry Cleaning Service, 188 Merrylands Rd., Merrylands	299118	1961	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS/DYERS	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	10060	1959	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS & DYERS	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	250	1958	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS & DYERS.	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	44374	1954	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS & DYERS.	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	36185	1953	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS & DYERS.	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	27065	1952	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS & DYERS	Gales Dry Cleaning Service, 188 Merrylands Rd., Merrylands	35251	1950	Premise Match	113m	South West
	DRY CLEANERS, PRESSERS & DYERS.	Gales Dry Cleaning Service., 188 Merrylands Rd Merrylands	17159	1948-49	Premise Match	113m	South West
9	MOTOR GARAGES &/OR ENGINEERS.	Dandie A. J., 205 Merrylands Rd Merrylands	17958	1948-49	Premise Match	140m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
10	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Lucas Service Station., 91 Merrylands Rd Merrylands	16932	1972	Premise Match	141m	South East
	MOTOR GARAGES & ENGINEERS.	Merrylands Motors Pty. Ltd., 91 Merrylands Rd Merrylands	10640	1967	Premise Match	141m	South East
	MOTOR GARAGES & ENGINEERS.	Merrylands Motors Pty. Ltd., 91 Merrylands Rd Merrylands	60384	1966	Premise Match	141m	South East
	Motor Garages & Engineers	Merrylands Motors Pty. Ltd., 91 Merrylands Rd. Merrylands	123029	1965	Premise Match	141m	South East
	MOTOR GARAGES & ENGINEERS	Seary's Garage., 91 Merrylands Rd Merrylands	48306	1964	Premise Match	141m	South East
	MOTOR GARAGES & ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	32990	1962	Premise Match	141m	South East
	MOTOR GARAGES & ENGINEERS	Seary's Garage, 91 Merrylands Rd., Merrylands	348112	1961	Premise Match	141m	South East
	MOTOR GARAGES & ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	19587	1959	Premise Match	141m	South East
	MOTOR GARAGE/ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	4943	1958	Premise Match	141m	South East
	MOTOR GARAGES &/OR ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	61465	1956	Premise Match	141m	South East
	MOTOR GARAGES &/OR ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	54083	1954	Premise Match	141m	South East
	MOTOR GARAGES &/OR ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	40666	1953	Premise Match	141m	South East
	MOTOR GARAGES &/OR ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	32228	1952	Premise Match	141m	South East
	MOTOR GARAGES &/OR ENGINEERS	Seary’s Garage, 91 Merrylands Rd., Merrylands	84353	1950	Premise Match	141m	South East
	MOTOR SERVICE STATIONS-PETROL, Etc.	Seary's Garage., 91 Merrylands Rd., Merrylands	86380	1950	Premise Match	141m	South East
	MOTOR GARAGES &/OR ENGINEERS.	Seary's Garage., 91 Merrylands Rd Merrylands	22847	1948-49	Premise Match	141m	South East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Seary's Garage., 91 Merrylands Rd Merrylands	26771	1948-49	Premise Match	141m	South East
11	MOTOR GARAGES & SERVICE STATIONS.	Mobil Merrylands Service Station, 20 Neil St., Merrylands. 2160	19141	1993	Premise Match	184m	North
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, 20 Neil St., Merrylands. 2160	11566	1990	Premise Match	184m	North
	MOTOR GARAGE & SERVICE STATIONS.	Esso Merrylands Service Station, 20 Neil St., Merrylands. 2160	65025	1989	Premise Match	184m	North
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, 20 Neil St., Merrylands. 2160	59242	1988	Premise Match	184m	North
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, 20 Neil St., Merrylands. 2160	64644	1986	Premise Match	184m	North
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, 20 Neil St., Merrylands. 2160	39643	1985	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station, 20 Neil St., Merrylands. 2160	28222	1984	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station., 20 Neil St., Merrylands 2160	14648	1983	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Esso Merrylands Service Station, 20 Neil St., Merrylands. 2160.	56715	1982	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station., 20 Neil St., Merrylands. 2160	3268	1981	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station., 20 Neil St., Merrylands. 2160	52916	1980	Premise Match	184m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
11	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Car Care Centre., 20 Neil St., Merrylands. 2160.	41419	1979	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Car Care Centre, 20 Neil St., Merrylands. 2160	49958	1978	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Car Care Centre., 20 Neil St., Merrylands 2160	29902	1976	Premise Match	184m	North
	MOTOR GARAGES &/OR ENGINEERS.	Esso Car Care Centre., 20 Neil St., Merrylands. 2160	58806	1975	Premise Match	184m	North
12	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Waratah Service Station, 200 Pitt St., Merrylands. 2160	27859	1984	Road Intersection	241m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Waratah Service Station, 200 pitt St., Merrylands. 2160	65751	1983	Road Intersection	241m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	BP Waratah Service Station, 200 Pitt St., Merrylands. 2160.	56321	1982	Road Intersection	241m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Waratah Service Station., 200 Pitt St., Merrylands. 2160	64000	1981	Road Intersection	241m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Waratah Service Station., 200 Pitt St., Merrylands. 2160	51504	1980	Road Intersection	241m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Waratah Service Station., 200 Pitt St., Merrylands. 2160.	41107	1979	Road Intersection	241m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Waratah Service Station, 200 Pitt St., Merrylands. 2160	49641	1978	Road Intersection	241m	North
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Waratah Service Station., 200 Pitt St., Merrylands 2160	25361	1976	Road Intersection	241m	North
	MOTOR SERVICE STATIONS - PETROL, OIL	BP Waratah Service Station., Pitt St., Merrylands. 2160	61579	1975	Road Intersection	241m	North
	MOTOR GARAGES & ENGINEERS(M6S6)	BP Waratah Service Station., Pitt St., MERRYLANDS	337413	1970	Road Intersection	241m	North
13	DRY CLEANERS & PRESSERS.	Merrylands Dry Cleaning, 242 Merrylands Rd., Merrylands. 2160	53213	1988	Premise Match	263m	West
	DRY CLEANERS & PRESSERS.	Merrylands Dry Cleaning, 242 Merrylands Rd., Merrylands. 2160	25441	1986	Premise Match	263m	West
	DRY CLEANERS & PRESSERS.	Merrylands Dry Cleaning, 242 Merrylands Rd., Merrylands. 2160	34660	1985	Premise Match	263m	West
	DRY CLEANERS & PRESSERS.	Merrylands Dry Cleaning, 242 Merrylands Rd., Merrylands2160	22109	1984	Premise Match	263m	West
	DRY CLEANERS & PRESSERS.	Merrylands Dry Cleaning., 242 Merrylands Rd., Merrylands 2160	8704	1983	Premise Match	263m	West
	DRY CLEANERS & PRESSERS.(D8500)	Merrylands Dry Cleaning, 242 Merrylands Rd., Merrylands. 2160.	23973	1982	Premise Match	263m	West
	DRY CLEANERS & PRESSERS.	Merrylands Dry Cleaning., 242 Merrylands Rd., Merrylands. 2160	63460	1981	Premise Match	263m	West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Merrylands Dry Cleaning., 242 Merrylands Rd., Merrylands. 2160	49937	1980	Premise Match	263m	West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Merrylands Dry Cleaning., 242 Merrylands Rd., Merrylands. 2160.	35472	1979	Premise Match	263m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
13	DRY CLEANERS, PRESSERS &/OR DYERS	Merrylands Dry Cleaning, 242 Merrylands Rd., Merrylands.	20877	1978	Premise Match	263m	West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Merrylands Dry Cleaning., 242 Merrylands Rd., Merrylands 2160	23698	1976	Premise Match	263m	West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Merrylands Dry Cleaning, 242 Merrylands Rd., Merrylands.	24223	1975	Premise Match	263m	West
	DRY CLEANERS, PRESSERS &/OR DYERS.	Merrylands Dry Cleaning., 242 Merrylands Rd., Merrylands 2160	7131	1972	Premise Match	263m	West
	DRY CLEANERS, PRESSERS & DYERS.	Swan's., 242 Merrylands Rd., Merrylands	54986	1956	Premise Match	263m	West
	DRY CLEANERS, PRESSERS & DYERS.	Swan's., 242 Merrylands Rd Merrylands	44545	1954	Premise Match	263m	West
14	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Merrylands Auto Electricians., 17 Neil St., Merrylands. 2160	33752	1984	Premise Match	265m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Merrylands Auto Electricians., 17 Neil St., Merrylands 2160	15101	1983	Premise Match	265m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Merrylands Auto Electricians, 17 Neil St, Merrylands. 2160.	57175	1982	Premise Match	265m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Merrylands Auto Electricians., 17 Neil St., Merrylands 2162	3743	1981	Premise Match	265m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Merrylands Auto Electricians., 17 Neil St., Merrylands. 2162	58477	1980	Premise Match	265m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Merrylands Auto Electricians., 17 Neil St., Merrylands. 2160.	45972	1979	Premise Match	265m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Merrylands Auto Electricians, 17 Neil St., Merrylands. 2160	50480	1978	Premise Match	265m	North East
15	MOTOR GARAGES &/OR ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	12620	1972	Premise Match	322m	West
	MOTOR GARAGES &/OR ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	62306	1971	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS(M6S6)	Rowley's Service Station, 258 Merrylands Rd. Merrylands	338549	1970	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	42666	1969	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS	Rowley's Service Station., 258 Merrylands Rd Merrylands	26143	1968	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	10642	1967	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	60386	1966	Premise Match	322m	West
	Motor Garages & Engineers	Rowley's Service Station, 258 Merrylands Rd. Merrylands	123031	1965	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS	Rowley's Service Station., 258 Merrylands Rd Merrylands	48305	1964	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	32989	1962	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS	Rowley's Service Station, 258 Merrylands Rd., Merrylands	348071	1961	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	19586	1959	Premise Match	322m	West
	MOTOR GARAGES & ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	19578	1959	Premise Match	322m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
15	MOTOR GARAGE/ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	476	1958	Premise Match	322m	West
	MOTOR GARAGE/ENGINEERS.	Rowley's Service Station., 258 Merrylands Rd Merrylands	4903	1958	Premise Match	322m	West
16	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Rowley's Service Station., 264 Merrylands Rd Merrylands	16933	1972	Road Intersection	351m	West
	DRY CLEANERS, PRESSERS &/OR DYERS	Merrylands Dry Cleaning., 262 Merrylands Rd Merrylands	51201	1971	Road Intersection	351m	West
	DRY CLEANERS,PRESSERS /DYERS (D710)	Merrylands Dry Cleaning., 262 Merrylands Rd., Merrylands	292404	1970	Road Intersection	351m	West
	DRY CLEANERS, PRESSERS/ DYERS	Merrylands Dry Cleaning., 262 Merrylands Rd Merrylands	37213	1969	Road Intersection	351m	West
	DRY CLEANERS, PRESSERS/DYERS	Merrylands Dry Cleaning., 262 Merrylands Rd Merrylands	20672	1968	Road Intersection	351m	West
	DRY CLEANERS, PRESSERS/ DYERS	Merrylands Dry Cleaning., 262 Merrylands Rd., Merrylands	6228	1967	Road Intersection	351m	West
	DRY CLEANERS, PRESSERS/ DYERS	Merrylands Dry Cleaning., 262 Merrylands Rd Merrylands	55280	1966	Road Intersection	351m	West
17	MOTOR GARAGES & ENGINEERS	Civic Service Centre, Merrylands Rd. & Treves St. MERRYLANDS	346886	1961	Road Intersection	409m	West
	MOTOR GARAGES & ENGINEERS.	Civic Service Centre., Cnr Merrylands Rd & Treves St Merrylands	19577	1959	Road Intersection	409m	West
	MOTOR GARAGE/ENGINEERS.	Civic Service Centre., Cnr Merrylands Rd & Treves St Merrylands	444	1958	Road Intersection	409m	West

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

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
18	MOTOR GARAGES & SERVICE STATIONS.	Bell & Fenton Automotive Mechanical Repairs, Pitt St., Merrylands. 2160	53581	1988	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS.	Bell & Fenton Automotive Mechanical Repairs, Pitt St., Merrylands. 2160	64032	1986	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS.	Golden Fleece Merrylands Service Station, Pitt St., Merrylands. 2160	44865	1985	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Merrylands Service Station, Pitt St., Merrylands. 2160	28366	1984	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Merrylands Service Station., Pitt St., Merrylands. 2160	14789	1983	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Golden Fleece Merrylands Service Station, Pitt St., Merrylands 2160.	56852	1982	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Merrylands Service Station., Pitt St., Merrylands 2160	3412	1981	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Merrylands Service Station., Pitt Rd., Merrylands. 2160	58144	1980	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Service Station., Pitt St., Merrylands. 2160.	41608	1979	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Service Station, Pitt St., Merrylands. 2160	50135	1978	Road Match	0m
	DRY CLEANERS, PRESSERS &/OR DYERS.	Drycleaners., 263 Pitt St., Merrylands 2160	23478	1976	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece Service Station., Pitt St., Merrylands 2160	30103	1976	Road Match	0m
	DRY CLEANERS, PRESSERS &/OR DYERS.	Drycleaners, 263 Pitt St., Merrylands. 2160	24002	1975	Road Match	0m
	MOTOR SERVICE STATIONS - PETROL, OIL	Golden Fleece Service Station., Pitt St., Merrylands. 2160	61778	1975	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	BP Waratah Service Station., Pitt St Merrylands	12616	1972	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	BP Waratah Service Station., Pitt St Merrylands	16925	1972	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	16929	1972	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	BP Waratah Service Station., Pitt St Merrylands	62302	1971	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	BP Waratah Service Station., Pitt St Merrylands	2386	1971	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	2390	1971	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Golden Fleece Service Station., Pitt St., MERRYLANDS	341176	1970	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
18	MOTOR GARAGES & ENGINEERS.	BP Waratah Service Station., Pitt St Merrylands	42662	1969	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	50493	1969	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	32519	1968	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Waratah Service Station., Pitt St Merrylands	26145	1968	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	15979	1967	Road Match	0m
	MOTOR GARAGES & ENGINEERS.	Waratah Service Station., Pitt St Merrylands	10644	1967	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	1550	1966	Road Match	0m
	MOTOR GARAGES & ENGINEERS.	Waratah Service Station., Pitt St., Merrylands	60388	1966	Road Match	0m
	Motor Service Stations - Petrol, Oil, Etc.	Golden Fleece Service Station, Pitt St. Merrylands	125917	1965	Road Match	0m
	Motor Garages & Engineers	Waratah Service Station, Pitt St. Merrylands	123033	1965	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	52187	1964	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Waratah Service Station., Pitt St Merrylands	48308	1964	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station., Pitt St Merrylands	38434	1962	Road Match	0m
	MOTOR GARAGES & ENGINEERS.	Waratah Service Station., Pitt St Merrylands	32992	1962	Road Match	0m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Golden Fleece Service Station, Pitt St. MERRYLANDS	350634	1961	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Waratah Service Station, Pitt St. MERRYLANDS	348392	1961	Road Match	0m
19	MOTOR GARAGES & SERVICE STATIONS.	BP Service Station, McFarlane St., Merrylands. 2160	11209	1990	Road Match	6m
	MOTOR GARAGE & SERVICE STATIONS.	BP Service Station, McFarlane St., Merrylands.2160	65839	1989	Road Match	6m
	MOTOR GARAGES & SERVICE STATIONS.	BP Service Station, Mcfarlane St., Merrylands. 2160	53761	1988	Road Match	6m
	MOTOR GARAGES & SERVICE STATIONS.	BP Service Station, McFarlane St., Merrylands. 2160	64224	1986	Road Match	6m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Saklaouis, M. Service Centre., McFarlane St., Merrylands 2160	34860	1976	Road Match	6m
	MOTOR GARAGES &/OR ENGINEERS.	Saklaouis, M. Service Centre., McFarlane St., Merrylands. 2160	59504	1975	Road Match	6m
20	MOTOR GARAGES & SERVICE STATIONS.	Merrylands Service Station, Merrylands Rd., Merrylands. 2160	19104	1993	Road Match	37m
	Motor Garages & Service Stations	Esso Merrylands Service Station, Merrylands Rd., Merrylands 2160	53726	1991	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	11565	1990	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	12139	1990	Road Match	37m
	MOTOR GARAGE & SERVICE STATIONS.	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	65024	1989	Road Match	37m
	MOTOR GARAGE & SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	5560	1989	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	59243	1988	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	59950	1988	Road Match	37m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
20	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	64643	1986	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	65451	1986	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	39642	1985	Road Match	37m
	MOTOR GARAGES & SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	45562	1985	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	28221	1984	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	34126	1984	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station., Merrylands Rd., Merrylands 2160	14649	1983	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Holroyd Auto Port., Merrylands Rd., Merrylands 2160	14901	1983	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sherwood Motors., Merrylands Rd., Merrylands 2160	21579	1983	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Esso Merrylands Service Station, Merrylands Rd., Merrylands. 2160	56714	1982	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Holroyd Auto Port, Merrylands Rd., Merrylands. 2160.	56969	1982	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Sherwood Motors, Merrylands Rd., Merrylands. 2160.	57568	1982	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station., Merrylands Rd., Merrylands. 2160	3269	1981	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Holroyd Auto Port., Merrylands Rd., Merrylands 2160	3524	1981	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sherwood Motors., Merrylands Rd., Merrylands 2160	8160	1981	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Esso Merrylands Service Station., Merrylands Rd., Merrylands. 2160	52915	1980	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Holroyd Auto Port., Merrylands Rd., Merrylands. 2160	58258	1980	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sherwood Motors., Merrylands Rd., Merrylands. 2160	58838	1980	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Holroyd Auto Port., Merrylands Rd., Merrylands. 2160.	41722	1979	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Shierwood Motors., Merrylands Rd., Merrylands. 2160.	46334	1979	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Holroyd Auto Port, Merrylands Rd., Merrylands. 2160	50257	1978	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sherwood Motors, Merrylands Rd., Merrylands. 2160	50830	1978	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Greystanes., Merrylands Rd., Merrylands West 2160	25266	1976	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Holroyd Auto Port., Merrylands Rd., Merrylands 2160	30258	1976	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Sherwood Motors., Merrylands Rd., Merrylands 2160	34899	1976	Road Match	37m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
20	MOTOR SERVICE STATIONS - PETROL, OIL	BP Greystanes., Merrylands Rd., Merrylands West. 2160	61504	1975	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Holroyd Auto Port., Merrylands Rd., Merrylands. 2160	59054	1975	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Sherwood Motors., Merrylands Rd., Merrylands. 2160	59532	1975	Road Match	37m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Greystanes Auto Port., Merrylands Rd Merrylands	16930	1972	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Holroyd Auto Port., Merrylands Rd Merrylands	12618	1972	Road Match	37m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Rowley Service Station Pty. Ltd., Merrylands Rd., Merrylands	16934	1972	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Sherwood Motors., Merrylands Rd Merrylands	12621	1972	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Holroyd Auto Port., Merrylands Rd Merrylands	62305	1971	Road Match	37m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Rowley Service Station., Merrylands Rd Merrylands	2392	1971	Road Match	37m
	MOTOR GARAGES &/OR ENGINEERS.	Sherwood Motors., Merrylands Rd Merrylands	62307	1971	Road Match	37m
	MOTOR GARAGES & ENGINEERS(M6S6)	Sherwood Motors., Merrylands Rd., MERRYLANDS	338599	1970	Road Match	37m
	MOTOR GARAGES & ENGINEERS.	Sherwood Motors., Merrylands Rd Merrylands	42667	1969	Road Match	37m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Jarman's Service Station, Merrylands Rd., Merrylands	350728	1961	Road Match	37m
	MOTOR GARAGES & ENGINEERS	West Merrylands Auto Centre, Merrylands Rd. MERRYLANDS	348427	1961	Road Match	37m
	MOTOR GARAGES & ENGINEERS.	Civic Service Centre., Merrylands Rd Merrylands	19581	1959	Road Match	37m
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Jarman's Service Station., Merrylands Rd Merrylands	24364	1959	Road Match	37m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Jarmans Service Station., Merrylands Rd Merrylands	9607	1958	Road Match	37m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Jarmans Service Station., Merrylands Rd Merrylands	61965	1956	Road Match	37m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Jarmans Service Station., Merrylands Rd Merrylands	54522	1954	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS.	S. And R. Dry Cleaners., Merrylands Rd Merrylands	36343	1953	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS.	Swans., Merrylands Rd Merrylands	36374	1953	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS.	S. And R. Dry Cleaners., Merrylands Rd Merrylands	27266	1952	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS.	Swans"., Merrylands Rd Merrylands	27305	1952	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS	“Swans”, Merrylands Rd., Merrylands	35040	1950	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS	S. and R. Dry Cleaners, Merrylands Rd., Merrylands	35679	1950	Road Match	37m
	DRY CLEANERS, PRESSERS & DYERS.	S. And R. Dry Cleaners., Merrylands Rd Merrylands	17460	1948-49	Road Match	37m
21	MOTOR GARAGES & SERVICE STATIONS.	Ampol Holroyd Service Station, Treves St., Merrylands. 2160	18483	1993	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Caltex Merrylands Service Station, Treves St., Merrylands. 2160	18796	1993	Road Match	391m
	Motor Garages & Service Stations	Ampol Holroyd Service Station, Treves St., Merrylands 2160	97716	1991	Road Match	391m
	Motor Garages & Service Stations	Caltex Merrylands Service Station, Treves St., Merrylands 2160	97548	1991	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Ampol Care Motor Repairs, Treves St., Merrylands. 2160	5819	1990	Road Match	391m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
21	MOTOR GARAGES & SERVICE STATIONS.	Ampol Holroyd Service Station, Treves St., Merrylands. 2160	5854	1990	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Cooper J. E. & J. S., Treves St., Merrylands. 2160	11462	1990	Road Match	391m
	MOTOR GARAGE & SERVICE STATIONS.	Ampol Care Motor Repairs, Treves St., Merrylands. 2160	64307	1989	Road Match	391m
	MOTOR GARAGE & SERVICE STATIONS.	Ampol Holroyd Service Station, Treves St., Merrylands. 2160	64341	1989	Road Match	391m
	MOTOR GARAGE & SERVICE STATIONS.	Cooper J. E. & J. S., Treves St., Merrylands. 2160	64907	1989	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Ampol Care Motor Repairs, Treves St., Merrylands. 2160	53414	1988	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Ampol Holroyd Service Station, Treves St., Merrylands. 2160	53444	1988	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Cooper J. E & J S., Treves St., Merrylands. 2160	59112	1988	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Cooper, J. E. & J. S., Treves St., Merrylands. 2160	64507	1986	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Total Care Motor Repairs, Treves St., Merrylands. 2160	65592	1986	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Total Holroyd Service Station, Treves St., Merrylands. 2160	65608	1986	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Cooper J. E. & J. S., Treves St., Merrylands. 2160	39506	1985	Road Match	391m
	MOTOR GARAGES & SERVICE STATIONS.	Total Holroyd Service Station, Treves St., Merrylands. 2160	45728	1985	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Cooper J. E. & J. S., Treves St., Merrylands. 2160	28088	1984	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total Holroyd Service Station, Treves St., Merrylands. 2160	34288	1984	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Cooper J. E. & J. S., Treves St., Merrylands 2160	14508	1983	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total Holroyd Service Station., Treves St., Merrylands 2160	21730	1983	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Cooper, J. E, & J. S., Treves St., Merrylands. 2160.	56566	1982	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Total Holroyd Service Station, Treves St., Merrylands. 2160.	57727	1982	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Cooper, J. E. & J. S., Treves St., Merrylands., 2160	3119	1981	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total Holroyd Service Station., Treves St., Merrylands 2160	8313	1981	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Cooper J. E. & J. S., Treves St., Merrylands. 2160	52760	1980	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total Holroyd Service Station., Treves St., Merrylands. 2160	58999	1980	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Cooper J. E. & J. S., Treves St., Merrylands. 2160.	41312	1979	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total (Holroyd) Service Station., Treves St., Merrylands. 2160.	46477	1979	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Cooper, J.E. & A. S., Treves St., Merrylands. 2160	49843	1978	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total (Holroyd) Service Station, Treves St., Merrylands. 2160	50955	1978	Road Match	391m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
21	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Cooper. J. E. & J. S., Treves St., Merrylands 2160	29774	1976	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total (Holroyd) Service Station., Treves St., Merrylands 2160	35035	1976	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS.	Cooper J. E. & J. S., Treves St., Merrylands. 2160	58700	1975	Road Match	391m
	MOTOR GARAGES &/OR ENGINEERS.	Total (Holroyd) Service Station., Treves St., Merrylands. 2160	59650	1975	Road Match	391m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Total Holroyd (Mr. Lees)., Treves St Merrylands	16935	1972	Road Match	391m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Total Holroyd (Mr. Lees)., Treves St Merrylands	2393	1971	Road Match	391m
22	MOTOR GARAGES & SERVICE STATIONS.	Shore Petroleum, William St., Granville. 2142	25443	1993	Road Match	437m
	MOTOR GARAGES & SERVICE STATIONS.	E. & B. Service Centre, William St., Granville. 2142	64574	1986	Road Match	437m
	MOTOR GARAGES & SERVICE STATIONS.	E. & B. Service Centre, William St., Granville. 2142	39580	1985	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	E. & B. Service Centre, William St., Granville. 2142	28162	1984	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	E & B Service Centre., William St., Granville 2142	14586	1983	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	E. & B. Service Centre, William St., Granville. 2142.	56648	1982	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	E. & B. Service Centre., William St., Granville. 2142.	3202	1981	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	E. & B. Service Centre., William St., Granville. 2142	52843	1980	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	E. & B Service Centre., William St., Granville. 2142.	41388	1979	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	E. & B. Service Centre, William St., Granville. 2142	49922	1978	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	E. & B. Service Centre., William St., Granville 2142	29866	1976	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Granville Service Centre., William St., Granville 2142	30188	1976	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	E. & B. Service Centre., William St., Granville. 2142	58781	1975	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Granville Service Centre., William St., Granville. 2142	58986	1975	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	E. & B. Service Centre., William St Granville	12240	1972	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Granville Service Station., William St Granville	12245	1972	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	E & B. Service Centre., William St Granville	56852	1971	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Granville Service Station., William St Granville	56857	1971	Road Match	437m
	MOTOR GARAGES & ENGINEERS(M6S6)	E. & B. Service Centre., William St., GRANVILLE	337704	1970	Road Match	437m
	MOTOR GARAGES & ENGINEERS.	E. & B Service Centre., William St Granville	42268	1969	Road Match	437m
	MOTOR GARAGES & ENGINEERS	E. & B. Service Centre., William St Granville	25790	1968	Road Match	437m
	MOTOR GARAGES & ENGINEERS.	E. & B Service Centre., William St Granville	10294	1967	Road Match	437m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
22	MOTOR GARAGES & ENGINEERS.	E. & B. Service Centre., William St., Granville	56186	1966	Road Match	437m
	MOTOR GARAGES & ENGINEERS.	Jones G. A., William St Granville	29514	1962	Road Match	437m
	MOTOR GARAGES & ENGINEERS	Jones, G. A., William St. GRANVILLE	347465	1961	Road Match	437m
	MOTOR GARAGES & ENGINEERS.	John G A., William St., Granville	14173	1959	Road Match	437m
	MOTOR GARAGE/ENGINEERS.	Jones G. A., William St., Granville	4369	1958	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Jones G. A., William St Granville	57893	1956	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Jones G. A., William St Granville	49497	1954	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Jones G. A., William St Granville	40203	1953	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Jones G. A., William St Granville	31810	1952	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS	Jones, G. A., William St., Granville	83933	1950	Road Match	437m
	MOTOR GARAGES &/OR ENGINEERS.	Jones G. A., William St Granville	22506	1948-49	Road Match	437m

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Topographic Features

215-239 Pitt Street, Merrylands, NSW 2160

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
1564824	Bus Interchange	MERRYLANDS BUS INTERCHANGE	90m	East
1564658	Park	SARAH DANIELS COURT	99m	West
1564278	Railway Station	MERRYLANDS RAILWAY STATION	119m	East
1564815	Parking Area	Parking Area	154m	North
1564690	Park	HOLROYD VOLUNTEER PARK	156m	South West
1564819	Parking Area	Parking Area	163m	South
1564037	Community Facility	MERRYLANDS COMMUNITY CENTRE	164m	South West
1564699	Post Office	MERRYLANDS POST OFFICE	175m	South West
1564760	Community Medical Centre	MERRYLANDS COMMUNITY HEALTH CENTRE	180m	South West
1564814	Parking Area	Parking Area	187m	North West
1564550	Shopping Centre	STOCKLAND SHOPPING CENTRE	202m	North West
1564220	Club	MERRYLANDS RSL CLUB	211m	South
1564602	Local Government Chambers	HOLROYD CITY COUNCIL	217m	South West
1564684	Place Of Worship	UNITING CHURCH	217m	South West
1564775	Parking Area	Parking Area	229m	West
1564682	Library	MERRYLANDS CENTRAL LIBRARY	244m	South West
1564548	Police Station	MERRYLANDS POLICE STATION	247m	South West
1564813	Parking Area	Parking Area	252m	North East
1564668	Park	FYFFE PARK	265m	North West
1564284	Place Of Worship	MERRYLANDS BAPTIST CHURCH	271m	South West
1564747	Parking Area	Parking Area	272m	North West
1564739	Parking Area	Parking Area	278m	West
1564559	Park	CHARLES MANCE RESERVE	293m	South
1564774	Parking Area	Parking Area	318m	West
1564738	Parking Area	Parking Area	340m	West
1564578	Suburb	MERRYLANDS	350m	West
1564737	Parking Area	Parking Area	367m	North West
1564707	Park	BYRON PARK	379m	South West
1564558	Park	MERRYLANDS MEMORIAL PARK	469m	North West
1564769	Park	HOLROYD GARDENS PARK	506m	North East
1564816	Parking Area	Parking Area	566m	South East

Map Id	Feature Type	Label	Distance	Direction
1564683	Place Of Worship	PRESBYTERIAN CHURCH	568m	West
1564704	Place Of Worship	MERRYLANDS ANGLICAN CHURCH	570m	South West
1564705	Sports Field	RUGBY CRICKET	581m	South East
1564674	Park	MANCHESTER STREET RESERVE	599m	North West
1564603	Club	MERRYLANDS RSL CLUB RUGBY PARK	604m	South East
1564680	Park	PLAYGROUND	616m	South East
1564692	Sports Field	BOWLING GREENS	616m	West
1564330	Park	KING PARK	617m	West
1564659	Sports Field	SOCCER FIELD	619m	South West
1564325	Park	YOUNG PARK	631m	North
1564575	Sports Field	BOWLING GREENS	638m	West
1564539	Place Of Worship	CHURCH OF CHRIST	641m	East
1564590	Primary School	MERRYLANDS EAST PUBLIC SCHOOL	642m	South
1564547	Place Of Worship	CATHOLIC CHURCH	643m	West
1564315	Monument	WORKPLACE TRAGEDY MEMORIAL	654m	North East
1564729	Parking Area	Parking Area	661m	West
1564057	Child Care Centre	CREATIVE GARDEN EARLY LEARNING CENTRE HOLROYD	665m	North
1564681	Sports Field	RUGBY	668m	South East
1564533	Club	CLUB MERRYLANDS BOWLING AND SPORTS	674m	West
1564628	Sports Field	GRANVILLE PARK	688m	South East
1564033	Community Facility	MERRYLANDS RSL YOUTH CLUB	692m	South West
1564812	Parking Area	Parking Area	693m	North East
1564561	Park	NALLAWILLI RESERVE	713m	North West
1564675	Park	OXFORD STREET PARK	727m	West
1564607	Sports Court	BASKETBALL	728m	South East
1564706	Park	BILL HECKENBERG RESERVE	728m	South
1564291	Sports Court	CRICKET NETS	748m	South East
1564565	Park	BENNALONG PARK	776m	East
1564562	Park	MUNAL RESERVE	785m	North West
1564693	Suburb	HOLROYD	786m	North East
1564250	Park	SAM TAYLOR RESERVE	802m	South
1564606	Sports Field	SOCCER CRICKET	815m	South East
1564272	Primary School	ST MARGARET MARY'S PRIMARY SCHOOL	862m	West
1564536	Fire Station	MERRYLANDS FIRE STATION	870m	West
1564332	Park	WARREN TRY RESERVE	879m	South West
1564582	Place Of Worship	CATHOLIC CHURCH	886m	West
1564557	Park	Park	929m	South

Map Id	Feature Type	Label	Distance	Direction
1564703	High School	DELANY COLLEGE	932m	East
1564666	Park	SHANNON AVENUE PARK	936m	North West
1564604	Place Of Worship	HOLY TRINITY CATHOLIC CHURCH	949m	North East
1564551	Sports Centre	HOLROYD SPORTS CENTRE	953m	North East
1564240	Park	KURUNG RESERVE	959m	North East
1564234	Park	Park	971m	South
1564246	Park	Park	977m	South
1564276	Primary School	HOLY TRINITY PRIMARY SCHOOL	985m	East
1564605	Child Care Centre	ST THOMAS PRESCHOOL	998m	South East

Topographic Data Source: © Land and Property Information (2015)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Topographic Features

215-239 Pitt Street, Merrylands, NSW 2160

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
	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
	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

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
174680701	Primary	Right of way	3m	97m	East
120112094	Primary	Undefined		261m	West
120110211	Primary	Undefined		582m	South West
120110186	Primary	Undefined		639m	North East
120114080	Primary	Undefined		704m	South West
120122409	Primary	Undefined		789m	South
145031123	Primary	Right of way	4	815m	South
120118520	Primary	Undefined		815m	South
168458435	Primary	Right of way	3 wide	833m	West
120114288	Primary	Undefined		943m	North West
150529936	Primary	Right of way	3m and variable	957m	South West
120114172	Primary	Undefined		957m	North West
151628683	Primary	Right of way	3	958m	South West

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
175365913	Primary	Right of way	4m & var	964m	North West
120117842	Primary	Right of way	4	987m	North West
175376619	Primary	Right of way	4m	997m	North West

Easements Data Source: © Land and Property Information (2015)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Topographic Features

215-239 Pitt Street, Merrylands, NSW 2160

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)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

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)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Hydrogeology & Groundwater

215-239 Pitt Street, Merrylands, NSW 2160

Hydrogeology

Description of aquifers on-site:

Description
Porous, extensive aquifers of low to moderate productivity

Description of aquifers within the dataset buffer:

Description
Porous, extensive aquifers of low to moderate productivity

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Botany Groundwater Management Zones

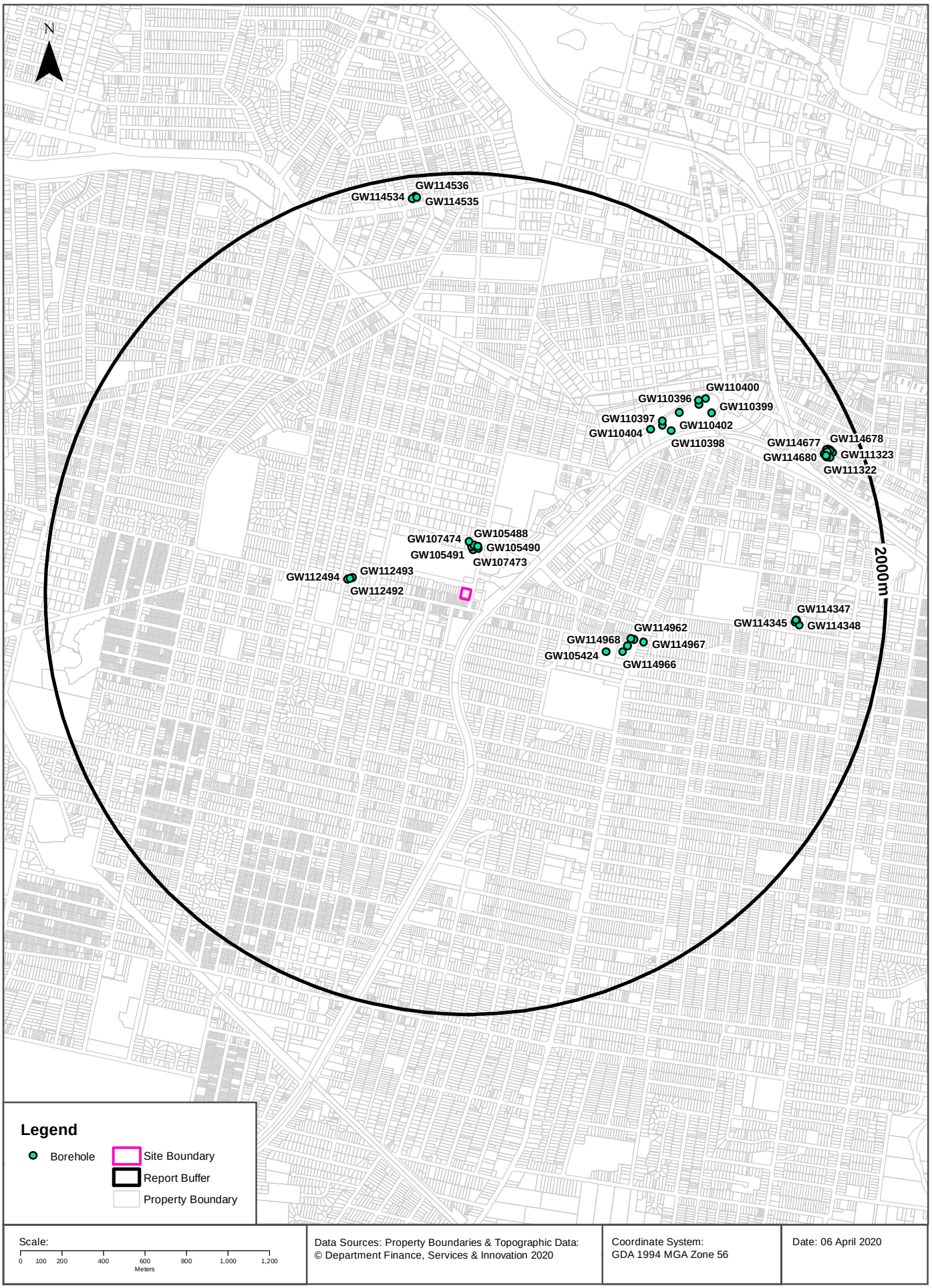
Groundwater management zones relating to the Botany Sand Beds aquifer within the dataset buffer:

Management Zone No.	Restriction	Distance	Direction
N/A	No records in buffer		

Botany Groundwater Management Zones Data Source : NSW Department of Primary Industries

Groundwater Boreholes

215-239 Pitt Street, Merrylands, NSW 2160



Hydrogeology & Groundwater

215-239 Pitt Street, Merrylands, NSW 2160

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
GW107473	10BL165740	Bore		Monitoring Bore	Monitoring Bore		19/07/2005	6.50	6.50					191m	North
GW105490	10BL162479	Bore		Monitoring Bore	Monitoring Bore		02/10/2003	6.50	6.50		2.45			201m	North
GW105491	10BL162479	Bore		Monitoring Bore	Monitoring Bore		03/10/2003	6.50	6.50		2.30			203m	North
GW105489	10BL162479	Bore		Monitoring Bore	Monitoring Bore		01/10/2003	6.50	6.50		2.45			212m	North
GW105488	10BL162479	Bore		Monitoring Bore	Monitoring Bore		01/10/2003	6.90	6.90		2.10			214m	North
GW107474	10BL165740	Bore		Monitoring Bore	Monitoring Bore		09/09/2005	5.70						226m	North
GW112493	10BL604109	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2010	9.00	9.00					527m	West
GW112492	10BL604109	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2010	11.50	11.50					537m	West
GW112494	10BL604109	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2010	9.00	9.00					550m	West
GW105424	10BL160035, 10WA108474	Bore		Domestic, Stock	Domestic, Stock		20/04/2001	25.60	25.60	350	3.60	0.410		709m	East
GW114966	10BL605129			Monitoring Bore	Monitoring Bore		18/09/2012	8.80	8.80					783m	East
GW114968	10BL605129			Monitoring Bore	Monitoring Bore		18/09/2012	5.80	5.80					798m	East
GW114961	10BL605128	Bore	Private	Monitoring Bore	Monitoring Bore	CALTEX MERRYLANDS	21/01/2014	5.50	5.50					804m	East
GW114962	10BL605128	Bore	Private	Monitoring Bore	Monitoring Bore	CALTEX MERRYLANDS	21/01/2014	6.00	6.00					818m	East
GW114967	10BL605129			Monitoring Bore	Monitoring Bore		17/09/2012	5.30	5.30					868m	East
GW110404	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		18/05/2001	9.00	9.00					1162m	North East
GW110397	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		06/03/1996	5.00	5.00					1219m	North East
GW110403	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		18/05/2001	9.00	9.00					1233m	North East
GW110398	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		26/06/1996	6.00	6.00					1234m	North East
GW110402	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		18/05/2001	8.00	8.00					1322m	North East
GW110396	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		26/06/1996	7.00	7.00					1418m	North East
GW110401	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		18/05/2001	7.00	7.00					1429m	North East
GW110399	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		26/06/1996	5.30	5.30					1443m	North East
GW110400	10BL160282	Well	Private	Monitoring Bore	Monitoring Bore		06/03/1996	5.40	5.40					1462m	North East
GW114345	10BL605004	Bore	Private	Monitoring Bore	Monitoring Bore		19/10/2011	6.00	6.00		5.50			1570m	East
GW114346	10BL605004	Bore	Private	Monitoring Bore	Monitoring Bore		19/10/2011	6.00	6.00		5.00			1574m	East

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
GW114347	10BL605004	Bore	Private	Monitoring Bore	Monitoring Bore		19/10/2011	5.90	5.90		5.50			1579m	East
GW114348	10BL605004	Bore	Private	Monitoring Bore	Monitoring Bore		19/10/2011	6.80	6.80		5.50			1592m	East
GW114680	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2011	7.50	7.50					1827m	East
GW114683	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2011	3.00	3.00					1830m	East
GW114681	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2011	7.50	7.50					1830m	East
GW114682	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2011	8.00	8.00					1830m	East
GW114675	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		01/04/2011	7.50	7.50					1843m	East
GW114676	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		01/04/2011	7.50	7.50					1843m	East
GW111324	10BL601807	Bore	Private	Monitoring Bore	Monitoring Bore		25/05/2007	8.10	8.10					1844m	East
GW111322	10BL601807	Bore	Private	Monitoring Bore	Monitoring Bore		25/05/2007	3.60	3.60					1845m	East
GW114677	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		31/03/2011	7.50	7.50					1851m	East
GW114679	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		01/01/2011	7.50	7.50					1856m	East
GW114678	10BL604491	Bore	Private	Monitoring Bore	Monitoring Bore		31/03/2011	8.50	8.50					1858m	East
GW111323	10BL601807	Bore	Private	Monitoring Bore	Monitoring Bore		25/05/2007	4.10	4.10					1866m	East
GW114534	10BL604593	Bore	Other Govt	Monitoring Bore	Monitoring Bore		12/08/2014	6.90	6.90		5.00			1892m	North
GW114535	10BL604593	Bore	Other Govt	Monitoring Bore	Monitoring Bore		12/08/2014	7.00	7.00		4.80			1895m	North
GW114536	10BL604593	Bore	Other Govt	Monitoring Bore	Monitoring Bore		12/08/2014	6.50	6.50					1900m	North

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

215-239 Pitt Street, Merrylands, NSW 2160

Driller's Logs

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

Groundwater No	Drillers Log	Distance	Direction
GW107473	0.00m-1.50m FILL/SAND 1.50m-2.00m CLAY 2.00m-3.50m CLAY,HARD,LOW PLASTICITY 3.50m-5.10m CLAY,GREY/LIGHT BROWN 5.10m-6.50m GRAVELLY CLAY,ORANGE/BROWN	191m	North
GW105490	0.00m-0.70m FILL,GRAVEL COARSE,BVLACK WET 0.70m-4.40m CLAY,D/BROWN,DRY 4.40m-5.40m GRAVELLY CLAY,ORANGE/BROWN 5.40m-6.50m CLAY:L/BROWN/GREY,STIFF	201m	North
GW105491	0.00m-3.40m CLAY,L/BROWN,DRY,MOIST 3.40m-4.40m GRAVELLY CLAY,ORANGE,BROWN 4.40m-6.50m CLAY,L/BROWN,SOFT,WET	203m	North
GW105489	0.00m-4.40m CLAY,GREY,BLACK,DRY,MOIST 4.40m-5.40m GRAVELLY CLAY,ORANGE/BROWN 5.40m-6.50m CLAY,L/BROWN,WET	212m	North
GW105488	0.00m-4.40m CLAY,L/BROWN,DRY,MOIST 4.40m-5.40m GRAVELLY CLAY/RED/BROWN 5.40m-6.90m INTERBEDDED CLAY	214m	North
GW105424	0.00m-1.20m TOPSOIL,SANDY CLAY 1.20m-7.90m SOFT DECOMPOSED GRANITE 7.90m-21.60m HARDER DECOMPOSED GRANITE 21.60m-25.60m HARD BLUE GRANITE	709m	East
GW114966	0.00m-0.30m TOPSOIL, SANDY CLAY, LOW PLASTICITY 0.30m-0.80m GRAVELLY SAND MED.GRAINED 0.80m-2.30m SANDY CLAY HIGH PLASTICITY RED/GREY 2.30m-6.60m SHALE DARK BROWN,GREY,SOME CLAY 6.60m-7.10m SHALE AS ABOVE BECOMING MOIST 7.10m-8.80m SHALE AS ABOVE DARK GREY,WET	783m	East
GW114961	0.00m-0.40m CONCRETE 0.40m-0.70m FILL,SAND,M/GRAINED 0.70m-1.10m FILL,GRAVELLY SANDY CLAY,SAND,GRAVELS 1.10m-4.80m SHALE, WEATHERED BED ROCK GREY BROWN 4.80m-5.40m SHALE AS ABOVE BUT SOFT 5.40m-5.50m SHALE AS ABOVE BUT HARD	804m	East
GW114962	0.00m-0.17m CONCRETE 0.17m-0.50m FILL,SAND AND BROWN/GREY ROADBASE 0.50m-1.10m SHALE, WEATHERED,GREY WITH LIGHT BROWN 1.10m-4.50m SHALE AS ABOVE BUT SOFT 4.50m-6.00m SHALE AS ABOVE BUT HARD.	818m	East
GW114967	0.00m-0.30m BITUMEN 0.30m-0.50m ROAD BASE 0.50m-1.00m SANDY CLAY, HIGH PLASTICITY 1.00m-1.60m SHALE / BEDROCK 1.60m-2.10m SHALE AS ABOVE DARK BROWN/GREY 2.10m-4.00m SHALE AS ABOVE DARK GREY 4.00m-5.30m SHALE AS ABOVE,WET FRACTURED	868m	East
GW110404	0.00m-0.90m FILL,CLAYEY SAND,GRAVEL 0.90m-1.50m FILL,GRAVELLY SILTY SAND 1.50m-6.50m FILL,CRUSHED SANDSTONE 6.50m-8.50m SILTY CLAY,W/MINOR SAND 8.50m-9.00m SHALE,GREY EXTREMELY WEATHERED	1162m	North East
GW110397	0.00m-1.50m FILL, CLAY,SOFT BROWN,PLASTIC 1.50m-3.50m CLAY RED,PINK,PURPLE,HARD 3.50m-4.30m CLAY LT/BROWN, HARD 4.30m-4.50m CLAY LT BROWN,SOFT,PLASTIC 4.50m-5.00m CLAY,DARK YELLOW,SILTY	1219m	North East

Groundwater No	Drillers Log	Distance	Direction
GW110403	0.00m-0.10m TOPSOIL 0.10m-0.20m BASALT GRAVEL FILL 0.20m-0.85m FILL,SILTY SAND 0.85m-1.50m FILL,STIFF,GREY/BROWN,SANDY CLAY 1.50m-4.00m FILL,CRUSHED SANDSTONE 4.00m-6.40m SILTY CLAY,V/SOFT,GREY 6.40m-8.50m CLAY,SOFT YELLOW 8.50m-9.00m SHALE EXTREMELY WEATHERED	1233m	North East
GW110398	0.00m-0.50m FILL, ROAD BASE 0.50m-1.50m CLAY,RED,GREY,PLASTIC,MOIST 1.50m-4.00m CLAY RED BROWN,STIFF, PLASTIC 4.00m-5.50m CLAY,ORANGE/BROWN.STIFF 5.50m-6.00m SHALE,GREY, WEATHERED	1234m	North East
GW110402	0.00m-0.85m FILL.LOOSE SAND,W/GRAVEL 0.85m-5.00m FILL,CRUSHED SANDSTONE 5.00m-8.00m FILL,SOFT,SANDY CLAY W/GRAVEL	1322m	North East
GW110396	0.00m-0.30m FILL,LOOSE,BROWN,SANDY 0.30m-6.00m CLAY, LT BROWN,SOFT,PLASTIC 6.00m-7.00m CLAY,RED BROWN,PLASTIC FILL.	1418m	North East
GW110401	0.00m-0.85m FILL,LOOSE SAND/GRAVEL 0.85m-7.00m FILL,CRUSHED SANDSTONE	1429m	North East
GW110399	0.00m-1.50m FILL,CLAY BROWN PLASTIC 1.50m-2.00m CLAY,YELLOW,BRWON, HARD 2.00m-2.50m CLAY,LT BROWN ,SOFT SILTY PLASTIC 2.50m-3.40m CLAY,LT GREY,SILTY SOFT PLASTIC 3.40m-5.30m CLAY,ORANGE,GREY MOTTLE	1443m	North East
GW110400	0.00m-0.80m FILL,CLAY,GREY,SANDY,GRAVELLY 0.80m-4.30m FILL,CLAY,LT BROWN,SOFT , PLASTIC 4.30m-5.40m CLAY, LT BROWN,PINK,SOFT SILT	1462m	North East
GW114345	0.00m-0.50m SHALE GRAVELS 0.50m-1.50m FILL ,SILTY CLAY 1.50m-2.30m FILL, CLAY ORGANIC 2.30m-3.80m SILTY CLAY 3.80m-4.20m SILTY CLAY 4.20m-5.00m SILTY CLAY 5.00m-6.00m SILTY CLAY MEDIUM GREY,IRONSTONE	1570m	East
GW114346	0.00m-0.50m FILL 0.50m-0.80m FILL SILTY SANDY CLAY 0.80m-1.20m SILTY CLAY 1.20m-2.00m SILTY CLAY DAMP 2.00m-2.80m SILTY CLAY 2.80m-3.00m SILTY CLAY 3.00m-3.40m SILTY CLAY 3.40m-3.90m SILTY CLAY 3.90m-4.00m SILTY CLAY 4.00m-6.00m SILTY CLAY	1574m	East
GW114347	0.00m-0.60m FILL 0.60m-5.90m SILTY CLAY	1579m	East
GW114348	0.00m-0.70m FILL 0.70m-1.20m FILL 1.20m-2.70m FILL, SILTY CLAY 2.70m-3.40m SILTY C LAY 3.40m-5.40m SILTY CLAY 5.40m-6.10m SILTY CLAY 6.8 6.10m-6.80m SILTY CLAY,ORANGE-BROWN	1592m	East
GW114675	0.00m-0.20m CLAYAY SAND WITH MINOR GRAVEL 0.20m-0.50m SAND FINE GRAINED,MOIST,DAR BROWN 0.50m-1.00m CLAYEY SANDY GRAVEL,DARK BROWN 1.00m-2.80m SILTY CLAY STIFF,MOIA,LOW PLASTICITY 2.80m-4.00m SILTY CLAY STIFF,MOIST GREY BROWN 4.00m-7.50m SHALE WEATHERED,HARD SLIGHTLY MOIST	1843m	East
GW114676	0.00m-0.20m CONCRETE 0.20m-0.50m GRAVELLY SANDY CLAY 0.50m-1.40m SILTY CLAY,MINOR IRONSTONE 1.40m-2.40m SILTY CLAY,WEATHERED SHALE 2.40m-3.00m SHALE WEATHERED,MINOR SILT AND CLAY 3.00m-4.50m SHALE WEATHERED MINOR SILT AND CLAY 4.50m-6.00m SHALE WEATHERED MINOR SILT AND CLAY FIRM 6.00m-7.50m SHALE VERY WEATHERED MINOR SILT AN CLAY SOFT	1843m	East

Groundwater No	Drillers Log	Distance	Direction
GW111324	0.00m-0.30m TOPSOIL,SILTY SAND,FINE GRAIN,BROWN 0.30m-5.50m FILL.GRAVELLY CLAY,MODERATE PLASTICITY,RED BROWN 5.50m-8.10m SHALE,DARK GREY,HARD,UNIFORM,WET	1844m	East
GW111322	0.00m-0.30m TOPSOIL,GRAVELLY SILTY SAND 0.30m-2.20m FILL,SILTY CLAY,MEDIUM DENSITY 2.20m-3.50m SAND,MEDIUM GRAIN,GREY,SOFT 3.50m-3.60m CLAY,LOW TO MODERATE PLASTICITY,GREY,SHALE	1845m	East
GW114677	0.00m-0.20m CONCRETE 0.20m-0.50m SANDY GRAVEL FINE GRAINED SAND 0.50m-1.00m SILTY CLAY WITH MINOR GRAVEL, FINE GRAINED SAND 1.00m-1.20m SILTY CLAY WITH MINOR GRAVEL,RED BROWN 1.20m-2.00m SILTY CLAY,MINOR IRONSTONE,RED BROWN 2.00m-2.80m SHALE WEATHERED MINOR SILT HARD 2.80m-5.85m SHALE WEATHERED SHALE,MINOR SILT,DRY 5.85m-7.50m SHALE VERY WEATHERED,SOFT,MOIST,LOW PLASTICITY	1851m	East
GW114678	0.00m-0.20m CONCRETE 0.20m-0.40m SANDY GRAVEL,FINE GRAINED 0.40m-0.80m SILTY CLAY , MINOR IRONSTONE 0.80m-1.00m SILTY CLAY , SHALE,FIRM,MOIST 1.00m-2.00m SHALE WEATHERED,MINOR IRONSTONE 2.00m-2.70m SHALE WEATHERED,DRY, LOW PLASTICITY 2.70m-7.00m SHALE WEATHERED,MINOR SILT LOW PLASTICITY 7.00m-8.50m SHALE WEATHERED,MINOR SILT,HARD,MOIST TI WET	1858m	East
GW111323	0.00m-0.30m TOPSOIL,SILTY SAND,FINE GRAIN 0.30m-2.50m FILL,SANDY CLAY,RED BROWN,GREY MOTTLING 2.50m-4.10m SHALE,WEATHERED,STIFF TO HARD,SOME CLAY	1866m	East
GW114534	0.00m-1.80m CLAY 1.80m-3.00m CEMENTED SAND / CLAY 3.00m-6.70m SANDSTONE WEATHERED 6.70m-6.90m SHALE	1892m	North
GW114535	0.00m-1.60m CLAY FILL 1.60m-2.00m CEMENTED SAND/CLAY 2.00m-3.50m SANDY CLAY 3.50m-5.00m SANDSTONE WEATHERED 5.00m-7.00m SHALE	1895m	North
GW114536	0.00m-1.20m CLAY FILL 1.20m-1.50m CEMENTED SAND / CLAY 1.50m-3.00m CLAY 3.00m-4.30m WEATHERED SANDSTONE 4.30m-6.50m SHALE	1900m	North

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Geology 1:100,000

215-239 Pitt Street, Merrylands, NSW 2160

Geology

215-239 Pitt Street, Merrylands, NSW 2160

Geological Units

What are the Geological Units onsite?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Rwb	Shale, carbonaceous claystone,claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff	Bringelly Shale	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Rwa	Black to dark grey shale and laminate	Ashfield Shale	Wianamatta Group		Triassic		Sydney	1:100,000
Rwa	Dark-grey to black claystone-siltstone and fine sandstone -siltstone laminate	Ashfield Shale	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	1:100,000
Rwb	Shale, carbonaceous claystone, laminate, fine to medium-grained lithic sandstone, rare coal	Bringelly Shale	Wianamatta Group		Triassic		Sydney	1:100,000
Rwb	Shale, carbonaceous claystone,claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff	Bringelly Shale	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	1:100,000
Rwm	Fine to medium-grained quartz-lithic sandstone	Minchinbury Sandstone	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	1:100,000

Geological Structures

What are the Geological Structures onsite?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

Geological Data Source : NSW Department of Industry, Resources & Energy
© State of New South Wales through the NSW Department of Industry, Resources & Energy

Naturally Occurring Asbestos Potential

215-239 Pitt Street, Merrylands, NSW 2160

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												

Mining Subsidence District Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Soils

215-239 Pitt Street, Merrylands, NSW 2160

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
Pb12	Kurosol	Gently rolling to rounded hilly country with some steep slopes and broad valleys: chief soils are hard acidic red soils (Dr2.21) with hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41) on lower slopes and in valleys. Associated are small areas of various soils including (Gn3.54) on some ridges, (Dr3.31) on some slopes; (Dr2.23) in saddles and some mid-slope positions, and some low- lying swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Small areas of other soils such as (Db1.2) are likely throughout.	0m

Atlas of Australian Soils Data Source: CSIRO
Creative Commons 4.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/4.0/au/deed.en

Soils

215-239 Pitt Street, Merrylands, NSW 2160

Soil Landscapes

What are the onsite Soil Landscapes?

Soil Code	Name	Group	Process	Map Sheet	Scale
REbt	BLACKTOWN		RESIDUAL	Penrith	1:100,000

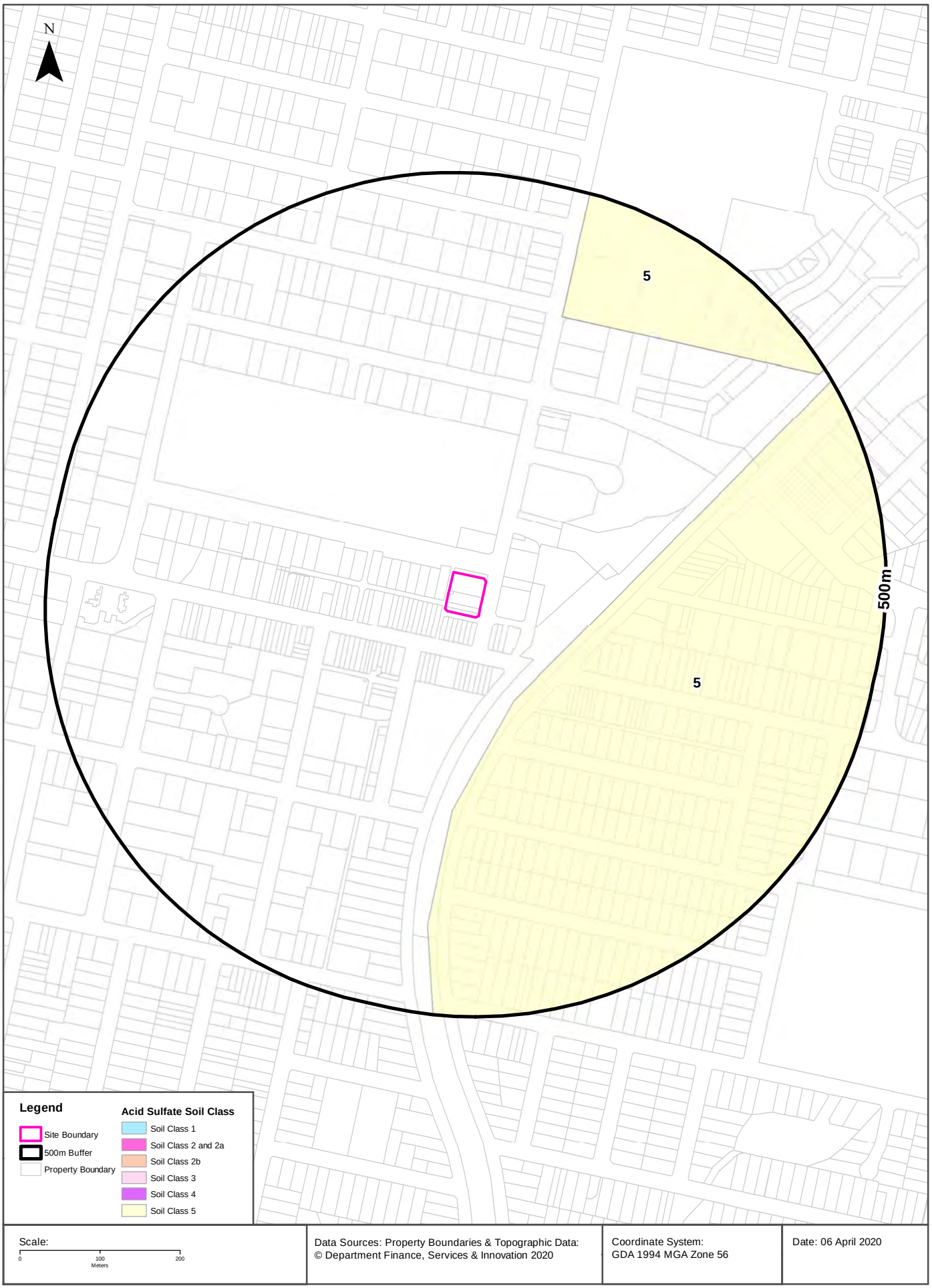
What are the Soil Landscapes within the dataset buffer?

Soil Code	Name	Group	Process	Map Sheet	Scale
ALbg	BIRRONG		ALLUVIAL	Penrith	1:100,000
ALbg	BIRRONG		ALLUVIAL	Sydney	1:100,000
REbt	BLACKTOWN		RESIDUAL	Penrith	1:100,000
REbt	BLACKTOWN		RESIDUAL	Sydney	1:100,000

Soils Landscapes Data Source : NSW Office of Environment and Heritage
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Acid Sulfate Soils

215-239 Pitt Street, Merrylands, NSW 2160



Scale: 0 100 200 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2020	Coordinate System: GDA 1994 MGA Zone 56	Date: 06 April 2020

Acid Sulfate Soils

215-239 Pitt Street, Merrylands, NSW 2160

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		

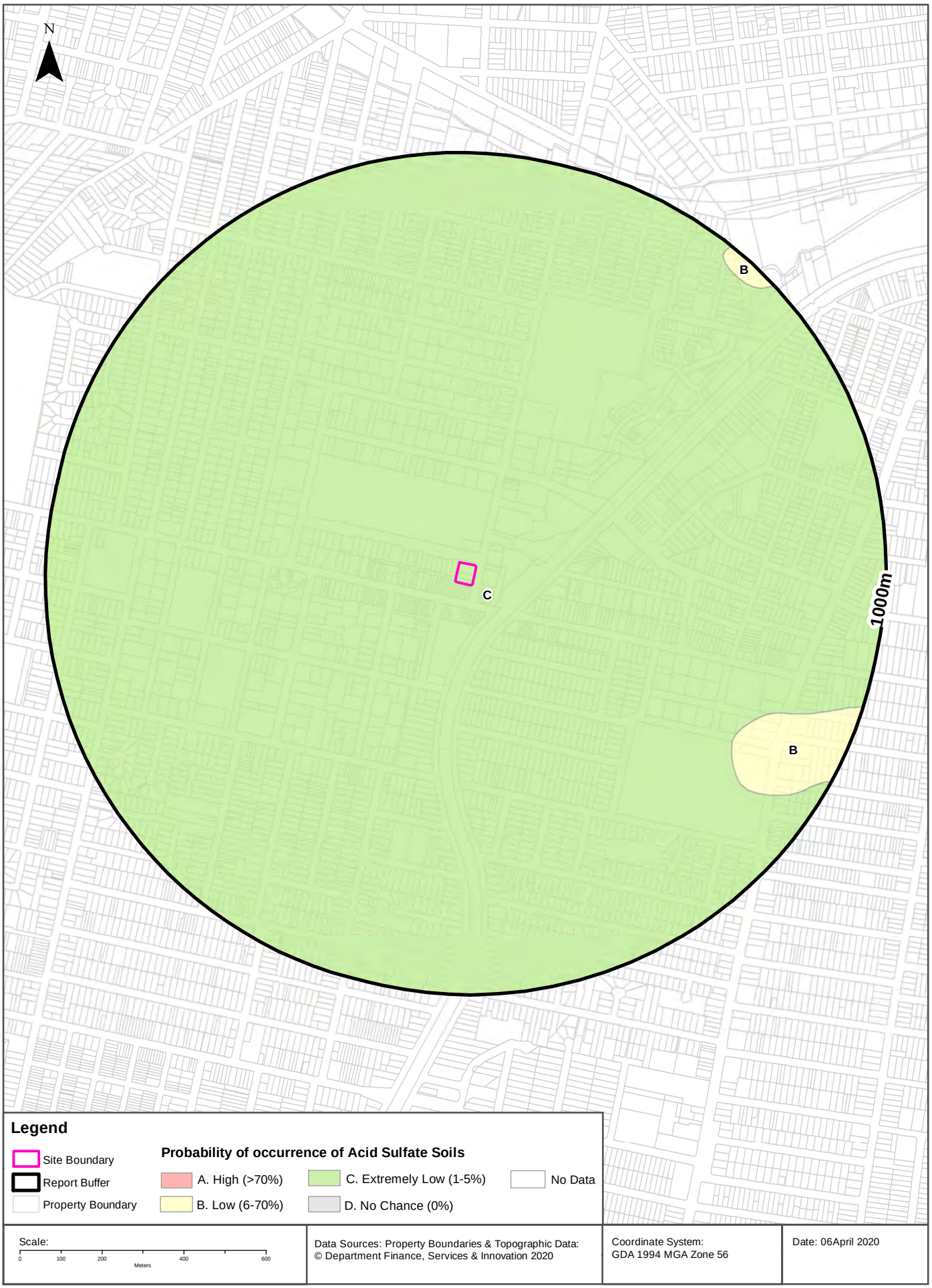
If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
N/A				

NSW Crown Copyright - Planning and Environment
Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

Atlas of Australian Acid Sulfate Soils

215-239 Pitt Street, Merrylands, NSW 2160



Acid Sulfate Soils

215-239 Pitt Street, Merrylands, NSW 2160

Atlas of Australian Acid Sulfate Soils

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

Class	Description	Distance
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m
B	Low Probability of occurrence. 6-70% chance of occurrence.	739m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Dryland Salinity

215-239 Pitt Street, Merrylands, NSW 2160

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	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.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
274	MODERATE	Area of Moderate Salinity Potential	0m	Onsite

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Mining Subsidence Districts

215-239 Pitt Street, Merrylands, NSW 2160

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)
Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

State Environmental Planning Policy

215-239 Pitt Street, Merrylands, NSW 2160

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
Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

Environmental Planning Instrument

215-239 Pitt Street, Merrylands, NSW 2160

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
B4	Mixed Use		Holroyd Local Environmental Plan 2013	03/05/2019	03/05/2019	03/05/2019	Amendment No 17	0m	Onsite
SP2	Infrastructure	Rail Infrastructure	Holroyd Local Environmental Plan 2013	08/12/2017	08/12/2017	03/05/2019	Amendment No 15	71m	South
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	08/12/2017	08/12/2017	03/05/2019	Amendment No 15	97m	North East
SP2	Infrastructure	Railway Corridor	Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		103m	East
B6	Enterprise Corridor		Holroyd Local Environmental Plan 2013	08/12/2017	08/12/2017	03/05/2019	Amendment No 15	108m	North East
SP2	Infrastructure	Local Road	Holroyd Local Environmental Plan 2013	03/05/2019	03/05/2019	03/05/2019	Amendment No 17	110m	West
B1	Neighbourhood Centre		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		117m	South East
R4	High Density Residential		Holroyd Local Environmental Plan 2013	08/12/2017	08/12/2017	03/05/2019	Amendment No 15	117m	North East
B4	Mixed Use		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		118m	East
R4	High Density Residential		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		122m	East
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	03/05/2019	03/05/2019	03/05/2019	Amendment No 17	140m	West
R2	Low Density Residential		Parramatta Local Environmental Plan 2011	13/03/2020	13/03/2020	13/03/2020	Amendment No 38	153m	South
R4	High Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		184m	North
B6	Enterprise Corridor		Holroyd Local Environmental Plan 2013	08/12/2017	08/12/2017	03/05/2019	Amendment No 15	212m	North East
R4	High Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		249m	South West
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		279m	South West
R4	High Density Residential		Holroyd Local Environmental Plan 2013	08/12/2017	08/12/2017	03/05/2019	Amendment No 15	307m	North East
SP2	Infrastructure	Classified Road	Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		334m	South East
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		341m	North East
SP2	Infrastructure	Drainage	Holroyd Local Environmental Plan 2013	08/12/2017	08/12/2017	03/05/2019	Amendment No 15	347m	North East
R3	Medium Density Residential		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		349m	East
R4	High Density Residential		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		370m	North East
R4	High Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		392m	West
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		401m	North West
RE2	Private Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		422m	North West
B6	Enterprise Corridor		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		451m	West
R3	Medium Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		466m	South West
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		484m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R2	Low Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		493m	West
R3	Medium Density Residential		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		517m	East
R3	Medium Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		527m	North West
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		529m	East
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		541m	South West
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		578m	North
RE2	Private Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		580m	West
R3	Medium Density Residential		Holroyd Local Environmental Plan 2013	16/01/2015	16/01/2015	03/05/2019	Amendment No 2	582m	South
R3	Medium Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		643m	North
R4	High Density Residential		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		654m	North East
R2	Low Density Residential		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		693m	North East
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		694m	North West
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		715m	East
B1	Neighbourhood Centre		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		735m	South
IN2	Light Industrial		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		741m	North East
W1	Natural Waterways		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		741m	South East
B6	Enterprise Corridor		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		749m	East
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		781m	North West
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		782m	South
W1	Natural Waterways		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		783m	South
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		791m	South
SP1	Special Activities	Educational and POPW	Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		822m	East
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		840m	South West
R2	Low Density Residential		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		844m	South East
B5	Business Development		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		883m	North East
W1	Natural Waterways		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		904m	South
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		911m	South
R3	Medium Density Residential		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		912m	East
RE1	Public Recreation		Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		920m	North East
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		955m	South
SP2	Infrastructure	Classified Road	Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		956m	North West
R2	Low Density Residential		Parramatta Local Environmental Plan 2011	03/08/2012	03/08/2012	13/03/2020	Amendment No 1	963m	South
RE1	Public Recreation		Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		963m	South
SP1	Special Activities	Place of Public Worship	Parramatta Local Environmental Plan 2011	07/10/2011	07/10/2011	13/03/2020		977m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP2	Infrastructure	Classified Road	Holroyd Local Environmental Plan 2013	05/04/2013	05/08/2013	03/05/2019		995m	North East

Environmental Planning Instrument Data Source: NSW Crown Copyright - Planning & Environment
Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

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
General area or suburb match	Georeferenced with the confidence of the general/approximate area
Road match	Georeferenced to the road or rail
Road intersection	Georeferenced to the road intersection
Feature is a buffered point	Feature is a buffered point
Land adjacent to geocoded site	Land adjacent to Georeferenced Site
Network of features	Georeferenced to a network of features

USE OF REPORT - APPLICABLE TERMS

The following terms apply to any person (End User) who is given the Report by the person who purchased the Report from Lotsearch Pty Ltd (ABN: 89 600 168 018) (Lotsearch) or who otherwise has access to the Report (Terms). The contract terms that apply between Lotsearch and the purchaser of the Report are specified in the order form pursuant to which the Report was ordered and the terms set out below are of no effect as between Lotsearch and the purchaser of the Report.

1. End User acknowledges and agrees that:
   (a) the Report is compiled from or using content (**Third Party Content**) which is comprised of:
      (i) content provided to Lotsearch by third party content suppliers with whom Lotsearch has contractual arrangements or content which is freely available or methodologies licensed to Lotsearch by third parties with whom Lotsearch has contractual arrangements (**Third Party Content Suppliers**); and
      (ii) content which is derived from content described in paragraph (i);
   (b) Neither Lotsearch nor Third Party Content Suppliers takes any responsibility for or give any warranty in relation to the accuracy or completeness of any Third Party Content included in the Report including any contaminated land assessment or other assessment included as part of a Report;
   (c) the Third Party Content Suppliers do not constitute an exhaustive set of all repositories or sources of information available in relation to the property which is the subject of the Report (**Property**) and accordingly neither Lotsearch nor Third Party Content Suppliers gives any warranty in relation to the accuracy or completeness of the Third Party Content incorporated into the report including any contaminated land assessment or other assessment included as part of a Report;
   (d) Reports are generated at a point in time (as specified by the date/time stamp appearing on the Report) and accordingly the Report is based on the information available at that point in time and Lotsearch is not obliged to undertake any additional reporting to take into consideration any information that may become available between the point in time specified by the date/time stamp and the date on which the Report was provided by Lotsearch to the purchaser of the Report;
   (e) Reports must be used or reproduced in their entirety and End User must not reproduce or make available to other persons only parts of the Report;
   (f) Lotsearch has not undertaken any physical inspection of the property;
   (g) neither Lotsearch nor Third Party Content Suppliers warrants that all land uses or features whether past or current are identified in the Report;
   (h) the Report does not include any information relating to the actual state or condition of the Property;
   (i) the Report should not be used or taken to indicate or exclude actual fitness or unfitness of Land or Property for any particular purpose
   (j) the Report should not be relied upon for determining saleability or value or making any other decisions in relation to the Property and in particular should not be taken to be a rating or assessment of the desirability or market value of the property or its features; and
   (k) the End User should undertake its own inspections of the Land or Property to satisfy itself that there are no defects or failures
2. The End User may not make the Report or any copies or extracts of the report or any part of it available to any other person. If End User wishes to provide the Report to any other person or make extracts or copies of the Report, it must contact the purchaser of the Report before doing so to ensure the proposed use is consistent with the contract terms between Lotsearch and the purchaser.
3. Neither Lotsearch (nor any of its officers, employees or agents) nor any of its Third Party Content Suppliers will have any liability to End User or any person to whom End User provides the Report and End User must not represent that Lotsearch or any of its Third Party Content Suppliers accepts liability to any such person or make any other representation to any such person on behalf of Lotsearch or any Third Party Content Supplier.
4. The End User hereby to the maximum extent permitted by law:
   (a) acknowledges that the Lotsearch (nor any of its officers, employees or agents), nor any

of its Third Party Content Supplier have any liability to it under or in connection with the Report or these Terms;

(b) waives any right it may have to claim against Third Party Content Supplier in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms; and

(c) releases each Third Party Content Supplier from any claim it may have otherwise had in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms.

5. The End User acknowledges that any Third Party Supplier shall be entitled to plead the benefits conferred on it under clause 4, despite not being a party to these terms.
6. End User must not remove any copyright notices, trade marks, digital rights management information, other embedded information, disclaimers or limitations from the Report or authorise any person to do so.
7. End User acknowledges and agrees that Lotsearch and Third Party Content Suppliers retain ownership of all copyright, patent, design right (registered or unregistered), trade marks (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right in any Report or any other item, information or data included in or provided as part of a Report.
8. To the extent permitted by law and subject to paragraph 9, all implied terms, representations and warranties whether statutory or otherwise relating to the subject matter of these Terms other than as expressly set out in these Terms are excluded.
9. Subject to paragraph 6, Lotsearch excludes liability to End User for loss or damage of any kind, however caused, due to Lotsearch's negligence, breach of contract, breach of any law, in equity, under indemnities or otherwise, arising out of all acts, omissions and events whenever occurring.
10. Lotsearch acknowledges that if, under applicable State, Territory or Commonwealth law, End User is a consumer certain rights may be conferred on End User which cannot be excluded, restricted or modified. If so, and if that law applies to Lotsearch, then, Lotsearch's liability is limited to the greater of an amount equal to the cost of resupplying the Report and the maximum extent permitted under applicable laws.
11. Subject to paragraph 9, neither Lotsearch nor the End User is liable to the other for:
    (a) any indirect, incidental, consequential, special or exemplary damages arising out of or in relation to the Report or these Terms; or
    (b) any loss of profit, loss of revenue, loss of interest, loss of data, loss of goodwill or loss of business opportunities, business interruption arising directly or indirectly out of or in relation to the Report or these Terms,

    irrespective of how that liability arises including in contract or tort, liability under indemnity or for any other common law, equitable or statutory cause of action or otherwise.
12. These Terms are subject to New South Wales law.

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

APPENDIX C

EXTRACTS OF PREVIOUS ASSESSMENTS

Network Geotechnics

Mt Kuring-Gai
12/9-15 Gundah Rd
Mt Kuring-Gai NSW 2080
T: (02) 8438 0300
F: (02) 8438 0310

Wollongong
1/140 Industrial Rd
Oak Flats NSW 2529
T: (02) 4257 4458
F: (02) 4257 4463

E: admin@netgeo.com.au
W: www.netgeo.com.au
ABN: 35 069 211 561

G09-2639 NDS: VDS

05 December 2017

Anglicare
62 Norwest Boulevarde
Baulkham Hills NSW 2153

Attention: Robert ten Kate

By Email: Robert.TenKate@anglicare.org.au

Dear Sir,

Re: Report
Due Diligence Contamination Assessment
215-239 Pitt Street, Merrylands

1.0 Introduction

Network Geotechnics (NG) Pty Ltd was engaged by Anglican Community Services (Anglicare) to conduct a due diligence contamination assessment for the property located at 215-239 Pitt Street, Merrylands (the site).

1.1 Background

Based on the information provided to us, NG understood the following:

- The site has an area of approximately 2,200m^2, and is currently used for commercial purposes;
- The site or part of the site was previously used as a service station, although the details of the configuration of the fuel infrastructure or when and how it was decommissioned was not available;
- Anglicare is currently in a due diligence phase to acquire the site, and require an appraisal of the contamination risks that may impact on the property acquisition and on the proposed development; and
- The proposed development is a multi-storey apartment building with a three to four level basement car park.

1.2 Objectives

The objectives of the proposed contamination assessment were to:

- Assess the soil and groundwater contamination levels within the accessible areas of the site (i.e. the areas currently used as car park space); and
- Provide an appreciation of the contamination risks for the acquisition and development of the site.

NG notes that this is not a SEPP55 compliant Stage 2 Detailed Site Investigation.

1.3 Scope of Work

Given the time constraints, Anglicare declined the offer to undertake a site history review and requested an intrusive assessment. The scope of work adopted, and presented below, is based on discussions and agreements with Anglicare, with particular regards to the time constraints.

NG conducted the following works to inform the contamination assessment:

- Drill four boreholes to depths ranging from 4.3m below ground level (bgl) to 6m bgl, which is likely to be below the anticipated invert levels of the former underground storage tanks (USTs). One borehole location could not be advanced beyond a depth of 1.1m bgl due to the presence of an unidentified concrete structure at a depth of approximately 1m. NG notes that Drilling was attempted at three locations within 1m of each other. Two boreholes, identified as BH1 and BH3, were advanced at this location to a depth of 1m and 1.1m respectively;
- Observe the soil cuttings retrieved for evidence of fuel related contamination (staining, odours etc), and screening for volatile organic compounds using a photo-ionisation detector (PID);
- Collection of soil samples for laboratory analysis at appropriate depth intervals;
- Extension of three of the soil bores to a depth of 5.5m and 6m bgl to install groundwater monitoring wells;
- Collection of groundwater samples one day after the installation of the monitoring wells, using a peristaltic pump;
- Laboratory analysis 13 soil samples and 3 water samples (including QAQC) on a 24-hour expedited turn around for lead, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylene (BTEX) and asbestos; and
- Review of analytical results and prepare this report.

The sample location plan (Figure 1) is attached in Appendix B.

2.0 Results

2.1 Limited Site History Review

Based on the historical aerial images available on Google Earth, the site appears to be in the present configuration (see below) from 2003. The aerial image of 1943, obtained from SIX Maps appears to indicate that the site was used for residential purposes. NG has not been able to ascertain when the site or part of the site was used as a service station.

2.2 Site Conditions

The site is bounded by Pitt Street to the east and McFarlane Street to the north. Based on typical configuration of most service stations, it is possible, if not likely, that the former service station was located within the northern portion of the site, at the corner of Pitt Street and McFarlane Street.

At the time of our investigation in November 2017, the site comprised of buildings across approximately 70% of the site area (as shown on Figure 1) that were used for commercial

purposes (restaurants, cafes, travel agents, and salons etc.). The remainder of the area was concrete paved and was used for tenant car parking. An oil water separator pit, understood to be used for the current use, was located approximately halfway between boreholes BH1 and BH2.

The site appears to be almost level, and based on the satellite imagery such as Google Earth, there appears to be a mild slope to the north east towards Holroyd Gardens

2.3 Subsurface Conditions

Geology

The geological map for Penrith indicates that the area is underlain by Wiannamatta Group Bringelly Shale, comprising claystone, laminite and fine to medium grained sandstone.

Lithology

The observations made during the drilling works conducted on 29 November 2017 are summarised below.

The boreholes drilled indicated the presence of fill material to depths of approximately 0.6m in the southern and central portions of the accessible areas (i.e. in boreholes BH4, BH5 and BH6), whereas fill to an approximate depth of 1.2m bgl was observed in the northern portion of the accessible area (i.e. boreholes BH1, BH2 and BH3). The deeper fill within the northern portion of the site could also support the theory that the former service station was located within the northern portion of the site.

The fill material within the northern portion of the accessible areas included gravelly sand and sand, with demolition rubble including fragments of brick, concrete and terracotta. This could be further evidence of demolition and filling of the former service station area. The fill material within the southern and central portions generally comprised of clay and gravelly clay with only minor evidence of demolition rubble in borehole BH4.

The residual soils comprised of moderate to high plasticity clay with bands of gravelly clay (with iron stone) below 3m. Bedrock was not encountered in the six boreholes drilled.

Evidence of Contamination

Strong hydrocarbon odours, and what appeared to be oil staining, were encountered in boreholes BH1 and BH3 (located within 1m of each other) from a depth of 0.5m to approximately 1m, where the boreholes were terminated on an unidentified concrete structure. The elevated PID readings for the samples retrieved from that layer (up to 137ppm in BH1 and up to 245ppm in BH3) suggested the presence of ionisable light hydrocarbon, potentially indicative of petroleum hydrocarbon impact.

Visible asbestos containing materials (ACM) was not observed in the drill cuttings.

Anaerobic decaying odour was observed in damp fill material obtained from borehole BH6, at a depth of 0.5m, just above the natural residual clay at a depth of 0.6m.

Groundwater Conditions

Water inflow was observed at MW1 (BH2) at a depth of 0.9m bgl. However, NG considers that this inflow, which was only observed for a short period of time, was likely to be a pocket of perched water in fill materials rather than the local ground water. Historical records of nearby sites where groundwater well had been registered with the Office of NSW Water indicated that groundwater is located at a depth of approximately 2.5m to 3m bgl.

Wet drill cuttings were observed in borehole MW1 at a depth of approximately 3m and at MW3 (BH5) at a depth of approximately 2m. However, the cuttings retrieved from MW2 (BH4) did not contain wet cuttings.

NG visited the site on 30 November 2017 to purge and sample the monitoring wells. NG notes that groundwater sampling is typically conducted one week after the installation of the monitoring wells, allowing sufficient time for the disturbed aquifer to equilibrate. However, as agreed with Anglicare, due to the time constraints of the due diligence assessment, the groundwater sampling was conducted on the day after the well installation. The water depths observed, and the well depths are as follows.

Table 1 Depth of Groundwater

Monitoring Well ID	Depth to Water (m bgl)	Well Depth (m bgl)
MW1	3.46	5.43
MW2	5.72 (effectively dry)	5.73
MW3	4.27	5.80

Monitoring well MW2 was effectively dry. This observation is unexpected, given that all three wells were located on approximately similar elevations and were screened and installed to similar depths. It is possible that the fines from the drilling process is blocking the well screen.

No sheens or odours were observed in the groundwater during purging and sampling.

2.4 Analytical Results

The laboratory analytical results are summarised in Tables LR1 and LR2, which are attached in Appendix C. The laboratory analytical certificates are attached in Appendix D.

Soil Contamination

The soil analytical results are summarised in Table LR1, attached in Appendix C.

The soil samples analysed reported the following:

- Volatile hydrocarbon compounds (C6-C10 fraction (F1)) was reported in samples BH2_0.5-0.6 (33 mg/kg) and BH3_1.0-1.1 (540 mg/kg);
- Semi-volatile hydrocarbon compounds (C10-C16 fraction (F2) and C16-C34 fraction (F3)) were reported in sample BH3_1.0-1.1 (180 mg/kg and 170 mg/kg respectively);
- Semi-volatile hydrocarbon compounds (C16-C34 fraction (F3)) was reported in sample BH4_0.12-0.22 (300 mg/kg);

- Lead was reported in all samples tested at concentrations ranging from 4 to 78 mg/kg; and
- No asbestos was detected in the fill samples tested.

Groundwater Contamination

The groundwater analytical results are summarised in Table LR2, attached in Appendix C.

The groundwater samples analysed reported the following:

- Volatile and semi-volatile hydrocarbon compounds were reported in the sample collected from MW1;
- Semi-volatile hydrocarbon compounds were reported marginally above the laboratory limit of reporting (LOR) in the duplicate sample (DUP) collected from MW3; and
- Lead was reported at a concentration of 2 μg/L in both MW3 and its duplicate sample DUP.

5.0 Discussion

5.1 Limitation of the Assessment

It is important to note that this contamination assessment did not include a site history review due to limited time available to conduct the assessment. As such, apart from anecdotal evidence from Anglicare that the site comprised a former service station, the historical site uses are not known. This contamination assessment was conducted to specifically assess the contamination risks at the site that may be attributable to the former service station.

Furthermore, the location of the former fuel infrastructure (pipes, tanks bowsers etc.) was not known and as such, the contamination assessment could not be appropriately targeted towards such areas of potential contamination. The fact that only approximately 30% of the site area in the western portion of the site was accessible also limited to potential to target the assessment to potential areas of contamination.

Due to the limited timeframe available to conduct the assessment, the groundwater samples were collected the day after the installation of the well, instead of waiting one week to allow the aquifer to equilibrate. As such, the quality of the groundwater reported may not entirely be representative of the groundwater at the site.

5.2 Contamination Risks

Soils

The contamination assessment identified volatile and semi-volatile hydrocarbon impacted soils at borehole BH3 in fill material to a depth of approximately 1m. The vertical extent of the impacted soils could not be determined due to the termination of both boreholes BH1 and BH3 (located adjacent to one another) due to the presence of an unidentified concrete structure at 1.1m bgl.

Based on the results obtained, soil within the areas assessed is considered unlikely to contain significant widespread contamination. However, the potential for localised patches of hydrocarbon contamination to be present within the site (both within inaccessible areas as well as the areas assessed) cannot be precluded. Soil hydrocarbon contamination that may be present within the site is expected to be limited to approximately 1m to 2m bgl, due to the presence of medium to high plasticity clay below the fill material, which typically minimises the potential for the downward migration of hydrocarbon contamination. The depth of contamination in the vicinity of former underground storage tanks (if any) would likely be limited to around 4m bgl due to the likely invert depth of underground storage tanks being 3m to 4m bgl.

NG is not aware of when the former service station was decommissioned, and the existing commercial facilities were developed. If the service station was decommissioned in the 1990s or early 2000's, it is likely that the underground fuel infrastructure would have been removed and the identified contaminated soils in the affected areas would have been remediated. If on the other hand, the former service station was decommissioned prior to the 1990's, appropriate remediation of contaminated soils or the removal of fuel infrastructure cannot be assured.

NG understands that Anglicare intends to construct a three to four level basement at the site, which will likely occupy the entire site. Any soil contamination that is expected to be present at the site will therefore be excavated and disposed offsite, thereby removing the risk of exposure to contamination for the future site users. However, the presence of contamination could increase the cost of offsite disposal of excavated soils, particularly if the contamination extends to natural residual soils (as it will potentially be classified as a waste material, instead of classifying as virgin excavated natural material (VENM)).

Should the natural soils fail to classify as VENM, NG considers that there is a potential for such materials (all or a significant proportion of it) to classify as Excavated Natural Materials (ENM) subject to the results for further testing, thereby reducing the cost of disposal.

It is also likely, based on the contaminants of concern that we have analysed for, that most of the fill material at the site would classify as General Solid Waste. Some of it may also classify as ENM, with further assessment.

Groundwater

Volatile and semi-volatile hydrocarbon compounds were reported in monitoring well MW1. Low concentrations of semi-volatile hydrocarbon compounds were also reported in the duplicate sample collected from monitoring well MW3. The data seems to suggest that the groundwater at the site is contaminated with petroleum hydrocarbon.

Typically, when contamination is encountered in the groundwater, a number rounds of testing, including the installation of additional groundwater monitoring wells, is conducted to ascertain:

- If the reported contamination is representative of the aquifer conditions;
- The lateral and vertical extent of the contamination plume;
- Direction of groundwater flow; and
- The potential for offsite migration.

In this instance, given the time constraints associated with the due diligence period, such additional testing cannot be conducted.

NG notes the following with regards to the identified groundwater contamination:

- The level of confidence in the single round of groundwater quality data is low to moderate, and require additional monitoring to increase the level of confidence;
- The volatile and semi-volatile hydrocarbon reported in the groundwater is likely to be attributable to a petroleum source, such as the former service station which is understood to have been present at the site;
- The direction of groundwater flow cannot be ascertained with the available data, however the site topography may indicate that the groundwater flow may be towards the north, north east, towards Holroyd Gardens;
- If the groundwater flow is in fact to the north, north east, and if the former service station was located within the northern portion of the site, at the corner of Pitt Street and McFarlane Street, it is possible, if not likely, that greater levels of groundwater contamination (and potentially soil contamination) may be present in the areas that were inaccessible and thus not assessed;
- The potential for offsite migration of groundwater cannot be ascertained with the available data, though NG notes that monitoring well MW1 was located approximately 1m from the western boundary of the site. Unless the groundwater at the site flows in an easterly direction, the potential for offsite migration of the identified contamination cannot be precluded. If contaminated groundwater is in fact migrating offsite, it may require to be notified to NSW EPA, which may issue a notice to investigate or remediate or manage the identified groundwater contamination.

If the identified groundwater contamination is representative of the quality of the groundwater at the site, NG considers that Anglicare may be exposed to following contamination liability, should it acquire the site for the proposed development:

- Costs associated with managing potential vapour intrusion risks that may be posed by the groundwater contaminated with volatile hydrocarbon compounds. We note that the available results do not exceed the relevant vapour intrusion criteria specified in the NEPM (2013), though the reliability of this data is also low;
- Costs associated with the treatment and disposal of groundwater as part of the construction dewatering;
- Costs associated with ongoing pumping and treatment of groundwater, depending on design of the basement (i.e. if the basement is not tanked); and
- The costs of managing the risks associated with potential offsite migration of contaminated groundwater.

5.3 Uncertainties

NG notes that this assessment is subjected to the following uncertainties:

- Lack of site history data leading to the inability to target the contamination assessment to areas of contamination risks;
- Inability to assess the entire site area, and thus the potential to not have assessed areas of potential contamination;

- Inability to penetrate through the contaminated fill material identified at the adjacent boreholes BH1 and BH3 due to the presence of an unidentified underground structure;
- The low reliability of the groundwater quality data due to:
  - Groundwater sampling being conducted just one day after the installation of the wells;
  - MW2 being dry;
  - Groundwater flow direction not being ascertained; and
  - Only one round of groundwater monitoring being conducted.

6.0 Conclusion

Based on the above assessment, NG concludes the following:

- The site soils are unlikely to contain widespread unacceptable levels of contamination, but may contain patches of localised contamination in the fill material. The potential for deeper contamination in the vicinity of the former underground fuel infrastructure cannot be precluded;
- The presence of soil contamination is unlikely to pose a risk to the future site users (given that the proposed basement excavation will remove contaminated soils from the site), but may increase waste disposal costs for the excavation of the basement;
- The groundwater at the site appears to be impacted with volatile and semi-volatile hydrocarbon compounds, likely to be attributable to petroleum sources. Greater levels of groundwater contamination to be present in the northern portions of the site that could not be accessed cannot be precluded;
- The potential for the contaminated groundwater to pose a vapour intrusion risk to the future development, unless appropriately designed to mitigate such risks, cannot be precluded; and
- The identified groundwater contamination may pose a contamination liability to Anglicare due to costs associated with management of vapour intrusion risks, construction dewatering and water treatment and disposal, and management of risk of potential offsite migration of contaminated groundwater.

NG notes that this contamination assessment is affected by the limitations outlined in Section 5.1 above. Furthermore, the reliability of the groundwater data is low to moderate due to the reasons outlined above in Section 5.2. Additional assessment, including the installation and sampling of additional wells, will be required to increase the level of certainty in the groundwater contamination data.

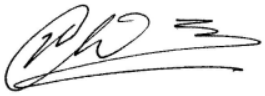
This report must be read in conjunction with the attached Information Sheets and any other explanatory notes (Appendix A).

7.0 Closure

We trust this report meets your present requirements. Please do not hesitate to contact the undersigned should you have any queries.

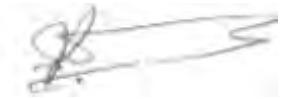
For and on behalf of
Network Geotechnics Pty Ltd

Report prepared by:



Nalin De Silva
Principal Environmental Engineer

Reviewed by:



Vipul De Silva
Principal Geotechnical Engineer

Enel Appendix A – Information Sheets
Appendix B – Figures
Appendix C – Tables
Appendix D – Laboratory Analytical Certificates

APPENDIX A

Information Sheets

Information About This Report

LIMITATIONS

Scope of Services: The report has been prepared in accordance with the scope of services set out in NG's Proposal under NG's Terms of Engagement, or as otherwise agreed with the Client. The scope of services may have been limited and/or amended by a range of factors including time, budget, access and site constraints.

Specific Purpose: The report is provided for the specific development and purpose as described in the report. The report may not contain sufficient information for developments or purposes other than that described in the report.

Currency of Information: The information in this report is considered accurate at the date of issue with regard to the current conditions of the site.

Reliance on Information: In preparing the report NG has necessarily relied upon information provided by the Client and/or their Agents. Such data may include surveys, analyses, designs, maps and plans. NG has not verified the accuracy or completeness of the data except as stated in this report.

Copyright and Reproduction: The contents of this document are and remain the intellectual property of NG. This document should only be used for the purpose for which it was commissioned and should not be used for other projects or by a third party. This report shall not be reproduced either totally or in part without the permission of NG. Where information from this report is to be included in contract documents or engineering specification for the project, the entire report should be included in order to minimise the likelihood of misinterpretation.

Construction Specifications: Unless otherwise stated, the report, or sections of the report, should not be used as part of a specification for a project, without review and agreement by NG.

Report Should Not be Separated: The report must be read in conjunction with the attached Information Sheets and any other explanatory notes and should be kept in its entirety without separation of individual pages or sections.

Review by Others: NG cannot be held responsible for interpretations or conclusions from review by others of this report or test data, which are not otherwise supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

GENERAL NOTES

Geotechnical and Environmental Reporting: Geotechnical and environmental reporting relies on the interpretation of factual information based on judgment and opinion and is far less exact than other engineering or design disciplines. Geotechnical and environmental reports are for a specific purpose, development and site as described in the report and may not contain sufficient information for other purposes, developments or sites (including adjacent sites) other than that described in the report.

Subsurface Conditions: Subsurface conditions can change with time and can vary between test locations. For example, the actual interface between the materials may be far more gradual or abrupt than indicated and contaminant presence may be affected by spatial and temporal patterns. Therefore, actual conditions in areas not sampled may differ from those predicted since no subsurface investigation, no matter how comprehensive, can reveal all subsurface details and anomalies. Construction operations at or adjacent to the site and natural events such as floods, earthquakes or groundwater fluctuations can also affect subsurface conditions and thus the continuing adequacy of a geotechnical report. NG should be kept informed of any such events and should be retained to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Groundwater: Groundwater levels indicated on borehole and test pit logs are recorded at specific times. Depending on ground permeability, measured levels may or may not reflect actual levels if measured over a longer time period. Also, groundwater levels and seepage inflows may fluctuate with seasonal and environmental variations and construction activities.

Interpretation of Data: Data obtained from nominated discrete locations, subsequent laboratory testing and empirical or external sources are interpreted by trained professionals in order to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions in accordance with any relevant industry standards, guidelines or procedures.

Soil and Rock Descriptions: Soil and rock descriptions are based on AS 1726 – 1993, using visual and tactile assessment except at discrete locations where field and / or laboratory tests have been carried out. Refer to the accompanying soil and rock terms sheet for further information.

Further Advice: NG would be pleased to further discuss how any of the above issues could affect a specific project. We would also be pleased to provide further advice or assistance including:

- Assessment of suitability of designs and construction techniques;
- Contract documentation and specification;
- Construction control testing (earthworks, pavement materials, concrete);
- Construction advice (foundation assessments, excavation support).

APPENDIX B

Figures

N

LEGEND:

BH6 NG 2017 sample locations

Approximate Site Boundary

Network Geotechnics Pty Ltd
12/9-15 Gundah Road,
MT KURING-GAI NSW 2080
Tel: (02) 8438 0300
Fax: (02) 8438 0310
Email: engineering@netgeo.com.au

Scale: A4 - NOT TO SCALE	Client: Anglicare
Date: 05/12/2017	Project: DD Contamination Assessment
Drawn By: NDS	Location: 215-239 Pitt Street, Merrylands
Drawing No: G09-2636 1	Sheet: 1 of 1

Figure 1
Sample location plan

APPENDIX C

Tables

Table LR1 - Soil Analytical Results
Due Diligence Contamination Assessment
215-239 Pitt Street, Merrylands

G09-2636

		Sample ID	BH2 0.5-0.6	BH2 4.0-4.1	BH3 1.0-1.1	BH5 0.1-0.2	BH5 0.5-0.6	BH5 4.0-4.1	BH4 0.12-0.22	BH4 2.0-2.1
		Sample Date	29/11/2017	29/11/2017	29/11/2017	29/11/2017	29/11/2017	29/11/2017	29/11/2017	29/11/2017
Analyte Name	Units	Reporting Limit	Result	Result	Result	Result	Result	Result	Result	Result
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH C6-C10 minus BTEX (F1)	mg/kg	25	33	<25	540	<25	<25	<25	<25	<25
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	180	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	170	<90	<90	<90	300	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120	<120	<120	<120
Lead, Pb	mg/kg	1	33	13	19	29	10	11	78	7
Asbestos Detected	No unit	0	No	N.A.	No	No	No	N.A.	No	N.A.
Estimated Fibres	%w/w	0.01	<0.01	N.A.	<0.01	<0.01	<0.01	N.A.	<0.01	N.A.

Table LR1 - Soil Analytical Results
Due Diligence Contamination Assessment
215-239 Pitt Street, Merrylands

G09-2636

		Sample ID	BH4 3.5-3.6	BH6 0.5-0.6	BH6 3.0-3.1	DUP-1	DUP-2
		Sample Date	29/11/2017	29/11/2017	29/11/2017	29/11/2017	29/11/2017
Analyte Name	Units	Reporting Limit	Result	Result	Result	Result	Result
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
Lead, Pb	mg/kg	1	4	11	14	9	6
Asbestos Detected	No unit	0	N.A.	No	N.A.	N.A.	N.A.
Estimated Fibres	%w/w	0.01	N.A.	<0.01	N.A.	N.A.	N.A.

Table LR2 - Ground Water Analytical Results
Due Diligence Contamination Assessment
215-239 Pitt Street, Merrylands

G09-2636

Analyte Name	Units	ANZECC 2000 Freshwater 95% Protection Level (µg/L)	Sample ID	MW01	MW03	DUP
			Sample Date	29/11/2017	29/11/2017	29/11/2017
			Reporting Limit	Result	Result	Result
Benzene	µg/L	950	0.5	<2.5	<0.5	<0.5
Toluene	µg/L	--	0.5	<2.5	<0.5	<0.5
Ethylbenzene	µg/L	--	0.5	<2.5	<0.5	<0.5
m/p-xylene	µg/L	200	1	<5	<1	<1
o-xylene	µg/L	350	0.5	<2.5	<0.5	<0.5
Naphthalene	µg/L	16	0.5	4.0	<0.5	<0.5
TRH C6-C10 minus BTEX (F1)	µg/L			430	<50	<50
TRH >C10-C16 (F2)	µg/L			100	<60	<60
TRH C6-C9	µg/L	--	40	<200	<40	<40
TRH C6-C10	µg/L	--	50	430	<50	<50
TRH C10-C14	µg/L	--	50	52	<50	<50
TRH C15-C28	µg/L	--	200	780	<200	220
TRH C29-C36	µg/L	--	200	280	<200	240
TRH C37-C40	µg/L	--	200	<200	<200	<200
Total C6-C40	µg/L	--		1542	<450	460
Lead, Pb	µg/L	3.4	1	<1	2	2

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

APPENDIX D

BOREHOLE LOGS

Construction Sciences

BOREHOLE LOG SHEET

Client: Anglicare
Project: Proposed Vertical Village
Location: 215-239 Pitt Street, Merrylands

Hole No: BH104

Job No: P848 **Sheet:** 1 of 4

Position: **Angle from Horizontal:** 90° **Surface Elevation:**
Rig Type: Tight Access Rig-XC100 **Mounting:** Track **Driller:** TERRATEST
Casing/Hole Diameter: 115 mm / **Contractor:** TERRATEST
Date Started: 17/4/20 **Date Completed:** 18/4/20 **Logged By:** SM **Checked By:**

Drilling			Water	Sampling & Testing		Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test	DCP		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
			Not Encountered		4 4 11 3 4 4 7 8 15 14 12	1 2 3 4 5			Concrete 0.19m FILL: Gravelly SAND: fine, yellow, with boulders (sandstone) gravel 0.30m CLAY: low to medium plasticity, yellow brown, trace of fine to coarse grained gravel (ironstone) 2.00m CLAY: low to medium plasticity, yellow brown, trace of fine to coarse grained gravel (ironstone) 3.00m CLAY: low to medium plasticity, yellow brown, trace of fine to coarse grained gravel (ironstone)	D M (≈PL) - M (>PL) M (≈PL) - M (>PL) M (≈PL) - M (>PL)	St VSt VSt H	CONCRETE FILL RESIDUAL SOIL

METHOD
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION
VE Very Easy (No Resistance)
E Easy
F Firm
H Hard
VH Very Hard (Refusal)

WATER
Water Level on Date shown
water inflow
water outflow

FIELD TESTS
SPT - Standard Penetration Test
PP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Photoionisation Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE
D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY
VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY
VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS NON-CORED P848 ANGLICARE - PROPOSED VERTICAL VILLAGE.GPJ <<DrawingFile>> 30/04/2020 20:47 10.0.000 Datgel AGS RTA, Photo, Monitoring Tools

Construction Sciences

BOREHOLE LOG SHEET

Client: Anglicare
Project: Proposed Vertical Village
Location: 215-239 Pitt Street, Merrylands

Hole No: BH104

Job No: P848 **Sheet:** 2 of 4

Position: **Angle from Horizontal:** 90° **Surface Elevation:**
Rig Type: Tight Access Rig-XC100 **Mounting:** Track **Driller:** TERRATEST
Casing/Hole Diameter: 115 mm / **Contractor:** TERRATEST
Date Started: 17/4/20 **Date Completed:** 18/4/20 **Logged By:** SM **Checked By:**

Drilling			Water	Sampling & Testing		Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test	DCP		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
				C 6.00 - 7.00 m				CL-CI	6.17m			RESIDUAL SOIL
									Continued as Cored Drill Hole			
						7						
						8						
						9						
						10						
						11						

METHOD
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION
VE Very Easy (No Resistance)
E Easy
F Firm
H Hard
VH Very Hard (Refusal)

WATER
Water Level on Date shown
water inflow
water outflow

FIELD TESTS
SPT - Standard Penetration Test
PP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Photoionisation Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE
D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY
VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY
VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS NON-CORED P848 ANGLICARE - PROPOSED VERTICAL VILLAGE.GPJ <<DrawingFile>> 30/04/2020 20:47 10.0.000 Datgel AGS RTA, Photo, Monitoring Tools

Construction Sciences

CORE LOG SHEET

Client: Anglicare
Project: Proposed Vertical Village
Location: 215-239 Pitt Street, Merrylands

Hole No: BH104

Job No: P848 **Sheet:** 3 of 4

Position: **Angle from Horizontal:** 90° **Surface Elevation:**
Rig Type: Tight Access Rig-XC100 **Mounting:** Track **Driller:** TERRATEST
Casing Diameter: 115 mm **Bit Type:** **Bit Condition:** **Contractor:** TERRATEST
Date Started: 17/4/20 **Date Completed:** 18/4/20 **Logged By:** SM **Checked By:**

Coring: Method	Coring: Fluid	Coring: TCR (%)	Coring: RQD (%)	RL (m AHD)	Depth (m)	Material Description: Graphic Log	Material Description: SOIL TYPE, plasticity or particle characteristic, colour, secondary & minor components ROCK NAME, grain size and type, colour, fabric and texture, inclusions & minor components	Material Description: Weathering	Material Description: Estimated Strength $Is_{(50)}$ MPa (● - Axial O - Diametral) VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Defect Description: Average Natural Defect Spacing (mm) 20 60 200 600 2000	Defect Description: Visual	Defect Description: Additional Data DEFECT TYPE, orientation, shape, roughness, infilling or coating, thickness, other
							6.17m START CORING AT 6.17m					
		100					CLAY: low to medium plasticity, yellow brown, trace of fine to coarse grained gravel (ironstone), (RESIDUAL SOIL)					
					7		7.00m					
		100	68				SHALE: fine grained, grey	EW				7.03 m: BP, 2°, PR, S, CN 7.07 m: CS, IR, RF, CN
							7.25m					
							7.35m CLAY: low to medium plasticity, yellow brown, trace of fine to coarse grained gravel (ironstone)	EW				
							SHALE: fine grained, grey					7.57 m: SM, CN
								MW				7.71 m: BP, 1°, PR, S, CN 7.76 m: BP, 1°, PR, S, CN
		100	93		8							8.30 m: BP, 1°, PR, S, CN 8.37 m: BP, 1°, PR, S, CN
												8.50 m: BP, 1°, PR, S, CN
					9							9.10 m: CS, IR, RF, CN
		85	90									9.41 m: SM, CN
					10							
		100	69				10.63m	HW				10.31 m: SM, CN 10.39 m: SM, CN
							10.73m low to medium plasticity, grey					10.50 m: SM, CN 10.53 m: SM, CN
							SHALE: fine grained					
					11			MW				
		100	63					HW				11.63 m: SM, CN 11.69 m: SM, CN
												11.88 m: SM, CN 11.94 m: CS, IR, RF, CN

DRILLING
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller
PQ Rotary core (85mm)
HQ Rotary core (63.5mm)
NMLC Rotary core (51.94mm)
DT Diatube concrete coring
PT Push tube
PS Percussion sampling
SON Sonic drilling
AH Air hammer

WATER
Water Level on date shown
water inflow
water outflow

ROCK QUALITY DESCRIPTIONS
RQD Rock Quality Designation (%)
TCR Total Core Recovery (%)

ROCK STRENGTH
EH Extremly High
VH Very High
H High
M Medium
L Low
VL Very Low

ROCK WEATHERING
FR Fresh
SW Slightly Weathered
DW Distinctly Weathered
MW Moderately Weathered
HW Highly Weathered
XW Extremly Weathered

DEFECT TYPE
JT Joint
SZ Sheared zone
BP Bedding Parting
SM Seam
FL Foliation
VN Vein
CL Cleavage
CS Crushed Seam
FZ Fracture Zone
DL Drift Lift
HB Handing Break
DB Drilling Break

PLANARITY
CU Curved
DIS Discontinuous
IR Irregular
PR Planar
ST Stepped
UN Undulose

ROUGHNESS
VR Very Rough
RF Rough
S Smooth
SL Slockensided
POL Polished

COATING
CN Clean
SN Stained
VNR Veneer (thin or patchy)
CT Coating (up to 1mm)

INFILL MATERIALS
X Carbonaceus
MU Unidentified minteral
MS Secondary mineral
KT Chlorite
CA Calcite
Fe Iron Oxide
Qz Quartz

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS CORED BOREHOLE P848 ANGLICARE - PROPOSED VERTICAL VILLAGE.GPJ <<DrawingFile>> 30/04/2020 20:46 10.0.000 Datgel AGS RTA, Photo, Monitoring Tools

Construction Sciences

CORE LOG SHEET

Hole No: BH104

Sheet: 4 of 4

Client: Anglicare			
Project: Proposed Vertical Village			
Location: 215-239 Pitt Street, Merrylands	**Job No:** P848		
Position:	**Angle from Horizontal:** 90°	**Surface Elevation:**	
Rig Type: Tight Access Rig-XC100	**Mounting:** Track	**Driller:** TERRATEST	
Casing Diameter: 115 mm	**Bit Type:**	**Bit Condition:**	**Contractor:** TERRATEST
Date Started: 17/4/20	**Date Completed:** 18/4/20	**Logged By:** SM	**Checked By:**

Coring						Material Description			Defect Description		
Method	Fluid	TCR (%)	RQD (%)	RL (m AHD)	Depth (m)	Graphic Log	SOIL TYPE, plasticity or particle characteristic, colour, secondary & minor components ROCK NAME, grain size and type, colour, fabric and texture, inclusions & minor components	Weathering	Estimated Strength $Is_{(50)}$ MPa ● - Axial O - Diametral VL 0.1 L 0.3 M 1 H 3 VH 10 EH	Average Natural Defect Spacing (mm) 20 60 200 600 2000	Visual	Additional Data DEFECT TYPE, orientation, shape, roughness, infilling or coating, thickness, other
		100	16		13		SHALE: fine grained *(continued)*	HW				12.10 m: SM, CN 12.14 m: SM, CN 12.30 m: SM, CN 12.38 m: SM, CN 12.41 m: CS, IR, RF, CN 12.47 m: SM, CN 12.50 m: SM, CN 12.55 m: SM, CN 12.63 m: SM, CN 12.67 m: SM, CN 12.70 m: SM, CN 12.74 m: SM, CN 12.77 m: SM, CN 12.81 m: SM, CN 12.91 m: SM, CN 12.93 m: SM, CN
		100	97		14			DW				13.41 m: SM, CN 13.44 m: SM, CN 13.57 m: BP, 1°, PR, S, CN
		100					14.31m TERMINATED AT 14.31 m					
					15							
					16							
					17							

DRILLING
- AD/V Solid flight auger: V-Bit
- AD/T Solid flight auger: TC-Bit
- HFA Hollow flight auger
- WB Washbore drilling
- RR Rock roller
- PQ Rotary core (85mm)
- HQ Rotary core (63.5mm)
- NMLC Rotary core (51.94mm)
- DT Diatube concrete coring
- PT Push tube
- PS Percussion sampling
- SON Sonic drilling
- AH Air hammer

WATER
- Water Level on date shown
- water inflow
- water outflow

ROCK QUALITY DESCRIPTIONS
- RQD Rock Quality Designation (%)
- TCR Total Core Recovery (%)

ROCK STRENGTH
- EH Extremly High
- VH Very High
- H High
- M Medium
- L Low
- VL Very Low

ROCK WEATHERING
- FR Fresh
- SW Slightly Weathered
- DW Distinctly Weathered
- MW Moderately Weathered
- HW Highly Weathered
- XW Extremly Weathered

DEFECT TYPE
- JT Joint
- SZ Sheared zone
- BP Bedding Parting
- SM Seam
- FL Foliation
- VN Vein
- CL Cleavage
- CS Crushed Seam
- FZ Fracture Zone
- DL Drift Lift
- HB Handing Break
- DB Drilling Break

PLANARITY
- CU Curved
- DIS Discontinuous
- IR Irregular
- PR Planar
- ST Stepped
- UN Undulose

ROUGHNESS
- VR Very Rough
- RF Rough
- S Smooth
- SL Slockensided
- POL Polished

COATING
- CN Clean
- SN Stained
- VNR Veneer (thin or patchy)
- CT Coating (up to 1mm)

INFILL MATERIALS
- X Carbonaceus
- MU Unidentified minteral
- MS Secondary mineral
- KT Chlorite
- CA Calcite
- Fe Iron Oxide
- Qz Quartz

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS CORED BOREHOLE P848 ANGLICARE - PROPOSED VERTICAL VILLAGE.GPJ <<DrawingFile>> 30/04/2020 20:46 10.0.000 Datgel AGS RTA, Photo, Monitoring Tools

Construction Sciences

HAND AUGER SHEET

Client: Anglicare
Project: Proposed Vertical Village
Location: 215-239 Pitt Street, Merrylands

Hole No: HA103

Job No: P848 **Sheet:** 1 of 1

Position: **Angle from Horizontal:** 90° **Surface Elevation:**
Rig Type: Hand Auger **Driller:** SS
Casing/Hole Diameter: / 70 mm **Contractor:** Construction Sciences
Date Started: 7/4/20 **Date Completed:** 7/4/20 **Logged By:** SS **Checked By:**

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
HA			Groundwater Not Observed					Concrete/Tiles			CONCRETE 0.00 m: Concrete/Tiles
				ES 0.20 - 0.40 m				0.20m FILL: Sandy CLAY: low plasticity, brown, fine to coarse grained sand, with concrete/ brick fragments gravel			FILL 0.20 m: No staining, odours or Asbestos Containing Material (ACM) observed
							CL	0.40m TERMINATED AT 0.40 m Hand Auger Refusal	M (≈PL)		
					0.5						

DRAFT

METHOD
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION
VE Very Easy (No Resistance)
E Easy
F Firm
H Hard
VH Very Hard (Refusal)

WATER
Water Level on Date shown
water inflow
water outflow

FIELD TESTS
SPT - Standard Penetration Test
PP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Photoionisation Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE
D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY
VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY
VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS NON-CORED P848 PROPOSED VERTICAL VILLAGE.GPJ DWG89837.GDW 27/04/2020 14:41 10.0.000 Datgel AGS RTA, Photo, Monitoring Tools

Construction Sciences

HAND AUGER SHEET

Hole No: HA104

Client: Anglicare
Project: Proposed Vertical Village
Location: 215-239 Pitt Street, Merrylands
Job No: P848
Sheet: 1 of 1

Position:
Angle from Horizontal: 90°
Surface Elevation:

Rig Type: Hand Auger
Driller: SS

Casing/Hole Diameter: /
Contractor: Construction Sciences

Date Started: 7/4/20
Date Completed: 7/4/20
Logged By: SS
Checked By:

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
			Groundwater Not Observed					Concrete/Tiles			CONCRETE 0.00 m: Concrete/Tiles
				ES 0.20 - 0.40 m				0.20m FILL: Sandy CLAY: low plasticity, brown, fine to coarse grained sand, with concrete gravel			FILL 0.20 m: No staining, odours or Asbestos Containing Material (ACM) observed
							CL				
					0.5			0.50m Clayey SILT: low to medium plasticity, brown/grey/trace yellow	M (≈PL)		NATURAL
				ES 0.50 - 0.70 m			CL-ML				
								0.80m TERMINATED AT 0.80 m Target depth			

DRAFT

METHOD
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION
VE Very Easy (No Resistance)
E Easy
F Firm
H Hard
VH Very Hard (Refusal)

WATER
Water Level on Date shown
water inflow
water outflow

FIELD TESTS
SPT - Standard Penetration Test
PP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Photoionisation Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE
D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY
VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY
VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS NON-CORED P848 PROPOSED VERTICAL VILLAGE.GPJ DWG89837.GDW 27/04/2020 14:41 10.0.000 Datgel AGS RTA, Photo, Monitoring Tools

Construction Sciences

HAND AUGER SHEET

Hole No: HA105

Client: Anglicare
Project: Proposed Vertical Village
Location: 215-239 Pitt Street, Merrylands
Job No: P848
Sheet: 1 of 1

Position:
Angle from Horizontal: 90°
Surface Elevation:

Rig Type: Hand Auger
Driller: SS

Casing/Hole Diameter: /
Contractor: Construction Sciences

Date Started: 7/4/20
Date Completed: 7/4/20
Logged By: SS
Checked By:

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
			Groundwater Not Observed					Concrete/Tiles 0.15m			CONCRETE 0.00 m: Concrete/Tiles
				ES 0.15 - 0.30 m			CL	FILL: Sandy CLAY: low plasticity, brown/orange/grey, fine to coarse grained sand, with gravel 0.50m	M (≈PL)		FILL 0.15 m: Asbestos Containing Material (ACM) observed
					0.5		ML	Clayey SILT: low plasticity, grey/brown 0.80m			NATURAL 0.50 m: No staining, odours or Asbestos Containing Material (ACM) observed
								TERMINATED AT 0.80 m Target depth			

DRAFT

METHOD
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION
VE Very Easy (No Resistance)
E Easy
F Firm
H Hard
VH Very Hard (Refusal)

WATER
Water Level on Date shown
water inflow
water outflow

FIELD TESTS
SPT - Standard Penetration Test
PP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Photoionisation Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE
D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY
VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY
VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS NON-CORED P848 PROPOSED VERTICAL VILLAGE.GPJ DWG89837.GDW 27/04/2020 14:41 10.0.000 Datgel AGS RTA, Photo, Monitoring Tools

Construction Sciences

HAND AUGER SHEET

Hole No: HA106

Client: Anglicare
Project: Proposed Vertical Village
Location: 215-239 Pitt Street, Merrylands
Job No: P848
Sheet: 1 of 1

Position:
Angle from Horizontal: 90°
Surface Elevation:

Rig Type: Hand Auger
Driller: SS

Casing/Hole Diameter: /
Contractor: Construction Sciences

Date Started: 7/4/20
Date Completed: 7/4/20
Logged By: SS
Checked By:

Drilling			Water	Sampling & Testing	Depth (m)	Material Description					
Method	Resistance	Casing		Sample or Field Test		Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
			Groundwater Not Observed					Concrete/Tiles			CONCRETE 0.00 m: Concrete/Tiles
				ES 0.15 - 0.30 m				0.15m FILL: Sandy CLAY: low plasticity, brown, fine to medium grained sand, with concrete/ brick fragments gravel			FILL 0.20 m: No staining, odours or Asbestos Containing Material (ACM) observed
							CL	0.40m	M (≈PL)		
					0.5			TERMINATED AT 0.40 m Hand Auger Refusal			

DRAFT

METHOD
EX Excavator bucket
R Ripper
HA Hand auger
PT Push tube
SON Sonic drilling
AH Air hammer
PS Percussion sampler
AS Short spiral auger
AD/V Solid flight auger: V-Bit
AD/T Solid flight auger: TC-Bit
HFA Hollow flight auger
WB Washbore drilling
RR Rock roller

PENETRATION
VE Very Easy (No Resistance)
E Easy
F Firm
H Hard
VH Very Hard (Refusal)

WATER
Water Level on Date shown
water inflow
water outflow

FIELD TESTS
SPT - Standard Penetration Test
PP - Hand/Pocket Penetrometer
DCP - Dynamic Cone Penetrometer
PSP - Perth Sand Penetrometer
MC - Moisture Content
PBT - Plate Bearing Test
IMP - Borehole Impression Test
PID - Photoionisation Detector
VS - Vane Shear; P=Peak, R=Residual (uncorrected kPa)

SAMPLES
B - Bulk disturbed sample
D - Disturbed sample
ES - Environmental sample
U - Thin wall tube 'undisturbed'

MOISTURE
D - Dry
M - Moist
W - Wet
PL - Plastic limit
LL - Liquid limit
w - Moisture content

SOIL CONSISTENCY
VS - Very Soft
S - Soft
F - Firm
St - Stiff
VSt - Very Stiff
H - Hard

RELATIVE DENSITY
VL - Very Loose
L - Loose
MD - Medium Dense
D - Dense
VD - Very Dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CONSTRUCTION SCIENCES PTY LTD

CONSTRUCTION SCIENCES HR 10.02.2020 2.01.4 LIB.GLB Log CS NON-CORED P848 PROPOSED VERTICAL VILLAGE.GPJ DWG89837.GDW 27/04/2020 14:41 10.0.000 Datgel AGS RTA Photo Monitoring Tools

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

APPENDIX E

WATER QUALITY PARAMETERS

Construction Sciences

GROUNDWATER FIELD DATA SHEET

Project No: 504620053	**Well ID: BH104**
Project Name: Merrylands PSI/DSI	**Sampler(s): Nalin De Silva**
Address:	**Date: 24/04/20**

Well Status

Monument damaged: YES / **NO** / N/A

Locked well casing: **YES** / NO / N/A

Casing Diameter: 50mm

WQM ID: 18B104569

PID ID:

Total well depth: 14.0 mBTOC

Depth to water before pump install: 6.934 mBTOC

Depth to water after pump install: mBTOC

Pump intake depth: 8.0 mBTOC

Casing above ground: …….. m BTOC

Well ID visible: **YES** / NO / N/A

Cap on PVC casing: **YES** / NO / N/A

Well Headspace PID (ppm):

IP ID: 312417

Sampling Equipment:

Weather Conditions:

Temperature 15-20 **x**☐ 20-25 ☐ 25-30 ☐ >30 ☐

Clear **x**☐ Partly cloudy ☐ Overcast ☐

Calm **x**☐ Slight breeze ☐ Moderate breeze ☐ Windy ☐

Fine **x**☐ Showers ☐ Rain ☐

Note: 50mm internal diameter pipe = 1.96 L/m. All measurements below well collar

Water Quality Details:

Time am / **pm**	Vol (L)	Depth to water (mBTOC)	DO (ppm)	EC ($\mu S\ cm^{-1}$)	pH	Redox (mV)	Temp (°C)	Comments (colour, turbidity, sediment, odour, sheen, thickness)
	Well purge & stabilisation acceptance criteria		±10%	±3%	±0.1	±10%	±10%	
6:29	1	7.01	2.59	26500	6.52	102	22.1	S.turbid, no odour, no sheen
6:34	2	7.18	2.39	26400	6.54	79	22.1	Clear, no odour, no sheen
6:38	3	7.34	2.29	26400	6.55	76	22.1	"
6:42	4	7.52	2.30	26400	6.56	70	22.0	"
6:47	5	7.77	2.32	26400	6.56	67	22.0	"
								Sample taken at 7:05pm

Sample ID: BH104 **Dup. Sample ID: Dupe X-1** **Trip Sample ID: Dupe X-2**

Metals Sample Field Filtered: yes/**no** – to be filtered at lab. Acid rinsed prior to filling.

Construction Sciences

GROUNDWATER FIELD DATA SHEET

Project No: 504620053	**Well ID: MW1**
Project Name: Merrylands PSI/DSI	**Sampler(s): Nalin De Silva**
Address:	**Date: 24/04/20**

Well Status

Monument damaged: YES / **NO** / N/A

Locked well casing: **YES** / NO / N/A

Casing Diameter:

WQM ID: 18B104569

PID ID:

Total well depth: 5.44 mBTOC

Depth to water before pump install: 1.635 mBTOC

Depth to water after pump install: mBTOC

Pump intake depth: 3.60 mBTOC

Casing above ground: …….. m BTOC

Well ID visible: **YES** / NO / N/A

Cap on PVC casing: **YES** / NO / N/A

Well Headspace PID (ppm):

IP ID: 312417

Sampling Equipment:

Weather Conditions:

Temperature 15-20 **x**☐ 20-25 ☐ 25-30 ☐ >30 ☐

Clear **x**☐ Partly cloudy ☐ Overcast ☐

Calm **x**☐ Slight breeze ☐ Moderate breeze ☐ Windy ☐

Fine **x**☐ Showers ☐ Rain ☐

Note: 50mm internal diameter pipe = 1.96 L/m. All measurements below well collar

Water Quality Details:

Time am / **pm**	Vol (L)	Depth to water (mBTOC)	DO (ppm)	EC (μS cm^{-1})	pH	Redox (mV)	Temp (°C)	Comments (colour, turbidity, sediment, odour, sheen, thickness)
	Well purge & stabilisation acceptance criteria		±10%	±3%	±0.1	±10%	±10%	
9:15	1	1.98	2.59	5700	7.51	106	22.3	Clear, no odour, no sheen
9:19	2	2.54	3.10	5300	7.49	110	22.2	"
9:25	3.5	2.79	3.27	5100	7.47	112	22.2	"
9:28	4	2.935	2.72	5100	7.46	113	22.3	"
9:38	5	3.08	1.93	5500	7.40	115	22.4	"
								Sample taken at 9:32PM

Sample ID: MW1 **Dup. Sample ID:** **Trip Sample ID:**

Metals Sample Field Filtered: yes/**no** – to be filtered at lab. Acid rinsed prior to filling.

Construction Sciences

GROUNDWATER FIELD DATA SHEET

Project No: 504620053	**Well ID: MW2**
Project Name: Merrylands PSI/DSI	**Sampler(s): Nalin De Silva**
Address:	**Date: 24/04/20**

Well Status

Monument damaged: YES / **NO** / N/A

Locked well casing: **YES** / NO / N/A

Casing Diameter:

WQM ID: 18B104569

PID ID:

Total well depth: 5.763 mBTOC

Depth to water before pump install: 3.160 mBTOC

Depth to water after pump install: 3.160 mBTOC

Pump intake depth: 5.0 mBTOC

Casing above ground: …….. m BTOC

Well ID visible: **YES** / NO / N/A

Cap on PVC casing: **YES** / NO / N/A

Well Headspace PID (ppm):

IP ID: 312417

Sampling Equipment:

Weather Conditions:

Temperature 15-20 ☐ 20-25 **x**☐

25-30 ☐ >30 ☐

Clear **x**☐ Partly cloudy ☐ Overcast ☐

Calm **x**☐ Slight breeze ☐ Moderate breeze ☐

Windy ☐

Fine **x**☐ Showers ☐ Rain ☐

Note: 50mm internal diameter pipe = 1.96 L/m. All measurements below well collar

Water Quality Details:

Time am / **pm**	Vol (L)	Depth to water (mBTOC)	DO (ppm)	EC ($\mu S\ cm^{-1}$)	pH	Redox (mV)	Temp (°C)	Comments (colour, turbidity, sediment, odour, sheen, thickness)
	Well purge & stabilisation acceptance criteria		±10%	±3%	±0.1	±10%	±10%	
5:43	1	3.44	0.44	5270	7.29	89	23.9	Clear, no odour, no sheen
5:46	2	3.59	0.35	4900	7.26	96	23.9	"
5:49	3	3.76	0.31	5700	7.17	101	23.8	"
5:53	4	3.88	0.30	6200	7.18	100	23.8	"
5:56	5	3.99	0.34	6500	7.16	101	23.8	"
								Sample taken at 5:59pm

Sample ID: MW2 **Dup. Sample ID:** **Trip Sample ID:**

Metals Sample Field Filtered: yes/**no** – to be filtered at lab. Acid rinsed prior to filling.

Construction Sciences

GROUNDWATER FIELD DATA SHEET

Project No: 504620053	**Well ID: MW3**
Project Name: Merrylands PSI/DSI	**Sampler(s): Nalin De Silva**
Address:	**Date: 24/04/20**

Well Status

Monument damaged: YES / **NO** / N/A

Locked well casing: **YES** / NO / N/A

Casing Diameter:

WQM ID: 18B104569

PID ID:

Total well depth: 5.80 mBTOC

Depth to water before pump install: 2.633 mBTOC

Depth to water after pump install: mBTOC

Pump intake depth: 4.5 mBTOC

Casing above ground: …….. m BTOC

Well ID visible: **YES** / NO / N/A

Cap on PVC casing: **YES** / NO / N/A

Well Headspace PID (ppm):

IP ID: 312417

Sampling Equipment:

Weather Conditions:

Temperature 15-20 ☐ 20-25 **x**☐

25-30 ☐ >30 ☐

Clear **x**☐ Partly cloudy ☐ Overcast ☐

Calm **x**☐ Slight breeze ☐ Moderate breeze ☐

Windy ☐

Fine **x**☐ Showers ☐ Rain ☐

Note: 50mm internal diameter pipe = 1.96 L/m. All measurements below well collar

Water Quality Details:

Time am / **pm**	Vol (L)	Depth to water (mBTOC)	DO (ppm)	EC ($\mu S\ cm^{-1}$)	pH	Redox (mV)	Temp (°C)	Comments (colour, turbidity, sediment, odour, sheen, thickness)
	Well purge & stabilisation acceptance criteria		±10%	±3%	±0.1	±10%	±10%	
4:55	1	2.785	0.33	30440	6.45	160	24.3	Clear, no odour, no sheen
4:58	2	2.975	0.56	29700	6.48	135	24.4	"
5:05	4	3.22	1.10	26700	6.55	104	24.4	"
5:08	5	3.45	1.34	24900	6.56	98	24.4	"
5:11	6	3.55	1.46	23300	6.56	97	24.3	"
								Sample taken at 5:15pm

Sample ID: MW3 **Dup. Sample ID:** **Trip Sample ID:**

Metals Sample Field Filtered: yes/**no** – to be filtered at lab. Acid rinsed prior to filling.

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

APPENDIX F

LABORATORY CERTIFICATES

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☐ **Sydney Laboratory** Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2065 02 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1 21 Smallwood Place Murarrie QLD 4172 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** Unit 2 91 Leach Highway Kewdale WA 6105 08 9251 9600 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Construction Sciences	Project №	5046200053	Project Manager	Nalin De Silva
Address	31 Anvil Road, Seven Hill, NSW 2147	Project Name	Merrylands	EDD Format (ESdat, EQuIS etc)	
Contact Name	Sam Scully				
Phone №	400339745				
Special Directions					
Purchase Order					
Quote ID №					

Sampler(s)	Sam Scully	
Handed over by	Sam Scully	
Email for Invoice	sam.scully@constructionsciences.net	
Email for Results	sam.scully@constructionsciences.net	

Analyses – Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.

Containers – Change container type & size if necessary.

Required Turnaround Time (TAT) – Default will be 5 days if not ticked.

♦Surcharge will apply

☐ Overnight (reporting by 9am)♦ ☐ Same day♦ ☐ 1 day♦ ☑ 2 days♦ ☐ 3 days♦ ☐ 5 days (Standard) ☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Heavy Metals (8)	TRH	BTEX	PAH	OCP	OPP	Asbestos ID	Code: B10A	Hold	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
21	BH103-0.2-0.4	7/04/20	Soil	X	X	X	X	X		X											All Results required by COB Thursday (9TH April)
22	BH104-0.2-0.4	7/04/20	Soil	X	X	X	X	X		X											
23	BH104-0.5-0.7	7/04/20	Soil	X	X	X	X			X											
24	BH105-0.15-0.3	7/04/20	Soil	X	X	X	X	X		X											
25	BH105-0.5-0.7	7/04/20	Soil	X	X	X	X			X											
	BH106-0.15-0.3	7/04/20	Soil	X	X	X	X	X		X											
	DUP-01	7/04/20	Soil	X	X	X	X	X													
	DUP-1A	7/04/20	Soil	X	X	X	X	X													Please forward to SGS - Results required by COB Thursday (9th April)
	BH105-0.15-0.3-FCS	7/04/20	Fragment							X											
26																					
27																					
28																					
29																					
	Total Counts			8	8	8	8	6		7											

Method of Shipment	☐ Courier (#)	☑ Hand Delivered	☐ Postal	Name	Sam Scully	Signature		Date	7/04/2020	Time	
Laboratory Use Only	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	7/4/20	Time	4:15PM	Temperature	13.06°C	
	Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date		Time		Report №	712599	

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

Asim Khan

From: Ammar Dawood <ammar.dawood@constructionsciences.net>
Sent: Friday, 24 April 2020 10:16 AM
To: Ursula Long; Asim Khan
Cc: Nalin De Silva
Subject: RE: Eurofins Test Results, Invoice - Report 712599 : Site MERRYLANDS (5046200053)

EXTERNAL EMAIL*

Hi Ursula,

Would you please change the sample description in report 712599 for samples BH103-BH106 to HA103-HA106.

Best regards,

Ammar Dawood
ENVIRONMENTAL ENGINEER
CONSTRUCTION SCIENCES

Construction Sciences

Phone Direct +61 2 8646 2000 Mobile +61 436 699 379
Address 31 Anvil Road, Seven Hills, New South Wales 2147 Australia

Email ammar.dawood@constructionsciences.net Web www.constructionsciences.net

CONNECT WITH CONSTRUCTION SCIENCES

Construction Sciences management systems are certified to ISO9001 (quality) and ISO45001 (occupational health and safety)

This email and its attachments may contain confidential and/or privileged information for the sole use of the intended recipient(s). All electronically supplied data must be checked against an applicable hardcopy version which shall be the only document which Construction Sciences warrants accuracy. If you are not the intended recipient, any use, distribution or copying of the information contained in this email and its attachments is strictly prohibited. If you have received this email in error, please email the sender by replying to this message and immediately delete and destroy any copies of this email and any attachments. The views or opinions expressed are the author's own and may not reflect the views or opinions of Construction Sciences.

From: Nalin De Silva <nalin.desilva@constructionsciences.net>
Sent: Friday, 24 April 2020 9:59 AM
To: Ammar Dawood <ammar.dawood@constructionsciences.net>
Subject: Fw: Eurofins Test Results, Invoice - Report 712599 : Site MERRYLANDS (5046200053)

Sam's results for HA103 to HA106.
Please file and tabulate.

Nalin De Silva
PRINCIPAL ENVIRONMENTAL CONSULTANT
CONSTRUCTION SCIENCES

eurofins | Environment Testing

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**Construction Sciences Pty Ltd**
Contact name:	Nalin DeSilva
Project name:	MERRYLANDS
Project ID:	5046200053
COC number:	Not provided
Turn around time:	2 Day
Date/Time received:	Apr 7, 2020 4:18 PM
Eurofins reference:	**712599**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

DUP-1A(Jar) forwarded to SGS.

Contact notes

If you have any questions with respect to these samples please contact:

Ursula Long on Phone : or by e.mail: UrsulaLong@eurofins.com

Results will be delivered electronically via e.mail to Nalin DeSilva - nalin.desilva@constructionsciences.net.

Construction Sciences Pty Ltd
2/4 Kellogg Rd
Glendenning
NSW 2761

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nalin DeSilva**

Report **712599-S-V2**
Project name MERRYLANDS
Project ID 5046200053
Received Date Apr 07, 2020

Client Sample ID			[G01]HA103-0.2-0.4	HA104-0.2-0.4	HA104-0.5-0.7	HA105-0.15-0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S20-Ap10597**	**S20-Ap10598**	**S20-Ap10599**	**S20-Ap10600**
Date Sampled			**Apr 07, 2020**	**Apr 07, 2020**	**Apr 07, 2020**	**Apr 07, 2020**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 200	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 500	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 500	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 500	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	113	120	106	106
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 500	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 500	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 1000	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 1000	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 1000	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			G01 HA103-0.2-0.4	HA104-0.2-0.4	HA104-0.5-0.7	HA105-0.15-0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Ap10597	S20-Ap10598	S20-Ap10599	S20-Ap10600
Date Sampled			Apr 07, 2020	Apr 07, 2020	Apr 07, 2020	Apr 07, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	87	94	92	84
p-Terphenyl-d14 (surr.)	1	%	79	86	86	86
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	-	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	-	< 0.2
Dibutylchlorendate (surr.)	1	%	60	140	-	120
Tetrachloro-m-xylene (surr.)	1	%	74	72	-	72
Heavy Metals						
Arsenic	2	mg/kg	3.9	5.6	6.0	8.8
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	0.5
Chromium	5	mg/kg	7.5	11	18	28
Copper	5	mg/kg	14	14	6.6	37
Lead	5	mg/kg	59	24	19	120
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
Nickel	5	mg/kg	6.4	6.0	5.3	10
Zinc	5	mg/kg	70	26	11	250
% Moisture	1	%	13	16	15	21

Client Sample ID			HA105-0.5-0.7	HA106-0.15-0.3	DUP-01
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S20-Ap10601	S20-Ap10602	S20-Ap10603
Date Sampled			Apr 07, 2020	Apr 07, 2020	Apr 07, 2020
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	110	106	114
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	87	92	91
p-Terphenyl-d14 (surr.)	1	%	83	89	86

Client Sample ID			HA105-0.5-0.7	HA106-0.15-0.3	DUP-01
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S20-Ap10601	S20-Ap10602	S20-Ap10603
Date Sampled			Apr 07, 2020	Apr 07, 2020	Apr 07, 2020
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	< 0.05	< 0.05
d-BHC	0.05	mg/kg	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	-	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.2	< 0.2
Dibutylchlorendate (surr.)	1	%	-	149	102
Tetrachloro-m-xylene (surr.)	1	%	-	74	75
Heavy Metals					
Arsenic	2	mg/kg	8.5	5.7	5.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	18	14	36
Copper	5	mg/kg	8.7	12	16
Lead	5	mg/kg	19	33	53
Mercury	0.1	mg/kg	< 0.1	0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	15
Zinc	5	mg/kg	6.3	46	62
% Moisture	1	%	15	17	14

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B9			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Apr 08, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Apr 08, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 08, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 08, 2020	
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Apr 08, 2020	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Apr 08, 2020	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Apr 08, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Apr 07, 2020	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

Project Name: MERRYLANDS
Project ID: 5046200053

Order No.:
Report #: 712599
Phone: 02 9854 1700
Fax:

Received: Apr 7, 2020 4:18 PM
Due: Apr 9, 2020
Priority: 2 Day
Contact Name: Nalin DeSilva

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Asbestos - AS4964	Asbestos Absence /Presence	Moisture Set	Eurofins | mgt Suite B7	Eurofins | mgt Suite B9
Melbourne Laboratory - NATA Site # 1254 & 14271										
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794										
Perth Laboratory - NATA Site # 23736										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	HA103-0.2-0.4	Apr 07, 2020		Soil	S20-Ap10597	X		X		X
2	HA104-0.2-0.4	Apr 07, 2020		Soil	S20-Ap10598	X		X		X
3	HA104-0.5-0.7	Apr 07, 2020		Soil	S20-Ap10599	X		X	X	
4	HA105-0.15-0.3	Apr 07, 2020		Soil	S20-Ap10600	X		X		X
5	HA105-0.5-0.7	Apr 07, 2020		Soil	S20-Ap10601	X		X	X	
6	HA106-0.15-0.3	Apr 07, 2020		Soil	S20-Ap10602	X		X		X
7	DUP-01	Apr 07, 2020		Soil	S20-Ap10603			X		X
8	HA105-0.15-0.3-FCS	Apr 07, 2020		Building Materials	S20-Ap10604		X			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

Project Name: MERRYLANDS
Project ID: 5046200053

Order No.:
Report #: 712599
Phone: 02 9854 1700
Fax:

Received: Apr 7, 2020 4:18 PM
Due: Apr 9, 2020
Priority: 2 Day
Contact Name: Nalin DeSilva

Eurofins Analytical Services Manager : Ursula Long

Sample Detail	Asbestos - AS4964	Asbestos Absence /Presence	Moisture Set	Eurofins | mgt Suite B7	Eurofins | mgt Suite B9
Melbourne Laboratory - NATA Site # 1254 & 14271					
Sydney Laboratory - NATA Site # 18217	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794					
Perth Laboratory - NATA Site # 23736					
Test Counts	6	1	7	2	5

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

#AU04_Enviro_Sample_NSW

To: Ursula Long
Subject: RE: Eurofins Sample Receipt Advice - Report 715228 : Site HOLD: CS0053

From: Nalin De Silva <nalin.desilva@constructionsciences.net>
Sent: Friday, 24 April 2020 12:35 PM
To: Ursula Long <UrsulaLong@eurofins.com>
Subject: Re: Eurofins Sample Receipt Advice - Report 715228 : Site HOLD: CS0053

EXTERNAL EMAIL*

Hi Ursula,
Can you please analyse all samples for TRH/BTEX, metals (8), PAH and OCP?
Samples were collected on 17 April by Samin Mortuza. Project number is CS5046200053.
Can I get the results by COB Wednesday next week?
Cheers.

Nalin De Silva
PRINCIPAL ENVIRONMENTAL CONSULTANT
CONSTRUCTION SCIENCES

Mobile 0450 715 562
Address 31 Anvil Road, Seven Hills, New South Wales 2147 Australia

Email nalin.desilva@constructionsciences.net Web www.constructionsciences.net

CONNECT WITH CONSTRUCTION SCIENCES

Construction Sciences management systems are certified to ISO9001 (quality) and ISO45001 (occupational health and safety)
This email and its attachments may contain confidential and/or privileged information for the sole use of the intended recipient(s). All electronically supplied data must be checked against an applicable hardcopy version which shall be the only document which Construction Sciences warrants accuracy. If you are not the intended recipient, any use, distribution or copying of the information contained in this email and its attachments is strictly prohibited. If you have received this email in error, please email the sender by replying to this message and immediately delete and destroy any copies of this email and any attachments. The views or opinions expressed are the author's own and may not reflect the views or opinions of Construction Sciences.

From: UrsulaLong@eurofins.com <UrsulaLong@eurofins.com>
Sent: 24 April 2020 12:16
To: Nalin De Silva <nalin.desilva@constructionsciences.net>
Subject: Eurofins Sample Receipt Advice - Report 715228 : Site HOLD: CS0053

Dear Valued Client,

Samples received without COC - on Hold. Sampler initials SM.

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins Analytical

Services Manager as soon as possible to make certain that they get changed.

Regards

Ursula Long

Eurofins
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066
AUSTRALIA
Phone: +61 299 008 420
Email: UrsulaLong@eurofins.com
Website:environment.eurofins.com.au
EnviroNote 1098 - Melbourne PFAS Accreditation
EnviroNote 1080 - Total Organofluorine Analysis & PFAS Investigations

Click here to report this email as spam.
ScannedByWebsenseForEurofins

* WARNING - EXTERNAL: This email originated from outside of Eurofins. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!

eurofins | Environment Testing

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**Construction Sciences Pty Ltd**
Contact name:	Nalin DeSilva
Project name:	CS5046200053
Project ID:	CS5046200053
COC number:	Not provided
Turn around time:	3 Day
Date/Time received:	Apr 24, 2020 12:35 PM
Eurofins reference:	**715228**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Ursula Long on Phone : or by e.mail: UrsulaLong@eurofins.com

Results will be delivered electronically via e.mail to Nalin DeSilva - nalin.desilva@constructionsciences.net.

Construction Sciences Pty Ltd
2/4 Kellogg Rd
Glendenning
NSW 2761

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nalin DeSilva**

Report **715228-S**
Project name CS5046200053
Project ID CS5046200053
Received Date Apr 21, 2020

Client Sample ID			**BH104_0.8-1.0**	**BH104_1.8-2.0**	**BH104_2.8-3.0**	**BH104_3.8-4.0**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S20-Ap32589**	**S20-Ap32590**	**S20-Ap32591**	**S20-Ap32592**
Date Sampled			**Apr 17, 2020**	**Apr 17, 2020**	**Apr 17, 2020**	**Apr 17, 2020**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	97	106	110	108
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH104_0.8-1.0	BH104_1.8-2.0	BH104_2.8-3.0	BH104_3.8-4.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S20-Ap32589	S20-Ap32590	S20-Ap32591	S20-Ap32592
Date Sampled			Apr 17, 2020	Apr 17, 2020	Apr 17, 2020	Apr 17, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	86	86	93	91
p-Terphenyl-d14 (surr.)	1	%	89	92	97	95
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dibutylchlorendate (surr.)	1	%	89	106	122	114
Tetrachloro-m-xylene (surr.)	1	%	99	107	121	113
Heavy Metals						
Arsenic	2	mg/kg	7.2	8.6	13	19
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	14	11	21	22
Copper	5	mg/kg	16	16	16	24
Lead	5	mg/kg	19	15	25	22
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.6	< 5	< 5	5.4
Zinc	5	mg/kg	17	18	21	20
% Moisture	1	%	18	20	20	21

Client Sample ID			DUPA
Sample Matrix			Soil
Eurofins Sample No.			S20-Ap32596
Date Sampled			Apr 17, 2020
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50
BTEX			
Benzene	0.1	mg/kg	< 0.1
Toluene	0.1	mg/kg	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2
o-Xylene	0.1	mg/kg	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3
4-Bromofluorobenzene (surr.)	1	%	86
Total Recoverable Hydrocarbons - 2013 NEPM Fractions			
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100
Polycyclic Aromatic Hydrocarbons			
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH*	0.5	mg/kg	< 0.5
2-Fluorobiphenyl (surr.)	1	%	92
p-Terphenyl-d14 (surr.)	1	%	96

Client Sample ID			DUPA
Sample Matrix			Soil
Eurofins Sample No.			S20-Ap32596
Date Sampled			Apr 17, 2020
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
Chlordanes - Total	0.1	mg/kg	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2
Toxaphene	1	mg/kg	< 1
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.2
Dibutylchlorendate (surr.)	1	%	101
Tetrachloro-m-xylene (surr.)	1	%	99
Heavy Metals			
Arsenic	2	mg/kg	22
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	29
Copper	5	mg/kg	19
Lead	5	mg/kg	39
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	5.2
Zinc	5	mg/kg	13
% Moisture	1	%	17

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Apr 28, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Apr 28, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 28, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 28, 2020	
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Apr 28, 2020	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Apr 28, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Organochlorine Pesticides	Sydney	Apr 28, 2020	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Sydney	Apr 24, 2020	14 Days
- Method: LTM-GEN-7080 Moisture			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

Project Name: CS5046200053
Project ID: CS5046200053

Order No.:
Report #: 715228
Phone: 02 9854 1700
Fax:

Received: Apr 24, 2020 12:35 PM
Due: Apr 29, 2020
Priority: 3 Day
Contact Name: Nalin DeSilva

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Organochlorine Pesticides	Moisture Set	Eurofins | mgt Suite B7	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217						X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH104_0.8-1.0	Apr 17, 2020		Soil	S20-Ap32589	X	X	X	
2	BH104_1.8-2.0	Apr 17, 2020		Soil	S20-Ap32590	X	X	X	
3	BH104_2.8-3.0	Apr 17, 2020		Soil	S20-Ap32591	X	X	X	
4	BH104_3.8-4.0	Apr 17, 2020		Soil	S20-Ap32592	X	X	X	
5	TRIP BLANK	Apr 17, 2020		Water	S20-Ap32593				X
6	TRIP SPIKE	Apr 17, 2020		Water	S20-Ap32594				X
7	DUPA	Apr 17, 2020		Soil	S20-Ap32596	X	X	X	
Test Counts						5	5	5	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	106			70-130	Pass	
TRH C10-C14	%	79			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	118			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	107			70-130	Pass	
o-Xylene	%	109			70-130	Pass	
Xylenes - Total*	%	108			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	96			70-130	Pass	
TRH C6-C10	%	107			70-130	Pass	
TRH >C10-C16	%	81			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	112			70-130	Pass	
Acenaphthylene	%	108			70-130	Pass	
Anthracene	%	112			70-130	Pass	
Benz(a)anthracene	%	104			70-130	Pass	
Benzo(a)pyrene	%	104			70-130	Pass	
Benzo(b&j)fluoranthene	%	97			70-130	Pass	
Benzo(g.h.i)perylene	%	102			70-130	Pass	
Benzo(k)fluoranthene	%	111			70-130	Pass	
Chrysene	%	100			70-130	Pass	
Dibenz(a.h)anthracene	%	101			70-130	Pass	
Fluoranthene	%	111			70-130	Pass	
Fluorene	%	112			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	98			70-130	Pass	
Naphthalene	%	113			70-130	Pass	
Phenanthrene	%	110			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pyrene			%	112			70-130	Pass	
LCS - % Recovery									
Organochlorine Pesticides									
Chlordanes - Total			%	97			70-130	Pass	
4.4'-DDD			%	101			70-130	Pass	
4.4'-DDE			%	101			70-130	Pass	
4.4'-DDT			%	107			70-130	Pass	
a-BHC			%	98			70-130	Pass	
Aldrin			%	99			70-130	Pass	
b-BHC			%	91			70-130	Pass	
d-BHC			%	117			70-130	Pass	
Dieldrin			%	101			70-130	Pass	
Endosulfan I			%	100			70-130	Pass	
Endosulfan II			%	105			70-130	Pass	
Endosulfan sulphate			%	109			70-130	Pass	
Endrin			%	111			70-130	Pass	
Endrin aldehyde			%	87			70-130	Pass	
Endrin ketone			%	91			70-130	Pass	
g-BHC (Lindane)			%	96			70-130	Pass	
Heptachlor			%	100			70-130	Pass	
Heptachlor epoxide			%	100			70-130	Pass	
Hexachlorobenzene			%	96			70-130	Pass	
Methoxychlor			%	107			70-130	Pass	
Toxaphene			%	90			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	97			70-130	Pass	
Cadmium			%	95			70-130	Pass	
Chromium			%	92			70-130	Pass	
Copper			%	93			70-130	Pass	
Lead			%	95			70-130	Pass	
Mercury			%	95			70-130	Pass	
Nickel			%	92			70-130	Pass	
Zinc			%	91			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S20-Ap36827	NCP	%	80			70-130	Pass	
TRH C10-C14	S20-Ap30870	NCP	%	76			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S20-Ap36827	NCP	%	107			70-130	Pass	
Toluene	S20-Ap36827	NCP	%	107			70-130	Pass	
Ethylbenzene	S20-Ap36827	NCP	%	109			70-130	Pass	
m&p-Xylenes	S20-Ap36827	NCP	%	114			70-130	Pass	
o-Xylene	S20-Ap36827	NCP	%	116			70-130	Pass	
Xylenes - Total*	S20-Ap36827	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S20-Ap36827	NCP	%	111			70-130	Pass	
TRH C6-C10	S20-Ap36827	NCP	%	84			70-130	Pass	
TRH >C10-C16	S20-Ap30870	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthene	S20-Ap26430	NCP	%	103			70-130	Pass	
Acenaphthylene	S20-Ap26430	NCP	%	105			70-130	Pass	
Anthracene	S20-Ap26430	NCP	%	108			70-130	Pass	
Benz(a)anthracene	S20-Ap26430	NCP	%	101			70-130	Pass	
Benzo(a)pyrene	S20-Ap26430	NCP	%	99			70-130	Pass	
Benzo(b&j)fluoranthene	S20-Ap26430	NCP	%	108			70-130	Pass	
Benzo(g.h.i)perylene	S20-Ap26430	NCP	%	96			70-130	Pass	
Benzo(k)fluoranthene	S20-Ap26430	NCP	%	96			70-130	Pass	
Chrysene	S20-Ap26430	NCP	%	96			70-130	Pass	
Dibenz(a.h)anthracene	S20-Ap26430	NCP	%	104			70-130	Pass	
Fluoranthene	S20-Ap26430	NCP	%	104			70-130	Pass	
Fluorene	S20-Ap26430	NCP	%	108			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S20-Ap26430	NCP	%	101			70-130	Pass	
Naphthalene	S20-Ap26430	NCP	%	106			70-130	Pass	
Phenanthrene	S20-Ap26430	NCP	%	106			70-130	Pass	
Pyrene	S20-Ap26430	NCP	%	104			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S20-Ap29036	NCP	%	87			70-130	Pass	
4.4'-DDD	S20-Ap29036	NCP	%	102			70-130	Pass	
4.4'-DDE	S20-Ap29036	NCP	%	91			70-130	Pass	
4.4'-DDT	S20-Ap29036	NCP	%	72			70-130	Pass	
a-BHC	S20-Ap29036	NCP	%	90			70-130	Pass	
Aldrin	S20-Ap29036	NCP	%	90			70-130	Pass	
b-BHC	S20-Ap29036	NCP	%	84			70-130	Pass	
d-BHC	S20-Ap29036	NCP	%	107			70-130	Pass	
Dieldrin	S20-Ap29036	NCP	%	91			70-130	Pass	
Endosulfan I	S20-Ap29036	NCP	%	89			70-130	Pass	
Endosulfan II	S20-Ap29036	NCP	%	93			70-130	Pass	
Endosulfan sulphate	S20-Ap29036	NCP	%	96			70-130	Pass	
Endrin aldehyde	S20-Ap29036	NCP	%	70			70-130	Pass	
Endrin ketone	S20-Ap29036	NCP	%	72			70-130	Pass	
g-BHC (Lindane)	S20-Ap29036	NCP	%	88			70-130	Pass	
Heptachlor	S20-Ap29036	NCP	%	90			70-130	Pass	
Heptachlor epoxide	S20-Ap29036	NCP	%	90			70-130	Pass	
Hexachlorobenzene	S20-Ap29036	NCP	%	88			70-130	Pass	
Methoxychlor	S20-Ap29036	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-Ap34298	NCP	%	89			70-130	Pass	
Cadmium	S20-Ap34298	NCP	%	93			70-130	Pass	
Chromium	S20-Ap34298	NCP	%	87			70-130	Pass	
Copper	S20-Ap34298	NCP	%	84			70-130	Pass	
Lead	S20-Ap34298	NCP	%	91			70-130	Pass	
Mercury	S20-Ap34298	NCP	%	95			70-130	Pass	
Nickel	S20-Ap34298	NCP	%	88			70-130	Pass	
Zinc	S20-Ap34298	NCP	%	86			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S20-Ap34365	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S20-Ap32589	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S20-Ap32589	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S20-Ap32589	CP	mg/kg	< 50	< 50	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-Ap34365	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S20-Ap34365	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S20-Ap34365	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S20-Ap34365	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S20-Ap34365	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S20-Ap34365	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-Ap34365	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S20-Ap34365	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S20-Ap32589	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S20-Ap32589	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S20-Ap32589	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S20-Ap32589	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S20-Ap32589	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S20-Ap32589	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S20-Ap32589	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S20-Ap32589	CP	mg/kg	< 1	< 1	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Ap34297	NCP	mg/kg	7.2	9.9	31	30%	Fail	Q15
Cadmium	S20-Ap34297	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S20-Ap34297	NCP	mg/kg	16	16	1.0	30%	Pass	
Copper	S20-Ap34297	NCP	mg/kg	22	20	11	30%	Pass	
Lead	S20-Ap34297	NCP	mg/kg	33	33	2.0	30%	Pass	
Mercury	S20-Ap34297	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S20-Ap34297	NCP	mg/kg	18	20	10	30%	Pass	
Zinc	S20-Ap34297	NCP	mg/kg	55	62	12	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S20-Ap32589	CP	%	18	17	1.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised By

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)

Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Construction Sciences Pty Ltd
2/4 Kellogg Rd
Glendenning
NSW 2761

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nalin DeSilva**

Report **715228-W**
Project name CS5046200053
Project ID CS5046200053
Received Date Apr 21, 2020

Client Sample ID			**TRIP BLANK**	R20**TRIP SPIKE**
Sample Matrix			**Water**	**Water**
Eurofins Sample No.			**S20-Ap32593**	**S20-Ap32594**
Date Sampled			**Apr 17, 2020**	**Apr 17, 2020**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.01	mg/L	< 0.01	130
TRH C6-C10	0.02	mg/L	< 0.02	72
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	0.02	mg/L	< 0.02	73
BTEX				
Benzene	0.001	mg/L	< 0.001	95
Toluene	0.001	mg/L	< 0.001	93
Ethylbenzene	0.001	mg/L	< 0.001	88
m&p-Xylenes	0.002	mg/L	< 0.002	93
o-Xylene	0.001	mg/L	< 0.001	99
Xylenes - Total*	0.003	mg/L	< 0.003	95
4-Bromofluorobenzene (surr.)	1	%	93	84

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons	Sydney	Apr 24, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Apr 24, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Apr 24, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

Project Name: CS5046200053
Project ID: CS5046200053

Order No.:
Report #: 715228
Phone: 02 9854 1700
Fax:

Received: Apr 24, 2020 12:35 PM
Due: Apr 29, 2020
Priority: 3 Day
Contact Name: Nalin DeSilva

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						Organochlorine Pesticides	Moisture Set	Eurofins | mgt Suite B7	BTEXN and Volatile TRH
Melbourne Laboratory - NATA Site # 1254 & 14271									
Sydney Laboratory - NATA Site # 18217						X	X	X	X
Brisbane Laboratory - NATA Site # 20794									
Perth Laboratory - NATA Site # 23736									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH104_0.8-1.0	Apr 17, 2020		Soil	S20-Ap32589	X	X	X	
2	BH104_1.8-2.0	Apr 17, 2020		Soil	S20-Ap32590	X	X	X	
3	BH104_2.8-3.0	Apr 17, 2020		Soil	S20-Ap32591	X	X	X	
4	BH104_3.8-4.0	Apr 17, 2020		Soil	S20-Ap32592	X	X	X	
5	TRIP BLANK	Apr 17, 2020		Water	S20-Ap32593				X
6	TRIP SPIKE	Apr 17, 2020		Water	S20-Ap32594				X
7	DUPA	Apr 17, 2020		Soil	S20-Ap32596	X	X	X	
Test Counts						5	5	5	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram | **mg/L:** milligrams per litre | **ug/L:** micrograms per litre

ppm: Parts per million | **ppb:** Parts per billion | **%:** Percentage

org/100mL: Organisms per 100 millilitres | **NTU:** Nephelometric Turbidity Units | **MPN/100mL:** Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	125			70-130	Pass	
TRH C6-C10	%	89			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	89			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	88			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	116			70-130	Pass	
m&p-Xylenes	%	105			70-130	Pass	
o-Xylene	%	108			70-130	Pass	
Xylenes - Total*	%	106			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-Ap33238	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S20-Ap33238	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S20-Ap33238	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-Ap33238	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S20-Ap33238	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S20-Ap33238	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S20-Ap33238	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S20-Ap33238	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S20-Ap33238	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
R20	This sample is a Trip Spike and therefore all results are reported as a percentage

Authorised By

Ursula Long Analytical Services Manager

Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

CHAIN OF CUSTODY RECORD

Eurofins | mgt ABN 50 005 085 521

☑ **Sydney Laboratory** Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2066 02 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1 21 Smallwood Place Murarrie QLD 4172 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** Unit 2 91 Leach Highway Kewdale WA 6105 08 9251 9600 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Construction Sciences	Project №	5046200053	Project Manager	Nalin De Silva
Address	31 Anvil Road, Seven Hills, NSW	Project Name	Anglicare Merrylands	EDD Format (ESdat, EQuIS etc)	Esdat
Contact Name	Nalin De Silva				
Phone №	0450715562				
Special Directions	Results needed by COB Wednesdayy 29 April 2020				
Purchase Order	CS Quote				
Quote ID №					

Sampler(s)	Nalin De Silva
Handed over by	Nalin De Silva
Email for Invoice	Nalin De Silva
Email for Results	Nalin

Analyses (Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing.)

Containers (Change container type & size if necessary.)

Required Turnaround Time (TAT) (Default will be 5 days if not ticked. ♦Surcharge will apply)

☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☑ 3 days♦
☐ 5 days (Standard)
☐ Other( )

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	B2 (TRH/BTEX, Pb)	BTEX	500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	MW1	27/04/2020, 5PM	W	X				1	1	2				
2	MW2	27/04/2020, 6PM	W	X				1	1	2				
3	MW3	27/04/2020, 7PM	W	X				1	1	2				
4	BH104	27/04/2020, 9.30PM	W	X				1	1	2				
5	Dup X-1	27/04/20	W	X				1	1	2				
6	Dup X-2	27/04/20	W	X				1	1	2				
7	Trip Blank				X									
8	Trip Spike				X									
9														
10														
		Total Counts		6	2			6	6	12				

Method of Shipment: ☐ Courier (#) ☑ Hand Delivered ☐ Postal — Name: Nalin De Silva — Signature: NDS — Date: 27/04/20 — Time: 10.40PM

Eurofins | mgt Laboratory Use Only

Received By	Nipani	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	27/04/20	Time 10:02PM — Temperature 10.0°C
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date		Time — Report № 715853

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

eurofins | Environment Testing

Melbourne
6 Monterey Road
Dandenong South Vic 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com web : www.eurofins.com.au

Sample Receipt Advice

Company name:	**Construction Sciences Pty Ltd**
Contact name:	Nalin DeSilva
Project name:	ANGLICARE MERRYLANDS
Project ID:	5046200053
COC number:	Not provided
Turn around time:	2 Day
Date/Time received:	Apr 27, 2020 10:02 AM
Eurofins reference:	**715853**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Ursula Long on Phone : or by e.mail: UrsulaLong@eurofins.com

Results will be delivered electronically via e.mail to Nalin DeSilva - nalin.desilva@constructionsciences.net.

eurofins | Environment Testing

Certificate of Analysis

Construction Sciences Pty Ltd
2/4 Kellogg Rd
Glendenning
NSW 2761

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Nalin DeSilva**

Report **715853-W**
Project name ANGLICARE MERRYLANDS
Project ID 5046200053
Received Date Apr 27, 2020

Client Sample ID			**MW1**	**MW2**	**MW3**	**BH104**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S20-Ap37873**	**S20-Ap37874**	**S20-Ap37875**	**S20-Ap37876**
Date Sampled			**Apr 27, 2020**	**Apr 27, 2020**	**Apr 27, 2020**	**Apr 27, 2020**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	129	126	127	131
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	0.25	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	0.25	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	0.25	< 0.1	< 0.1
Heavy Metals						
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			DUP X_1	DUP X_2	TRIP BLANK	[R20]TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Ap37877	S20-Ap37878	S20-Ap37879	S20-Ap37880
Date Sampled			Apr 27, 2020	Apr 27, 2020	Not Provided	Not Provided
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	-	-
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	130
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	120
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	120
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	110
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	120
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	110
4-Bromofluorobenzene (surr.)	1	%	131	125	129	122
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	-	-
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	-	-
Heavy Metals						
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins | mgt Suite B2 (filtered metals)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Apr 27, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Apr 27, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 27, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Apr 27, 2020	
- Method: LTM-ORG-2010 TRH C6-C40			
Heavy Metals (filtered)	Sydney	Apr 27, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

ABN – 50 005 085 521 web : www.eurofins.com.au e.mail : EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

New Zealand

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Construction Sciences Pty Ltd
Address: 2/4 Kellogg Rd
Glendenning
NSW 2761

Project Name: ANGLICARE MERRYLANDS
Project ID: 5046200053

Order No.:
Report #: 715853
Phone: 02 9854 1700
Fax:

Received: Apr 27, 2020 10:02 AM
Due: Apr 29, 2020
Priority: 2 Day
Contact Name: Nalin DeSilva

Eurofins Analytical Services Manager : Ursula Long

Sample Detail						BTEX	Eurofins | mgt Suite B2 (filtered metals)
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	MW1	Apr 27, 2020		Water	S20-Ap37873		X
2	MW2	Apr 27, 2020		Water	S20-Ap37874		X
3	MW3	Apr 27, 2020		Water	S20-Ap37875		X
4	BH104	Apr 27, 2020		Water	S20-Ap37876		X
5	DUP X_1	Apr 27, 2020		Water	S20-Ap37877		X
6	DUP X_2	Apr 27, 2020		Water	S20-Ap37878		X
7	TRIP BLANK	Not Provided		Water	S20-Ap37879	X	
8	TRIP SPIKE	Not Provided		Water	S20-Ap37880	X	
Test Counts						2	6

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer, that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	100			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	112			70-130	Pass	
Toluene	%	107			70-130	Pass	
Ethylbenzene	%	104			70-130	Pass	
m&p-Xylenes	%	102			70-130	Pass	
o-Xylene	%	103			70-130	Pass	
Xylenes - Total*	%	103			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	105			70-130	Pass	
TRH C6-C10	%	104			70-130	Pass	
TRH >C10-C16	%	120			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Lead (filtered)	%	98			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Lead (filtered)	S20-Ap36599	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S20-Ap37874	CP	%	113			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S20-Ap37874	CP	%	113			70-130	Pass	
Toluene	S20-Ap37874	CP	%	112			70-130	Pass	
Ethylbenzene	S20-Ap37874	CP	%	114			70-130	Pass	
m&p-Xylenes	S20-Ap37874	CP	%	111			70-130	Pass	
o-Xylene	S20-Ap37874	CP	%	111			70-130	Pass	
Xylenes - Total*	S20-Ap37874	CP	%	111			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S20-Ap37874	CP	%	115			70-130	Pass	
TRH C6-C10	S20-Ap37874	CP	%	123			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S20-Ap37878	CP	%	74			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S20-Ap37878	CP	%	75			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S20-Ap37873	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-Ap37873	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S20-Ap37873	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S20-Ap37873	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S20-Ap37873	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S20-Ap37873	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S20-Ap37873	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-Ap37873	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S20-Ap37873	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead (filtered)	S20-Ap37873	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S20-Ap37877	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S20-Ap37877	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S20-Ap37877	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S20-Ap37877	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S20-Ap37877	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S20-Ap37877	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
R20	This sample is a Trip Spike and therefore all results are reported as a percentage

Authorised By

Ursula Long	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)

Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Contact

31 Anvil Road
Seven Hills NSW 2147

Telephone: +612 8646 2000
Facsimile: +612 8646 2025

www.constructionsciences.net

CUMBERLAND CITY COUNCIL

THESE ENDORSED PLANS ARE TO BE READ IN CONJUNCTION WITH DEVELOPMENT CONSENT NO. DA2020/0308

CONSENT DATE 23/12/2020

Remedial Action Plan

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

10791EV.P55 (5046200053)

Prepared for
Anglican Community Services (Anglicare)
c/- Artazan Property Group

27/11/2020

Construction Sciences

Contact Information

Construction Sciences Pty Ltd
ABN 74 128 806 735

31 Anvil Road
Seven Hills NSW 2147

Telephone: + 612 8646 2000
Facsimile: + 612 8646 2025

www.constructionsciences.net

Document Information

Prepared for	Anglican Community Services (Anglicare) c/- Artazan Property Group
Project Name	Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands
File Reference	10791EV.P55-R03d1.docx

Document History

Version	Date	Prepared by:	Reviewed By:	Authorised by:
Draft 1	27 November 2020	Nalin De Silva		Nalin De Silva
Final	27 November 2020	Nalin De Silva		Nalin De Silva

© Construction Sciences 2018. Copyright in the whole and every part of this document belongs to Construction Sciences and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person other than by agreement with Construction Sciences.

This document is produced by Construction Sciences solely for the benefit and use by the client in accordance with the terms of the engagement. Construction Sciences (and the Certifier if applicable) does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document.

INFORMATION ABOUT THIS REPORT

LIMITATIONS

Scope of Services: The report has been prepared in accordance with the scope of services set out in CS's Proposal under CS's Terms of Engagement, or as otherwise agreed with the Client. The scope of services may have been limited and/or amended by a range of factors including time, budget, access and site constraints.

Specific Purpose: The report is provided for the specific development and purpose as described in the report. The report may not contain sufficient information for developments or purposes other than that described in the report.

Currency of Information: The information in this report is considered accurate at the date of issue with regard to the current conditions of the site.

Reliance on Information: In preparing the report, CS (and the report Certifier if applicable) have necessarily relied upon information provided by the Client and/or their Agents. Such data may include surveys, analyses, designs, maps and plans. CS has not verified the accuracy or completeness of the data except as stated in this report.

Copyright and Reproduction: The contents of this document are and remain the intellectual property of CS. This document should only be used for the purpose for which it was commissioned and should not be used for other projects or by a third party. This report shall not be reproduced either totally or in part without the permission of CS. Where information from this report is to be included in contract documents or engineering specification for the project, the entire report should be included in order to minimise the likelihood of misinterpretation.

Construction Specifications: Unless otherwise stated, the report, or sections of the report, should not be used as part of a specification for a project, without review and agreement by CS.

Report Should Not Be Separated: The report must be read in conjunction with the attached Information Sheets and any other explanatory notes and should be kept in its entirety without separation of individual pages or sections.

Review by Others: CS cannot be held responsible for interpretations or conclusions from review by others of this report or test data, which are not otherwise supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

GENERAL NOTES

Geotechnical and Environmental Reporting: Geotechnical and environmental reporting relies on the interpretation of factual information based on judgment and opinion and is far less exact than other engineering or design disciplines. Geotechnical and environmental reports are for a specific purpose, development and site as described in the report and may not contain sufficient information for other purposes, developments or sites (including adjacent sites) other than that described in the report.

Subsurface Conditions: Subsurface conditions can change with time and can vary between test locations. For example, the actual interface between the materials may be far more gradual or abrupt than indicated and contaminant presence may be affected by spatial and temporal patterns. Therefore, actual conditions in areas not sampled may differ from those predicted since no subsurface investigation, no matter how comprehensive, can reveal all subsurface details and anomalies. Construction operations at or adjacent to the site and natural events such as floods, earthquakes or groundwater fluctuations can also affect subsurface conditions and thus the continuing adequacy of a geotechnical report. CS should be kept informed of any such events and should be retained to identify variances, conduct additional tests if required, and recommend solutions to problems encountered on site.

Groundwater: Groundwater levels indicated on borehole and test pit logs are recorded at specific times. Depending on ground permeability, measured levels may or may not reflect actual levels if measured over a longer time period. Also, groundwater levels and seepage inflows may fluctuate with seasonal and environmental variations and construction activities.

Interpretation of Data: Data obtained from nominated discrete locations, subsequent laboratory testing and empirical or external sources are interpreted by trained professionals in order to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions in accordance with any relevant industry standards, guidelines or procedures.

Soil and Rock Descriptions: Soil and rock descriptions are based on AS 1726 – 1993, using visual and tactile assessment except at discrete locations where field and / or laboratory tests have been carried out. Refer to the accompanying soil and rock terms sheet for further information.

Further Advice: CS would be pleased to further discuss how any of the above issues could affect a specific project. We would also be pleased to provide further advice or assistance including:

- Assessment of suitability of designs and construction techniques;
- Contract documentation and specification;
- Construction control testing (earthworks, pavement materials, concrete);
- Construction advice (foundation assessments, excavation support).

Executive Summary

Construction Sciences Pty Ltd (CS) was engaged by Anglican Community Services (Anglicare), to prepare a remedial action plan (RAP) for land located at 215-239 Pitt Street Merrylands NSW (the site). This RAP has been prepared in accordance with the NSW EPA (2020) Guidelines for Consultants Reporting on Contaminated Sites.

At the commencement of this work, CS understood:

> The site is currently a commercial property comprising shops and businesses with open space carpark;

> The site is proposed for development of the 'Merrylands Vertical Village', with works to include demolition of the existing buildings and construction of a high-rise building, with combined commercial and residential occupancy. The proposed development is to include a three level basement car park;

> Network Geotechnics Pty Ltd (NG) previously conducted a *Due Diligence Contamination Assessment* of the site (NG, 2017), that included the collection and analysis of soil and groundwater samples from readily accessible areas. The report concluded that the soils are unlikely to contain widespread contamination, however it noted that isolated contamination near former underground fuel infrastructure could not be precluded. NG reported that the proposed basement excavation will likely excavate and remove offsite the contaminated soil and groundwater, but the potential for vapour intrusion could not be precluded without additional assessment;

> Subsequently, a combined PSI / DSI was conducted by CS (CS, 2020), which concluded the following:

  > The potential for unacceptable soil and groundwater contamination to be present on the site, as a result of the former service station at No.215-239 Pitt Street, Merrylands, is low;

  > The potential for unacceptably contaminated to be migrating offsite is low; and

  > The site is suitable for the proposed development, from a contamination perspective, in general accordance with the requirements of SEPP55 and NEPM (2013);

> Cumberland Council has requested further information regarding the potential for former underground petroleum storage system (UPSS) infrastructure and associated contamination to be encountered during the proposed earthworks. It was agreed that a remedial action plan (RAP) be prepared to demonstrate that the **site can be made suitable for the proposed land use**, in the event that UPSS infrastructure is encountered during the earthworks.

The objectives of this project was to prepare a RAP to UPSS infrastructure and associated unacceptable land contamination exposure **risks that could potentially be identified** during the proposed bulk earthworks.

The PSI/DSI report presented the following conceptual site model upon completion of the assessment.

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
AEC01	Soils underlying 215-239 Pitt Street, Merrylands	TRH, BTEX, PAH, metals, OCP, Asbestos	Vapour Intrusion (human health) Ground water (recreational) Aesthetics (human health)	residents, visitors, commercial workers and club users Ecological	Yes – unacceptable contamination risks not detected
AEC02	Ground water at the site	TRH, BTEX, lead			Yes – unacceptable contamination risks not detected

CS (2020) considered the proposed excavation and offsite disposal of soils to a depth of approximately 9m below ground level in its appreciation of contamination exposure risks.

Council has raised concerns regarding the potential for former UPSS infrastructure and associated contamination to be present beneath the existing buildings and pavements, and for such infrastructure and contamination to pose an unacceptable risk to the site workers during the proposed construction works.

The remedial goal for this project is to remove any UPSS infrastructure such as underground storage tanks (USTs), pipes etc. that may be present and to remediate any contamination that may be associated with such UPSS infrastructure.

Should remediation of UPSS infrastructure be required, the remediation strategy will be to excavate and dispose it offsite.

Based on CS' assessment of the information presented in the available historical contamination assessment reports, CS considers that the remedial goal can be achieved and the site made suitable for the proposed land use, subject to:

> The implementation of the strategies and methodologies set out in this remedial action plan, including the supplementary contamination assessment works; and

> Preparation of a site validation report.

This report must be read in conjunction with the ***Information About This Report*** page at the front of this report.

Table of Contents

1 Introduction 1
1.1 Background 1
1.2 Objectives 1
1.3 Scope of Work 1
2 Site Identification 2
2.1 Site Locality 2
2.2 Site Layout 2
2.3 Lot Number and Deposited Plan 2
2.4 Zoning 2
2.5 Geographic Coordinates 2
2.6 Detail and Level Survey 2
3 Geology, Topography, Elevation, Hydrogeology, Hydrology and Acid Sulfate Soils 3
3.1 Topography and Elevation 3
3.2 Geology 3
3.3 Hydrogeology and Hydrology 3
3.4 Acid Sulfate Soils 3
4 Previous Contamination Assessments 4
4.1 NG (2017) 4
4.2 CS (2020) 4
5 Data Gap Assessment 6
6 Pre-Remediation Conceptual Site Model 7
6.1 Sources of Contamination 7
6.2 Land Use Scenario 7
6.2.1 Adopted Land Use Scenario 7
6.2.2 Assumptions for Adopted Land Use Scenario 7
6.3 Receptors 8
6.3.1 Identified Receptors 8
6.3.2 Assumptions for Identified Receptors 8
6.4 Exposure Pathways 8
6.4.1 Dermal Contact / Ingestion / Dust Inhalation 8
6.4.2 Vapour Intrusion / Inhalation 8
6.4.3 Aesthetics 8
6.4.4 Management Limits for Petroleum Hydrocarbons 8
6.5 Source, Receptor and Pathway Model 9
7 Remedial Goal and Criteria 10
7.1 Remedial Goal 10
7.2 Remedial Criteria 10
8 Remedial Extent and Preferred Remediation Option 11
8.1 Inferred Remedial Extent 11
8.2 Remedial Options Assessment 11
8.3 Adopted Remedial Option 11
9 Supplementary Contamination Assessment Works 12
9.1 SafeWork NSW Schedule 11 Hazardous Materials on Premises 12
9.2 Post Demolition Assessment for UPSS Infrastructure 12

10 Remedial Strategy 13
10.1 Schedule of Remediation 13
10.2 Approvals and Notifications 13
10.3 Stability of Structures 13
10.4 Demolition Works 13
10.4.1 Structures 13
10.4.2 UPSS Infrastructure 13
10.5 Remediation of Unacceptable Contamination 14
10.6 Backfilling of Remedial Excavations 14
10.7 Unexpected Finds and Contingency Plans 14
11 Validation Sampling, Analytical and Quality Plan 16
11.1 Step 1: State the problem 16
11.2 Step 2: Identify the decision/goal of the study 16
11.3 Step 3: Identify the information inputs 16
11.4 Step 4: Define the boundaries of the study 16
11.5 Step 5: Develop the analytical approach 17
11.5.1 Duplicates and Triplicates 17
11.5.2 Trip Blanks and Trip Spikes 17
11.5.3 Rinsate Blanks 17
11.5.4 Field Blanks 17
11.5.5 Laboratory Quality Assurance and Quality Control 17
11.5.6 Data Quality Indicators 18
11.5.7 If/Then Statements 19
11.6 Step 6: Specify the performance or acceptance criteria 19
11.6.1 If / Then Decisions 19
11.7 Step 7: Develop the plan for obtaining data 20
11.7.1 Validation Sampling 20
11.7.2 Field Screening 20
11.7.3 Decontamination 21
11.7.4 Sample Identification, Preservation, Handling and Transport 21
11.7.5 Laboratory Selection 21
11.7.6 Laboratory Analytical Schedule 21
11.7.7 Laboratory Holding Times, Analytical Methods and Limits of Reporting 22
12 Site Validation Report 23
13 Site Management Plan 24
13.1 Register of Contacts 24
13.2 Hours of Operation, Signage and Security 24
13.3 Workplace Health and Safety 24
13.3.1 Safe Work Method Statement 24
13.3.2 Personal Protective Equipment 24
13.3.3 Decontamination 25
13.3.4 Occupational Hygiene 25
13.4 Waste Management 25
13.5 Stormwater and Soil Management 25
13.5.1 Access and Egress 25
13.5.2 Excavation Pump Out and Groundwater 26
13.5.3 Stockpiles 26
13.5.4 Rehabilitation 26

13.6 Noise and Vibration Control 26
13.7 Dust Control 27
13.8 Odour Control 27
13.9 Atmospheric Monitoring 27
13.10 Traffic 27
13.11 Emergency Preparedness and Response 28
13.12 Community Relations 28
14 Conclusions and Recommendations 29
15 References 30

Figures

Figure 1 Site Locality Plan

Appendices

Appendix A Site Survey

1 Introduction

1.1 Background

Construction Sciences Pty Ltd (CS) was engaged by Anglican Community Services (Anglicare), to prepare a remedial action plan (RAP) for land located at 215-239 Pitt Street Merrylands NSW (the site).

At the commencement of this work, CS understood:

> The site is currently a commercial property comprising shops and businesses with open space carpark;

> The site is proposed for development of the 'Merrylands Vertical Village', with works to include demolition of the existing buildings and construction of a high-rise building, with combined commercial and residential occupancy. The proposed development is to include a three level basement car park;

> Network Geotechnics Pty Ltd (NG) previously conducted a *Due Diligence Contamination Assessment* of the site (NG, 2017), that included the collection and analysis of soil and groundwater samples from readily accessible areas. However, due to the time constraints suggested by Anglicare, a detailed site history review could not be conducted. The report concluded that the soils are unlikely to contain widespread contamination, however it noted that isolated contamination near former underground fuel infrastructure could not be precluded. NG reported that the proposed basement excavation will likely excavate and remove offsite the contaminated soil and groundwater, but the potential for vapour intrusion could not be precluded without additional assessment;

> Subsequently, a combined PSI / DSI was conducted by CS (CS, 2020) to accompany a development application, to satisfy State Environmental Planning Policy (SEPP) No. 55. The report (CS, 2020) concluded the following:

  > The potential for unacceptable soil and groundwater contamination to be present on the site, as a result of the former service station at No.215-239 Pitt Street, Merrylands, is low;

  > The potential for unacceptably contaminated to be migrating offsite is low; and

  > The site is suitable for the proposed development, from a contamination perspective, in general accordance with the requirements of SEPP55 and NEPM (2013);

> Cumberland Council has requested further information regarding the potential for former underground petroleum storage system (UPSS) infrastructure and associated contamination to be encountered during the proposed earthworks. In response and as instructed by Anglicare, CS has initiated a search for Schedule 11 hazardous Chemicals on Premises with SafeWork NSW. The results of this search are pending. However, to allay concerns raised by Council, it was agreed that a remedial action plan (RAP) be prepared to demonstrate that the **site can be made suitable for the proposed land use**, in the event that UPSS infrastructure is encountered during the earthworks.

1.2 Objectives

The objectives of this project was to prepare a RAP to UPSS infrastructure and associated unacceptable land contamination exposure **risks that could potentially be identified** during the proposed bulk earthworks.

1.3 Scope of Work

The scope of work undertaken to address the project objective included:

> A desktop review of site history; and

> Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013), NSW EPA (2020b), WA DOH (2009), and HEPA (2020).

2 Site Identification

2.1 Site Locality

The locality of the site is presented in **Figure 1**.

2.2 Site Layout

The general layout of the Site is present in **Figure 2**.

The site covers an area of approximately 2,100m^2.

2.3 Lot Number and Deposited Plan

The Site encompasses land currently identified as Lot 1 and 2 in DP501597, Lot 1 and 2 in DP537031, Lot J in DP10354 and Lot 1in DP1079960, in the Cumberland City Council Local Government Area.

2.4 Zoning

The site is zoned B4 mixed use under the Holroyd Local Environmental Plan 2013 (Amendment No 17).

2.5 Geographic Coordinates

The geographic coordinates of the general centre of the site obtained from Google Earth were 33°50'9" S and 150°59'28" E.

2.6 Detail and Level Survey

A copy of a detail and level survey of the site is attached in Appendix A.

3 Geology, Topography, Elevation, Hydrogeology, Hydrology and Acid Sulfate Soils

3.1 Topography and Elevation

A search of Nearmap Elevation indicates the topography of the site is generally flat with slight slope to the north.

CS notes that LotSearch (2020) Elevation Contour map indicates the surface of the Site is located at an elevation of approximately 17m Australian Height Datum (AHD).

3.2 Geology

NG (2017) reported that the geological map for Penrith indicates that the area is underlain by Wiannamatta Group Bringelly Shale, comprising claystone, laminite and fine to medium grained sandstone, bordering on Ashfield shale.

3.3 Hydrogeology and Hydrology

The hydrogeology map of Australia provided by GeoScience Australia describes the hydrogeology at the site as porous, extensive aquifers of low to moderate productivity (refer to LotSearch Report attached in Appendix B). A search of the groundwater bore data base provided by the NSW Office of Water identified 17 groundwater bores to the north (approximately 200m), west (approximately 600m) and to the east (approximate 800m) from the site. All but one of the 17 bores were monitoring bores, which appeared to be associated with various service stations surrounding the site. Where reported, the standing water level ranged between 2m and 4m below ground level.

A copy of the LotSearch report is presented in **Appendix B**.

A total of four bores were converted to monitoring wells in the investigations undertaken by Network Geotechnical (NG, 2017) and CS. The standing water level measured in the shallower (approximately 6m) bores installed by NG ranged from approximately 1.6m to 3.2m below ground level. This water is considered likely to be perched water situated at the interface of the clay residual soil and the shale bedrock. The water level measured in the deeper bore installed by CS was 6.9m below ground level, and is likely to be representative of the local groundwater. Based on the observed water levels, the inferred groundwater flow direction appeared to be to the north.

A review of readily available maps held on file by CS, indicated that surface water bodies near the site included:

> A'becketts Creek (tributary to Duck River), located approximately 320m to the north-east; and

> Duck Creek (tributary to Duck River), located approximately 740m to the south.

Based on the location of the identified surface water courses and site topography, the inferred groundwater flow direction at the site is considered likely to be towards Duck Creek, which flows ultimately into the Parramatta River.

3.4 Acid Sulfate Soils

A review of the NSW Department of Land and Water Conservation's Acid Sulfate Soil Risk Map for Botany Bay (Edition 2, 1997), indicated that:

> the site is located in a map class description of 'no known occurrence' where acid sulfate soils are not known or expected to occur in these environments; and

> land management activities are not likely to be affected by acid sulfate soil materials.

Further assessment of acid sulfate soils, in the context of this project is considered not warranted.

4 Previous Contamination Assessments

CS reviewed the following previous investigation report:

> NG, 2017, '*Due Diligence Contamination Assessment, 215-239 Pitt Street, Merrylands*' dated 5 December 2017, ref: G09-2639; and

> CS, 2020, 'Stage 1 Preliminary and Stage 2 Detailed Site Investigation, Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands' dated 7 May 2020, ref: 5046200053-R01.

4.1 NG (2017)

The objectives of NG (2017) were to:

> assess the soil and groundwater contamination levels within the accessible areas of the site; and

> provide an appreciation of the contamination risks for the acquisition and development of the site.

NG (2017) conducted the following works to achieve the aforementioned objectives:

> drilling four boreholes extending to depths ranging from 4.3m to 6m bgl, below the anticipated invert levels of the former underground storage tanks (USTs).

> conversion of three bores to groundwater monitoring wells;

> collection of 11 primary soil samples from appropriate depths within each borehole;

> two groundwater samples were collected (one well was dry and could not be sampled),

> All samples were analysed for lead, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylene (BTEX) and additional analysis for the presence of asbestos in soils;

Based on these results NG (2017) made the following conclusions:

> The site soils are unlikely to contain widespread contamination, however, deeper, isolated patches of contamination in the vicinity of the former underground fuel infrastructure could not be precluded;

> The presence of soil contamination is unlikely to pose a risk to the future site users but may increase waste disposal costs;

> The groundwater at the site appears to be impacted with volatile and semi-volatile hydrocarbon contamination, with elevated concentrations towards the northern portions of the site;

> The potential for the contaminated groundwater to pose a vapour intrusion risk to the future development, unless appropriately designed to mitigate such risks, cannot be precluded; and

> The groundwater may pose a contamination liability to Anglicare due to costs associated with management; including vapour intrusion risks, construction dewatering, water treatment and disposal, and preventing off-site migration.

The report recommended an additional assessment, including the installation and sampling of additional groundwater monitoring wells, to increase the level of certainty in the groundwater contamination data.

4.2 CS (2020)

The objectives of this project are to:

> Assess the nature and extent of soil and groundwater contamination, including a preliminary assessment of whether contaminated groundwater is likely to be migrating offsite;

> Assess the suitability of the site, from a contamination perspective, for the proposed development; and

> Make recommendation of additional assessment or remediation works that may be required to render the site suitable for the proposed land use.

The scope of work undertaken to address the project objectives included:

- A desktop review of the following:
  - A Due Diligence Contamination Assessment, 215-239 Pitt Street, Merrylands by Network Geotechnics Pty Ltd (NG) dated 5 December 2017; and
  - LotSearch Enviro Lite (LotSearch) site history and environmental data package.
- Drilling of five soil bores (4 shallow hand auger bores HA103 to HA106 and a deep bore hole BH104) within the building footprints and the conversion of BH104 to a groundwater monitoring well;
- Collection of soil samples at regular depth intervals and laboratory analysis for contaminants of concern related to service station operations, uncontrolled decommissioning of service station, uncontrolled demolition and uncontrolled fill;
- Collection and analysis of ground water from the new monitoring well (BH104) and three existing monitoring wells (installed by Net Geo – MW1, 2 and 3) for lead, petroleum hydrocarbons, poly aromatic hydrocarbons; and
- Data assessment and preparation of this combined Stage 1 and Stage 2 contamination assessment report.

Based on CS' assessment of desktop review information, fieldwork observations and laboratory analytical data, in the context of the proposed land use scenario, CS makes the following conclusions:

- The potential for unacceptable soil and groundwater contamination to be present on the site, as a result of the former service station at No.215-239 Pitt Street, Merrylands, is low;
- The potential for unacceptably contaminated to be migrating offsite is low; and
- The site is suitable for the proposed development, from a contamination perspective, in general accordance with the requirements of SEPP55 and NEPM (2013).

5 Data Gap Assessment

Based on a desktop review of previous reports and review of comments provided by Council, the following data gaps require to be addressed:

> The potential for the presence of former UPSS infrastructure underneath the current buildings and pavement – Council is understood to be concerned that encountering such UPSS infrastructure (if any) during earthworks could subject the site workers to unacceptable risk of harm.

> The potential for unacceptable contamination associated with any UPSS infrastructure to be present beneath the buildings and pavement.

6 Pre-Remediation Conceptual Site Model

The site history review and observations made during the site walkover were assessed in the context of the project objectives, in order to develop a conceptual site model (CSM) for the site.

6.1 Sources of Contamination

The PSI/DSI report presented the following conceptual site model upon completion of the assessment.

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
AEC01	Soils underlying 215-239 Pitt Street, Merrylands	TRH, BTEX, PAH, metals, OCP, Asbestos	Vapour Intrusion (human health) Ground water (recreational) Aesthetics (human health)	residents, visitors, commercial workers and club users Ecological	Yes – unacceptable contamination risks not detected
AEC02	Ground water at the site	TRH, BTEX, lead			Yes – unacceptable contamination risks not detected

CS (2020) considered the proposed excavation and offsite disposal of soils to a depth of approximately 9m below ground level in its appreciation of contamination exposure risks.

Council has raised concerns regarding the potential for former UPSS infrastructure and associated contamination to be present beneath the existing buildings and pavements, and for such infrastructure and contamination to pose an unacceptable risk to the site workers during the proposed construction works.

6.2 Land Use Scenario

6.2.1 Adopted Land Use Scenario

The proposed land use is commercial from ground floor up to level two, with offices from level three up to level seven, apartments from level eight up to level twenty-three and a three level basement car park.

CS does not consider that terrestrial ecosystems require consideration as a receptor of site contamination, given that the proposed three level basement and the overall development will occupy the majority of the site and that any landscaping will be limited to plantings on media imported to the site.

Offsite receptors could include aquatic ecosystems within the above identified surface water bodies.

6.2.2 Assumptions for Adopted Land Use Scenario

Section 3 of NEPC (2013e) advises that the residential with accessible soil land use scenario includes a variety of building densities, ranging from separate low-density dwellings to high-density unit blocks. The residential land use scenario considered in this investigation is low-density residential, including a sizeable garden (referring to the presence of sufficiently large areas of soil in a garden that may be accessible on a daily basis by young children and adults).

Section 3 of NEPC (2013e) advises that the residential with minimal access to soil land use scenario includes high-density residential, not including a private garden. This land use scenario assumes typical residential unit blocks, consisting of multistorey buildings where living areas are on the ground floor (constructed on a ground level slab or above subsurface structures including basement car parks or storage areas).

Occupants of the buildings would have access to yard spaces that are largely covered by permanent paving, with some small areas of landscaping or lawns. Opportunities for direct access to soil by residents of these buildings are therefore minimal but there may be some potential for residents to inhale, ingest or come into direct dermal contact with dust (particulates) derived from the soil on the site.

6.3 Receptors

6.3.1 Identified Receptors

CS considers receptors at the site may include construction workers, residents, visitors and commercial workers.

6.3.2 Assumptions for Identified Receptors

The human receptors at a residential with minimal access to soils site, would typically include adults, children and infants who spend the majority of their time indoors within the residential properties, with some limited use of communal outdoor areas on site. The residents that are considered to be most susceptible to health risks associated with soil contaminants are the residents of ground floor units, due to the greatest potential for outdoor soil to be tracked indoors and vapour intrusion occurring with residences immediately overlying contaminated soil.

6.4 Exposure Pathways

CS (2020) stated the following.

6.4.1 Dermal Contact / Ingestion / Dust Inhalation

Site history information and walkover observations indicated a potential for contaminants that may present a direct contact exposure risk, may be present on site. However, given that the proposed basement excavation will extend across most of the site, the potential for exposure to contaminants that may be present in soil via direct contact is likely to be significantly diminished.

Any fill material that may be retained on site may need to be assessed for contamination risk, given that the proposed commercial workers, visitors and residences will not have direct access to site soils. **A direct contact pathway is unlikely to be complete for future site users. However, construction workers may be exposed to a direct contact risk**.

6.4.2 Vapour Intrusion / Inhalation

Vapour intrusion / inhalation exposure risks can occur when a primary or secondary vapour source is present. Site history information indicated a likelihood for secondary sources (i.e. TRH, BTEX, PAH, VOC, Phenol, MTBE migration from the previous service station business at 215-239 Pitt Street), to be present on the site. However, the soil and groundwater analytical results did not report unacceptable contamination in the samples analysed.

CS (2020) concluded that vapour intrusion/inhalation is unlikely to be a complete contamination exposure pathway based on the available information.

6.4.3 Aesthetics

Visual and olfactory observations made of the soils and groundwater encountered during fieldwork, did not present circumstances, which would trigger further assessment of aesthetics. The potential for isolated patches of asbestos impacted soils to be encountered during the proposed basement excavation cannot be precluded. However, such occurrences can be managed by preparing and implementation an unexpected finds protocol (UFP).

Further assessment of aesthetic risks is considered not warranted.

6.4.4 Management Limits for Petroleum Hydrocarbons

The detected concentrations of the relevant COPC in the soil samples analysed, were less than the adopted management limits for petroleum hydrocarbon assessment criteria.

Further assessment of petroleum hydrocarbon related risks, in the context of formation of light non-aqueous phase liquids, fire and explosion hazards, or effects on buried infrastructure, is considered not warranted.

6.5 Source, Receptor and Pathway Model

A conceptual site model (CSM) is a representation of site-related information regarding contamination sources and receptors, and exposure pathways between those sources and receptors. The CSM adopted for the site at the commencement of remedial works, is presented in Table 6.5.1, and considers contamination identified in previous site investigation work, which presents an unacceptable exposure risk to human health and/or the environment.

Table 6.5.1 Conceptual Site Model

ID	AEC	COPC	Exposure Pathway	Receptor	Validated
AEC01	Soils underlying 215-239 Pitt Street, Merrylands	TRH, BTEX, PAH, metals, OCP, Asbestos	Vapour Intrusion (human health) Ground water (recreational) Aesthetics (human health)	residents, visitors, commercial workers and club users Ecological	Yes – unacceptable contamination risks not detected
AEC02	Ground water at the site	TRH, BTEX, lead			Yes – unacceptable contamination risks not detected
AEC03	Former UPSS infrastructure and associated contamination, if any	TRH, BTEX, lead	Vapour inhalation, direct contact, explosion risk	Construction workers	No To be addressed in accordance with this RAP

7 Remedial Goal and Criteria

7.1 Remedial Goal

The remedial goal for this project is to remove any UPSS infrastructure such as underground storage tanks (USTs), pipes etc. that may be present and to remediate any contamination that may be associated with such UPSS infrastructure.

7.2 Remedial Criteria

The remediation acceptance criteria adopted for this project, and the references that those criteria were adopted from, are set out in Table 7.2.1, which will be based on the proposed land use scenario[1] and identified receptors.

However, CS notes that the soils at the site will be excavated to a depth of approximately 9m bgl and disposed offsite to a licensed facility, regardless of whether contamination is present or not, for the purpose excavating the proposed three level basement. As such, only the finished ground level and the walls of the excavation need to be validated against the above criteria, in the even that unacceptable contamination is encountered.

Table 7.2.1 Remediation Acceptance Criteria and References

Exposure Pathway	Land Use Setting[2]	Reference
Human health direct contact	HIL B	Table 1A(1) in NEPC (2013a) Table B4 in Friebel, E & Nadebaum P (2011) Table 3-5 in NSW EPA (2000) Table 2 in HEPA (2020)
Human health inhalation/intrusion	HSL B / Residential B	Table 1A(2) in NEPC (2013a) Table 1A(3) in NEPC (2013a)[3] Table 1A(4) in NEPC (2013a) Table 1A(5) in NEPC (2013a)
Management Limits (petroleum hydrocarbons)	Commercial / industrial	Table 1B(7) in NEPC (2013a)

[1] The land use scenarios in Section 2.2 of NEPC (2013a) will be considered when adopting human health assessment criteria. The land use scenarios in Section 2.5 of NEPC (2013a) will be considered when adopting ecological assessment criteria.

[2] Consideration will be given to soil type, soil texture, soil depth, groundwater depth and appropriate species protection levels.

[3] Secondary school buildings should be assessed using the Residential A / Residential B HILs for vapour intrusion purposes.

8 Remedial Extent and Preferred Remediation Option

8.1 Inferred Remedial Extent

The CS (2020) PSI/DSI report did not identify contamination that required remediation. This RAP is for the removal and remediation of any former UPSS infrastructure that may be present on site.

8.2 Remedial Options Assessment

A remedial options is not applicable for the removal of any former UPSS infrastructure that may be present on site.

8.3 Adopted Remedial Option

In consideration of the remedial works required (if any), the proposed land use scenario for the site (three level basement), and the client's preferred remedial outcomes for the site, **excavation and offsite disposal to a licensed facility** has been adopted as the remedial strategy.

CS notes that the NSW EPA (2020) guidelines require an evaluation of applicable remediation strategies, in order to adopt a preferred remediation strategy. However, given the proposed development that requires the excavation and offsite disposal of soils/rock to a depth of up to 9m bgl, CS considers that other remediation options such as in-situ abandonment of UPSS or site treatment of contaminated soils are not applicable.

The adopted remedial option is based on the available data, and may be subject to the results of supplementary contamination assessment works proposed in this RAP in Section 9. The supplementary assessment may also remove the need for management and/or remediation. Should there be a need to change the inferred extents based on supplementary assessment works, these changes would be presented in an addendum to this RAP.

9 Supplementary Contamination Assessment Works

Data gaps that require to be addressed to further characterise the contamination status of the site are presented in Section 5 of this RAP. This section provides information on additional assessment that is required to achieve the above stated remedial goal.

9.1 SafeWork NSW Schedule 11 Hazardous Materials on Premises

CS is currently awaiting the results of a search of SafeWork NSW database for the storage of Schedule 11 Hazardous Materials. The results are expected by no later than mid December 2020.

If the results of the search indicate that all UPSS infrastructure has been removed offsite, then the further assessment and remediation measures proposed in this RAP may not be applicable.

However, if the results suggest that the UPSS has been decommissioned in-situ, or if the search does not yield any results, the additional assessment proposed below and the remediation measures suggested, will be applicable.

9.2 Post Demolition Assessment for UPSS Infrastructure

A ground penetrating radar (GPR) survey of the site can be conducted to assess if the site contains abandoned former UPSS infrastructure. However, given the presence of building, footings and re-enforced concrete slabs, CS understands that the ability for the GPR survey to identify subsurface UPSS infrastructure is significantly limited, and the level of confidence in negative data is extremely low (i.e. the potential for false negatives is high). As such, a GPR survey to identify UPSS infrastructure is considered best conducted following the demolition of the existing structures.

Following the completion of all demolition works, including the removal of the slabs and hardstand pavement and offsite disposal of all demolished material, the exposed site surface will be subjected to a detailed ground penetrating radar survey, to assess for the presence of any former UPSS infrastructure. The GPR survey will be conducted by qualified and experienced contractor, and a written report will be prepared on the findings.

If the survey does not identify evidence of former UPSS infrastructure, then the remediation strategies suggested in this RAP will not be required. A report will be prepare by the environmental consultant to outline the findings of the GPR survey and the SafeWork NSW search, and will be submitted to Council.

If the GPR survey identifies former UPSS infrastructure, such infrastructure will be marked on the ground and the report, and the depth to such infrastructure will be estimated, to allow safe removal by qualified contractors.

10 Remedial Strategy

10.1 Schedule of Remediation

Remedial works, if deemed required based on the supplementary assessments proposed in Section 9, are expected to take up to two weeks to complete. This timeframe will be refined following appointment of a remediation contractor and understanding of the remediation requirements.

10.2 Approvals and Notifications

The proposed remedial works are considered likely to class as Category 2 under State Environmental Planning Policy (SEPP) 55. It is understood that Category 2 remedial works do not require consent from the planning authority. Additionally, these remediation works, if required, will be conditioned in the development consent.

The following information will be provided to the relevant planning authority, with the notice of intent to undertake remedial works:

> a copy of previous contamination assessment reports;

> a copy of this RAP;

> the contact details of the party responsible for ensuring remedial works comply with relevant regulatory requirements; and

> the contact details of the remediation contractor.

Development consent or a construction certificate will be obtained (if required) from the planning authority for demolition, excavation or shoring works.

Demolition works (if required) will be undertaken by a contractor holding an appropriate SafeWork NSW demolition licence. That licence will hold a chemical endorsement, in the event that demolition works includes underground and/or aboveground storage tanks.

Approvals will be obtained (if required) from Roads and Maritime Services (RMS) for remedial works being undertaken adjacent to (or on) RMS assets.

Within seven days of completion of underground storage tank removal works, a notification will be sent to SafeWork NSW by the remediation contractor.

Within 30 days of completion of remediation and validation works, a notice of completion of the remedial works will be submitted to the relevant planning authority by the client's project manager.

10.3 Stability of Structures

The stability of structures (including, but not necessarily limited to footings, walls, buildings and roads), which may be impacted by the proposed remedial works) will be subject to the excavation strategy for the basement, and will not be considered separately in this RAP. Any stability concerns that arise out of the required remediation works will be referred to the engineers advising on the basement excavation.

10.4 Demolition Works

10.4.1 Structures

Demotion of building structures, pavements and footings will not form part of this RAP.

10.4.2 UPSS Infrastructure

If the supplementary assessments proposed in Section 9 indicate the presence of UPSS infrastructure, such infrastructure will be demolished (removed) as proposed below.

All identified UPSS infrastructure will be removed by a licensed and experienced contractor in accordance with the DECCW (2010) Technical Note on UPSS. Broadly, this work will involve the following sequence of works:

> Excavate the overburden soils to expose the surface of the UPSS;

> Remove the concrete anchors, if any;

> Safely pump out and dispose offsite any liquid that may be present within the UPSS;

> Ensure and certify that the UPSS is gas free;

> Excavate the backfill sand around the UPSS and stockpile for classification and offsite disposal;

> Remove the UPSS under observation by the environmental consultant, and dispose offsite to a licensed facility. The certificate of tank destruction will need to be retained and provided to the environmental consultant by the contractor;

> The environmental consultant will then validate the excavations as specified in this RAP in Section 11.7.

10.5 Remediation of Unacceptable Contamination

If the UPSS removal excavations fail validation by the environmental consultant, the soils in those excavations will be deemed to be unacceptably contaminated for the proposed land use. However, we note that such soils will require excavation and offsite disposal to facilitate the basement excavation, even if it is NOT contaminated.

Any soils deemed to fail validation will be excavated and disposed offsite in accordance with it waste classification, as determined by the environmental consultant.

10.6 Backfilling of Remedial Excavations

Backfilling of UPSS removal excavations will not be required as the site will require further excavation to facilitate the basement excavation.

10.7 Unexpected Finds and Contingency Plans

There is a degree of uncertainty inherent in site assessment and remediation works, as well as bulk earthworks. Based on the site history information made available to CS prior to preparing this RAP, it is considered the unexpected scenarios presented in Table 10.7 could occur during remedial works.

Contingency plans and protocols to be implemented, should those scenarios arise, are also presented in Table 10.7.

Table 10.7 Contingency Plan

Scenario	Contingency Plan
Unexpected buried contamination or underground structures encountered during remedial works (e.g. buried waste, underground storage tank not identified in the works proposed in Section 9), underground sump/pit).	Cease remedial works. Consider undertaking intrusive soil investigations into and around the unexpected find, to assess the potential nature and extent of the contamination / structure. Consider undertaking groundwater assessment works, if the potential nature and extent of the contamination / structures suggest a risk to groundwater. Prepare an amendment to the remediation and/or validation strategy in the RAP (if required), pending the outcomes and of the soil and/or groundwater assessment works. Remediate the unexpected contamination. Undertake validation of the remedial works.
Potential asbestos containing materials encountered beyond the inferred extent of remediation.	Cease remedial works. Consider undertaking intrusive soil investigations into and around the potential asbestos identified beyond the inferred remedial extent, and assess whether the asbestos is bonded and/or friable.

Scenario	Contingency Plan
	Submit notification to SafeWork NSW for asbestos removal works (if not already addressed in an existing notification). Prepare an amendment to the remediation and/or validation strategy in the RAP. Remediate the unexpected contamination. Undertake validation of the remedial works.
Hydrocarbon contamination extending beyond site boundaries	Cease remedial works. Consider undertaking intrusive soil investigations into and around the hydrocarbon contamination identified beyond the site boundary, and assess whether the identified contamination poses an unacceptable risk to future site users, offsite users or the environment. If the identified contamination is deemed to pose an unacceptable risk, evaluate remedial options including in-situ remediation options. Prepare an amendment to the remediation and/or validation strategy in the RAP. Remediate the unexpected contamination. Undertake validation of the remedial works.

11 Validation Sampling, Analytical and Quality Plan

Appendix B in NEPC (2013b) provides guidance on the data quality objective (DQO) process, which is a seven step iterative planning approach that can be used to define the type, quantity and quality of data needed to inform decisions relating to the environmental condition of a site.

The following sections are relevant if UPSS infrastructure is identified and removed offsite, requiring validation by the environmental consultant, including the **collection of validation samples**.

11.1 Step 1: State the problem

The reason the project is being undertaken, is set out in Section 1.1 of this report.

The objective of this project is set out in Section 1.2 of this report.

The project team and technical support experts identified for the project include the CS project director, CS project manager, CS field staff and CS' subcontractors.

The design and undertaking of this project will be constrained by the client's financial and time budgets.

The regulatory authorities associated with this project include NSW EPA, the local planning authority, and SafeWork NSW.

11.2 Step 2: Identify the decision/goal of the study

The decisions that need to be made during this project, to address the project objectives, include:

> Is the data collected for the project, suitable for assessing land contamination exposure risks?

> Do the detected concentrations of contaminants of potential concern identified in the CSM, present an unacceptable exposure risk to the receptors identified in the CSM, based on the proposed land use scenario?

> Is the site suitable, in the context of land contamination, for the proposed land use scenario?

11.3 Step 3: Identify the information inputs

The information inputs required to make the decisions for the project set out in Section 11.2, include:

> Data obtained during the site history review and site walkover;

> Identification of sample media that needs to be collected, as set out in Section 11.7;

> Parameters that will be measured in each relevant sample, as set out in Section 11.7;

> The analytical methods required for each identified COPC, so that assessment can be made relative to adopted site criteria. These are set out in Section 11.7 of this report; and

> The basis for decisions to be made from field screening, including photo-ionisation detector (PID) data, and what action is to be taken if a defined concentration is attained, as set out in Section 11.7; and

> The site criteria for the media of concern. These criteria are set out in Table 7.2.1 and will be adopted based on the proposed land use scenario[4] and identified receptors.

11.4 Step 4: Define the boundaries of the study

The geographical and spatial extent of the project will be limited to:

> the site as defined by the boundaries set out in Section 2; and

> any physical constraints or existing infrastructure on site that prevents safe and reasonable access by the project team and/or typical industry equipment used for projects of this nature.

[4] The land use scenarios in Section 2.2 of NEPC (2013a) will be considered when adopting human health assessment criteria. The land use scenarios in Section 2.5 of NEPC (2013a) will be considered when adopting ecological assessment criteria.

The time and budget constraints of the project will be as per those set out in the contract (and subsequent variations) between CS and the client.

The temporal boundaries of the project will include:

> Weather conditions including rain, wind, heat and cold, which may adversely affect execution of fieldwork tasks and/or data quality;

> Availability of the site for access to execute fieldwork tasks; and

> Availability of project team members to execute the project.

The lateral and vertical intervals in which contamination distribution is believed to be uniformly distributed, based on the CSM, will be:

> The inferred lateral boundaries of each AEC; and

> The inferred vertical extent of each AEC, as indicated in Section 8.1.

The scale of the decisions required will be based on the site, as defined by its boundaries.

11.5 Step 5: Develop the analytical approach

11.5.1 Duplicates and Triplicates

Field duplicates and triplicates will be collected at a rate of one set per 20 samples collected (an equivalent of 5%), and one set per 10 samples collected (an equivalent of 10%) where PFAS is a contaminant of concern. Sample collection will include splitting of one bulk sample across three separate sample containers. Soil samples will not be homogenised, particularly where the COPC are volatile or semi volatile in nature.

Analysis of the duplicate and triplicates will be based on at least one of the analytes that the parent sample is being analysed for (excluding asbestos).

The relative percent difference (RPD) of the detected concentrations in the parent and duplicate, and the parent and triplicate, will be calculated.

11.5.2 Trip Blanks and Trip Spikes

One trip blank and trip spike will be used for each day of sampling[5]. A minimum of one trip blank and one trip spike will be scheduled for BTEX analysis, during the project, provide sample handling, preservation and storage procedures the same for each day of sampling.

11.5.3 Rinsate Blanks

One rinsate blank will be used for each day of sampling[6]. A minimum of one rinsate blank will be collected during the project, provided equipment decontamination procedures are the same for each day of sampling.

Analysis of the rinsate blank will be based on at least one of the analytes that the parent sample is being analysed for (excluding asbestos).

11.5.4 Field Blanks

One field blank will be used for each day of sampling[7]. A minimum of one field blank will be scheduled for PFAS analysis, during the project, provided sample handling, preservation and storage procedures the same for each day of sampling.

11.5.5 Laboratory Quality Assurance and Quality Control

The quality assurance and quality control (QA/QC) program of the primary analytical laboratory will typically include analysis of method blanks, matrix spikes, surrogate spikes, laboratory control samples and laboratory duplicates. The laboratory will report on whether the QA/QC analysis meets the laboratory's adopted data quality objectives.

[5] Only where samples being collected on that day are expected to be analysed for BTEX and/or TRH C6-C10.
[6] Only where non-disposable sampling equipment is being used on that day.
[7] Only where PFAS is a contaminant of concern for samples collected on that day.

11.5.6 Data Quality Indicators

Data quality indicators (DQI) will be adopted to facilitate an assessment of the completeness, comparability, representativeness, precision and accuracy (bias) of the field and laboratory data collected. These DQI are set out in Table 11.5.6.

Table 11.5.6 Data Quality Indicators

Completeness			
Field Considerations	**Target**	**Laboratory Considerations**	**Target**
Experienced sampling team used	Yes	Complete SRA and COA attached	Yes
Sampling devices and equipment set out in sampling plan were used (refer Section 11.7.1).	Yes	Critical samples identified in sampling plan, analysed	Yes
Critical locations in sampling plan, sampled (refer Section 11.7.1).	Yes	Analysis undertaken addresses COPC in sampling plan (refer Section 11.7.6)	Yes
Critical samples in sampling plan, collected (refer Section 11.7.1).	Yes	Analytical methods reported in laboratory documentation and appropriate LOR used	Yes
Completed field and calibration logs attached	Yes	Sample holding times met (refer Section 11.7.7)	Yes
Completed COC attached	Yes		

Comparability			
Field Considerations	**Target**	**Laboratory Considerations**	**Target**
Same sampling team used for all work.	Yes	Same laboratory used for all analysis (refer Section 11.7.5).	Yes
Weather conditions suitable for sampling.	Yes	Comparable methods if different laboratories used Refer Section 11.7.7).	Yes
Same sample types collected and preserved in same way (refer Section 11.7.4).	Yes	Comparable LORs if different laboratories used.	Yes
Relevant samples stored in insulated containers and chilled (refer Section 11.7.4).	Yes	Comparable units of measure if different laboratories used (refer Section 11.7.7).	Yes

Representativeness			
Field Considerations	**Target**	**Laboratory Considerations**	**Target**
Media identified in sampling plan, sampled (refer Section 11.7.1).	Yes	Samples identified in sampling plan, analysed.	Yes
Samples required by sampling plan, collected (refer Section 11.7.1).	Yes		

Precision			
Field Considerations	**Target**	**Laboratory Considerations**	**Target**
Minimum 5% duplicates and triplicates collected and analysed (refer Section 11.5.1).	Yes	All laboratory duplicate RPDs within laboratory acceptance criteria (refer Section 11.5.4).	Yes
RPD unlimited where detected concentrations are <10 times the LOR.	Yes		

Precision			
Field Considerations	**Target**	**Laboratory Considerations**	**Target**
RPD within 30% where detected concentrations are 10-20 times the LOR.	Yes		
RPD within 50% where detected concentrations are >20 times the LOR.	Yes		

Accuracy (bias)			
Field Considerations	**Target**	**Laboratory Considerations**	**Target**
Trip blank analyte results less than LOR (refer Section 11.5.2).	Yes	Laboratory method blank results within laboratory acceptance limits (refer Section 11.5.4).	Yes
Trip spike analyte results less between 60% and 140% (refer Section 11.5.2).	Yes	Laboratory control sample results within laboratory acceptance limits (refer Section 11.5.4).	Yes
Rinsate blank analyte results less than LOR (refer Section 11.5.3).	Yes	Laboratory spike sample results within laboratory acceptance limits.	Yes

11.5.7 If/Then Statements

If field and laboratory analytical dataset is within the DQI assessment parameters, then the data may be considered to be adequately complete, comparable, representative, precise and accurate, for decision making within the objectives of this project.

If field and laboratory analytical dataset is outside the DQI assessment parameters, then additional data may be collected to address identified data gaps.

If field and laboratory analytical results are within adopted contamination assessment criteria, then the site may be considered suitable for the proposed land use scenario.

If field and laboratory analytical results are outside adopted contamination assessment criteria, then the site may be considered unsuitable for the proposed land use scenario, or additional data collected to further inform the decision making process.

11.6 Step 6: Specify the performance or acceptance criteria

11.6.1 If / Then Decisions

There are two types of decision error:

> sampling errors occur when the sampling program does not adequately detect the variability of a contaminant from point to point across the site. That is, the samples collected are not representative of site conditions (e.g. an appropriate number of representative samples have not been collected from each stratum to account for estimated variability); and

> measurement errors occur during sample collection, handling, preparation, analysis and data reduction.

In the assessment of land contamination, these errors can result in either:

> a Type I error, where contamination exposure risks are considered to be acceptable, when they are not; or

> a Type II error, where contamination exposure risks are considered to be not acceptable, when they are.

In order for decision rules to be sound, they should be designed to minimise decision errors. The risk of decision error will be mitigated by:

> Ensuring fieldwork tasks are undertaken by suitably experienced field staff and sub-contractors, with reference to the DQO presented in this report;

> Ensuring laboratory analyses are undertaken by NATA accredited laboratories; and

> Ensuring interpretation of data is undertaken by suitably experienced environmental consultants and/or outsourcing interpretation to technical experts (if warranted).

11.7 Step 7: Develop the plan for obtaining data

11.7.1 Validation Sampling

Table A in NSW EPA (1995) includes guidance on minimum sampling point densities required characterising a site, based on detecting circular hot spots by using a systematic sampling pattern. Application of this guidance is recommended when:

> There is little knowledge about the probable locations of the contamination;

> The distribution of the contamination is expected to be random (e.g. landfill sites); or

> The distribution of the contamination is expected to be fairly homogenous (e.g. agricultural lands).

Section 3.1 of NSW EPA (1995) states that judgemental or stratified sampling methods can be used if there is sufficient information about the probable distribution of the contamination. Additionally, Section 6.2.1 in NEPC (2013b) states that judgemental sampling, the selection of samples (number, location, timing, etc.) is based on knowledge of the site and professional judgement. Sampling would be expected to be localised to known or potentially contaminated areas identified from knowledge of the site either from the site history or an earlier phase of site assessment. Judgemental sampling can be used to investigate sub-surface contamination issues in site assessment.

Section 7.5 of NEPC (2013b) and VIC EPA (2009) provides guidance on sampling methods and sample numbers for stockpiles.

Table 11.7.1 Validation Sampling Plan

AEC	Contamination Risk	Preferred Validation Strategy
AEC03	UST Tank Pits	A visual inspection of the residual remedial excavation and photographic record. Collect one sample per 10m x10m of excavation base, Collect one sample per ten lineal metres of excavation wall, for each relevant stratum, or per vertical metre of excavation depth, whichever is the greater frequency, minimum four.
AEC03	Fuel or vent pipes	A visual inspection of the residual remedial excavation and photographic record. Collect one sample per 5 lineal metres of the trench base, with a minimum of three samples.
AEC03	Stockpiles of contaminated material for offsite disposal	A visual inspection of the stockpiled material and photographic record. Collect one sample per 25m3 of material, or a minimum of three samples, for analysis for waste classification.

Samples collected from stockpiles, will be collected from a minimum of 0.3m below the surface of the stockpile.

If olfactory or visual observations of remedial works, or headspace analysis of screening samples, indicate a potential for contamination to be present, then consideration will be given to collection of additional validation samples / data.

The location of collected validation sampling data will be recorded on a site plan.

11.7.2 Field Screening

When identified COPC include volatiles (e.g. BTEX, TRH or VOC), collected soil samples will be screening for ionisable volatile organic compounds using a photo-ionisation detector (PID). A sub sample from each

sample collected at each sampling point will be placed in a zip lock bag, sealed, and shaken. Each zip lock bag will then be pierced with the tip of a PID and the results recorded on the relevant sampling point log.

11.7.3 Decontamination

Non-disposable sampling equipment will be decontaminated between sampling points to mitigate potential for cross contamination of samples. The decontamination method to be used will be:

> Wash off the non-disposable sampling equipment with a solution of potable water and phosphate free detergent (e.g. Decon 90), noting that Decon 90 will not be used on equipment used for collection of samples that will be analysed for PFAS compounds;

> Rinse the washed equipment with distilled or de-ionised water; and

> Air dry the rinsed equipment.

11.7.4 Sample Identification, Preservation, Handling and Transport

Soil samples will be identified using the CS project number, date the sample was collected one, and the AEC, number of sample and depth/interval the sample was collected from (e.g. the second validation sample collected from AEC06 at a depth of 0.4m below ground level, would be identified as AEC06/02/0.4).

Groundwater samples will be identified using the CS project number, sampling point identification number (e.g. MW03) and date the sample was collected.

Surface water samples will be identified using the CS project number, sampling point identification number (e.g. SW06) and date the sample was collected.

Vapour samples will be identified using the CS project number, sampling point identification number and the sampling depth interval (e.g. SV01/0.6-0.8), and date the sample was collected.

Samples will be placed in laboratory prepared containers (containing preservatives as appropriate), bulk sample bags and zip lock bags.

Soil, water and vapour samples will be stored in insulated containers with ice.

Samples will be transported to the analytical laboratory by CS field staff or a third party courier, using the analytical laboratory's chain of custody (COC) documentation.

11.7.5 Laboratory Selection

Analytical laboratories used for this project will be NATA accredited for the analytical methods used.

11.7.6 Laboratory Analytical Schedule

Samples scheduled for laboratory analysis will be selected based on:

> The COPC identified for the AEC the sample was collected from;

> Observations made of the sample when collected (including staining, odour and discolouration); and

> The results of PID headspace screening (if applicable).

The proposed laboratory analytical schedule (including upper limiting sample quantities) for the project is set out in Table 11.7.6.

Table 11.7.6 Laboratory Analytical Schedule

ID	AEC	TRH/BTEX	PAH	Metals (8)	Lead	Asbestos ID	OCP
AEC03	Validation samples	All	All		All		
AEC03	Waste classification samples	All	All	All		All	All

11.7.7 Laboratory Holding Times, Analytical Methods and Limits of Reporting

Sample holding times, laboratory analytical methods and limits of reporting applicable to this project, are set out in Table **11.7.7**.

Table 11.7.7 Laboratory Holding Times, Analytical Methods and Limits of Reporting

Analyte	Holding Time	Method	LOR (mg/kg)	LOR (µg/L)
BTEX and TRH C6-C10	14 days	USEPA 5030, 8260B and 8020	0.2-0.5	1-2 and 50
TRH C10-C40	14 days	USEPA 8015B & C	20-100	50-500
PAH	14 days	USEPA 8270	0.1-0.2	0.5-10
OCP	14 days	USEPA 8081	0.2	-
Metals	6 months	USEPA 8015B & C	0.05-2	0.1-5
Asbestos ID	No limit	AS4926	Absence / presence	-
Asbestos (WA DOH)	No limit	In-house	0.001% w/w	-

12 Site Validation Report

At the completion of remedial works, a site validation report will be prepared with reference to the relevant sections of NSW EPA (2020b). The site validation report will include:

> An executive summary;
> The scope of reporting work undertaken;
> Site identification details;
> A summary of geology and hydrogeology;
> A summary of site condition and the surrounding environment;
> Information on supplementary contamination assessment works undertaken (if any);
> A pre-remediation conceptual site model;
> Summary of the remedial action plan;
> Remediation and validation activities undertaken;
> Information on waste management;
> Information on the remedial works undertaken;
> Information on imported material;
> An assessment of field and laboratory quality assurance / quality control data;
> Validation results and discussion;
> A post remediation conceptual site model; and
> Conclusions and recommendations.

13 Site Management Plan

13.1 Register of Contacts

A register of contact details of stakeholders considered relevant to the project, is presented in Table 13.1.

Table 13.1 Emergency Response Register of Contacts

Role	Person	Organisation	Contact
Emergency Services	-	Fire / Police / Ambulance	000
Site Owner	--	Anglican Community Services	TBC
Project Manager	TBC	TBC	TBC
Planning Authority	-	Cumberland City Council	02 8757 9000
Environmental Regulatory Authority	-	NSW EPA	131 500
WHS Regulatory Authority	-	SafeWork NSW	131 050
Remediation Contractor	TBC	TBC	TBC
Environmental Consultant	Nalin De Silva	Construction Sciences	0450 715 562

13.2 Hours of Operation, Signage and Security

The hours of operation at the site will be limited to the following:

> days and times set out in the relevant development consent conditions (if available); or

> Monday to Friday between 7:00am and 5:00pm, and Saturday between 8:00am and 1:00pm.

The 24-hour contact details of the remediation contractor will be put on a sign, and posted on the site boundary, adjacent to the site access point. The sign will be maintained by the remediation contractor until completion of remedial works.

Security of the site will be maintained for the duration of the remedial works, with appropriate boundary fencing/barricades and access point locks.

13.3 Workplace Health and Safety

13.3.1 Safe Work Method Statement

All parties intending to undertake tasks in the remediation area/s will prepare a safe work method statement (SWMS) that documents:

> The task/s to be undertaken;

> Hazards associated with undertaking those task/s;

> A risk assessment of each hazard, considering consequence and likelihood;

> Control measures to be implemented to mitigate identified risks; and

> A re-assessment of each hazard, assuming control measure implementation, and showing a demonstrable decrease to the risk.

13.3.2 Personal Protective Equipment

The following personal protective equipment (PPE) will be worn (as a minimum) by all persons working on, or visiting, the remediation work area/s:

> Long sleeves and long pants;

> A high visibility vest (or clothing);

> Hard hat;

> Protective foot wear (e.g. safety boots);

> Eye protection (e.g. safety glasses or goggles); and

> Cut resistant gloves.

Additional PPE or respiratory protective equipment (RPE) may also be required, subject to the control measures set out in the SWMS for the task.

13.3.3 Decontamination

The following decontamination procedure will apply to all persons existing the remediation work area/s:

> Cleaning of protective footwear, including removal of potentially contaminated material from the soles of the footwear;

> Washing of hands (including prior to eating, drinking or smoking).

13.3.4 Occupational Hygiene

Atmospheric monitoring will be undertaken (subject to the findings of the risk assessment in the relevant SWMS), or as may be recommended by a suitably experienced occupational hygienist. Monitoring may include airborne fibre monitoring during asbestos remedial works, vapour monitoring during hydrocarbon remediation, or gas/explosion risk monitoring during land fill remediation.

Plant and equipment will be appropriately decontaminated before leaving a remedial works zone.

13.4 Waste Management

Wastes generated during remedial works will be removed from site for recycling / disposal, with reference to NSW EPA (2014) and the relevant provisions of the Protection of the Environment Operations Act 1997.

The remediation contractor will maintain detailed records of each load of waste materials generated during remedial works, including:

> The location the waste was generated from;

> The classification of the waste;

> The date and time the waste was removed from the site;

> The vehicle registration number of the waste transport vehicle;

> The quantity of the load of waste removed from site;

> Waste receipt docket from the waste receiving facility; and

> Weighbridge docket from the waste receiving facility.

13.5 Stormwater and Soil Management

13.5.1 Access and Egress

Vehicle and plant site access/egress will be managed to prevent soils being tracked onto roads and pathways external to the site (e.g. gravels, gabions, cattle grids). Soil will be broomed or washed off tyres/tracks prior to the vehicle or plant leaving the remediation work area. Broomed/washed soil will be managed onsite, depending on its likely contamination status.

In the event soils are tracked onto roads or pathways external to the site, these soils will be removed by sweeping and/or shovelling.

A sediment and erosion control plan will be prepared by the remediation contractor, to suit the nature and staging of the remedial works. Control measures will be operated and maintained by the remediation contractor, until completion of the remedial works.

Surface stormwater generated from (or travelling through) the remediation works area, will be managed using relevant measures set out in the Blue Book[8].

13.5.2 Excavation Pump Out and Groundwater

Should excavations require water to be pumped out, the water will be sampled and analysed by a suitably experienced environmental consultant, for total suspended solids (TSS), pH, metals (8) and petroleum hydrocarbons.

If the laboratory analytical results are less than the relevant[9] aquatic ecosystem groundwater investigation levels (GILs) set out in ANZECC (2000), then the excavation water may be discharged to the local stormwater system.

If the laboratory analytical results are greater than the relevant[10] aquatic ecosystem groundwater investigation levels (GILs) set out in ANZECC (2000), then other options for the excavation water will be considered, including:

> Assessment of proposed receiving waters, in the context of the contaminant concentrations found in the excavation water;

> Removal and offsite disposal by a liquid waste contractor; and

> Discharge to sewer under an approval obtained from the relevant sewerage infrastructure operator.

In the event the site requires dewatering, development consent from the relevant planning authority and/or approvals from the state water authority, will be obtained (if required).

13.5.3 Stockpiles

Stockpiles of material generated during remedial works will be:

> generally constructed as low elongated mounds on level surfaces;

> stored in secure areas and covered if remaining on site for more than 24 hours;

> placed away from stormwater pits, drainage lines and gutters;

> kept damp if containing (or suspected of containing) asbestos;

> not located on footpaths or nature strips, unless approved by the local planning authority.

13.5.4 Rehabilitation

Areas of the site that become exposed as a result of remedial works, will be stabilised progressively, as remedial works are completed. Stabilisation methods will be maintained until such time as they are no longer required (e.g. vegetation becomes established and self-sustaining, or site development work commences).

13.6 Noise and Vibration Control

Plant and equipment being utilised for remedial works, will be fitted with noise attenuation devices (e.g. exhaust mufflers). Where possible, selection and use of reversing alarms will avoid standard tonal pulse alarms.

Vehicle access roads will be designed to mitigate the need for vehicles and mobile plant to reverse during travel (e.g. creation of turning circles in the immediate vicinity of remediation work area/s).

'Offensive noise', as defined under the Protection of the Environment Operations Act 1997, will not be emitted beyond the site boundary, during remedial works.

Vibrations generated during remedial works will be managed to mitigate risk of damage to structural assets and risk of amenity loss to adjacent land occupiers. Advice from geotechnical, structural or vibration consultants will be sought, if required.

[8] Landcom 2004, 'Managing Urban Stormwater – Soils and Construction'
[9] Freshwater or marine
[10] Freshwater or marine

13.7 Dust Control

Consideration will be given to the following control measures, to mitigate risk of dust emissions migrating beyond the boundary of the remediation work area/s:

> Maintaining site access / egress stabilisation methods;

> Covering loads during site access / egressing;

> Covering stockpiles of contaminated soil that remain on site for greater than 24 hours;

> Use of water sprays in areas prone to dust generation, including excavation surfaces and fill material (during offloading and spreading);

> Establishing screens around the perimeter of remediation work area/s (e.g. application of shade cloth to fencing);

> Minimising soil excavation and/or handling during windy days; and

> Sweeping of accumulated soil on hardstand areas.

13.8 Odour Control

Should odours be detected at the site boundary during remediation works, monitoring of those odours may be undertaken, using methods[11] suited to the odour type, based on recommendations from a suitably experienced odour consultant (if required).

13.9 Atmospheric Monitoring

Airborne asbestos monitoring will be undertaken on site by a suitably competent person during friable asbestos removal or handling. Monitoring during bonded asbestos removal, will be undertaken, subject to advice provided by the occupational hygienist appointed to the project.

Monitoring will be used to validate controls put in place to mitigate potential asbestos exposure.

Portable battery operated air monitors will be placed in static positions approximately 1.5m above the ground surrounding the asbestos handling / removal area.

Analysis of monitors will be undertaken by a NATA-accredited laboratory. The results of analysis will be compared to the criteria presented in Table 13.9 and the appropriate action applied.

Table 13.9 Atmospheric Monitoring Concentrations and Actions

Detected Concentration (fibres per millilitre)	Action
<0.01	Continue with established control measures
0.01 to 0.02	Review established control measures Investigate probably cause Establish additional control to mitigate further fibre release
>0.02	Stop works Notify the relevant regulatory authority that work has ceased Investigate probably cause Extent the works exclusion zone Establish additional control to mitigate further fibre release Do not re-commence work until detected concentrations are at or below 0.01 fibres per millilitre

13.10 Traffic

The remediation contractor will:

[11] Methods could include instrumental, chemical analysis, electronic, sensory tests or olfactometry.

> Utilise suitable experienced and qualified traffic controllers (as required);

> Ensure vehicles exit the site in a forward direction; and

> Arrange for receipt and dispatch of materials during approved remedial working hours (refer Section 13.1).

Traffic and haulage routes will be selected based on:

> Preference for state controlled roads (as opposed to local roads);

> Compliance with traffic road rules; and

> Opportunities to mitigate noise, vibration, dust and odour impacts to properties/occupants adjacent to the site.

13.11 Emergency Preparedness and Response

An emergency assembly point will be established at an appropriate location, and this location communicated to workers and visitors during the site induction process. In the event an emergency situation arises, workers and visitors will assemble at this location (if safe to do so) and await further instructions from the site supervisor, project manager or emergency services.

Spill control kits and fire extinguishers will be located at appropriate locations at the site.

13.12 Community Relations

Occupants of properties adjoining the site and located immediately across the road from the site, will be provided with a notification of intent to undertake remedial works on the site, a minimum of two business days before commencing those remedial works.

A register will be maintained on site, for the recording of remedial works related communications from the community.

Communication received from community about the remedial works, will be directed to the project manager in the first instance. The project manager will arrange for the communication to respond to, in accordance with arrangements agreed to between the remediation contractor and the principal.

14 Conclusions and Recommendations

This RAP has been prepared to allow:

> Identification of any UPSS infrastructure that may be present on the site, prior to the commencement of the bulk excavations; and

> Remediation of any UPSS infrastructure or contamination associated with such infrastructure.

The RAP allows for conducting a GPR survey of the site following the completion of demolition works (to achieve a greater level of certainty in the findings), to assess the presence of UPSS infrastructure. A report will be prepared on the findings and will be submitted to Council.

The RAP provides guidance on a strategy to remove and remediate UPSS infrastructure and associated contamination that may be identified by the GPR survey. All identified UPSS infrastructure and associated contamination will be excavated and removed offsite to a licensed facility.

Based on CS' assessment of the information presented in the available historical contamination assessment reports, CS considers that the remedial goal can be achieved and the site made suitable for the proposed land use, subject to:

> The implementation of the strategies and methodologies set out in this remedial action plan, including the supplementary contamination assessment works; and

> Preparation of a site validation report.

This RAP has been prepared in accordance with the requirements of NSW EPA (2020) *Guidelines for Consultants Reporting on Contaminated Sites.*

This report must be read in conjunction with the ***Information about This Report*** page at the front of this report.

15 References

AS 4976-2008 The removal and disposal of underground petroleum storage tanks.

DECCW, 2010, 'UPSS Technical Note – Decommissioning, Abandonment and Removal of UPSS' ref: DECCW 2010/36, dated January 2010

DUAP 1998, 'Managing Land Contamination Planning Guidelines SEPP55 – Remediation of Land', dated April 1999, ref: 98/65.

Friebel, E & Nadebaum, P 2011, 'Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document', CRC CARE Technical Report No. 10.

National Environment Protection Council (NEPC) 2013a, 'Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

National Environment Protection Council (NEPC) 2013b, 'Schedule B(2) Guideline on Site Characterisation', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

National Environment Protection Council (NEPC) 2013c, 'Schedule B(4) Guideline on Site-Specific Health Risk Assessment Methodology', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

National Environment Protection Council (NEPC) 2013d, 'Schedule B(6) Guideline on The Framework for Risk-Based Assessment of Groundwater Contamination', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

National Environment Protection Council (NEPC) 2013e, 'Schedule B(7) Guideline on Derivation of Health-Based Investigation Levels', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

NSW EPA 2014, 'Waste Classification Guidelines'

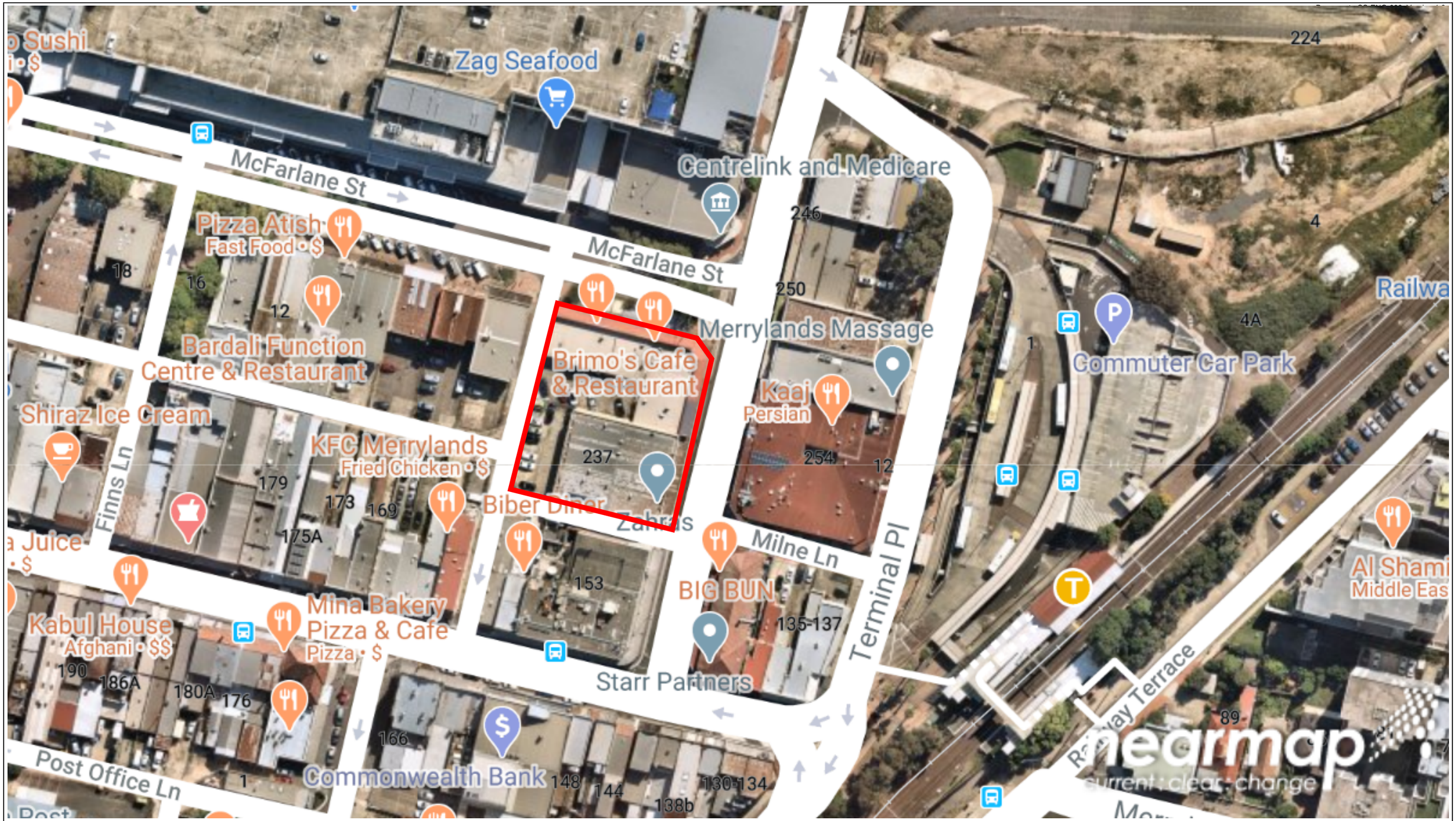
NSW EPA 2015, 'Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997' dated September 2015, ref: EPA 2015/0164.

NSW EPA 2020b, 'Contaminated Land Guidelines: Consultants reporting on contaminated land' dated May 2020, ref: EPA2020P2233.

VIC EPA 2009 'Industrial Waste Resource Guidelines' dated June 2009, ref: IWRG702.

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

FIGURES



LEGEND:

Site Boundary

Construction Sciences

31 Anvil Road
SEVEN HILLS NSW 2147
Tel: (02) 8646 2000
Fax: (02) 8646 2025
Web: www.constructionsciences.net

Scale: A4 - NOT TO SCALE	Client: Anglican Community Services c/- Arazan Property Group
Date: 27 November 2020	Project: Remedial Action Plan
Drawn by: NDS	Location: 215-239 Pitt Street, Merrylands
Drawing no.: 10791EV.P55 Figure 1	Sheet: 1 of 1

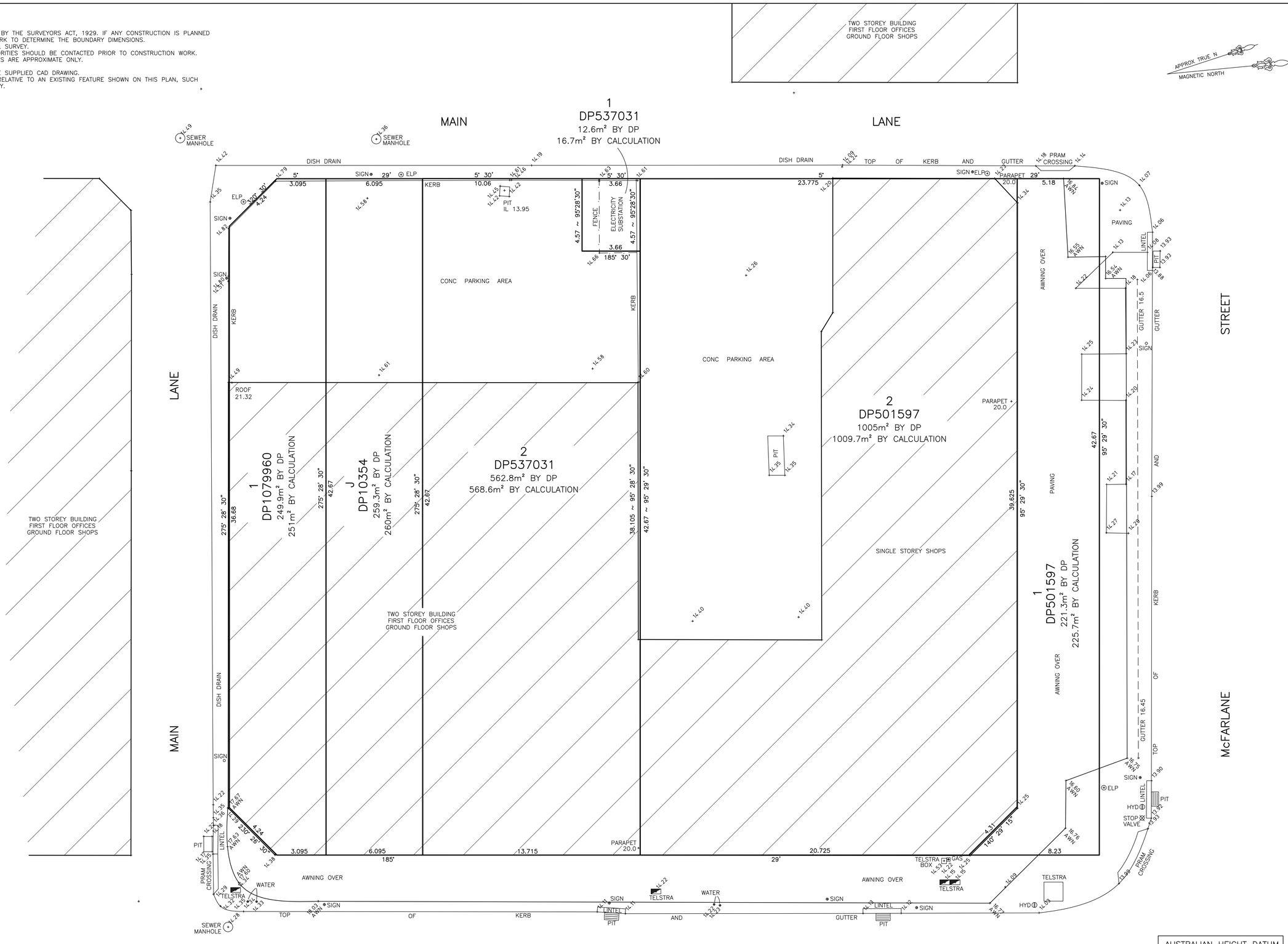
Site Location Plan

Proposed Merrylands Vertical Village, 215-239 Pitt Street, Merrylands

Appendix A

Site Survey

NOTES:
1. THIS DETAIL SURVEY IS NOT A "SURVEY" AS DEFINED BY THE SURVEYORS ACT, 1929. IF ANY CONSTRUCTION IS PLANNED IT IS ADVISABLE TO CARRY OUT FURTHER SURVEY WORK TO DETERMINE THE BOUNDARY DIMENSIONS.
2. ALL BEARINGS AND DISTANCES ARE SUBJECT TO FINAL SURVEY.
3. ONLY VISIBLE SERVICES ARE SHOWN. RELEVANT AUTHORITIES SHOULD BE CONTACTED PRIOR TO CONSTRUCTION WORK.
4. RIDGE AND GUTTER HEIGHTS ON ADJOINING PROPERTIES ARE APPROXIMATE ONLY.
5. ALL TREE CANOPIES ARE TO SCALE.
6. THESE GENERAL NOTES SHOULD BE STORED WITH THE SUPPLIED CAD DRAWING.
7. IF ANY BUILDING OR STRUCTURE IS TO BE LOCATED RELATIVE TO AN EXISTING FEATURE SHOWN ON THIS PLAN, SUCH FEATURE SHOULD BE LOCATED ACCURATELY BY SURVEY.



DIAL BEFORE YOU DIG www.1100.com.au

DATE	REVISION	BY

© COPYRIGHT. This plan is the property of FRANKHAM ENGINEERING SURVEYS PTY LTD and is not to be used, reproduced or copied wholly or in part without written permission by the Company.

DRAWN: LM
CHECKED: BF
SURVEYED: BF

FRANKHAM ENGINEERING SURVEYS PTY. LTD.
10 PRITCHARD STREET EAST, WENTWORTHVILLE. NSW 2145
P.O. BOX 281, WENTWORTHVILLE. NSW 2145.
PH: (02) 9636 3248 FAX: (02) 9636 9070
Email: office@fespl.com.au

CLIENT: ALLAN HASSAN
PROJECT: CORNER OF PITT AND McFARLANE STREETS, MERRYLANDS
DETAIL SURVEY

SCALE: 1:100 B1
DATE: 11/12/2014
DRAWING No.: 214400

Contact

31 Anvil Road
Seven Hills NSW 2147

Telephone: +612 8646 2000
Facsimile: +612 8646 2025

www.constructionsciences.net

APPENDIX J – Historical Aerial Photographs

Figure 1: Aerial Photograph from 1943

Figure 2: Aerial Photograph from 1965

Figure 3: Aerial Photograph from 1978

Figure 4: Aerial Photograph from 1986

Figure 5: Aerial Photograph from 1998

Figure 6: Aerial Photograph from 2009

Figure 7: Aerial Photograph from 2019

Figure 8: Aerial Photograph from 2024

APPENDIX K – Laboratory Results

CEC Geotechnical
Unit 4 83 Grose Street
North Paramatta
NSW 2151

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Diego**

Report **1174650-S**
Project name PSI/WASTE CLASS
Project ID ER24029
Received Date Dec 20, 2024

Client Sample ID			**BH1_0.5-1**	**BH1_0.5-2**	**BH1_1**	**BH1_2**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S25-Ja0001160**	**S25-Ja0001161**	**S25-Ja0001162**	**S25-Ja0001163**
Date Sampled			**Dec 16, 2024**	**Dec 16, 2024**	**Dec 16, 2024**	**Dec 16, 2024**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	270	480	< 20	< 20
TRH C10-C14	20	mg/kg	4200	5100	33	< 20
TRH C15-C28	50	mg/kg	4600	4600	76	< 50
TRH C29-C36	50	mg/kg	2500	3100	62	< 50
TRH C10-C36 (Total)	50	mg/kg	11300	12800	171	< 50
TRH C6-C10	20	mg/kg	600	970	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	560	880	< 20	< 20
TRH >C10-C16	50	mg/kg	5300	4500	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	5285	4480	< 50	< 50
TRH >C16-C34	100	mg/kg	5500	6700	120	< 100
TRH >C34-C40	100	mg/kg	1100	1400	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	11900	12600	120	< 100
BTEX						
Benzene	0.1	mg/kg	0.2	0.4	< 0.1	< 0.1
Toluene	0.1	mg/kg	0.8	0.8	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	3.7	13	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	23	56	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	12	15	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	35	71	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	84	93	116	72
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	52	-	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			BH1_0.5-1	BH1_0.5-2	BH1_1	BH1_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001160	S25-Ja0001161	S25-Ja0001162	S25-Ja0001163
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
1.3.5-Trimethylbenzene	0.5	mg/kg	29	-	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzene	0.1	mg/kg	0.2	-	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	3.7	-	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	1.3	-	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	23	-	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	12	-	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Toluene	0.1	mg/kg	0.8	-	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	35	-	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	41	-	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	84	-	116	72
Toluene-d8 (surr.)	1	%	75	-	75	INT
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	15	20	< 0.5	< 0.5

Client Sample ID			BH1_0.5-1	BH1_0.5-2	BH1_1	BH1_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001160	S25-Ja0001161	S25-Ja0001162	S25-Ja0001163
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	0.6	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	0.9	1.3	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	26	36	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	1.1	1.2	< 0.5	< 0.5
Pyrene	0.5	mg/kg	0.9	0.7	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	30	39	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	78	85	101	82
p-Terphenyl-d14 (surr.)	1	%	90	87	88	72
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	-	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	-	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	-	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	-	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	-	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	-	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	-	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	-	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	-	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	0.8	-	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	-	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	-	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	-	< 5	< 5
Dinoseb	20	mg/kg	< 20	-	< 20	< 20
Phenol	0.5	mg/kg	1.5	-	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	84	-	100	79
Total Non-Halogenated Phenol*	20	mg/kg	< 20	-	< 20	< 20

Client Sample ID			BH1_0.5-1	BH1_0.5-2	BH1_1	BH1_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001160	S25-Ja0001161	S25-Ja0001162	S25-Ja0001163
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	10	11	4.6	5.3
Cadmium	0.4	mg/kg	4.5	4.8	< 0.4	< 0.4
Chromium	5	mg/kg	21	28	11	10
Copper	5	mg/kg	140	180	13	9.4
Lead	5	mg/kg	870	680	37	11
Mercury	0.1	mg/kg	0.1	0.1	< 0.1	< 0.1
Nickel	5	mg/kg	18	24	< 5	< 5
Zinc	5	mg/kg	400	500	24	7.4
Sample Properties						
% Moisture	1	%	19	19	16	15
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	-	170	160
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	-	-	8.7	8.8
Foreign Materials - ENM						
Initial Weight*	0.01	kg	-	-	6.3	4.3
Foreign Material - Type I						
Metal*	0.1	%	-	-	< 0.1	< 0.1
Glass*	0.1	%	-	-	< 0.1	< 0.1
Asphalt*	0.1	%	-	-	< 0.1	< 0.1
Stone*	0.1	%	-	-	100	100
Ceramic and slag (other than blast furnace slag)*	0.1	%	-	-	< 0.1	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	-	-	< 0.1	< 0.1
Clay lumps and other friable material*	0.1	%	-	-	< 0.1	< 0.1
Foreign Material - Type III						
Rubber*	0.05	%	-	-	< 0.05	< 0.05
Plastic*	0.05	%	-	-	< 0.05	< 0.05
Bitumen*	0.05	%	-	-	< 0.05	< 0.05
Paper*	0.05	%	-	-	< 0.05	< 0.05
Cloth*	0.05	%	-	-	< 0.05	< 0.05
Paint*	0.05	%	-	-	< 0.05	< 0.05
Wood*	0.05	%	-	-	< 0.05	< 0.05
Vegetable matter*	0.05	%	-	-	< 0.05	< 0.05

Client Sample ID			BH1_3	BH1_4	BH2_0.5	BH2_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001164	S25-Ja0001165	S25-Ja0001166	S25-Ja0001167
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			BH1_3	BH1_4	BH2_0.5	BH2_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001164	S25-Ja0001165	S25-Ja0001166	S25-Ja0001167
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	68	67	INT	68
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5

Client Sample ID			BH1_3	BH1_4	BH2_0.5	BH2_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001164	S25-Ja0001165	S25-Ja0001166	S25-Ja0001167
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
Dibromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	68	-	INT	68
Toluene-d8 (surr.)	1	%	INT	-	INT	INT
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	99	100	101	97
p-Terphenyl-d14 (surr.)	1	%	84	88	86	86

Client Sample ID			BH1_3	BH1_4	BH2_0.5	BH2_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001164	S25-Ja0001165	S25-Ja0001166	S25-Ja0001167
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	-	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	-	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	-	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	-	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	-	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	-	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	-	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	-	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	-	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	-	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	-	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	-	< 5	< 5
Dinoseb	20	mg/kg	< 20	-	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	95	-	97	96
Total Non-Halogenated Phenol*	20	mg/kg	< 20	-	< 20	< 20
Heavy Metals						
Arsenic	2	mg/kg	23	9.6	5.9	7.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	13	12	18
Copper	5	mg/kg	24	20	6.1	14
Lead	5	mg/kg	31	17	17	25
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	8.0	6.3	< 5	5.9
Zinc	5	mg/kg	33	29	5.3	8.3
Sample Properties						
% Moisture	1	%	24	9.6	18	17
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	210	650	-	110
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	8.9	8.5	-	7.8
Foreign Materials - ENM						
Initial Weight*	0.01	kg	5.7	-	-	6.0
Foreign Material - Type I						
Metal*	0.1	%	< 0.1	-	-	< 0.1
Glass*	0.1	%	< 0.1	-	-	< 0.1
Asphalt*	0.1	%	< 0.1	-	-	< 0.1
Stone*	0.1	%	100	-	-	100
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	-	-	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	-	-	< 0.1
Clay lumps and other friable material*	0.1	%	< 0.1	-	-	< 0.1

Client Sample ID			BH1_3	BH1_4	BH2_0.5	BH2_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001164	S25-Ja0001165	S25-Ja0001166	S25-Ja0001167
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	-	-	< 0.05
Plastic*	0.05	%	< 0.05	-	-	< 0.05
Bitumen*	0.05	%	< 0.05	-	-	< 0.05
Paper*	0.05	%	< 0.05	-	-	< 0.05
Cloth*	0.05	%	< 0.05	-	-	< 0.05
Paint*	0.05	%	< 0.05	-	-	< 0.05
Wood*	0.05	%	< 0.05	-	-	< 0.05
Vegetable matter*	0.05	%	< 0.05	-	-	< 0.05

Client Sample ID			BH2_3	BH2_4	BH3_0.5	BH3_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001168	S25-Ja0001169	S25-Ja0001170	S25-Ja0001171
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	85
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	85
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	60	107	84	91
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH2_3	BH2_4	BH3_0.5	BH3_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001168	S25-Ja0001169	S25-Ja0001170	S25-Ja0001171
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	60	107	84	91
Toluene-d8 (surr.)	1	%	INT	75	66	67
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH2_3	BH2_4	BH3_0.5	BH3_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001168	S25-Ja0001169	S25-Ja0001170	S25-Ja0001171
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	81	94	82	87
p-Terphenyl-d14 (surr.)	1	%	86	100	89	92
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	90	102	91	85
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			BH2_3	BH2_4	BH3_0.5	BH3_1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001168	S25-Ja0001169	S25-Ja0001170	S25-Ja0001171
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.0	23	5.0	8.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.6	20	10	22
Copper	5	mg/kg	7.3	22	11	12
Lead	5	mg/kg	8.5	28	13	14
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	6.7	< 5	< 5
Zinc	5	mg/kg	< 5	32	5.4	16
Sample Properties						
% Moisture	1	%	15	15	15	11
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	21	970	-	80
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	9.2	8.2	-	9.1
Foreign Materials - ENM						
Initial Weight*	0.01	kg	5.5	4.7	-	3.0
Foreign Material - Type I						
Metal*	0.1	%	< 0.1	< 0.1	-	< 0.1
Glass*	0.1	%	< 0.1	< 0.1	-	< 0.1
Asphalt*	0.1	%	< 0.1	< 0.1	-	< 0.1
Stone*	0.1	%	100	100	-	100
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	< 0.1	-	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	< 0.1	-	< 0.1
Clay lumps and other friable material*	0.1	%	< 0.1	< 0.1	-	< 0.1
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	< 0.05	-	< 0.05
Plastic*	0.05	%	< 0.05	< 0.05	-	< 0.05
Bitumen*	0.05	%	< 0.05	< 0.05	-	< 0.05
Paper*	0.05	%	< 0.05	< 0.05	-	< 0.05
Cloth*	0.05	%	< 0.05	< 0.05	-	< 0.05
Paint*	0.05	%	< 0.05	< 0.05	-	< 0.05
Wood*	0.05	%	< 0.05	< 0.05	-	< 0.05
Vegetable matter*	0.05	%	< 0.05	0.23	-	< 0.05

Client Sample ID			BH3_2	BH5_0.3	BH5_1	BH5_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001172	S25-Ja0001173	S25-Ja0001174	S25-Ja0001175
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	160	430	< 20
TRH C15-C28	50	mg/kg	< 50	160	280	< 50
TRH C29-C36	50	mg/kg	< 50	52	120	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	372	830	< 50
TRH C6-C10	20	mg/kg	< 20	56	21	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	56	21	< 20

Client Sample ID			BH3_2	BH5_0.3	BH5_1	BH5_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001172	S25-Ja0001173	S25-Ja0001174	S25-Ja0001175
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C10-C16	50	mg/kg	< 50	220	350	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	220	350	< 50
TRH >C16-C34	100	mg/kg	< 100	160	320	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	380	670	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	71	95	128	93
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH3_2	BH5_0.3	BH5_1	BH5_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001172	S25-Ja0001173	S25-Ja0001174	S25-Ja0001175
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	71	95	128	93
Toluene-d8 (surr.)	1	%	59	59	107	INT
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	91	101	82	INT
p-Terphenyl-d14 (surr.)	1	%	90	88	78	62

Client Sample ID			BH3_2	BH5_0.3	BH5_1	BH5_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001172	S25-Ja0001173	S25-Ja0001174	S25-Ja0001175
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	92	93	66	INT
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Heavy Metals						
Arsenic	2	mg/kg	7.5	7.2	4.6	7.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	19	18	13
Copper	5	mg/kg	14	18	16	14
Lead	5	mg/kg	18	30	17	18
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	8.0	8.6	< 5
Zinc	5	mg/kg	5.2	20	14	5.1
Sample Properties						
% Moisture	1	%	16	15	16	16
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	25	-	33	30
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	8.9	-	7.4	8.9
Foreign Materials - ENM						
Initial Weight*	0.01	kg	2.6	-	6.2	4.7
Foreign Material - Type I						
Metal*	0.1	%	< 0.1	-	< 0.1	< 0.1
Glass*	0.1	%	< 0.1	-	< 0.1	< 0.1
Asphalt*	0.1	%	< 0.1	-	< 0.1	< 0.1
Stone*	0.1	%	100	-	100	100
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	-	< 0.1	< 0.1
Foreign Material - Type II						
Plaster*	0.1	%	< 0.1	-	< 0.1	< 0.1
Clay lumps and other friable material*	0.1	%	< 0.1	-	< 0.1	< 0.1

Client Sample ID			BH3_2	BH5_0.3	BH5_1	BH5_2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001172	S25-Ja0001173	S25-Ja0001174	S25-Ja0001175
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Foreign Material - Type III						
Rubber*	0.05	%	< 0.05	-	< 0.05	< 0.05
Plastic*	0.05	%	< 0.05	-	< 0.05	< 0.05
Bitumen*	0.05	%	< 0.05	-	< 0.05	< 0.05
Paper*	0.05	%	< 0.05	-	< 0.05	< 0.05
Cloth*	0.05	%	< 0.05	-	< 0.05	< 0.05
Paint*	0.05	%	< 0.05	-	< 0.05	< 0.05
Wood*	0.05	%	< 0.05	-	< 0.05	< 0.05
Vegetable matter*	0.05	%	< 0.05	-	< 0.05	< 0.05

Client Sample ID			BH6_0.4	BH6_1	BH6_1.5	BH7_0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001176	S25-Ja0001177	S25-Ja0001178	S25-Ja0001179
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	102	91	86	90
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH6_0.4	BH6_1	BH6_1.5	BH7_0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001176	S25-Ja0001177	S25-Ja0001178	S25-Ja0001179
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Volatile Organics						
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromofluorobenzene (surr.)	1	%	102	91	86	90
Toluene-d8 (surr.)	1	%	91	76	INT	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			BH6_0.4	BH6_1	BH6_1.5	BH7_0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001176	S25-Ja0001177	S25-Ja0001178	S25-Ja0001179
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	0.6	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	INT	INT	99	86
p-Terphenyl-d14 (surr.)	1	%	56	73	137	86
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	INT	INT	82	92
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			BH6_0.4	BH6_1	BH6_1.5	BH7_0.4
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S25-Ja0001176	S25-Ja0001177	S25-Ja0001178	S25-Ja0001179
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	11	11	7.9	14
Cadmium	0.4	mg/kg	0.6	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	21	26	27
Copper	5	mg/kg	50	30	15	33
Lead	5	mg/kg	110	64	14	44
Mercury	0.1	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	18	9.2	5.5	18
Zinc	5	mg/kg	270	100	11	110
Sample Properties						
% Moisture	1	%	18	19	20	25
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	-	56	16	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	-	7.7	8.7	-
Foreign Materials - ENM						
Initial Weight*	0.01	kg	-	5.5	5.5	-
Foreign Material - Type I						
Metal*	0.1	%	-	< 0.1	< 0.1	-
Glass*	0.1	%	-	< 0.1	< 0.1	-
Asphalt*	0.1	%	-	< 0.1	< 0.1	-
Stone*	0.1	%	-	100	100	-
Ceramic and slag (other than blast furnace slag)*	0.1	%	-	< 0.1	< 0.1	-
Foreign Material - Type II						
Plaster*	0.1	%	-	< 0.1	< 0.1	-
Clay lumps and other friable material*	0.1	%	-	< 0.1	< 0.1	-
Foreign Material - Type III						
Rubber*	0.05	%	-	< 0.05	< 0.05	-
Plastic*	0.05	%	-	< 0.05	< 0.05	-
Bitumen*	0.05	%	-	< 0.05	< 0.05	-
Paper*	0.05	%	-	< 0.05	< 0.05	-
Cloth*	0.05	%	-	< 0.05	< 0.05	-
Paint*	0.05	%	-	< 0.05	< 0.05	-
Wood*	0.05	%	-	< 0.05	< 0.05	-
Vegetable matter*	0.05	%	-	< 0.05	0.25	-

Client Sample ID			BH7_0.9	BH7_1.5	TB-SOIL
Sample Matrix			Soil	Soil	Trip Blank (solid)
Eurofins Sample No.			S25-Ja0001180	S25-Ja0001181	S25-Ja0001183
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-
TRH C15-C28	50	mg/kg	< 50	< 50	-
TRH C29-C36	50	mg/kg	< 50	< 50	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20

Client Sample ID			BH7_0.9	BH7_1.5	TB-SOIL
Sample Matrix			Soil	Soil	Trip Blank (solid)
Eurofins Sample No.			S25-Ja0001180	S25-Ja0001181	S25-Ja0001183
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH >C10-C16	50	mg/kg	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)*[N01]	50	mg/kg	< 50	< 50	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	INT	58	137
Volatile Organics					
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-
2-Propanone (Acetone)	0.5	mg/kg	< 0.5	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-
Allyl chloride	0.5	mg/kg	< 0.5	< 0.5	-
Benzene	0.1	mg/kg	< 0.1	< 0.1	-
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-

Client Sample ID			BH7_0.9	BH7_1.5	TB-SOIL
Sample Matrix			Soil	Soil	Trip Blank (solid)
Eurofins Sample No.			S25-Ja0001180	S25-Ja0001181	S25-Ja0001183
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit			
Volatile Organics					
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-
Styrene	0.5	mg/kg	< 0.5	< 0.5	-
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-
Total MAH*	0.5	mg/kg	< 0.5	< 0.5	-
Vic EPA IWRG 621 CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	-
Vic EPA IWRG 621 Other CHC (Total)*	0.5	mg/kg	< 0.5	< 0.5	-
4-Bromofluorobenzene (surr.)	1	%	INT	58	-
Toluene-d8 (surr.)	1	%	98	INT	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	57	51	-
p-Terphenyl-d14 (surr.)	1	%	64	60	-

Client Sample ID			BH7_0.9	BH7_1.5	TB-SOIL
Sample Matrix			Soil	Soil	Trip Blank (solid)
Eurofins Sample No.			S25-Ja0001180	S25-Ja0001181	S25-Ja0001183
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit			
Phenols (Halogenated)					
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	-
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-
2.4.5-Trichlorophenol	1	mg/kg	< 1	< 1	-
2.4.6-Trichlorophenol	1	mg/kg	< 1	< 1	-
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	-
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	-
Pentachlorophenol	1	mg/kg	< 1	< 1	-
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	-
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	-
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	-
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	-
2-Nitrophenol	1	mg/kg	< 1	< 1	-
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	-
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	-
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	-
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	-
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	-
4-Nitrophenol	5	mg/kg	< 5	< 5	-
Dinoseb	20	mg/kg	< 20	< 20	-
Phenol	0.5	mg/kg	< 0.5	< 0.5	-
Phenol-d6 (surr.)	1	%	INT	INT	-
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	-
Heavy Metals					
Arsenic	2	mg/kg	5.8	9.7	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-
Chromium	5	mg/kg	18	21	-
Copper	5	mg/kg	14	13	-
Lead	5	mg/kg	16	17	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	-
Nickel	5	mg/kg	6.4	< 5	-
Zinc	5	mg/kg	15	8.7	-
Sample Properties					
% Moisture	1	%	17	20	-
Conductivity (1:5 aqueous extract at 25 °C as rec.)	10	uS/cm	24	26	-
pH (1:5 Aqueous extract at 25 °C as rec.)	0.1	pH Units	8.3	8.3	-
Foreign Materials - ENM					
Initial Weight*	0.01	kg	6.6	2.5	-
Foreign Material - Type I					
Metal*	0.1	%	< 0.1	< 0.1	-
Glass*	0.1	%	< 0.1	< 0.1	-
Asphalt*	0.1	%	< 0.1	< 0.1	-
Stone*	0.1	%	100	100	-
Ceramic and slag (other than blast furnace slag)*	0.1	%	< 0.1	< 0.1	-
Foreign Material - Type II					
Plaster*	0.1	%	< 0.1	< 0.1	-
Clay lumps and other friable material*	0.1	%	< 0.1	< 0.1	-

Client Sample ID			BH7_0.9	BH7_1.5	TB-SOIL
Sample Matrix			Soil	Soil	Trip Blank (solid)
Eurofins Sample No.			S25-Ja0001180	S25-Ja0001181	S25-Ja0001183
Date Sampled			Dec 16, 2024	Dec 16, 2024	Dec 16, 2024
Test/Reference	LOR	Unit			
Foreign Material - Type III					
Rubber*	0.05	%	< 0.05	< 0.05	-
Plastic*	0.05	%	< 0.05	< 0.05	-
Bitumen*	0.05	%	< 0.05	< 0.05	-
Paper*	0.05	%	< 0.05	< 0.05	-
Cloth*	0.05	%	< 0.05	< 0.05	-
Paint*	0.05	%	< 0.05	< 0.05	-
Wood*	0.05	%	< 0.05	< 0.05	-
Vegetable matter*	0.05	%	< 0.05	< 0.05	-
BTEX and Naphthalene					
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Metals M8	Sydney	Jan 03, 2025	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Volatile Organics	Sydney	Jan 03, 2025	7 Days
- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices			
Phenols (Halogenated)	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Jan 03, 2025	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
% Moisture	Sydney	Jan 03, 2025	14 Days
- Method: LTM-GEN-7080 Moisture			
ENM Exemption Suite -The excavated natural material order 2014 NSW EPA(excluding Foreign Material)			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	Sydney	Jan 03, 2025	7 Days
- Method: LTM-INO-4030 Conductivity			
pH (1:5 Aqueous extract at 25 °C as rec.)	Sydney	Jan 03, 2025	7 Days
- Method: LTM-GEN-7090 pH by ISE			
ENM Exemption Suite - The excavated natural material order 2014 NSW EPA			
Foreign Material - Type I	Sydney	Jan 03, 2025	180 Days
- Method: RMS Method T276			
Foreign Material - Type II	Sydney	Jan 03, 2025	180 Days
- Method: RMS Method T276			
Foreign Material - Type III	Sydney	Jan 03, 2025	180 Days
- Method: RMS Method T276			

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: CEC Geotechnical
Address: Unit 4 83 Grose Street
North Paramatta
NSW 2151

Project Name: PSI/WASTE CLASS
Project ID: ER24029

Order No.: ER24029
Report #: 1174650
Phone: 02 9630 0121
Fax:

Received: Dec 20, 2024 1:24 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: Diego

Eurofins Analytical Services Manager : Adam Bateup

Sample Detail						Asbestos - AS4964	HOLD*	Metals M8	Phenols (Speciated)	Volatile Organics	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	ENM Exemption Suite -The excavated natural material order 2014 NSW	Eurofins Suite B7	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	BH1_0.5-1	Dec 16, 2024		Soil	S25-Ja0001160	X			X	X	X			X	
2	BH1_0.5-2	Dec 16, 2024		Soil	S25-Ja0001161	X					X			X	
3	BH1_1	Dec 16, 2024		Soil	S25-Ja0001162	X			X	X	X	X			
4	BH1_2	Dec 16, 2024		Soil	S25-Ja0001163	X			X	X	X	X			
5	BH1_3	Dec 16, 2024		Soil	S25-Ja0001164	X			X	X	X	X			
6	BH1_4	Dec 16, 2024		Soil	S25-Ja0001165	X					X		X		
7	BH2_0.5	Dec 16, 2024		Soil	S25-Ja0001166	X			X	X	X			X	
8	BH2_1	Dec 16, 2024		Soil	S25-Ja0001167	X			X	X	X	X			
9	BH2_3	Dec 16, 2024		Soil	S25-Ja0001168	X			X	X	X	X			
10	BH2_4	Dec 16, 2024		Soil	S25-Ja0001169	X			X	X	X	X			
11	BH3_0.5	Dec 16, 2024		Soil	S25-Ja0001170	X			X	X	X			X	
12	BH3_1	Dec 16, 2024		Soil	S25-Ja0001171				X	X	X	X			
13	BH3_2	Dec 16, 2024		Soil	S25-Ja0001172				X	X	X	X			
14	BH5_0.3	Dec 16, 2024		Soil	S25-Ja0001173	X			X	X	X			X	

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: CEC Geotechnical
Address: Unit 4 83 Grose Street
North Paramatta
NSW 2151

Project Name: PSI/WASTE CLASS
Project ID: ER24029

Order No.: ER24029
Report #: 1174650
Phone: 02 9630 0121
Fax:

Received: Dec 20, 2024 1:24 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: Diego

Eurofins Analytical Services Manager : Adam Bateup

Sample Detail						Asbestos - AS4964	HOLD*	Metals M8	Phenols (Speciated)	Volatile Organics	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	ENM Exemption Suite -The excavated natural material order 2014 NSW	Eurofins Suite B7	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X
15	BH5_1	Dec 16, 2024		Soil	S25-Ja0001174	X			X	X	X	X			
16	BH5_2	Dec 16, 2024		Soil	S25-Ja0001175	X			X	X	X	X			
17	BH6_0.4	Dec 16, 2024		Soil	S25-Ja0001176	X			X	X	X			X	
18	BH6_1	Dec 16, 2024		Soil	S25-Ja0001177	X			X	X	X	X			
19	BH6_1.5	Dec 16, 2024		Soil	S25-Ja0001178	X			X	X	X	X			
20	BH7_0.4	Dec 16, 2024		Soil	S25-Ja0001179	X			X	X	X			X	
21	BH7_0.9	Dec 16, 2024		Soil	S25-Ja0001180	X			X	X	X	X			
22	BH7_1.5	Dec 16, 2024		Soil	S25-Ja0001181	X			X	X	X	X			
23	RBW	Dec 16, 2024		Water	S25-Ja0001182			X							
24	TB-SOIL	Dec 16, 2024		Trip Blank (solid)	S25-Ja0001183										X
25	BH2_2.0	Dec 16, 2024		Soil	S25-Ja0001188		X								
Test Counts						20	1	1	20	20	22	14	1	7	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
2-Propanone (Acetone)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Allyl chloride	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Conductivity (1:5 aqueous extract at 25 °C as rec.)	uS/cm	< 10			10	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C10-C14	%	98			70-130	Pass	
TRH >C10-C16	%	92			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethene	%	124			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	96			70-130	Pass	
Acenaphthylene	%	90			70-130	Pass	
Anthracene	%	96			70-130	Pass	
Benz(a)anthracene	%	90			70-130	Pass	
Benzo(a)pyrene	%	93			70-130	Pass	
Benzo(b&j)fluoranthene	%	89			70-130	Pass	
Benzo(g.h.i)perylene	%	106			70-130	Pass	
Benzo(k)fluoranthene	%	99			70-130	Pass	
Chrysene	%	94			70-130	Pass	
Dibenz(a.h)anthracene	%	106			70-130	Pass	
Fluoranthene	%	99			70-130	Pass	
Fluorene	%	104			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Indeno(1.2.3-cd)pyrene	%	97			70-130	Pass	
Naphthalene	%	97			70-130	Pass	
Phenanthrene	%	97			70-130	Pass	
Pyrene	%	98			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	95			25-140	Pass	
2.4-Dichlorophenol	%	80			25-140	Pass	
2.4.5-Trichlorophenol	%	84			25-140	Pass	
2.4.6-Trichlorophenol	%	77			25-140	Pass	
2.6-Dichlorophenol	%	89			25-140	Pass	
4-Chloro-3-methylphenol	%	83			25-140	Pass	
Pentachlorophenol	%	71			25-140	Pass	
Tetrachlorophenols - Total	%	72			25-140	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	73			25-140	Pass	
2-Methyl-4.6-dinitrophenol	%	70			25-140	Pass	
2-Nitrophenol	%	88			25-140	Pass	
2.4-Dimethylphenol	%	87			25-140	Pass	
2.4-Dinitrophenol	%	53			25-140	Pass	
2-Methylphenol (o-Cresol)	%	91			25-140	Pass	
3&4-Methylphenol (m&p-Cresol)	%	91			25-140	Pass	
4-Nitrophenol	%	73			25-140	Pass	
Dinoseb	%	93			25-140	Pass	
Phenol	%	99			25-140	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	85			70-130	Pass	
Toluene	%	74			70-130	Pass	
Ethylbenzene	%	90			70-130	Pass	
m&p-Xylenes	%	84			70-130	Pass	
o-Xylene	%	76			70-130	Pass	
Xylenes - Total*	%	81			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1.1-Trichloroethane	%	70			70-130	Pass	
1.2-Dichlorobenzene	%	86			70-130	Pass	
1.2-Dichloroethane	%	82			70-130	Pass	
Trichloroethene	%	79			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	91			70-130	Pass	
LCS - % Recovery							
Conductivity (1:5 aqueous extract at 25 °C as rec.)	%	109			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	105			70-130	Pass	
TRH C6-C10	%	105			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	100			70-130	Pass	
Toluene	%	106			70-130	Pass	
Ethylbenzene	%	112			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m&p-Xylenes			%	120			70-130	Pass	
o-Xylene			%	116			70-130	Pass	
Xylenes - Total*			%	119			70-130	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions									
Naphthalene			%	96			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	113			80-120	Pass	
Cadmium			%	109			80-120	Pass	
Chromium			%	111			80-120	Pass	
Copper			%	108			80-120	Pass	
Lead			%	94			80-120	Pass	
Mercury			%	105			80-120	Pass	
Nickel			%	109			80-120	Pass	
Zinc			%	109			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S24-De0057343	NCP	%	72			70-130	Pass	
Anthracene	S24-De0057343	NCP	%	81			70-130	Pass	
Fluoranthene	S24-De0057343	NCP	%	74			70-130	Pass	
Fluorene	S24-De0057343	NCP	%	77			70-130	Pass	
Naphthalene	S24-De0057343	NCP	%	72			70-130	Pass	
Phenanthrene	S24-De0057343	NCP	%	71			70-130	Pass	
Pyrene	S24-De0057343	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2.4.5-Trichlorophenol	S24-De0057343	NCP	%	75			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Nitrophenol	S24-De0057343	NCP	%	71			30-130	Pass	
Dinoseb	S24-De0057343	NCP	%	97			30-130	Pass	
Phenol	S24-De0057343	NCP	%	74			30-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Mercury	S24-De0058939	NCP	%	98			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S25-Ja0001162	CP	%	95			70-130	Pass	
TRH >C10-C16	S25-Ja0001162	CP	%	94			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthylene	S24-De0054603	NCP	%	87			70-130	Pass	
Benz(a)anthracene	S24-De0054603	NCP	%	84			70-130	Pass	
Benzo(a)pyrene	S24-De0054603	NCP	%	91			70-130	Pass	
Benzo(b&j)fluoranthene	S24-De0054603	NCP	%	95			70-130	Pass	
Benzo(g.h.i)perylene	S24-De0054603	NCP	%	94			70-130	Pass	
Benzo(k)fluoranthene	S24-De0054603	NCP	%	92			70-130	Pass	
Chrysene	S24-De0054603	NCP	%	92			70-130	Pass	
Dibenz(a.h)anthracene	S24-De0054603	NCP	%	89			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S24-De0054603	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C6-C9	S25-Ja0001165	CP	%	110			70-130	Pass	
TRH C6-C10	S25-Ja0001165	CP	%	111			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S25-Ja0001165	CP	%	98			70-130	Pass	
Toluene	S25-Ja0001165	CP	%	105			70-130	Pass	
Ethylbenzene	S25-Ja0001165	CP	%	107			70-130	Pass	
m&p-Xylenes	S25-Ja0001165	CP	%	115			70-130	Pass	
o-Xylene	S25-Ja0001165	CP	%	110			70-130	Pass	
Xylenes - Total*	S25-Ja0001165	CP	%	113			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S25-Ja0001165	CP	%	100			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S25-Ja0001168	CP	%	77			70-130	Pass	
TRH >C10-C16	S25-Ja0001168	CP	%	72			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S25-Ja0001170	CP	%	105			75-125	Pass	
Cadmium	S25-Ja0001170	CP	%	98			75-125	Pass	
Chromium	S25-Ja0001170	CP	%	102			75-125	Pass	
Copper	S25-Ja0001170	CP	%	100			75-125	Pass	
Lead	S25-Ja0001170	CP	%	114			75-125	Pass	
Nickel	S25-Ja0001170	CP	%	98			75-125	Pass	
Zinc	S25-Ja0001170	CP	%	97			75-125	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S25-Ja0001179	CP	%	96			70-130	Pass	
Toluene	S25-Ja0001179	CP	%	99			70-130	Pass	
Ethylbenzene	S25-Ja0001179	CP	%	102			70-130	Pass	
m&p-Xylenes	S25-Ja0001179	CP	%	109			70-130	Pass	
o-Xylene	S25-Ja0001179	CP	%	111			70-130	Pass	
Xylenes - Total*	S25-Ja0001179	CP	%	110			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S25-Ja0001179	CP	%	81			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	N24-De0053073	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10	N24-De0053073	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	S25-Ja0001167	CP	uS/cm	110	110	1.0	30%	Pass	
pH (1:5 Aqueous extract at 25 °C as rec.)	S25-Ja0001167	CP	pH Units	7.8	7.6	pass	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S25-Ja0001168	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S25-Ja0001168	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S25-Ja0001168	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S25-Ja0001168	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
o-Xylene	S25-Ja0001168	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S25-Ja0001168	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S25-Ja0001168	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S25-Ja0001168	CP	mg/kg	3.0	3.1	6.0	30%	Pass	
Cadmium	S25-Ja0001168	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S25-Ja0001168	CP	mg/kg	8.6	9.6	12	30%	Pass	
Copper	S25-Ja0001168	CP	mg/kg	7.3	8.8	19	30%	Pass	
Lead	S25-Ja0001168	CP	mg/kg	8.5	10	20	30%	Pass	
Mercury	S25-Ja0001168	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S25-Ja0001168	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S25-Ja0001168	CP	mg/kg	< 5	5.1	31	30%	Fail	Q15
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S25-Ja0001168	CP	%	15	15	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S25-Ja0001170	CP	mg/kg	5.0	3.4	38	30%	Fail	Q15
Cadmium	S25-Ja0001170	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S25-Ja0001170	CP	mg/kg	10	7.3	33	30%	Fail	Q15
Copper	S25-Ja0001170	CP	mg/kg	11	7.1	42	30%	Fail	Q15
Lead	S25-Ja0001170	CP	mg/kg	13	9.4	28	30%	Pass	
Mercury	S25-Ja0001170	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S25-Ja0001170	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S25-Ja0001170	CP	mg/kg	5.4	< 5	13	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S25-Ja0001171	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S25-Ja0001171	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S25-Ja0001171	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S25-Ja0001171	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S25-Ja0001171	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S25-Ja0001171	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Carbon disulfide	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S25-Ja0001171	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S25-Ja0001174	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S25-Ja0001174	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
o-Xylene	S25-Ja0001174	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Propanone (Acetone)	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Allyl chloride	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Carbon disulfide	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methylene Chloride	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S25-Ja0001174	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	S25-Ja0001175	CP	uS/cm	30	32	9.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S25-Ja0001177	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S25-Ja0001177	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S25-Ja0001177	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S25-Ja0001177	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S25-Ja0001177	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S25-Ja0001177	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S25-Ja0001177	CP	mg/kg	0.6	< 0.5	60	30%	Fail	Q15
Fluorene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S25-Ja0001177	CP	mg/kg	0.5	< 0.5	22	30%	Pass	

Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S25-Ja0001177	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S25-Ja0001177	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S25-Ja0001177	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S25-Ja0001177	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S25-Ja0001177	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S25-Ja0001177	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S25-Ja0001177	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	S25-Ja0001177	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S25-Ja0001177	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S25-Ja0001177	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S25-Ja0001177	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S25-Ja0001177	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	S25-Ja0001177	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S25-Ja0001177	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S25-Ja0001178	CP	mg/kg	7.9	6.2	25	30%	Pass	
Cadmium	S25-Ja0001178	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S25-Ja0001178	CP	mg/kg	26	18	38	30%	Fail	Q15
Copper	S25-Ja0001178	CP	mg/kg	15	13	16	30%	Pass	
Lead	S25-Ja0001178	CP	mg/kg	14	11	25	30%	Pass	
Mercury	S25-Ja0001178	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S25-Ja0001178	CP	mg/kg	5.5	< 5	29	30%	Pass	
Zinc	S25-Ja0001178	CP	mg/kg	11	7.3	38	30%	Fail	Q15
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S25-Ja0001178	CP	%	20	20	2.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S25-Ja0001179	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S25-Ja0001179	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S25-Ja0001179	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S25-Ja0001179	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S25-Ja0001179	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S25-Ja0001179	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Fluorene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	S25-Ja0001179	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	S25-Ja0001179	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	S25-Ja0001179	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	S25-Ja0001179	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	S25-Ja0001179	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S25-Ja0001179	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S25-Ja0001179	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Nitrophenol	S25-Ja0001179	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	S25-Ja0001179	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S25-Ja0001179	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S25-Ja0001179	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	S25-Ja0001179	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	S25-Ja0001179	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	S25-Ja0001179	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Conductivity (1:5 aqueous extract at 25 °C as rec.)	S25-Ja0001181	CP	uS/cm	26	25	6.0	30%	Pass	
pH (1:5 Aqueous extract at 25 °C as rec.)	S25-Ja0001181	CP	pH Units	8.3	8.2	pass	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Nileshni Goundar	Analytical Services Manager
Chamath JHM Annakkage	Senior Analyst-Asbestos
Mickael Ros	Senior Analyst-Metal
Raymond Siu	Senior Analyst-Organic
Raymond Siu	Senior Analyst-Volatile
Ryan Phillips	Senior Analyst-Inorganic
Ryan Phillips	Senior Analyst-Sample Properties

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Certificate of Analysis

eurofins | Environment Testing

CEC Geotechnical
Unit 4 83 Grose Street
North Paramatta
NSW 2151

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention:	Diego
Report	1174650-AID
Project Name	PSI/WASTE CLASS
Project ID	ER24029
Received Date	Dec 20, 2024
Date Reported	Jan 14, 2025

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004 and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Man-made vitreous fibre (MMVF)	Fibres exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and bio-soluble fibres. NOTE: previously known as "synthetic mineral fibre" (SMF). Simple analytical procedures such as polarised light microscopy cannot detect or reliably identify asbestos in some types of commercial products containing asbestos, either because the fibres are below the resolution of optical microscopy or because the matrix material adheres too strongly to the fibres. For these types of products, electron microscopy may be necessary.
Subsampling Soil Samples	The sample submitted is dried and passed through a 10 mm sieve followed by a 2 mm sieve. All fibrous matter greater than 10 mm and greater than 2 mm and the material passing through the 2 mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 g to 60 g, then a subsampling routine based on ISO 3082:2017(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be subsampled for trace analysis, in accordance with AS 5370:2024*.*
Bonded asbestos-containing material (ACM)	The material is first examined, and any fibres are isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination. The resultant material is then further examined in accordance with AS 5370:2024*. *NOTE: Even after disintegration, it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting (LOR)	The performance limitation of the AS 5370:2024* method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory limit of reporting, per se. Examination of large sample size (e.g., 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 5370:2024*, and hence, NATA Accreditation does not cover the performance of this service (non-NATA results are shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964-2004: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos". This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name PSI/WASTE CLASS
Project ID ER24029
Date Sampled Dec 16, 2024
Report 1174650-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH1_0.5-1	25-Ja0001160	Dec 16, 2024	Approximate Sample 107g Sample consisted of: Brown fine-grain clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH1_0.5-2	25-Ja0001161	Dec 16, 2024	Approximate Sample 128g Sample consisted of: Brown fine-grain clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH1_1	25-Ja0001162	Dec 16, 2024	Approximate Sample 95g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH1_2	25-Ja0001163	Dec 16, 2024	Approximate Sample 72g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH1_3	25-Ja0001164	Dec 16, 2024	Approximate Sample 65g Sample consisted of: Brown fine-grain clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH1_4	25-Ja0001165	Dec 16, 2024	Approximate Sample 107g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH2_0.5	25-Ja0001166	Dec 16, 2024	Approximate Sample 111g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH2_1	25-Ja0001167	Dec 16, 2024	Approximate Sample 133g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH2_3	25-Ja0001168	Dec 16, 2024	Approximate Sample 161g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH2_4	25-Ja0001169	Dec 16, 2024	Approximate Sample 118g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH3_0.5	25-Ja0001170	Dec 16, 2024	Approximate Sample 93g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH5_0.3	25-Ja0001173	Dec 16, 2024	Approximate Sample 198g Sample consisted of: Brown fine-grain clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH5_1	25-Ja0001174	Dec 16, 2024	Approximate Sample 338g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH5_2	25-Ja0001175	Dec 16, 2024	Approximate Sample 304g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6_0.4	25-Ja0001176	Dec 16, 2024	Approximate Sample 160g Sample consisted of: Brown fine-grain clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6_1	25-Ja0001177	Dec 16, 2024	Approximate Sample 146g Sample consisted of: Brown fine-grain clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6_1.5	25-Ja0001178	Dec 16, 2024	Approximate Sample 153g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7_0.4	25-Ja0001179	Dec 16, 2024	Approximate Sample 156g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7_0.9	25-Ja0001180	Dec 16, 2024	Approximate Sample 251g Sample consisted of: Brown fine-grain clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7_1.5	25-Ja0001181	Dec 16, 2024	Approximate Sample 181g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jan 03, 2025	Indefinite

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: CEC Geotechnical
Address: Unit 4 83 Grose Street
North Paramatta
NSW 2151

Project Name: PSI/WASTE CLASS
Project ID: ER24029

Order No.: ER24029
Report #: 1174650
Phone: 02 9630 0121
Fax:

Received: Dec 20, 2024 1:24 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: Diego

Eurofins Analytical Services Manager : Adam Bateup

Sample Detail						Asbestos - AS4964	HOLD*	Metals M8	Phenols (Speciated)	Volatile Organics	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	ENM Exemption Suite -The excavated natural material order 2014 NSW	Eurofins Suite B7	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	BH1_0.5-1	Dec 16, 2024		Soil	S25-Ja0001160	X			X	X	X			X	
2	BH1_0.5-2	Dec 16, 2024		Soil	S25-Ja0001161	X					X			X	
3	BH1_1	Dec 16, 2024		Soil	S25-Ja0001162	X			X	X	X	X			
4	BH1_2	Dec 16, 2024		Soil	S25-Ja0001163	X			X	X	X	X			
5	BH1_3	Dec 16, 2024		Soil	S25-Ja0001164	X			X	X	X	X			
6	BH1_4	Dec 16, 2024		Soil	S25-Ja0001165	X					X		X		
7	BH2_0.5	Dec 16, 2024		Soil	S25-Ja0001166	X			X	X	X			X	
8	BH2_1	Dec 16, 2024		Soil	S25-Ja0001167	X			X	X	X	X			
9	BH2_3	Dec 16, 2024		Soil	S25-Ja0001168	X			X	X	X	X			
10	BH2_4	Dec 16, 2024		Soil	S25-Ja0001169	X			X	X	X	X			
11	BH3_0.5	Dec 16, 2024		Soil	S25-Ja0001170	X			X	X	X			X	
12	BH3_1	Dec 16, 2024		Soil	S25-Ja0001171				X	X	X	X			
13	BH3_2	Dec 16, 2024		Soil	S25-Ja0001172				X	X	X	X			
14	BH5_0.3	Dec 16, 2024		Soil	S25-Ja0001173	X			X	X	X			X	

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: CEC Geotechnical
Address: Unit 4 83 Grose Street
North Paramatta
NSW 2151

Project Name: PSI/WASTE CLASS
Project ID: ER24029

Order No.: ER24029
Report #: 1174650
Phone: 02 9630 0121
Fax:

Received: Dec 20, 2024 1:24 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: Diego

Eurofins Analytical Services Manager : Adam Bateup

Sample Detail						Asbestos - AS4964	HOLD*	Metals M8	Phenols (Speciated)	Volatile Organics	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	ENM Exemption Suite -The excavated natural material order 2014 NSW	Eurofins Suite B7	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X
15	BH5_1	Dec 16, 2024		Soil	S25-Ja0001174	X			X	X	X	X			
16	BH5_2	Dec 16, 2024		Soil	S25-Ja0001175	X			X	X	X	X			
17	BH6_0.4	Dec 16, 2024		Soil	S25-Ja0001176	X			X	X	X			X	
18	BH6_1	Dec 16, 2024		Soil	S25-Ja0001177	X			X	X	X	X			
19	BH6_1.5	Dec 16, 2024		Soil	S25-Ja0001178	X			X	X	X	X			
20	BH7_0.4	Dec 16, 2024		Soil	S25-Ja0001179	X			X	X	X			X	
21	BH7_0.9	Dec 16, 2024		Soil	S25-Ja0001180	X			X	X	X	X			
22	BH7_1.5	Dec 16, 2024		Soil	S25-Ja0001181	X			X	X	X	X			
23	RBW	Dec 16, 2024		Water	S25-Ja0001182			X							
24	TB-SOIL	Dec 16, 2024		Trip Blank (solid)	S25-Ja0001183										X
25	BH2_2.0	Dec 16, 2024		Soil	S25-Ja0001188		X								
Test Counts						20	1	1	20	20	22	14	1	7	1

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix may be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**). This estimate is not NATA-accredited.
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to “non-bonded / friable”.
AFM	Airborne Fibre Monitoring, e.g., by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total %w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w)**.
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos-containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to distinguish visibly and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess the degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021), ISBN: 9780616667079.
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012), .ISBN: 9780717665020
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
MMVF	Man-Made Vitreous Fibre - exhibiting isotropic characteristics, including glass fibres, glass wool, rock wool, slag wool, ceramic fibres and “bio-soluble fibres. NOTE: previously known as “synthetic mineral fibre” (SMF).
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
PCM	Phase Contrast Microscopy. This is used for fibre counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004..
Sampling	Unless otherwise stated, Eurofins are not responsible for sampling equipment or the sampling process.
SRA	Sample Receipt Advice.
Trace Analysis	An analytical procedure is used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according to AS 5370:2024* Sampling and qualitative identification of asbestos in bulk materials (ISO 22262-1:2012, MOD), formerly AS 4964-2004.. It may include (but is not limited to) actinolite, anthophyllite, or tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average %w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos

Authorised by:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

eurofins | Environment Testing

Certificate of Analysis

CEC Geotechnical
Unit 4 83 Grose Street
North Paramatta
NSW 2151

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Diego**

Report **1174650-W**
Project name PSI/WASTE CLASS
Project ID ER24029
Received Date Dec 20, 2024

Client Sample ID			**RBW**
Sample Matrix			**Water**
Eurofins Sample No.			**S25-Ja0001182**
Date Sampled			**Dec 16, 2024**
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	0.001	mg/L	< 0.001
Cadmium	0.0002	mg/L	< 0.0002
Chromium	0.001	mg/L	< 0.001
Copper	0.001	mg/L	< 0.001
Lead	0.001	mg/L	< 0.001
Mercury	0.0001	mg/L	< 0.0001
Nickel	0.001	mg/L	< 0.001
Zinc	0.005	mg/L	< 0.005

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Metals M8	Sydney	Jan 06, 2025	28 Days

- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794 & 2780	Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Company Name: CEC Geotechnical
Address: Unit 4 83 Grose Street
North Paramatta
NSW 2151

Project Name: PSI/WASTE CLASS
Project ID: ER24029

Order No.: ER24029
Report #: 1174650
Phone: 02 9630 0121
Fax:

Received: Dec 20, 2024 1:24 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: Diego

Eurofins Analytical Services Manager : Adam Bateup

Sample Detail						Asbestos - AS4964	HOLD*	Metals M8	Phenols (Speciated)	Volatile Organics	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	ENM Exemption Suite -The excavated natural material order 2014 NSW	Eurofins Suite B7	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X
External Laboratory															
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**										
1	BH1_0.5-1	Dec 16, 2024		Soil	S25-Ja0001160	X			X	X	X			X	
2	BH1_0.5-2	Dec 16, 2024		Soil	S25-Ja0001161	X					X			X	
3	BH1_1	Dec 16, 2024		Soil	S25-Ja0001162	X			X	X	X	X			
4	BH1_2	Dec 16, 2024		Soil	S25-Ja0001163	X			X	X	X	X			
5	BH1_3	Dec 16, 2024		Soil	S25-Ja0001164	X			X	X	X	X			
6	BH1_4	Dec 16, 2024		Soil	S25-Ja0001165	X					X		X		
7	BH2_0.5	Dec 16, 2024		Soil	S25-Ja0001166	X			X	X	X			X	
8	BH2_1	Dec 16, 2024		Soil	S25-Ja0001167	X			X	X	X	X			
9	BH2_3	Dec 16, 2024		Soil	S25-Ja0001168	X			X	X	X	X			
10	BH2_4	Dec 16, 2024		Soil	S25-Ja0001169	X			X	X	X	X			
11	BH3_0.5	Dec 16, 2024		Soil	S25-Ja0001170	X			X	X	X			X	
12	BH3_1	Dec 16, 2024		Soil	S25-Ja0001171				X	X	X	X			
13	BH3_2	Dec 16, 2024		Soil	S25-Ja0001172				X	X	X	X			
14	BH5_0.3	Dec 16, 2024		Soil	S25-Ja0001173	X			X	X	X			X	

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Focus)	Christchurch	Tauranga
35 O'Rorke Road Penrose, Auckland 1061 +64 9 526 4551 IANZ# 1327	Unit C1/4 Pacific Rise, Mount Wellington, Auckland 1061 +64 9 525 0568 IANZ# 1308	43 Detroit Drive Rolleston, Christchurch 7675 +64 3 343 5201 IANZ# 1290	1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: CEC Geotechnical
Address: Unit 4 83 Grose Street
North Paramatta
NSW 2151

Project Name: PSI/WASTE CLASS
Project ID: ER24029

Order No.: ER24029
Report #: 1174650
Phone: 02 9630 0121
Fax:

Received: Dec 20, 2024 1:24 PM
Due: Jan 8, 2025
Priority: 10 Day
Contact Name: Diego

Eurofins Analytical Services Manager : Adam Bateup

Sample Detail						Asbestos - AS4964	HOLD*	Metals M8	Phenols (Speciated)	Volatile Organics	Moisture Set	ENM Exemption Suite - The excavated natural material order 2014 NSW EPA	ENM Exemption Suite -The excavated natural material order 2014 NSW	Eurofins Suite B7	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X
15	BH5_1	Dec 16, 2024		Soil	S25-Ja0001174	X			X	X	X	X			
16	BH5_2	Dec 16, 2024		Soil	S25-Ja0001175	X			X	X	X	X			
17	BH6_0.4	Dec 16, 2024		Soil	S25-Ja0001176	X			X	X	X			X	
18	BH6_1	Dec 16, 2024		Soil	S25-Ja0001177	X			X	X	X	X			
19	BH6_1.5	Dec 16, 2024		Soil	S25-Ja0001178	X			X	X	X	X			
20	BH7_0.4	Dec 16, 2024		Soil	S25-Ja0001179	X			X	X	X			X	
21	BH7_0.9	Dec 16, 2024		Soil	S25-Ja0001180	X			X	X	X	X			
22	BH7_1.5	Dec 16, 2024		Soil	S25-Ja0001181	X			X	X	X	X			
23	RBW	Dec 16, 2024		Water	S25-Ja0001182			X							
24	TB-SOIL	Dec 16, 2024		Trip Blank (solid)	S25-Ja0001183										X
25	BH2_2.0	Dec 16, 2024		Soil	S25-Ja0001188		X								
Test Counts						20	1	1	20	20	22	14	1	7	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**ppm:** parts per million
µg/L: micrograms per litre	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	**Colour:** Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	100			80-120	Pass	
Cadmium	%	97			80-120	Pass	
Chromium	%	105			80-120	Pass	
Copper	%	103			80-120	Pass	
Lead	%	98			80-120	Pass	
Mercury	%	105			80-120	Pass	
Nickel	%	103			80-120	Pass	
Zinc	%	109			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	N24-De0042459	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	N24-De0042459	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	N24-De0042459	NCP	mg/L	< 0.001	0.001	2.0	30%	Pass	
Copper	N24-De0042459	NCP	mg/L	0.002	0.002	12	30%	Pass	
Lead	N24-De0042459	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	N24-De0042459	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	N24-De0042459	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	N24-De0042459	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	No
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Nileshni Goundar	Analytical Services Manager
Mickael Ros	Senior Analyst-Metal

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory
179 Magowar Road, Girraween, NSW 2145
+61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1/21 Smallwood Place, Murarrie, QLD 4172
+61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory
46-48 Banksia Road, Welshpool, WA 6106
+61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
+61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	CEC Geotech	Project №	ER24029
Address	Merrylands	Project Name	PSI/WasteClass
Contact Name	Diego	Project Manager	Zuhaib
Phone №	-	EDD Format (Esdat, EQuIS etc)	
Special Directions	-	Sampler(s)	AS
Purchase Order	ER24029	Handed over by	
Quote ID №		Email for Invoice	zuhaib@cec-au.com; diego@cec-au.com; admin@cec-au.com; accounts@cec-au.com
		Email for Results	

Analyses — Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	B7	Asbestos ID	R16	R17	VOCs, Phenols,	Containers: 500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	BH1-0.5-1	16/12/24	S	X	X			X									9 Duplicate Sample into a lab Eurofins to analyse
2	BH1-0.5-2			X	X												
3	BH1-1.0				X	X		X									Store all Samples
4	BH1-2.0				X	X		X									
5	BH1-3.0				X	X		X									
6	BH1-4.0				X		X										
7	BH2-0.5			X	X			X									
8	BH2-1.0				X	X		X									
9	BH2-3.0				X	X		X									
10	BH2-4.0				X	X		X									
	Total Counts																

Containers — Change container type & size if necessary.

Required Turnaround Time (TAT) — Default will be 5 days if not ticked.

♦Surcharge will apply
☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☐ 3 days♦
☑ 5 days (Standard)
☐ Other( )

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal

Laboratory Use Only						
Received By	Brendan	Name		Signature		Date / Time
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date 10/12	Time 1:29
		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	Time

Time | Temperature 25.1 | Report №

Eurofins Environment Testing Australia Pty Ltd EnviroSales@eurofins.com

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

FVM

FM By

1174650

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ **Sydney Laboratory** 179 Magowar Road, Girraween, NSW 2145 +61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ **Brisbane Laboratory** Unit 1/21 Smallwood Place, Murarrie, QLD 4172 +61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ **Perth Laboratory** 46-48 Banksia Road, Welshpool, WA 6106 +61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ **Melbourne Laboratory** 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	CEC Geotech	Project №	ER24029	Project Manager	Zuhaib
Address	Merrylands	Project Name	PSI/WasteClass	EDD Format (ESdat, EQuIS etc)	
Contact Name	Diego			Sampler(s)	AS
Phone №				Handed over by	
Special Directions				Email for Invoice	accounts@cec-au.com; admin@cec-au.com; zuhaib@cec-au.com
Purchase Order	ER24029			Email for Results	accounts@cec-au.com; admin@cec-au.com; zuhaib@cec-au.com; diego@cec-au.com
Quote ID №					

Analyses (Where metals are requested, please specify "Total" or "Filtered". SUITE code must be used to attract SUITE pricing): B7; Asbestos ID; R16; R17; VOCs, Phenols

Containers (Change container type & size if necessary): 500mL Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964, WA Guidelines)

Required Turnaround Time (TAT) (Default will be 5 days if not ticked. ♦Surcharge will apply)

- ☐ Overnight (reporting by 9am)♦
- ☐ Same day♦ ☐ 1 day♦
- ☐ 2 days♦ ☐ 3 days♦
- ☑ 5 days (Standard)
- ☐ Other( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	B7	Asbestos ID	R16	R17	VOCs, Phenols	Sample Comments / Dangerous Goods Hazard Warning
1	BH3-0.5	16/12/24	S	X	X			X	Store all samples
2	BH3-1.0					X		X	
3	BH3-2.0					X		X	
4	BH5-0.3			X	X			X	
5	BH5-1.0				X	X		X	
6	BH5-2.0				X	X		X	
7	BH6-0.8			X	X			X	
8	BH6-1.0				X	X		X	
9	BH6-1.5				X	X		X	
10	BH7-0.4			X	X			X	
	Total Counts								

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal | Name | Signature | Date | Time

Laboratory Use Only

Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature	
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №	

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing ABN 50 005 085 521

☑ Sydney Laboratory
179 Magowar Road, Girraween, NSW 2145
+61 2 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1/21 Smallwood Place, Murarrie, QLD 4172
+61 7 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory
46-48 Banksia Road, Welshpool, WA 6106
+61 8 6253 4444 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
+61 3 8564 5000 EnviroSampleVic@eurofins.com

Company	CEC Geotech	Project №	ER24029
Address	Merrylands	Project Name	PSI / Waste Class
Contact Name	Diego	Project Manager	Zuhaib
Phone №		EDD Format (ESdat, EQuIS etc)	
Special Directions	-	Sampler(s)	AS
Purchase Order	ER24029	Handed over by	
Quote ID №	-	Email for Invoice	accounts@cec-au.com, admin@cec-au.com, zuhaib@cec-au.com
		Email for Results	zuhaib@cec-au.com, diego@cec-au.com, admin@cec-au.com

Analyses
Where metals are required, please specify 'Total' or 'Filtered'. SUITE code must be used to attract SUITE pricing

№	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	BTEX	Metals (8 metals) B7	Asbestos ID	R16	R17	VOCs, Phenol
1	BH7-0.9	16/12/24	S			X	X		X
2	BH7-1.5		S			X	X		X
3	RBW		W		X				
4	TB-Soil		S	X					
5									
6									
7									
8									
9									
10									
	Total Counts								

Containers
Change container type & size if necessary.

500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, WA Guidelines)

Required Turnaround Time (TAT)
Default will be 5 days if not ticked.

♦Surcharge will apply
☐ Overnight (reporting by 9am)♦
☐ Same day♦ ☐ 1 day♦
☐ 2 days♦ ☐ 3 days♦
☐ 5 days (Standard)
☐ Other( )

Sample Comments / Dangerous Goods Hazard Warning

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal

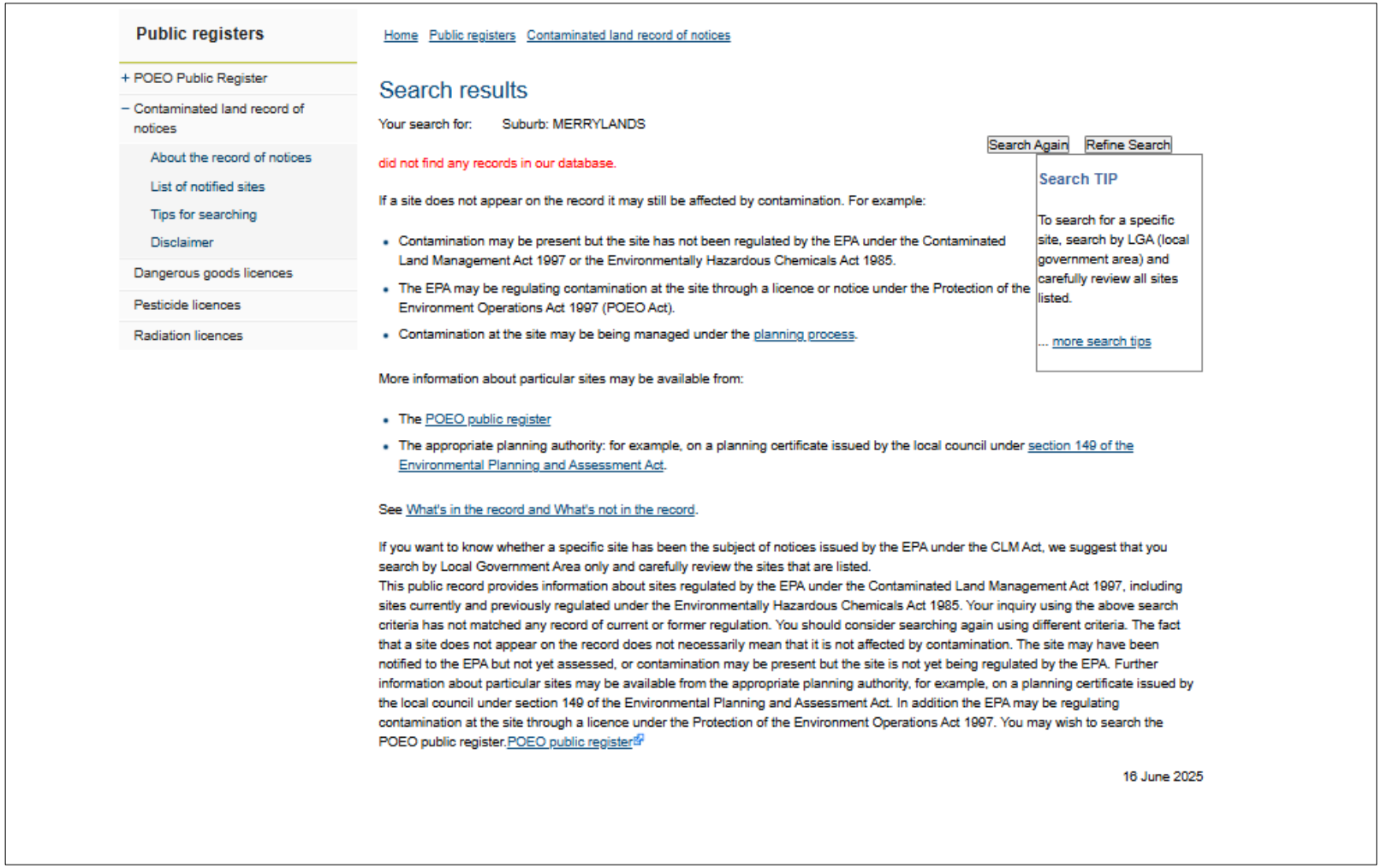
	Name	Signature	Date	Time

Laboratory Use Only

Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Temperature
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	Time	Report №

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | Environment Testing Standard Terms and Conditions unless agreed otherwise. A copy is available on request.

APPENDIX D – Search of the NSW EPA Contaminated Land Management Record



Public registers

+ POEO Public Register
− Contaminated land record of notices
  - About the record of notices
  - List of notified sites
  - Tips for searching
  - Disclaimer
- Dangerous goods licences
- Pesticide licences
- Radiation licences

Home Public registers Contaminated land record of notices

Search results

Your search for: Suburb: MERRYLANDS

Search Again Refine Search

did not find any records in our database.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

16 June 2025

APPENDIX E – Search of the Protection of the Environment Operations Public Register (POEO) of Licensed and Delicensed Premises

Public registers

- – POEO Public Register
  - Licences, applications and notices search
  - Penalty notices search
  - Enforceable undertakings search
  - Enforceable undertakings media releases
  - Exemptions and approvals search
  - Prosecutions or civil proceedings search
  - Terms of use: POEO public register
  - Licensing FAQs
  - List of licences
  - Unlicensed premises regulated by the EPA
- + Contaminated land record of notices
- Dangerous goods licences
- Pesticide licences
- Radiation licences

Home Public registers POEO Public Register Licences, applications and notices search

Search results

Your search for: **General Search** with the following criteria

Suburb - MERRYLANDS

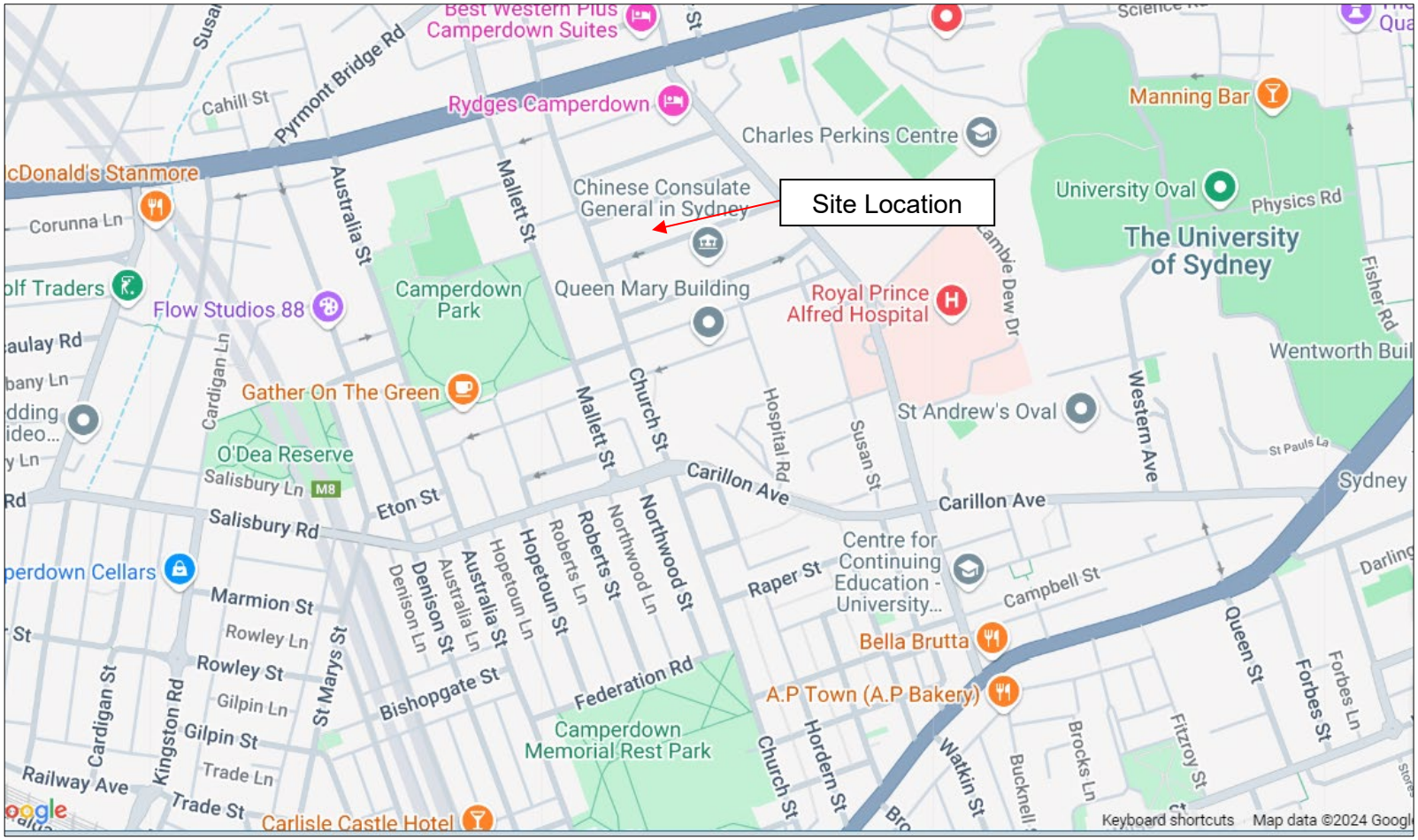
returned 6 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
3085769684	Amigos Civil Group Pty Ltd	19 Badham Street, MERRYLANDS, NSW 2160	Penalty Notice	Issued	22 Mar 2013
2172	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	POEO licence	Surrendered	03 Apr 2000
1002735	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.58 Licence Variation	Issued	17 Nov 2000
1011040	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.58 Licence Variation	Issued	12 Mar 2002
1019845	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.58 Licence Variation	Issued	15 Aug 2002
1020470	GEORGE WESTON FOODS LIMITED	1-7 NEIL STREET, MERRYLANDS, NSW 2160	s.80 Surrender of a Licence	Issued	16 Sep 2002

16 June 2025

APPENDIX F – Search for NSW Government PFAS Investigation Programme



APPENDIX G – Safework Outcome

Outlook

SafeWork NSW: 01089369 –Site Search application – Result not found [thread::EmvLPVCHd5yT9SNw5kvGynw::]

From Licensing <licensing@safework.nsw.gov.au>
Date Tue 5/20/2025 2:09 PM
To Zuhaib Siddiqui <zuhaib@cec-au.com>

Security Classification: Sensitive Personal
Please do not amend the subject line of this email

Dear Zuhaib

Re: Site Search for Schedule 11 Hazardous Chemicals on premises Application – Result not found

Thank you for providing the completed documentation. Please find the results below.

I refer to your application for a Site Search for Schedule 11 Hazardous Chemicals on premises, received by SafeWork NSW for the following site: 215 229-239 Pitt Street, Merrylands NSW 2160.

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

If you have any questions, please contact SafeWork NSW using one of the following options, quoting the SafeWork NSW enquiry reference number 01089369:

- Email: licensing@safework.nsw.gov.au
- Phone: 13 10 50

Kind regards

Mo Lotonuu
Licensing Representative
SafeWork NSW | SafeWork Licensing
p- 13 10 50
e- licensing@safework.nsw.gov.au | safework.nsw.gov.au
92-100 Donnison Street, Gosford, NSW 2250
Safework LogoTaxInvoice - copy for customer.pdf

thread::EmvLPVCHd5yT9SNw5kvGynw::

APPENDIX H – DQOs: SAQP & DQIs

H1 Data Gap Assessment DQO/DQI

H1.1 Data Quality Objectives

The data quality objectives (DQO) process is a systematic planning tool based on the scientific method for establishing criteria for data quality and for developing data collection designs. The data quality objectives define the experimental process required to test a hypothesis. The DQO process was developed to ensure that efforts relating to data collection are cost-effective by eliminating unnecessary, duplicative, or overly precise data, whilst at the same time, ensuring the data collected is of sufficient quality and quantity to support defensible decision-making.

It is recognized that the most efficient way to accomplish these goals is to establish criteria for defensible decision-making before the data collection begins, and then develop a data collection design based on these criteria. By using the DQO process to plan the investigation, the relevant parties can improve the effectiveness, efficiency, and defensibility of a decision in a resource and cost-effective manner.

The DQO process consists of seven steps, which are designed to clarify the study objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors. The seven-step DQO process that will be adopted for the soil remedial works will be as follows:

- Step 1 – Defining the Problem. The first step in the DQO process is to 'define the problem' that has initiated remedial works;
- Step 2 – Identify the Decision. The second step in the process is to define the decision statement that the works will attempt to resolve;
- Step 3 – Identify Inputs to the Decision. In this step, the different types of information needed to resolve the decision statement are identified.
- Step 4 – Define the Study Boundaries;
- Step 5 – Develop a Decision Rule;
- Step 6 – Specify Limits on Decision Errors and Acceptance Criteria; and
- Step 7 – Optimise the Design for Obtaining the Data.

H1.2 Define the Problem

The problem under consideration is that the site needs further investigation of data gaps to assess the suitability of the proposed development for the land use criteria for high-density residential occupation.

H1.3 Identify the Decision

The principal decision is 'what is the most appropriate way to manage the identified contamination to render the Site suitable for its intended purpose'.

Requirements of the adopted remediation works must include:

- Further assessment to address the identified data gaps; and
- No unacceptable on or off-site impacts during and after remedial works; and
- Provisions to verify that the remedial actions are adequate and will not result in on or off-site impacts (i.e. validation).
- Provisions to verify that the site is suitable for the proposed high-density residential land use.

H1.4 Identify the Inputs to the Decision

The inputs to the decision are as follows:

- Assessment data gathered for the site to date showed hydrocarbons in fill material at concentrations that may present a risk to human health; and

- Assessment data gathered for the site to date, which reported heavy metals and TPH in groundwater at concentrations that may present a risk to human health; and
- Remedial action preferences – An assessment of the remedial action preferences has been conducted to adopt the most appropriate remedial action and methodology; and

H1.5 Define the Boundaries of the Study

The extent of the RAP is limited to the boundaries of the site, and the potential unexpected finding of asbestos on site during construction. Vertical and horizontal delineation of the contamination is detailed in section 5.2.

H1.6 Develop a Decision Rule

Based on the available Site assessment information, elements of the decision rule can be established as follows:

- Can the remedial works be conducted such that further contamination issues in the form of on- or off-site impacts do not occur during remediation?
- Will the remedial works adequately reduce the overall risk of the Site?
- Will the Site be rendered suitable for the proposed use?

Further assessment is required to address the data gaps required to select the required remediation option. It is intended that following remediation, the soil in the areas of concern be assessed against the adopted site criteria such that:

- The remedial works adequately reduce the overall risk of the site; and
- The site should be rendered suitable for the proposed use.

For fill material that may require off-site disposal as part of the adopted remedial approach, waste classification will be undertaken in accordance with NSW EPA (2014) Waste Classification Guidelines, Part 1: Classifying Waste.

In the event that soil needs to be imported to the site to facilitate future development (e.g., backfill excavations), it will be obtained from reputable suppliers and will comprise Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM), where appropriate characterisation of the source material has occurred in accordance with the published NSW DECCW General Waste Exemption for ENM.

H1.7 Specify Tolerable Limits on Decision Errors

Quality Assurance and Quality Control (QA/QC) protocols in accordance with NEPM (2013) guidelines will be applied to the remediation and validation works.

The acceptable limits for data QA will be the following:

- Accuracy is measured by per cent recovery '%R'. Accuracy data is expected to vary within the range of 70- 130 %R;
- Precision is measured using the standard deviation 'SD' or Relative Percent Difference '%RPD'. Replicate data is expected to be as follows:
- RPD criteria of 30% or less, for concentrations > or = 10 times EQL;
- RPD criteria of 75% or less, for concentrations between 5 and 10 times the EQL; and
- RPD criteria of 100% or less, for concentrations < 5 times EQL.

The above criteria apply to homogeneous material.

H1.8 Optimise the Design of Obtaining Data

The purpose of this step is to identify a resource-effective data collection design for generating data to meet the remediation objectives. This will be achieved by the proposed Sampling and Analysis program for further site investigation, including the number of sample locations, media to be sampled, number of samples retained for analysis, analytical suite, and method of sample collection.

H1.9 Sample Handling

After collection of the samples, the jars, bags and bottles will be secured in insulated containers and chilled with ice. This will be under the control of the environmental scientist.

Samples will be labelled, using waterproof ink on the jar and the lid, with the following:

- Job Number;
- Sample Number (located on the site drawing);
- Samplers' initials; and
- Sampling date.

Chain of Custody (COC) documentation will be used. The COC will be completed immediately after the sample has been labelled and stored, as described.

Sampling equipment will be cleaned before the collection of each sample, as follows:

- Brush off any adhering soil using a nylon brush in potable water;
- Rinse in a stream of potable tap water;
- Wash in a solution of phosphate-free detergent and distilled water; and
- Rinse with demineralised water.

H1.10 Laboratory and Sample Analysis

The primary laboratory to be used will be NATA-accredited. Quality assurance will comprise the collection of field duplicates (1:20) and trip blanks. Laboratory quality assurance will comprise analysis of control spikes, lab blanks, lab duplicates, and surrogates, as well as detailed reporting of recoveries.

A secondary laboratory, also NATA-accredited, will be used for quality assurance. Samples to the secondary laboratory will be submitted at a frequency of 1 in 20 samples.

Samples analysis will comprise the following:

- DGA samples for 8 priority heavy metals, TPH, BTEX, PAHs, and asbestos.
- For imported fill material, samples will be analysed for 8 priority heavy metals, organochlorine- (including PCBs) and organophosphate pesticides (OCP/OPPs) if required, TPH, BTEX, and PAHs; and,
- If any material requires classification for off-site disposal will be analysed for the site constituents of concern.

H1.11 Data Gap Assessment Criteria

The further site investigation criteria should follow the guidelines mentioned in **section 9.3**.

H1. 12Quality Assurance/ Quality Control

The pre-determined Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs) established for the project in relation to precision, accuracy, representativeness, comparability, and completeness are shown in **Table H1**.

.

Table H1: DQO/DQI requirements and values for the DGA

DQO	Requirement	DQI
Precision		
Intra-laboratory duplicates	1 per 20 samples	RPDs < 50%
Inter-laboratory duplicates	1 per 20 samples	RPDs < 50%
Laboratory duplicates	Minimum of 1 per batch per analyte	RPDs < 50%
Accuracy		
Trip blanks	1 per lab batch for volatile analytes	Result < LOR
Trip spikes	1 per lab batch for volatile analytes	Recoveries 60-100%
Rinsate	1 per lab batch for volatile analytes	Result < LOR
Laboratory matrix spikes	1 per batch per volatile/semi-volatile analyte	Recoveries 50% to 150%
Laboratory surrogate spikes	1 per volatile/semi-volatile analyte sample (as appropriate)	Recoveries 70% to 130%
Laboratory control samples	At least 1 per batch per analyte tested for	Result < limit of reporting (LOR)
Representativeness		
Sampling collection	Samples must be collected to reflect the characteristics of each media	Meet requirement
Samples extracted and analysed within holding times	Specific to each analyte	Meet requirement
Field equipment calibration	All field equipment was calibrated, and calibration records were provided.	Meet requirement
Laboratory method blanks	At least 1 per batch per analyte tested for	Result < LOR
Comparability		
Sampling collection	Samples collected, preserved, and handled in the same manner (filtered, same containers)	Meet requirement
Analysis methodology	Consistent methodology for each sample	Meet requirement
Handling conditions and sampler	Consistent for each sample	Meet requirement
Field observations and analytical	Field observations to support analytical results	Meet requirement
Consistent laboratory reporting limit	Consistent between primary and secondary laboratories	Meet requirement
Completeness		
Laboratory accreditation	National Association of Testing Authorities (NATA) Accredited laboratory for methods used	Meet requirement
Accredited methods	NATA accredited methods used appropriate for each analyte.	Meet requirement
ASC NEPM 2013 lab methods	Lab methods consistent with the ASC NEPM 2013.	Meet requirement

DQO	Requirement	DQI
Laboratory reporting limit	Laboratory reporting limits consistent and appropriate	Meet requirement
Consistent weather/field conditions	Consistent	Meet requirement
Chain of custody documentation	Appropriately completed	Meet requirement
Field sampling documentation	Appropriately completed	Meet requirement

H2 Soil Validation DQO/DQI

H2.1 Data Quality Objectives

The data quality objectives (DQO) process is a systematic planning tool based on the scientific method for establishing criteria for data quality and for developing data collection designs. The data quality objectives define the experimental process required to test a hypothesis. The DQO process was developed to ensure that efforts relating to data collection are cost-effective by eliminating unnecessary, duplicative, or overly precise data, whilst at the same time, ensuring the data collected is of sufficient quality and quantity to support defensible decision-making.

It is recognized that the most efficient way to accomplish these goals is to establish criteria for defensible decision-making before the data collection begins, and then develop a data collection design based on these criteria. By using the DQO process to plan the investigation, the relevant parties can improve the effectiveness, efficiency, and defensibility of a decision in a resource and cost-effective manner.

The DQO process consists of seven steps, which are designed to clarify the study objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors. The seven-step DQO process that will be adopted for the soil remedial works will be as follows:

- Step 1 – Defining the Problem. The first step in the DQO process is to ‘define the problem’ that has initiated remedial works;
- Step 2 – Identify the Decision. The second step in the process is to define the decision statement that the work will attempt to resolve;
- Step 3 – Identify Inputs to the Decision. In this step, the different types of information needed to resolve the decision statement are identified.
- Step 4 – Define the Study Boundaries;
- Step 5 – Develop a Decision Rule;
- Step 6 – Specify Limits on Decision Errors and Acceptance Criteria; and
- Step 7 – Optimise the Design for Obtaining the Data.

H2.2 Define the Problem

The problem under consideration is that the site needs to meet the land use criteria for high-density residential occupation.

H2.3 Identify the Decision

The principal decision is ‘what is the most appropriate way to manage the identified contamination to render the Site suitable for its intended purpose’.

Requirements of the adopted remediation works must include:

- No unacceptable on or off-site impacts during and after remedial works; and

- Provisions to verify that the remedial actions are adequate and will not result in on or off-site impacts (i.e. validation).
- Provisions to verify that the site is suitable for the proposed high-density residential land use.

H2.4 Identify the Inputs to the Decision

The inputs to the decision are as follows:

- Assessment data gathered for the site to date, which reported TPH in fill material at concentrations that may present a risk to human health;
- Remedial action preferences – An assessment of the remedial action preferences has been conducted to adopt the most appropriate remedial action and methodology; and
- Validation data (soil chemical data and visual observations) obtained during the remediation works program.

H2.5 Define the Boundaries of the Study

The extent of the validation is limited to the boundaries of the site, and the potential unexpected finding of asbestos on site during construction. Vertical and horizontal delineation of the contamination is required to be observed after carefully identifying affected areas.

H2.6 Develop a Decision Rule

Based on the available Site assessment information, elements of the decision rule can be established as follows:

- Can the remedial works be conducted such that further contamination issues in the form of on- or off-site impacts do not occur during remediation?
- Will the remedial works adequately reduce the overall risk of the Site?
- Will the Site be rendered suitable for the proposed use?

Validation is required to demonstrate that the impacted areas have been remediated as suitable for high-density residential land use. It is intended that following remediation, the soil in the areas of concern be assessed against the adopted site criteria such that:

- The remedial works adequately reduce the overall risk of the site; and
- The site be rendered suitable for the proposed use.

For fill material that may require off-site disposal as part of the adopted remedial approach, waste classification will be undertaken in accordance with NSW EPA (2014) Waste Classification Guidelines, Part 1: Classifying Waste.

In the event that soil needs to be imported to the site to facilitate future development (e.g., backfill excavations), it will be obtained from reputable suppliers and will comprise Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM) where appropriate characterisation of the source material has occurred in accordance with the published NSW DECCW General Waste Exemption for ENM.

H2.7 Specify Tolerable Limits on Decision Errors

Quality Assurance and Quality Control (QA/QC) protocols in accordance with NEPM (2013) guidelines will be applied to the remediation and validation works.

The acceptable limits for data QA will be the following:

- Accuracy is measured by per cent recovery '%R'. Accuracy data is expected to vary within the range of 70- 130 %R;
- Precision is measured using the standard deviation 'SD' or Relative Percent Difference '%RPD'. Replicate data is expected to be as follows:
- RPD criteria of 30% or less, for concentrations > or = 10 times EQL;
- RPD criteria of 75% or less, for concentrations between 5 and 10 times the EQL; and
- RPD criteria of 100% or less, for concentrations < 5 times EQL.

The above criteria apply to homogeneous material.

H2.8 Optimise the Design of Obtaining Data

The purpose of this step is to identify a resource-effective data collection design for generating data to meet the remediation objectives. This will be achieved by the proposed Sampling and Analysis program for the validation of the excavations at the Site, including the number of sample locations, media to be sampled, number of samples retained for analysis, analytical suite, and method of sample collection.

H2.9 Quality Assurance/ Quality Control

The pre-determined Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs) established for the project in relation to precision, accuracy, representativeness, comparability, and completeness are shown in **Table H2.**

Table H2: DQO/DQI requirements and values for the Soil Validation

DQO	Requirement	DQI
Precision		
Intra-laboratory duplicates	1 per 20 samples	RPDs < 50%
Inter-laboratory duplicates	1 per 20 samples	RPDs < 50%
Laboratory duplicates	Minimum of 1 per batch per analyte	RPDs < 50%
Accuracy		
Trip blanks	1 per lab batch for volatile analytes	Result < LOR
Trip spikes	1 per lab batch for volatile analytes	Recoveries 60-100%
Rinsate	1 per lab batch for volatile analytes	Result < LOR
Laboratory matrix spikes	1 per batch per volatile/semi-volatile analyte	Recoveries 50% to 150%
Laboratory surrogate spikes	1 per volatile/semi-volatile analyte sample (as appropriate)	Recoveries 70% to 130%
Laboratory control samples	At least 1 per batch per analyte tested for	Result < limit of reporting (LOR)
Representativeness		
Sampling collection	Samples must be collected to reflect the characteristics of each media	Meet requirement
Samples extracted and analysed within holding times	Specific to each analyte	Meet requirement
Field equipment calibration	All field equipment was calibrated, and calibration records were provided.	Meet requirement
Laboratory method blanks	At least 1 per batch per analyte tested for	Result < LOR
Comparability		

DQO	Requirement	DQI
Sampling collection	Samples collected, preserved, and handled in the same manner (filtered, same containers)	Meet requirement
Analysis methodology	Consistent methodology for each sample	Meet requirement
Handling conditions and sampler	Consistent for each sample	Meet requirement
Field observations and analytical	Field observations to support analytical results	Meet requirement
Consistent laboratory reporting limit	Consistent between primary and secondary laboratories	Meet requirement
Completeness		
Laboratory accreditation	National Association of Testing Authorities (NATA) Accredited laboratory for methods used	Meet requirement
Accredited methods	NATA accredited methods used appropriate for each analyte.	Meet requirement
ASC NEPM 2013 lab methods	Lab methods consistent with the ASC NEPM 2013.	Meet requirement
Laboratory reporting limit	Laboratory reporting limits consistent and appropriate	Meet requirement
Consistent weather/field conditions	Consistent	Meet requirement
Chain of custody documentation	Appropriately completed	Meet requirement
Field sampling documentation	Appropriately completed	Meet requirement