Macquarie Group Centre
Stage 1 Site Investigation Report

Prepared for:

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Table of Contents

Executive Summary **8**
1 Introduction **11**
2 Land Use and Planning Framework **13**
3 Proposed Development **22**
4 Investigation Scope **24**
5 Site Description and Location **25**
6 Existing Site Servicing **29**
6.1 General 29
6.2 Sewer 29
6.3 Water Supply 32
6.4 Stormwater Drainage 37
6.5 Overland Flow and Flooding 40
6.6 Telecommunication Services 41
6.6.1 Telstra 41
6.6.2 NBN 45
6.6.3 TPG Telecom 45
6.7 Gas Supply 47
6.8 Electrical Supply and Streetlighting 50
6.9 Boundaries and Easements 57
6.10 Transport 59
6.10.1 Traffic and Vehicular Access 59
6.10.2 Parking 68
6.10.3 Pedestrian and Cycle Access 70
6.10.4 Transport Canberra and Bus Servicing 76
6.11 Specialist Investigations 79
6.11.1 Heritage 79
6.11.2 Ecological 80
6.11.3 Environmental 85
6.11.1 Geotechnical 86
6.11.2 Bushfire 86
6.11.3 Tree Assessment 89
6.11.4 Water Sensitive Urban Design 93
7 Proposed Site Servicing **95**
7.1 General 95
7.2 Sewer Supply 95
7.3 Potable Water Supply 95
7.4 Stormwater Drainage 96
7.5 Telecommunications 97
7.6 Electricity 97
7.7 Gas 97
7.8 Traffic and Parking 98
8 Site Opportunities, Constraints and Risk Assessment **99**
9 Recommendations **102**
10 Drawings **104**

Appendix A – Drawing

Appendix B – BYDA and Work as Executed Information

Appendix C – Correspondence

Appendix D – Site Photos

List of Figures

Figure 1 – Locality Plan of Subject Site (ACTmapi, 2024) 11
Figure 7 – Territory Plan Land Use Map from ACTmapi 14
Figure 2 – Permissible Land Uses and Development Types in Commercial Zones (Territory Plan, 2024) 17
Figure 3 – Permissible Land Uses and Development Types in Parks and Recreation Zones (Territory Plan 2023) 19
Figure 4 – Belconnen District Policy Additional Assessable Development for Macquarie (Belconnen District Policy, 2024) 19
Figure 5 – Macquarie Additional Assessable Development Criteria Map (Belconnen District Policy, 2024) 20
Figure 6 – Macquarie Building Heights Development Criteria Map (Belconnen District Policy, 2024) 21
Figure 8 – Jamison Group Centre Master Plan (PALM, 2002) 23
Figure 9 – General Site Photo of Northern Car Park and Plaza in Background 26
Figure 10 – General Site Photo Southern Car Park Looking North West 27
Figure 11 – Playground in Block 45 Section 50 in Subject Site 27
Figure 12 – Sunday Market Sign on Site's Northern Car Park 28
Figure 13 – Sewer BYDA Information (Icon Water, 2024) 30
Figure 14 – Sewer Manhole in Northern Verge of Jamison Centre Access Road (south) 31
Figure 15 – Sewer Manhole (further) Near Block 10 Section 50 31
Figure 16 – Sewer Manhole in Bowman Street (north) 31
Figure 17 – Sewer Manhole over DN225 Main at Intersection of Bowman Street and Halloran Close 31
Figure 18 – Existing Water Infrastructure Near the Subject Site (Icon Water, 2024) 33
Figure 19 – Stop Valve in South East Car Park 34
Figure 20 – Fire Hydrant on DN300 Main in Redfern Street 34
Figure 21 – Fire Hydrant in Southern Verge of Jamison Centre (south) 34
Figure 22 – Fire Hydrant on DN300 Main in Redfern Street 34
Figure 23 – Stop Valve at Intersection of Bowman Street (north) and Halloran Close 35
Figure 24 – Fire Hydrant in Bowman Street (north) 35
Figure 25 – Fire Hydrant in Bowman Street (west) 35
Figure 26 – Stop Valve in Bowman Street (west) for Football Club Service Tie (near) 35
Figure 27 – Stop Valve in Bowman Street (west) for Branch into Group Centre 36
Figure 28 – Existing Fire Hydrant in West Car Park 36
Figure 29 – Double Fire Hydrants North West of Block 42 Section 50 36
Figure 30 – Existing Stormwater Infrastructure in Proximity of the Site (ACTmapi, 2024) 38
Figure 31 – Stormwater Sump on Redfern Street Looking East 38
Figure 32 – Stormwater Sumps and Manhole in Redfern Street 38
Figure 33 – Existing Stormwater Sump in East Verge of Bowman Street (west) 39
Figure 34 – Stormwater Manhole in Bowman Street (west) East Verge over DN600 Main 39
Figure 35 – Stormwater Manhole in Bowman Street (west) East Verge over DN675 Main 39
Figure 36 – Existing Stormwater Manhole South West of Site 39
Figure 37 – Stormwater Overland Flow Diagram 40
Figure 38 – 1% AEP Flood Extent and Waterways (ACTmapi, 2024) 41
Figure 39 – Telstra BYDA Information in Proximity of the Subject Site (Telstra, 2024) 42
Figure 40 – Telstra Pit at the Intersection of Bowman Street (east) and Redfern Street. 43

Figure 41 – Telstra Pit in Northern Verge of Jamison Centre (south) Internal Access Road 43
Figure 42 – Telstra Pit in Northern Area of Block 45 Section 50 43
Figure 43 – Telstra Pit and Pillar Near the Intersection of Jamison Centre (east) Internal Access Road and Bowman Street (east) 43
Figure 44 – Telstra Pit in Northern Verge of Bowman Street (north) 44
Figure 45 – Telstra Pit in in Northern Verge of Bowman Street (north) 44
Figure 46 – Telstra Pit and Pillar Near Intersection of Bowman Street (north) and Halloran Close 44
Figure 47 – Telstra Pit at the Intersection of Bowman Street (north) and Halloran Close 44
Figure 48 – NBN BYDA Information Near the Subject Site (NBN, 2024) 45
Figure 49 – TPG Telecom DBYD Information Near the Subject Site (TPG, 2024) 46
Figure 50 – TPG Pit in Northern Verge of Redfern Street South of Site 46
Figure 51 – Gas BYDA Information in Proximity of the Subject Site (Evoenergy, 2024) 48
Figure 52 – Gas Isolation Valve in Northern Verge of Redfern Street 49
Figure 53 – Gas Marker Indicating Location of Branch into Site from Bowman Street (east) 49
Figure 54 – Gas Marker in Bowman Street (north) Northern Verge 49
Figure 55 – Gas Marker in Bowman Street (north) Northern Verge 49
Figure 56 – Gas Marker in Halloran Close Near Intersection with Bowman Street (north) 50
Figure 57 –Streetlight BYDA Information (TCCS, 2024) 51
Figure 58 – TCCS Streetlight in Northern Car Park 52
Figure 59 – TCCS Streetlight on Bowman Street (north) 52
Figure 60 – TCCS Streetlight on Redfern Street Looking East 52
Figure 61 – TCCS Streetlight in West Car Park 52
Figure 62 – TCCS Streetlights in Southern Car Park 53
Figure 63 – TCCS Streetlight Bowman Street (east) Looking North 53
Figure 64 – TCCS Streetlights on Redfern Street Looking West 53
Figure 65 – Electrical BYDA Information (Evoenergy, 2024) 54
Figure 66 – Electrical Distribution Box Near Jamison Centre Internal Access Road (south) 55
Figure 67 – Electrical Substation S 9163 Near Jamison Centre Internal Access Road (south) 55
Figure 68 – Electrical Substation S 11041 South West of Site 55
Figure 69 – Electrical Substation S 9144 and Distribution Box in North East Corner of Block 42 Section 50 55
Figure 70 – Electrical Overhead Power Lines in Redfern Street Looking West 55
Figure 71 – Electrical Overhead Power Lines in Redfern Street Looking East 56
Figure 72 – Electrical Overhead Power Lines in Redfern Street Looking East 56
Figure 73 – Electrical Overhead Power Lines in Redfern Street Looking West 56
Figure 74 – Electrical Overhead Power Lines in Henshall Way Looking West 56
Figure 75 – Electrical Overhead Power Lines in Bowman Street (west) Looking South 57
Figure 76 – Electrical Overhead Power Lines in Henshall Way Looking East 57
Figure 77 – Existing Survey Markers and Easements Surrounding the Site (ACTmapi, 2024) 58
Figure 78 – Kerb Survey Marker KBM 58
Figure 79 – Extract from the Active Travel Infrastructure Practitioner Tool (2024) 60
Figure 80 – Redfern Street Intersection with Bowman Street (east) Looking East 60
Figure 81 – Access to the Site from Redfern Street to Bowman Street (east) 60

Figure 82 – Redfern Street Looking West 61
Figure 83 – 40km/h and High Pedestrian Activity Sign on Bowman Street (east) 61
Figure 84 – Redfern Street 60km/h Speed Limit Sign 61
Figure 85 – Redfern Street Aged Pedestrian Sign South West of Site 61
Figure 86 – Bowman Street (north) Looking West....62
Figure 87 – Bowman Street (north) 40km/h Speed Sign 62
Figure 88 – Bowman Street (north) Signposted School Zone 62
Figure 89 – Bowman Street (north) Looking West....62
Figure 90 – Bowman Street (north) Bus Stop Area 63
Figure 91 – Bowman Street (west) Looking South 63
Figure 92 – Bowman Street (west) Bus Stop Area Adjacent Site 63
Figure 93 – CSTM Modelling – 2026 AM Peak Volumes (TCCS, 2024)....65
Figure 94 – CSTM Modelling – 2026 PM Peak Volumes (TCCS, 2024)....65
Figure 95 – CSTM Modelling – 2031 AM Peak Volumes (TCCS, 2024)....66
Figure 96 – CSTM Modelling – 2031 PM Peak Volumes (TCCS, 2024)....66
Figure 97 – CSTM Modelling – 2041 AM Peak Volumes (TCCS, 2024)....67
Figure 98 – CSTM Modelling – 2041 PM Peak Volumes (TCCS, 2024)....67
Figure 99 – Canberra Strategic Transport Model (CSTM) Zone ID (TCCS, 2024) 68
Figure 100 – South Car Park Looking North West....70
Figure 101 – North Car Park Looking South West....70
Figure 102 – North Car Park Looking South West....70
Figure 103 – West Car Park Looking South 70
Figure 104 – Parking Sign in South West Car Park....70
Figure 105 – CBR Cycle Routes (Transport Canberra, 2024) 72
Figure 106 – Footpaths Through Block 45 Section 50....72
Figure 107 – Footpaths on Bowman Street (east)....72
Figure 108 – Footpath from Redfern Street Through Block 45 Section 50 to Jamison Plaza....73
Figure 109 – Footpath in Southern Verge of Redfern Street 73
Figure 110 – Footpaths from Redfern Street Through Block 45 Section 50 to Jamison Plaza 73
Figure 111 – Main Jamison Plaza Entry 73
Figure 112 – Paths and Ramps in Block 45 Section 50....74
Figure 113 – Footpath from Subject Site to Bowman Street (east)....74
Figure 114 – Footpath Kerb Ramps and Median Refuge on Bowman Street (east)....74
Figure 115 – Footpath Crossing from Bowman Street (north) to Subject Site 74
Figure 116 – Footpath in Northern Verge of Bowman Street (north) Looking West....75
Figure 117 – Path Transition to Bus Platform on Bowman Street (north) 75
Figure 118 – Footpath in Northern Verge of Bowman Street (north) Looking South West 75
Figure 119 – Footpath in West Verge of Bowman Street (west) and Centre Island Refuge 75
Figure 120 – Centre Island Refuge in Bowman Street (west) and Path to West Car Park 76
Figure 121 – Bus Routes Adjacent the Subject Site – Extracted from Transport Canberra (2024) 77
Figure 122 – Bus Stop on Bowman Street (east) 77
Figure 123 – Bus Stop on Bowman Street (west)....77

Figure 124 – School Bus Stop on Bowman Street (north) 78
Figure 125 – Heritage Map (ACTmapi, 2024) 80
Figure 126 – Ecological Map (ACTmapi, 2024) 81
Figure 127 – Ecological Habitat Connectivity (Conservator of Flora and Fauna, 2024) 82
Figure 128 – Hollow-Bearing Tree (Conservator of Flora and Fauna, 2024) 83
Figure 129 – Hollow-Bearing Tree (Conservator of Flora and Fauna, 2024) 83
Figure 130 – Registered Tree Map (ACTmapi, 2024) 84
Figure 131 – Registered Tree South West of Site in Section 65 Macquarie 85
Figure 132 – ACTmapi Bushfire Prone Map (ACTmapi, 2024) 87
Figure 133 – ACTmapi Bushfire Strategic Management Zone Map (ACTmapi, 2024) 88
Figure 134 – Mature Trees Canopy and 2020 Size Map (ACTmapi, 2024) 90
Figure 135 – Mature Trees and Newly Planted Trees in the East Portion of Block 45 Section 50 91
Figure 136 – Newly Planted Trees in Eastern Portion of Block 45 Section 50 91
Figure 137 – Large Mature Trees within South East Area of Site 91
Figure 138 – Mature Large Trees within Block 45 Looking Toward Block 5 Section 50 91
Figure 139 – Felled Tree within Block 45 Section 50 92
Figure 140 – Large Mature Stand of Trees in Block 45 Section 50 92
Figure 141 – Large Mature Trees Along Bowman Street (north) 92
Figure 142 – Very Large Tree in Southern Area of Block 45 Section 50 92
Figure 143 – Registered Tree South West of the Subject Site 92

List of Tables

Table 1 – Macquarie Group Centre Block Areas, Zoning and Current Land Use 25
Table 2 – Road Traffic Classification 59
Table 3 – CSTM Assumed Demographic Data (TCCS, 2024) 68
Table 4 – Parking Utilisation Estimates 69
Table 5 – Native Tree and Shrub Replacement Ratios 82
Table 6 – Risk Matrix Rating Definitions 99
Table 7 – Assignment of Risk Rating to Identified Constraints 99

Executive Summary

JPS Engineering Consultants, commissioned by the Environment, Planning and Sustainable Development Directorate (EPSDD), conducted a Stage 1 Site Investigation Report for the Macquarie (Jamison) Group Centre. The site, which spans approximately 47,756m^2, is occupied by various businesses, car parking, and open space areas. The site is zoned for commercial and open space uses in line with the Territory Plan (2024).

This report assesses the suitability of the site for potential development or redevelopment in alignment with the latest Territory Plan objectives for revitalising group centres.

Considering the comprehensive evaluation of constraints and associated risk ratings, the subject site possesses some constraints and the need for additional information to inform a future development. Consequently, the subject site is considered viable for a potential future development, pending addressing the recommendations provided in the following section that respond to the above risks.

Based on the level of risk, recommendations have been listed in order of priority, to assist in programming the recommended works. The priority listing has been developed by assessing the importance of the additional investigations recommended and the effect that this work would have on other reports. A summary of the recommendations and necessary actions required to enable this site for development with the associated risk colour coded to that which is presented in section 8 of this report is provided below:

- **Contamination Management:** As no investigations are available on the potential of site contamination, an initial environmental study should be undertaken. This study will determine whether further studies are warranted, based on a potential development in the site. Measures should be taken as recommended in the environmental investigation to manage and remediate any potential contamination on site. EPA regulations and guidelines are to be strictly followed to ensure that development potential is not restricted by environmental conditions.

- **Ecological Assessment:** Liaise with the Conservator of Flora and Fauna to establish a scope of work to address likely ecological constraints to development on the site during the planning phase. Preliminary consultation with the Conservator of Flora and Fauna have advised that an ecological impact assessment should be completed for the site.

- **Trees and Vegetation:** Commission a tree survey and qualified arborist to assess the existing trees to ensure the protection of regulated trees on or near the subject site. Validate the tree assessment with the ACT Urban Treescapes Unit (TCCS) and the Conservator of Flora and Fauna, before proceeding with any activities that could impact existing trees. Furthermore, if trees are proposed to be removed to accommodate a proposed development, replacement trees at a ratio and location agreed to with TCCS, the Conservator and EPSDD Climate Change and Energy will need to be considered.

- **Urban Planning and Impact Study:** Undertake detailed urban planning design to comprehensively assess the impact and demand of any proposed development on services and infrastructure. This should also include an evaluation of how the development may interact with the adjacent residential and commercial properties to ensure holistic compatibility. The proposal is to be made in accordance with EPSDD's Development Application process.

- **Stormwater Management:** Undertake a stormwater hydrological and hydraulic analysis for any proposed development in line with TCCS MIS documents. This includes the catchment and capacity analysis of the south west area in Block 47 and 48 Section 50 that appears to drain through the site. Validate whether the size and grade of the existing DN600 and DN675 stormwater mains in Bowman Street (west), the DN525 stormwater main in Bowman Street (north) and the receiving DN900 stormwater main capacity in the north west low point of the site have sufficient capacity to accommodate a potential development's stormwater flows. Analyse the potential development's drainage needs along with any on site detention/retention initiatives.

- **Geotechnical Investigation:** Given the variable surface levels in comparison to the surrounding levels, and existing development timeframe of the group centre, a detailed geotechnical investigation should be undertaken, which is tailored to a proposed development. A geotechnical assessment is particularly important if basement parking is proposed. This will provide accurate data for foundation/pavement design and construction planning.

- **Electrical Service:** Determine the best connection point to service the site, once development demands are calculated. Address any necessary upgrades to the electrical infrastructure to service a potential development/redevelopment. This is to be undertaken through collaborative consultation with Evoenergy. If vulnerable use is proposed on the site, seek advice from Evoenergy as to whether a step and touch potential test needs to be undertaken due to the nearby pad mounted substations, within the western and eastern portions of the site.

- **Easements:** An appropriate easement width and protection zone is to be determined for the existing sewer, water, stormwater, telecommunications, gas and electricity lines that are present within the subject site. This is to be confirmed with all relevant service authorities. Once this is done, for the services if the mains are intended to remain within the blocks affected, a new deposited plan is to be produced.

- **Traffic Impact:** In accordance with the TCCS Guidelines for Transport Impact Assessment, either a Transport Effects Form (TEF) or Transport Assessment Report (TAR), will be required to be undertaken, depending on the scale and intended use of a future potential development. Evaluate the potential impact of increased traffic on the existing transport network and parking supply in the group centre as part of this work.

- **Potable Water Supply:** For a potable water connection to a potential development within the site, work closely with Icon Water to establish a connection to their existing DN150 main network, wither internal to the site or within Bowman Street. This is to be established once the development and its potable water demand is known. Icon Water generally do not allow service connections to large distribution water mains and for this reason, a connection to the existing DN300 main in Redfern Street is unlikely. Determine best locations for additional hydrants on existing mains to meet the Fire Risk Type of the development. Ensure compliance with all requirements and standards set by Icon Water and ACT Fire & Rescue throughout the preliminary and detailed design process.

- **Sewer Service:** For a sewer service to a potential development within the site, work closely with Icon Water to establish a connection to their existing DN150 or DN225 main network. The connection point will likely be to one of the existing manholes over these mains. The sewer connection point is to be established once the development is known, demand calculated, and detailed survey information available. Ensure compliance with all requirements and standards set by Icon Water throughout the preliminary and detailed design process.

- **Service Location Confirmation:** Confirm the exact locations of existing services to ensure accurate planning and prevent any conflicts during the development process. This is to be undertaken using non-destructive methods by the developer.
- **Telecommunications Service:** Liaise with NBN or TPG Telecom for a telecommunications service connection to a potential development, if required.

This site investigation report is produced for information only. Developers are required to undertake their own assessment of the site prior to lodging a Development Application with EPSDD.

1 Introduction

JPS Engineering Consultants have been commissioned by the Environment, Planning and Sustainable Development Directorate (EPSDD) to undertake a Stage 1 Site Investigation Report for the Macquarie Group Centre, hereafter referred to as the 'subject site' or simply the 'site'. The purpose of this investigation is to provide a comprehensive understanding of the site's characteristics and development opportunities. This will then inform a strategy to enhance the group centre's activation and revitalisation, aligning with the district strategy implementation as an important community meeting place that requires strategic planning to ensure its ongoing viability within the broader network.

The subject site, is occupied by various businesses, car parking and open space areas, all of which spans approximately 47,756m^2 in total. The site is bounded by Bowman Street to the east, north, and west, Redfern Street to the south, and medium density residential and commercial areas to the southwest. An internal public road network provides access to car parking within the site. This includes Henshall Way in the southwest corner and two roads named Jamison Centre, entering from the northeast and extending from Henshall Way in the southern portion of the site.

Refer to Figure 1 for an aerial photograph showing the area of this study outlined and shaded in blue with red place marker.

Figure 1 – Locality Plan of Subject Site (ACTmapi, 2024)

The purpose of this Site Investigation Report is to evaluate the suitability of various areas within the subject site for future development or redevelopment, in alignment with the latest Territory Plan objectives for revitalising group centres. This report aims to offer comprehensive information to both the ACT Government and any potential developers, identifying areas that are appropriate for development. The primary objectives of this report therefore are as follows:

1. Establish Effective Communication: Initiate engagement with relevant stakeholders to establish clear communication channels. This will enable to gain an initial understanding of the site's condition and the requirements necessary to support any proposed development within the subject site area.

2. Evaluate Site Constraints: Identify any limitations imposed by current site conditions. This includes considering data from proposed infrastructure capital works, as well as assessing road, stormwater, and service requirements gathered through stakeholder consultations and available data.
3. Recommend Necessary Works: Identify both on site and off site work that should be undertaken prior to any proposed development within the subject site. Provide recommendations for effectively addressing these requirements, in line with latest standards and guidelines.
4. Assess Further Investigations: Identify any additional investigations through a gap analysis that may be necessary to ensure a comprehensive understanding of the site and its implications for any future development within the subject site area.
5. Determine Infrastructure and Services Requirements: Evaluate the infrastructure and services required to allow any portion of the site's release. Additionally, outline any associated risks related to these components.

A detailed scope of works can be found in Section 4 of this report, outlining the specific tasks and activities that will be undertaken to achieve these objectives.

2 Land Use and Planning Framework

The subject site consists of one section – Section 50 Macquarie with three internal public road corridors that lead to car parks servicing the group centre. Three of these roads are named, one which is Henshall Way in the south east corner of the site with an extension of this road named Jamison Centre and in the north east portion of the site, also named Jamison Centre. Section 50 comprises of the following land uses under the Territory Plan (2024):

- CZ2: Business Zone
- CZ1: Core Zone
- PRZ1: Urban Open Space

An excerpt of the Territory Plan map is shown in Figure 2, which depicts all of these zones within the subject site area.

Figure 2 – Territory Plan Land Use Map from ACTmapi

The following appreciation of the land use and planning framework is based on the ACT Legislation Register website, Territory Plan 2023, and the Planning Act 2023. As the subject site is predominantly commercial, based on the ACT Legislation Register website, the following zone policy outcomes are applicable to the commercial components of the subject site:

1. Commercial zones primarily serve commercial developments, emphasising economic activity and providing land for commercial services. In areas not designated as mixed-use, other complementary uses are allowed but should not detract from the zone's commercial nature.
2. Development should align with the zone hierarchy in scale and character.

Specifically regarding CZ1 – Core Zone, the following policy outcomes are to be achieved:

1. Maintain a mix of predominantly commercial land uses to foster a diverse and dynamic environment.
2. Ensure convenient access to a variety of retail and service outlets.
3. Foster vibrant and engaging street fronts, promoting activity during evenings and weekends.
4. Create an appealing, safe, and well-lit pedestrian environment with easy access to public transportation.
5. Uphold high standards of urban design using sustainable materials, ensuring design consistency and compatibility among buildings.
6. Support business investment and job creation.
7. Encourage the development of cultural and community identity relevant to the area.
8. Enhance public spaces by promoting active uses on ground floors that connect with open spaces, pedestrian paths, and cycling networks to encourage active lifestyles.

Specifically regarding CZ2 – Business Zone, the following policy outcomes are to be achieved:

1. Ensure office and business sites are easily accessible to public transport, convenience retail, and services.
2. Offer a diverse range of office accommodation sizes and locations in proximity to the retail core.
3. Promote the availability of convenient outlets for goods, services, and facilities to meet workforce needs.
4. Develop vibrant and lively pedestrian routes and public spaces.
5. Achieve a high-quality urban environment through sustainable design and materials, maintaining a high level of amenity for employees and the public.
6. Create a high-quality public space by facilitating active uses on the ground floor that connect with the wider open space, pedestrian, and cycle networks, promoting active travel and living.
7. Foster an attractive, safe, well-lit, and connected pedestrian environment with convenient access to public transport.

Reference is made to the Territory Plan 2023, specifically, the Part E Zone Policies, E2 – Commercial Zones Policy. The land uses/development types listed in Figure 3 below require a development application unless they meet the 'exempt development' definition of the Planning Act 2023. Uses not listed in Figure 3 are prohibited and additional land uses specified as prohibited development are in District Policies. Development of prohibited uses may be considered under certain limited circumstances as outlined under Part 7.3 of the Planning Act 2023.

Land Use / Development Type	CZ1	CZ2	CZ3	CZ4	CZ5	CZ6
ancillary use	Y	Y	Y	Y	Y	Y
animal care facility	-	-	Y	Y	-	-
aquatic recreation facility	-	-	-	-	-	Y
boarding house	-	-	-	-	Y	-
bulky goods retailing	Y	Y	Y	Y	Y	-
business agency	Y	Y	Y	Y	Y	-

Land Use / Development Type	CZ1	CZ2	CZ3	CZ4	CZ5	CZ6
café	Y	Y	Y	Y	Y	Y
car park	Y	Y	Y	Y	Y	Y
caravan park/camping ground	-	-	-	-	-	Y
caretakers' residence	-	-	-	-	-	Y
civic administration	Y	Y	Y	-	-	-
club	Y	Y	Y	Y	-	Y
co-housing	Y	Y	Y	Y	Y	-
commercial accommodation use	Y	Y	Y	-	-	Y
communications facility	Y	Y	Y	Y	Y	-
community activity centre	Y	Y	Y	Y	Y	Y
Community housing	Y	Y	Y	Y	Y	-
community theatre	Y	Y	Y	Y	Y	Y
complementary use	Y	Y	Y	Y	Y	Y
cultural facility	Y	Y	Y	Y	Y	Y
consolidation	Y	Y	Y	Y	Y	Y
craft workshop	Y	Y	Y	Y	-	Y
demolition	Y	Y	Y	Y	Y	Y
drink establishment	Y	Y	Y	Y	Y	Y
drive-in cinema	-	-	-	-	-	Y
early childhood education and care	Y	Y	Y	Y	Y	Y
educational establishment	Y	Y	Y	Y	Y	Y
emergency services facility	Y	Y	Y	-	Y	-
financial establishment	Y	Y	Y	Y	Y	-
freight transport facility	-	-	Y	-	-	-
funeral parlour	-	-	Y	-	-	-
group or organised camp	-	-	-	-	-	Y
guest house	Y	Y	Y	Y	Y	Y
health facility	Y	Y	Y	Y	Y	Y
home business	Y	Y	Y	Y	Y	-
hotel / motel	Y	Y	Y	-	Y	Y
hospital	Y	Y	Y	Y	Y	Y
indoor entertainment facility	Y	Y	Y	Y	Y	Y
indoor recreation facility	Y	Y	Y	Y	Y	Y
industrial trades	-	-	Y	Y	-	-
light industry	Y	-	Y	Y	-	-
light rail	Y	Y	Y	-	Y	Y
minor road	Y	Y	Y	Y	Y	Y
minor use	Y	Y	Y	Y	Y	Y
municipal depot	-	-	Y	Y	-	-
multi-unit housing	Y	Y	Y	Y	Y	-
office	Y	Y	Y	Y	Y	-
outdoor recreation facility	Y	Y	Y	-	Y	Y
overnight camping area	-	-	-	-	-	Y
parkland	Y	Y	Y	Y	Y	Y
pedestrian plaza	Y	Y	Y	Y	Y	Y
personal service	Y	Y	Y	Y	Y	Y

Land Use / Development Type	CZ1	CZ2	CZ3	CZ4	CZ5	CZ6
place of assembly	Y	Y	Y	-	Y	Y
place of worship	Y	Y	Y	Y	Y	Y
produce market	-	-	Y	Y	-	-
public agency	Y	Y	Y	Y	Y	-
recyclable materials collection	Y	Y	Y	Y	-	-
religious associated use	Y	Y	Y	Y	Y	Y
residential care accommodation	Y	Y	Y	Y	Y	-
restaurant	Y	Y	Y	Y	Y	Y
retail plant nursery	Y	Y	Y	Y	Y	Y
retirement village	Y	Y	Y	Y	Y	-
secondary residence	Y	Y	Y	Y	Y	-
service station	Y		Y	Y	-	-
shop	Y	Y	Y	Y	Y	Y
sign	Y	Y	Y	Y	Y	Y
single dwelling housing	Y	Y	Y	Y	Y	-
Storage facility	-	-	Y	-	-	-
subdivision	Y	Y	Y	Y	Y	Y
supermarket	Y	Y	Y	Y	Y	Y
supportive housing	Y	Y	Y	Y	Y	-
take-away food shop	Y	Y	Y	Y	Y	Y
temporary use	Y	Y	Y	Y	Y	Y
tourist facility	Y	Y	Y	-	-	Y
tourist resort	Y	Y	Y	-	-	Y
transport facility	Y	Y	Y	Y	Y	Y
varying a lease	Y	Y	Y	Y	Y	Y
vehicle sales	-	-	Y	-	-	-
veterinary clinic	Y	Y	Y	Y	Y	Y
veterinary hospital	-	-	Y	Y	-	-
warehouse	-	-	Y	-	-	-
zoological facility	-	-	-	-	-	Y

Figure 3 – Permissible Land Uses and Development Types in Commercial Zones (Territory Plan, 2024)

Relevant to the PRZ1: Urban Open Space zoned area within Block 45 Section 50 of the subject site, the following zone policy outcomes are to be achieved:

1. Provide a high-quality, well-distributed network of parks and open spaces that address the recreational and social needs of the community.
2. Establish diverse settings that support a range of recreational and leisure activities while protecting flora and fauna habitats, ecological corridors, natural and cultural features, healthy waterways, and landscape character.
3. Facilitate stormwater drainage and protect water quality, stream flows, and stream environments in a sustainable and environmentally responsible manner, offering opportunities for safe community interaction with and interpretation of the natural environment.
4. Allow ancillary uses that support the care, management, and enjoyment of open spaces, including park maintenance depots and small-scale community activity centres.
5. Promote development that does not adversely affect the landscape or scenic quality, ecological connectivity, cultural values, adequacy of open space for other purposes, access to open space, or the amenity of adjoining residents.
6. Ensure integrated land and water planning and management.

7. Provide safe and convenient pedestrian and cycling access to urban open spaces to promote active living.

Reference is made to the Territory Plan, specifically, the Part E Zone Policies, E5 – Parks and Recreation Zones Policy. The land uses/development types listed in Figure 4 below require a development application unless they meet the 'exempt development' definition of the Planning Act 2024. Uses not listed in Figure 4 are prohibited and additional land uses specified as prohibited development are in District Policies.

Land Use / Development Type	PRZ1	PRZ2
ancillary use	Y	Y
aquatic recreation facility	Y	Y
carpark	-	Y
club	-	Y
communications facility	Y	Y
community activity centre	Y	Y
complementary Use	Y	Y
consolidation	Y	Y
demolition	Y	Y
distribution reservoir	Y	Y
guest house	-	Y
hotel	-	Y
indoor recreation facility	-	Y
major electricity storage facility	Y	Y
major electricity sub-station	Y	Y
major gross pollutant trap	Y	Y
major pump station	Y	Y
major road	Y	Y
major service conduits	Y	Y
minor road	Y	Y
minor use	Y	Y
motel	-	Y
municipal depot	Y	-
outdoor recreation facility	Y	Y
parkland	Y	Y
playing field	Y	Y
power generation station	Y	Y
public agency	-	Y
sign	Y	Y
subdivision	Y	Y
temporary use	Y	Y
treatment plant	Y	Y
urban lake, pond and/or retardation basin	Y	Y

Land Use / Development Type	PRZ1	PRZ2
utility hydrogen production facility	Y	Y
varying a lease where not prohibited.	Y	Y
water storage dam	Y	Y

Figure 4 – Permissible Land Uses and Development Types in Parks and Recreation Zones (Territory Plan 2023)

A review of Part D District Policies, D8 – Belconnen District Policy, provides additional types of development and land uses that are assessable and prohibited in the area of the subject site. These include industrial trades, a municipal depot or store for the central CZ1 portion of Section 50. Furthermore, other assessable developments are relevant to the northern and south west CZ2 portions of Section 50, which are outlined in Figure 5 below, with reference to the parcels of land that is indicated in Figure 6 (Figure 5) from the District Policy. These assessment requirements are mandatory development controls that must be met for any future development on the site.

Locality	Zone	Additional assessable development	Additional prohibited development	Relevant parcel or Figure
Macquarie	CZ1	industrial trades, municipal depot, store.	Nil	Figure 5
Macquarie	CZ2	funeral parlour, light industry, service station, veterinary hospital	Nil	Figure 5

Figure 5 – Belconnen District Policy Additional Assessable Development for Macquarie (Belconnen District Policy, 2024)

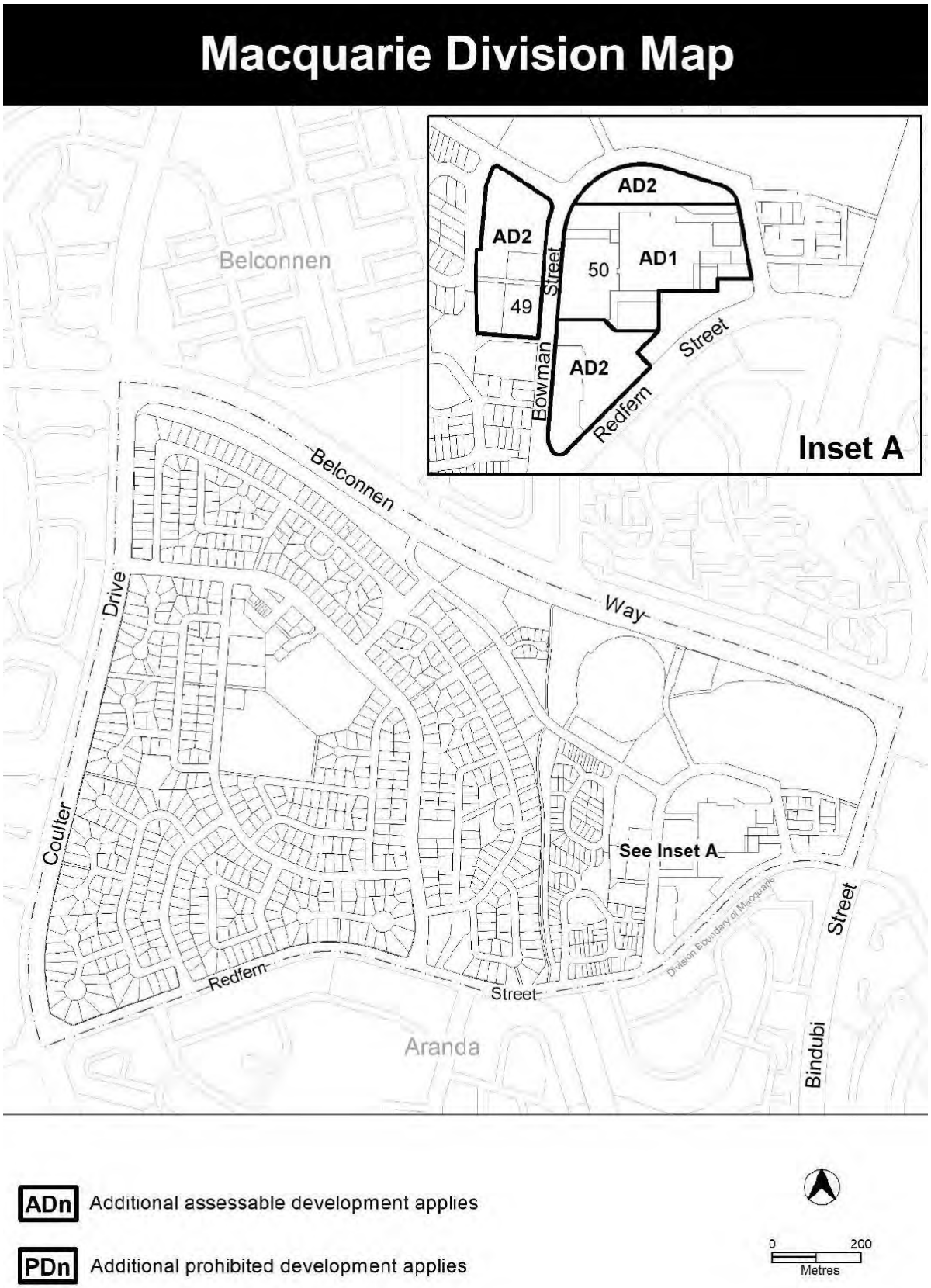


Figure 6 – Macquarie Additional Assessable Development Criteria Map (Belconnen District Policy, 2024)

Additionally, the Belconnen District Policy provides additional assessment requirements for a future development within the Macquarie Group Centre with respect to building heights. With reference to

Figure 18 from the District Policy, reproduced in Figure 7 below, a maximum building height of 16m is permitted in areas a and b, provided it can be demonstrated that reasonable solar access and privacy are maintained for adjacent dwellings and associated private open spaces. Furthermore, on Section 50, the development of public car parking areas should retain or improve the existing number of parking spaces and provide on site car parking as required by any new development.

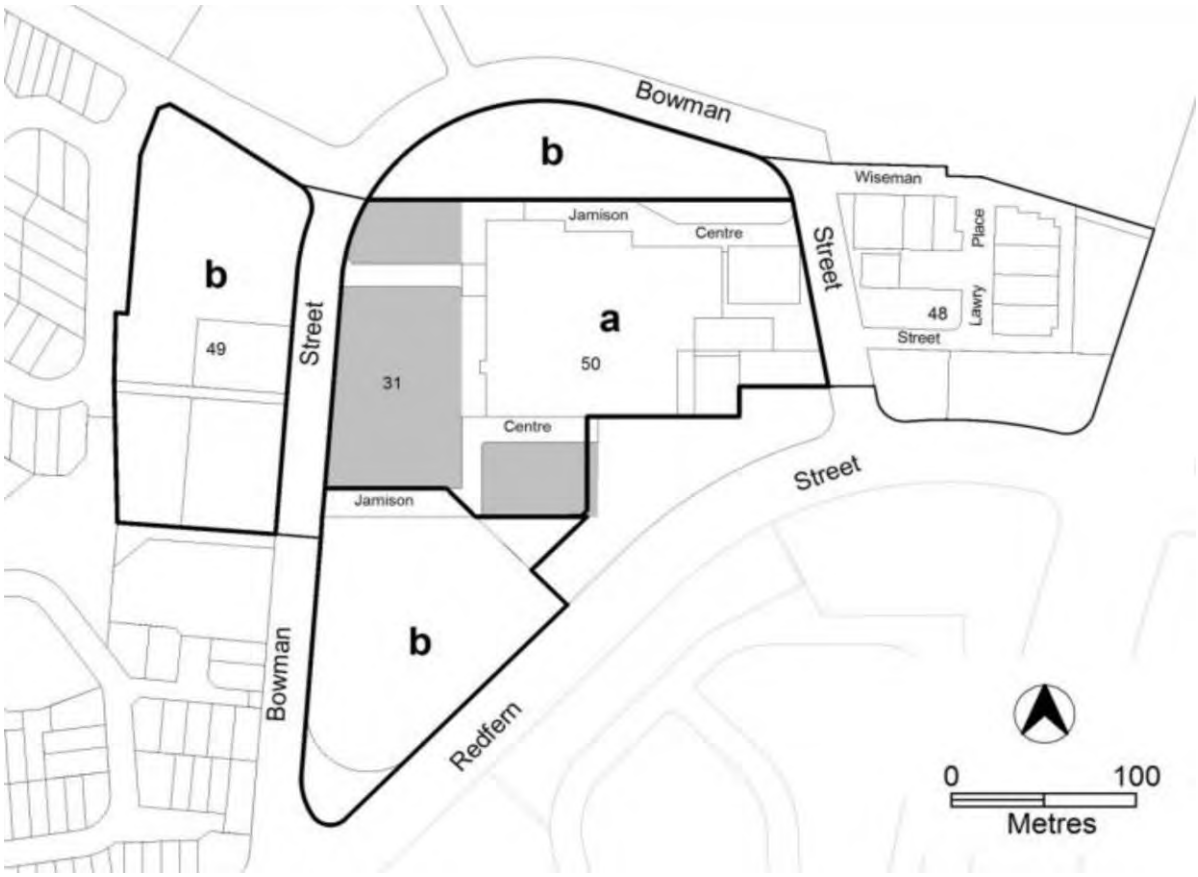


Figure 7 – Macquarie Building Heights Development Criteria Map (Belconnen District Policy, 2024)

3 Proposed Development

EPSDD Development and Implementation do not currently have any proposed indicative development scenario within the subject site. EPSDD is currently reviewing existing group and local centres in the Belconnen district to enhance their activation and revitalisation, in alignment with the district strategy implementation. The subject site in Charnwood Group Centre is therefore being evaluated for potential development or redevelopment, given its current zoning and development capabilities, discussed in the previous section of this report.

The Jamison Group Centre Master Plan was published by the Urban Projects Area of the Planning and Land Management Group (PALM) in July 2002, following a public consultation process from May 2000 to December 2001. This process involved residents, businesses, and community groups. PALM presented the final Master Plan report to the Ginninderra Local Area Planning Advisory Committee (LAPAC) on 6 June 2002. Key issues raised during the consultation included:

- Difficult access for pedestrians and cyclists, particularly the disabled and elderly.
- Lack of openness of the centre.
- Safety concerns related to uneven pavements, lighting, and toilets.
- Shortage of cafes, restaurants, and meeting places.
- Need for more residential development near the centre.
- Importance of retaining easily accessible car parking.

These issues informed the vision for the future of Jamison, aiming to reinvigorate and revitalise the centre, creating a new, outward-looking image that is highly visible and accessible from its potential catchments. The centre aims to be an inviting, attractive, and safe place for the whole community.

This vision is reinforced in the master plan principles by:

- Enhancing visual, pedestrian, cyclist, and vehicular connections.
- Encouraging day and night vitality and the perception of a ‘people-filled’ centre.
- Allowing future generations to enrich public spaces and create new places.
- Retaining easily accessible car parking.
- Maintaining a competitive position in the changing retail sector.
- Encouraging social and cultural interaction by supporting a range of activities in public spaces.
- Defining streets, parks, and other public spaces with human scaled, robust building forms that are climate responsive and energy efficient.

The Jamison Group Centre outcome can be seen in the drawing in Figure 8 below, which illustrates a potential development outcome for the centre.

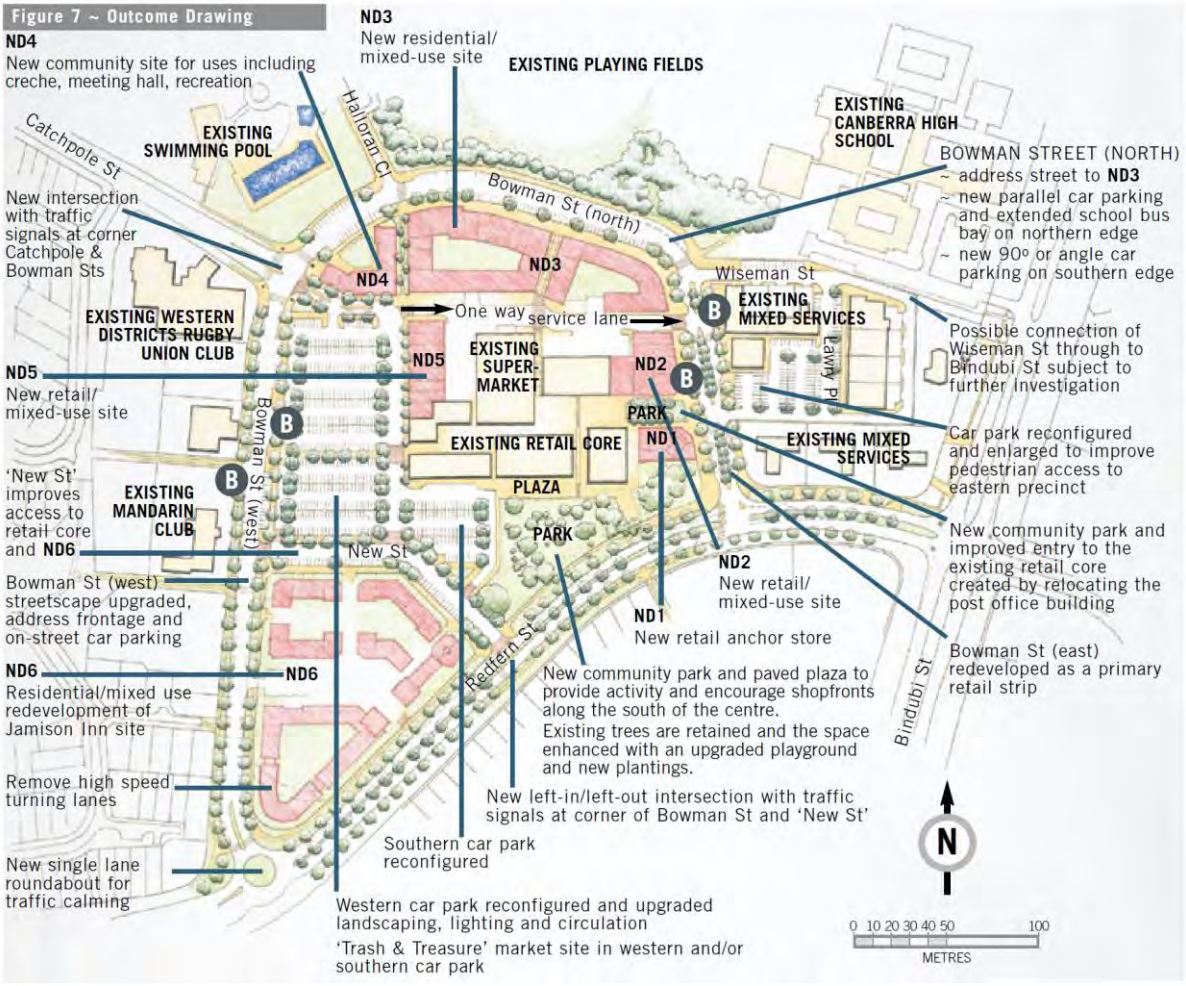


Figure 8 – Jamison Group Centre Master Plan (PALM, 2002)

4 Investigation Scope

The scope and deliverables of this engagement will include the following:

- Introduction including site description and location in the site investigation report.
- Aerial photograph and site locality figure.
- Site zoning figure and Territory Plan review.
- Potential development/redevelopment review.
- Summary of any available relevant background reports regarding the site or surrounds.
- Existing site servicing and constraints based on Before You Dig Australia (BYDA) Plans, ACTmapi and correspondence with authorities as required. Schematic existing services excerpts will be produced to reflect these findings.
    - Stormwater (TCCS Stormwater Database and non-intrusive site inspection)
    - Overland flow and flood information (ACTmapi and/or EPSDD flood modelling information)
    - Sewer (BYDA and non-intrusive site inspection)
    - Water (BYDA and non-intrusive site inspection)
    - Electricity (Evoenergy and BYDA)
    - Telecommunication BYDA (BYDA and relevant authorities)
    - Natural gas supply (BYDA and Zinfra/Jemena)
    - Verge works including driveway and pedestrian access
    - Traffic review (TCCS Canberra Strategic Transport Model)
    - Parking (Aerial imagery)
    - Bushfire (ACTmapi/ACT Fire & Rescue)
    - Heritage (ACTmapi/ACT Heritage Council)
    - Environmental review (EPA historic data)
    - Tree Assessment (visual only)
    - Ecological (protected flora or fauna species)
    - Geotechnical
        - Review of any available geotechnical reports
        - On site non-intrusive inspection and geological mapping review
    - Other potential constraints identified
- Future site servicing guidance to latest standards and guidelines, based on existing services and infrastructure.
- Summary of opportunity and constraints in a risk assessment format.
- Recommendations for further studies in an itemised risk assessment format.
- Correspondence with all authorities.

It is understood that the outcomes of this study will lead EPSDD to understand the feasibility of development or redevelopment within the site to achieve the overarching intentions of the latest Territory Plan and more specifically, the District Policy. The report will also inform of the requirement of any further specialist studies needed to complete the due diligence on the site.

5 Site Description and Location

The subject site is situated within the suburb of Macquarie in the district of Belconnen. The shopping plaza is commonly known as the Jamison Centre. Bounded by Bowman Street to the east, north, and west, Redfern Street to the south, and medium density residential and commercial areas to the southwest, the subject site includes an internal public road network providing access to substantial car parking. Two of these roads are named Jamison Centre, and in the south west, Henshall Way extends into the site from Bowman Street. Two additional access roads that are unnamed enter the site from the north west and east.

A playground is situated south of Jamison Plaza in Block 45 Section 50, which can be seen in Figure 11 below. The northern car park is regularly used for Sunday markets, where Figure 12 shows a sign that was observed on site advertising this event.

With an approximate area of 47,756m^2, the site is occupied by various businesses, car parking and an open space area. A list of each of the block and sections, their respective block area, and current Territory Plan zoning is provided in Table 1 below. To determine the available land that is present within the group centre, the current block usage has been investigated. This table provides a comprehensive list of all blocks within the subject site area and shows areas that are potentially underutilised.

As part of the Belconnen District Strategy, it is a strategic intention to strengthen the economic and employment role of group centres in the region. The role and function of existing group and local centres, particularly in north and west Belconnen, should be considered, with a focus on supporting local enterprise and community life. Investigations in these and other centres are recommended to enhance community development. From a review of block usage across the Macquarie Group Centre, there appear to be several areas that can benefit from development/redevelopment to meet this district strategy. Development within the site in areas that are not best utilised will provide for ongoing, on site employment.

During a site inspection, it was observed that the topography of the site is relatively consistent. The site generally slopes from the south east to the north west. The average approximate grade across the subject site has been estimated from ACTmapi contours to be 3%, however, the open space area in Block 45 Section 50 is steeper than the remaining site area. The highly developed nature of the site, along with the varying grades in different sections compared to surrounding areas, suggests that significant earthworks may have been carried out on the site.

Regarding vegetation, the majority of the site is cleared, with some large trees scattered throughout the group centre including within islands in the car parks and in the open space area in Block 45 Section 50. Several medium to large trees are present within open space areas on the site, and some newly planted trees were observed during the site inspection. Several existing trees within the site appear to meet the definition of a regulated tree as described in the Urban Forest Act 2023.

Table 1 – Macquarie Group Centre Block Areas, Zoning and Current Land Use

Block, Section and District	Block Area (m^2)	Territory Plan – Land Use Zoning	Current Block Usage
Block 04 Section 50 Macquarie	780	CZ1: CORE ZONE	Jamison Centre Shopping mall
Block 05 Section 50 Macquarie	832	CZ1: CORE ZONE	Jamison Centre Shopping mall
Block 10 Section 50 Macquarie	1,267	CZ1: CORE ZONE	YMCA Jenny McCombe Early Learning Centre
Block 18 Section 50 Macquarie	74	CZ1: CORE ZONE	Walk Through
Block 23 Section 50 Macquarie	1,051	CZ1: CORE ZONE	YMCA Cottage Park, Car Park
Block 31 Section 50 Macquarie	8,746	CZ1: CORE ZONE	Carpark
Block 35 Section 50 Macquarie	339	CZ1: CORE ZONE	Walk Through
Block 36 Section 50 Macquarie	12,783	CZ2: BUSINESS ZONE; CZ1: CORE ZONE	Carpark

Block, Section and District	Block Area (m^2)	Territory Plan – Land Use Zoning	Current Block Usage
Block 39 Section 50 Macquarie	235	CZ1: CORE ZONE	Walk Through
Block 42 Section 50 Macquarie	12,006	CZ1: CORE ZONE	Jamison Centre Shopping mall
Block 45 Section 50 Macquarie	9,643	PRZ1: URBAN OPEN SPACE; CZ1: CORE ZONE	Jamison Centre Playground, Open Space
Total Site Area	**47,756**		

Figure 9 – General Site Photo of Northern Car Park and Plaza in Background

Figure 10 – General Site Photo Southern Car Park Looking North West

Figure 11 – Playground in Block 45 Section 50 in Subject Site

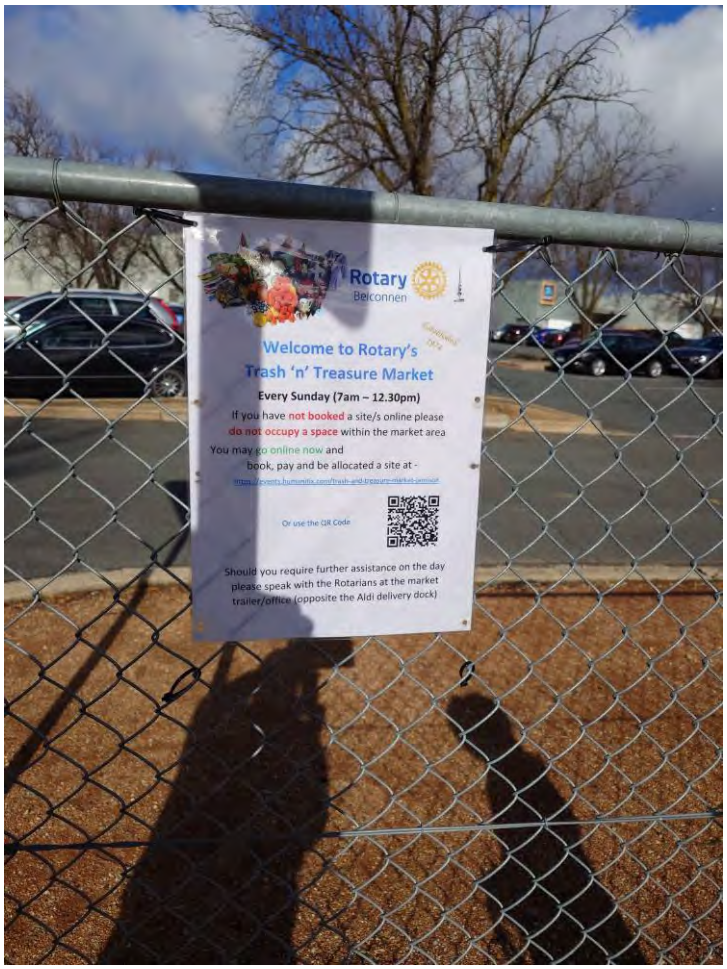


Figure 12 – Sunday Market Sign on Site's Northern Car Park

6 Existing Site Servicing

6.1 General

In this section, a detailed summary of the existing services information has been compiled for the subject site. This information is based on received data from Before You Dig Australia (BYDA) enquiries, work as executed (WAE) records, correspondence with service authorities, and a visual site inspection. Additionally, services that are proposed to be constructed and those to be relocated have also been considered.

While every effort has been made to ensure the accuracy of the provided information, the detailed dimensions and alignments of existing services included within the report should be treated as indicative only and the accuracy of the information cannot be warranted. It is essential that all services be accurately verified through on site potholing before commencing any development activities. Additionally, the verification of services may be required to facilitate future design efforts for the site.

All existing services described under this section are indicatively shown on drawing 20240334-DRG-CIV-UT-100 within Appendix A. All relevant correspondence with service authorities and Before You Dig Australia information is included within Appendix C and Appendix D, respectively.

6.2 Sewer

The assessment of the existing sewer infrastructure involved gathering information from multiple sources, including Before You Dig Australia (BYDA) data, records from Work as Executed (WAE) drawings, and an on site inspection.

The Icon Water BYDA information indicates that a sewer network runs through the site, servicing individual blocks in the group centre. Several sewer mains are situated within the subject site, which includes a DN150 sewer main that is located in the northern verge of the Jamison Centre access road (south). This sewer main services three businesses within Block 42 Section 50. See Figure 14 below for a photo of one of the manholes over this main that provides a service tie to Block 42. It continues north, running parallel to an abandoned sewer main that is closer to Block 42. The DN150 sewer main then crosses the northern car park and Bowman Street (north), connecting to a DN225 sewer main in the northern verge of Bowman Street. A manhole over this DN225 main can be seen in the photo in Figure 16 below and the junction manhole accepting west sewage flows from the site can be seen in Figure 17.

Additionally, there is another DN150 sewer main in the eastern portion of the site. This main starts at Block 5 Section 42, in the south east access road, and continues north, also connecting to the DN225 sewer main in the northern verge of Bowman Street (north). This DN150 main provides service connections to Block 4 and two tie connections to Block 10. It also receives flows from the development in Section 48 to the east and a catchment further south east of the site. Refer to Figure 15 for manhole adjacent Block 10 Section 50, which receives flows from the group centre and that from east and south east catchments.

No easements are shown over the sewer mains that traverses through the blocks in the group centre.

For further details on existing sewer infrastructure within and surrounding the site, refer to Figure 13, which is extracted from the BYDA information.

Figure 13 – Sewer BYDA Information (Icon Water, 2024)

Figure 14 – Sewer Manhole in Northern Verge of Jamison Centre Access Road (south)

Figure 15 – Sewer Manhole (further) Near Block 10 Section 50

Figure 16 – Sewer Manhole in Bowman Street (north)

Figure 17 – Sewer Manhole over DN225 Main at Intersection of Bowman Street and Halloran Close

6.3 Water Supply

The existing water supply service information was compiled from Before You Dig Australia (BYDA) information.

An extensive looped potable water network is present within the group centre and its surroundings. The potable water infrastructure can be summarised as follows:

- A DN150 main runs along the east verge of Bowman Street (east) that services blocks in Section 48 Macquarie and continues north west. Only one hydrant is on this stretch of main adjacent the subject site.
- The above DN150 water main continues to the west, running along the northern verge of Bowman Street (north) and extends to the south west in the west verge of Bowman Street (west). A DN150 water main branches off this main and runs in the east verge of Halloran Close to the north. The hydrant spacing on the DN150 main in Bowman Street ranges between 65m and 105m. See Figure 23 and Figure 24 below for photos of hydrants and valves over this DN150 main in Bowman Street (north).
- A DN150 main branches off the water mains in Bowman Street (east and west) and loops through the group centre, around the current developments. A stop valve that is at then branch in Bowman Street (west can be seen in Figure 27 below. This main has several service ties that provide potable water to Block 42, 5, 35, 4, and 10. Additionally, there are fire services provided to Block 42 at the northern and southern end of the plaza. A fire service is also shown off this loop main to extend to the medium density residential apartments in Block 47 Section 50. The approximate hydrant spacing on the loop main is generally between 40m and 80m. The eastern side of the loop main does not have a hydrant recorded in the BYDA information and appears to rely on the hydrant in Bowman Street (east) for external coverage. Hydrants over the DN150 main in the west portion of the site can be seen in Figure 21, Figure 28 and Figure 29.
- A DN300 distribution main is situated in the northern verge of Redfern Street that has hydrants spaced at approximately 75m to 85m along the main. Refer to Figure 20 and Figure 22 for hydrants identified over this main, south of the subject site.
- No easements are shown over the water main that traverses through the blocks in the group centre.

For further details on existing water infrastructure surrounding the subject site, refer to Figure 18, which is extracted from the Icon Water BYDA information.

Figure 18 – Existing Water Infrastructure Near the Subject Site (Icon Water, 2024)

Figure 19 – Stop Valve in South East Car Park

Figure 20 – Fire Hydrant on DN300 Main in Redfern Street

Figure 21 – Fire Hydrant in Southern Verge of Jamison Centre (south)

Figure 22 – Fire Hydrant on DN300 Main in Redfern Street

Figure 23 – Stop Valve at Intersection of Bowman Street (north) and Halloran Close

Figure 24 – Fire Hydrant in Bowman Street (north)

Figure 25 – Fire Hydrant in Bowman Street (west)

Figure 26 – Stop Valve in Bowman Street (west) for Football Club Service Tie (near)

Figure 27 – Stop Valve in Bowman Street (west) for Branch into Group Centre

Figure 28 – Existing Fire Hydrant in West Car Park

Figure 29 – Double Fire Hydrants North West of Block 42 Section 50

6.4 Stormwater Drainage

The existing stormwater infrastructure information was compiled from the TCCS Stormwater Database, and observations made during a site inspection.

A network of stormwater pipes and sumps are present within the subject site, with substantial mains surrounding the site area. These mains capture stormwater flows mainly received on Section 50 and Section 48 to the west, with some catchment area to the south of the site. Key stormwater infrastructure within and surrounding the subject site includes:

- A DN300 stormwater main runs along the southern verge of Redfern Street, capturing runoff from the road kerbside sumps and draining northward toward Bowman Street (east). Figure 31 and Figure 32 show photos of sumps and a manhole over stormwater mains in Redfern Street, south of the site.
- A DN300 stormwater pipe network is present in the site's southeast access road and car park. This network branches into the DN300 main in the west verge of Bowman Street (east), where it then upsizes to a DN450 main. The DN450 stormwater main continues into Jamison Centre access road, running along its southern verge, and increases in size to a DN525 pipe to accommodate additional stormwater from the network received from Section 48 Macquarie.
- The DN525 stormwater main crosses the north east portion of the site, through the car park, and continues west along the southern verge of Bowman Street (north), capturing runoff from kerbside sumps on Bowman Street. The DN525 main then crosses Bowman Street (north) toward the centre of Halloran Close.
- A DN300 stormwater main drains the plaza's roof area and the west car park, leading into a DN675 main situated in the east verge of Bowman Street (west). Further south of the internal access road in the northwest of the site, the DN675 main is entered by a DN600 stormwater pipe. See Figure 35 for a photo taken of a manhole over the DN675 main adjacent the site's west car park. A photo of a dilapidated kerbside sump is shown in Figure 33 below, to the west of the site.
- Three DN300 stormwater pipes drain the Jamison Centre (south) internal access road and Henshall Way. All these pipes connect to the DN600 stormwater main in the east verge of Bowman Street (west). Refer to Figure 34 below for a photo of a manhole over the DN600 stormwater main in Bowman Street (west).
- The DN675 stormwater main from Bowman Street (west) and the DN525 main from Bowman Street (north) converge into a DN900 main that runs along the centreline of Halloran Close, continuing northwest toward Benjamin Way and ultimately draining into Lake Ginninderra.

No easements are shown over stormwater mains that traverse through the blocks in the group centre to service other blocks.

This extensive stormwater infrastructure ensures effective drainage for the site and the surrounding areas, managing stormwater flows from the site and contributing catchments.

For visual reference, see ACTmapi map extract provided in Figure 30 below. This map displays the indicative positions of these stormwater pipes, depicted in orange and brown linework. The combination of these elements contributes to the existing stormwater infrastructure in the vicinity of the subject site.

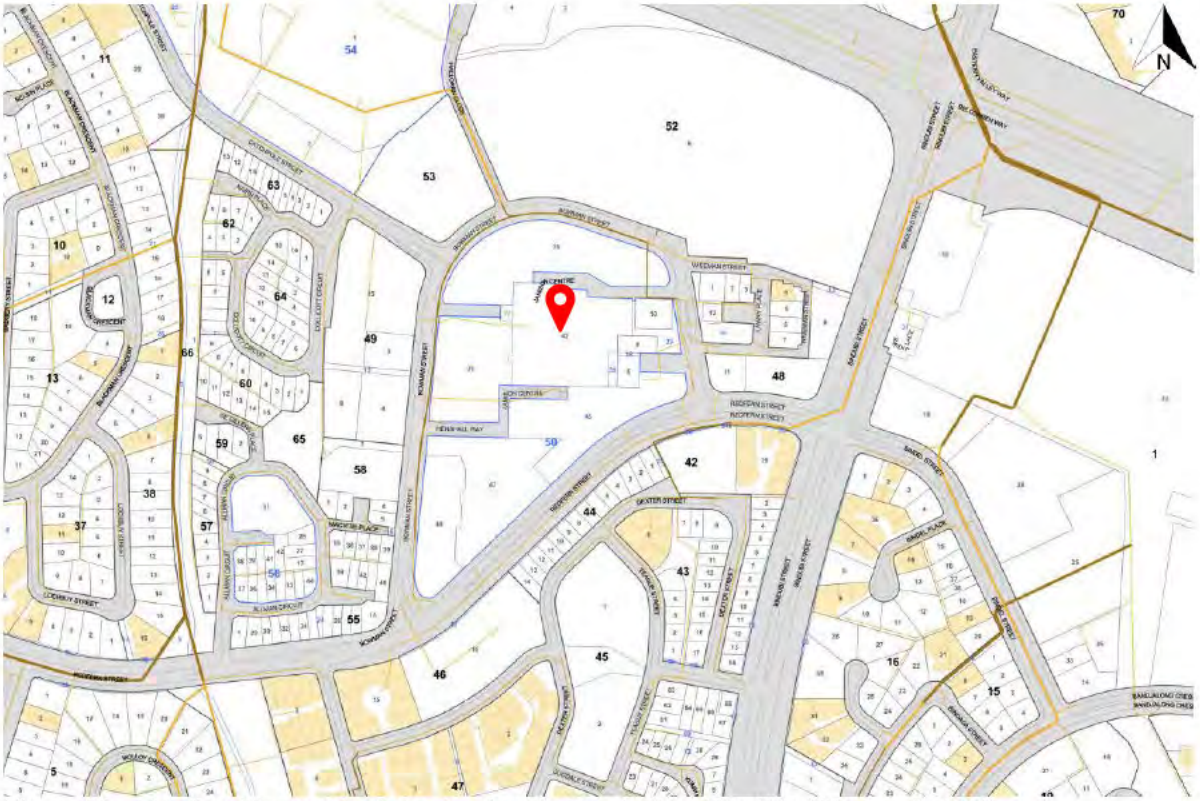


Figure 30 – Existing Stormwater Infrastructure in Proximity of the Site (ACTmapi, 2024)

Figure 31 – Stormwater Sump on Redfern Street Looking East

Figure 32 – Stormwater Sumps and Manhole in Redfern Street

Figure 33 – Existing Stormwater Sump in East Verge of Bowman Street (west)

Figure 34 – Stormwater Manhole in Bowman Street (west) East Verge over DN600 Main

Figure 35 – Stormwater Manhole in Bowman Street (west) East Verge over DN675 Main

Figure 36 – Existing Stormwater Manhole South West of Site

6.5 Overland Flow and Flooding

After a thorough site inspection and review of the site contours, it has been determined that the subject site mainly consists of one large catchment area. This catchment appears to be limited to Section 50, where it is assumed that external roads, such as Redfern Street and Bowman Street intercept upstream flows toward the site and effectively convey major stormwater events (1% AEP) toward Halloran Close, to the north west of the site. Overland flows are assumed to discharge from this point toward Belconnen Way and then to Benjamin Way, which ultimately drains directly into Lake Ginninderra.

Observations indicate that runoff generally follows a north west trajectory through the site. However, the internal access roads, including Hensall Way and Jamison Centre (north east, east, west, south) cut off flows that they receive and direct these toward the respective section of Bowman Street. Part of Block 47 and 48 also drain toward the subject site.

These preliminary assumptions regarding stormwater runoff are subject to confirmation through a detailed site survey encompassing the immediate surroundings and a subsequent hydrological and hydraulic analysis in accordance with the ACT Government TCCS MIS 08 document. This detailed assessment will provide accurate insights into the extent and behaviour of overland flow and flooding on the subject site.

Refer to Figure 37 for an indication of the stormwater overland flow directions within and surrounding the subject site depicted with blue arrows.

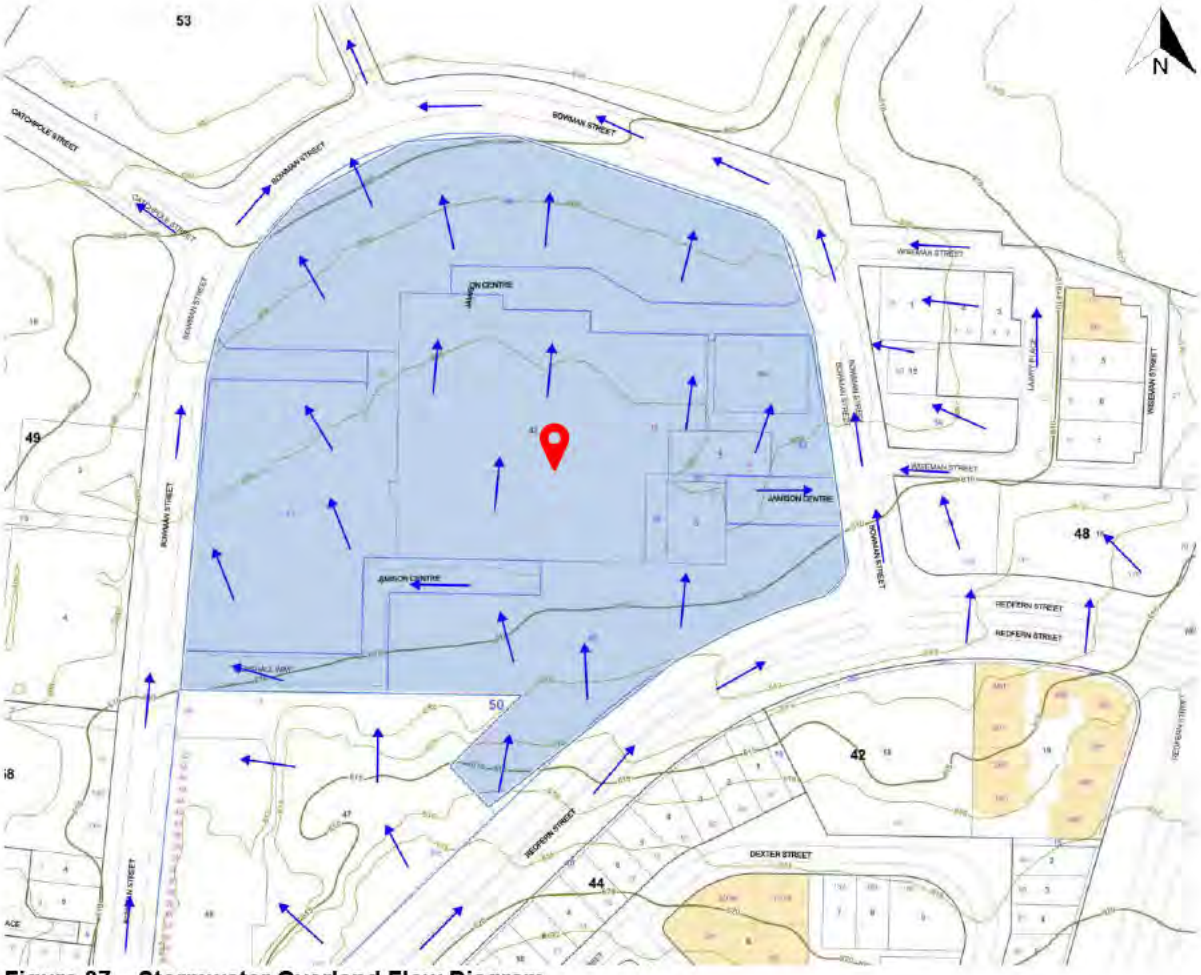


Figure 37 – Stormwater Overland Flow Diagram

The current flood mapping on ACTmapi indicates that the subject site is situated away from the 1% Annual Exceedance Probability (AEP) flood modelling footprint. Refer to Figure 38 for an image of the 1% AEP flood extent that is shown to be limited by Lake Ginninderra, to the north west of the subject site's location, shown in red highlight and red place marker.

Figure 38 – 1% AEP Flood Extent and Waterways (ACTmapi, 2024)

6.6 Telecommunication Services

The following telecommunication infrastructure information has been compiled from BYDA information, and a site inspection.

6.6.1 Telstra

BYDA information indicates that Telstra infrastructure is present as underground conduits within and surrounding the site. All of these conduits with the exception of one reach near the west of Block 42 within the subject site area are shown to be occupied by other carriers.

Notably, several of the conduit runs are indicated to be asbestos cement (AC) conduits. These AC conduits are located as follows:

- A 100mm AC conduit in the west verge of Bowman Street (west) that turns through a pit at the intersection of Bowman Street (north) and Halloran Close to extend further north in the east verge of Halloran Close. These conduits are standard P35 conduits. The photos in Figure 46 and Figure 47 show pits that are at the intersection of Bowman Street (north) and Halloran Close.
- A 100mm AC conduit in the east verge of Bowman Street (east).
- A 100mm AC conduit in the eastern side of the site that runs through Block 10, Block 23, the northern verge of the Jamison Centre (east) internal access road and car park, Block 18, and Block 35. Refer to Figure 43 for a photo of a Telstra pit and pillar arrangement in the west verge of Bowman Street (east), adjacent Block 10 Section 50.

- The above 100mm AC conduit run continues west through the northern part of Block 45 and continues through the Jamison Centre (south) road reserve. See Figure 41 below for a photo of a Telstra pit that was identified during a site inspection in the fully paved verge of the Jamison Centre (south) access road and Figure 42 for a photo of a pit in the northern portion of Block 45.
- The conduit run in the Jamison Centre (south) road reserve turns northward in the same 100mm AC conduit and enters Block 42 (Jamison Plaza).

Several Postmaster General/Telstra pits were noted during a site inspection in the northern verge of Bowman Street (north); however, these are not indicated in BYDA information. It is assumed that these are redundant, although confirmation should be confirmed through Telstra if any development proposal will affect this area. See below Figure 44 and Figure 45 for photos of two of these pits in Bowman Street (north).

No easements are registered over the telecommunication lines that are within blocks in the site.

Refer to Telstra BYDA information that has been produced from digital data provided in Figure 39 below.

Figure 39 – Telstra BYDA Information in Proximity of the Subject Site (Telstra, 2024)

Figure 40 – Telstra Pit at the Intersection of Bowman Street (east) and Redfern Street.

Figure 42 – Telstra Pit in Northern Area of Block 45 Section 50

Figure 41 – Telstra Pit in Northern Verge of Jamison Centre (south) Internal Access Road

Figure 43 – Telstra Pit and Pillar Near the Intersection of Jamison Centre (east) Internal Access Road and Bowman Street (east)

Figure 44 – Telstra Pit in Northern Verge of Bowman Street (north)

Figure 45 – Telstra Pit in in Northern Verge of Bowman Street (north)

Figure 46 – Telstra Pit and Pillar Near Intersection of Bowman Street (north) and Halloran Close

Figure 47 – Telstra Pit at the Intersection of Bowman Street (north) and Halloran Close

6.6.2 NBN

BYDA information indicates that the subject site has several NBN services present through the previously mentioned Telstra conduits. This can be seen from the alignment of the NBN service in Figure 48 below.

The BYDA information also shows that NBN services are currently installed independent of the Telstra conduits in the northern verge of Bowman Street (north). This service is likely to be accommodated through the Telstra pits mentioned previously that were unaccounted for in Telstra BYDA information.

Figure 48 – NBN BYDA Information Near the Subject Site (NBN, 2024)

6.6.3 TPG Telecom

TPG Telecom DBYD information indicates that a TPG owned TransACT service runs along the north verge of Redfern Street, crossing Bowman Street (east). The TransACT line enters the site through Block 45 Section 50 and terminates near the end of the Jamison Centre (south) internal access road. TPG labelled pits were identified during a site inspection in the northern verge of Redfern Street as can be seen in Figure 50 below. It is also assumed that the TransACT service runs through the Telstra pit that was noted at the intersection of Redfern Street and Bowman Street (east) as shown in Figure 40 above.

See below Figure 49 for the location of these service line within and surrounding the site, which are shown in red line type.

Figure 49 – TPG Telecom DBYD Information Near the Subject Site (TPG, 2024)

Figure 50 – TPG Pit in Northern Verge of Redfern Street South of Site

6.7 Gas Supply

BYDA information indicates that a DN110 210kPa polyethylene distribution gas main runs along the west verge of Bowman Street (west) and continues across Catchpole Street in the northern verge of Bowman Street (north) and then into the northern verge of Wiseman Street, north east of the site. Refer to Figure 54 and Figure 55 below for photos of gas markers on the DN110 main in Bowman Street.

A DN32 210kPa nylon gas main branches off the above DN110 gas main near the north east area of the site to enter the car park in Block 36 Section 50, across the Jamison Centre (east) internal access road and provide service to Block 42 Section 50. The gas marker shown in Figure 53 below indicates the location of the branch off the DN110 gas main into the site.

An additional DN110 210kPa polyethylene distribution gas main branches off the DN110 main in Bowman Street (west) and crosses the road to traverse in the northern verge of Redfern Street and terminate at the southernmost corner of Block 45 Section 50. See below Figure 52 for a photo of a gas isolation valve over the DN110 gas main in Redfern Street.

For a visual representation of these gas main locations and their proximity to the subject site, refer to Figure 51 below, which is an excerpt from the BYDA information.

Figure 51 – Gas BYDA Information in Proximity of the Subject Site (Evoenergy, 2024)

Figure 52 – Gas Isolation Valve in Northern Verge of Redfern Street

Figure 54 – Gas Marker in Bowman Street (north) Northern Verge

Figure 53 – Gas Marker Indicating Location of Branch into Site from Bowman Street (east)

Figure 55 – Gas Marker in Bowman Street (north) Northern Verge

Figure 56 – Gas Marker in Halloran Close Near Intersection with Bowman Street (north)

6.8 Electrical Supply and Streetlighting

Information received from Evoenergy and TCCS through BYDA was confirmed through a visual site inspection. The streetlight infrastructure within the subject site and its immediate vicinity has been therefore comprehensively identified as follows.

Streetlights and interconnecting low voltage (LV) lines are present across the roads and car parks within and surrounding the subject site, including:

- Streetlights are located in the east and west verges of Bowman Street (west).
- Streetlights are present in the northern verge of Bowman Street (north). Figure 59 shows the streetlights on Bowman Street (north).
- Streetlights are installed in the east and west verges of Bowman Street (east). See Figure 63 below for a general photo of lights on Bowman Street (east).
- Streetlights are also in the open space area of Block 45 Section 50, in the southern portion of the subject site.
- Streetlights are located along the internal roads, including Jamison Centre (east, southeast, west, and south) and the southern verge of Henshall Way.
- Streetlights surround the southwest, west, and northern car parks in the group centre and are also placed within the centre medians of these car parks. See below Figure 58, Figure 61 and Figure 62 for photos of streetlights in the northern, west and southern car parks, respectively.
- Streetlights are located in the north and south verges of Redfern Street as can be seen in Figure 60 and Figure 64 below.

See Figure 57 below for the location of the abovementioned streetlight assets as provided by TCCS in BYDA information within the vicinity of the subject site.

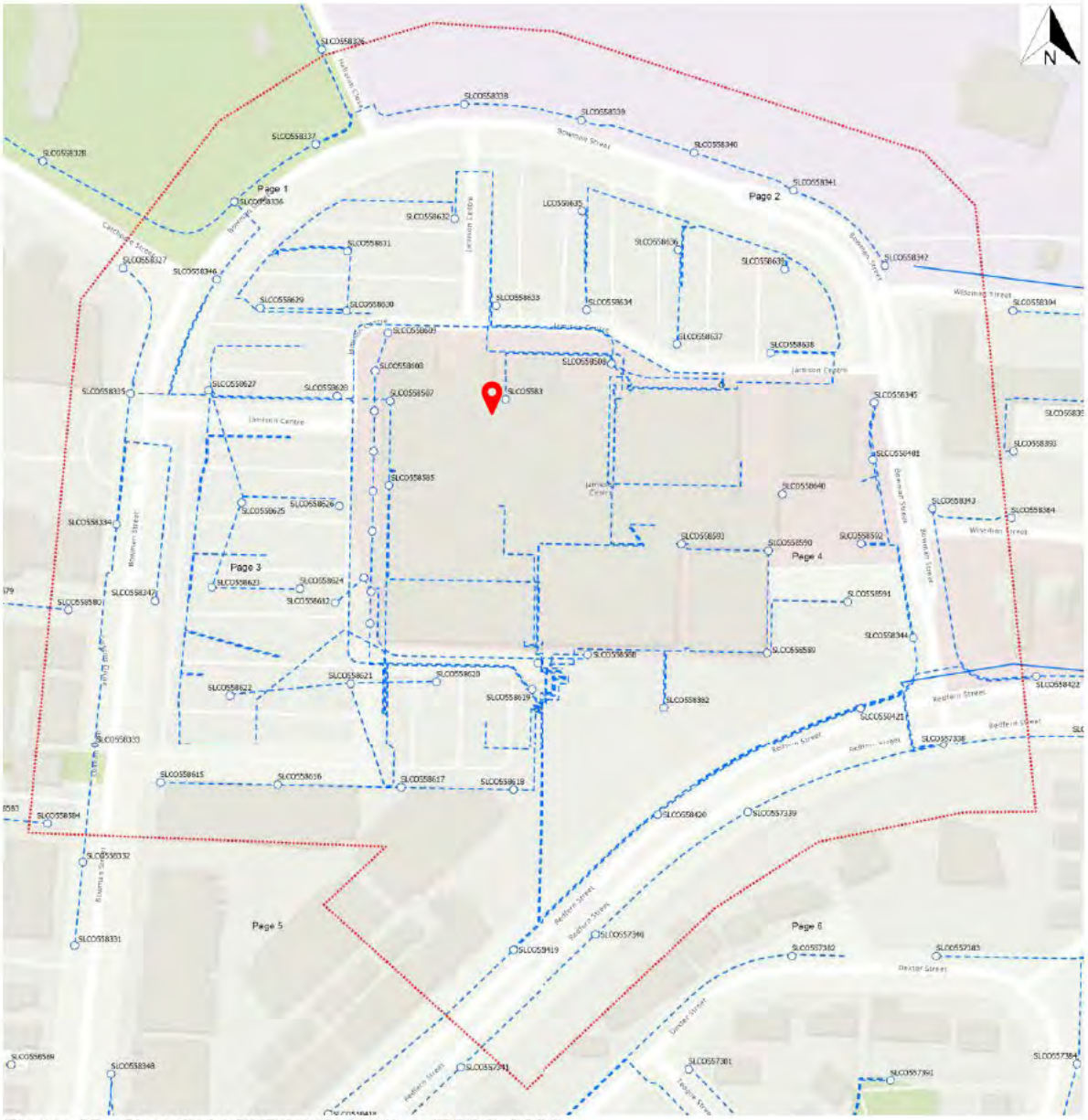


Figure 57 –Streetlight BYDA Information (TCCS, 2024)

Figure 58 – TCCS Streetlight in Northern Car Park

Figure 60 – TCCS Streetlight on Redfern Street Looking East

Figure 59 – TCCS Streetlight on Bowman Street (north)

Figure 61 – TCCS Streetlight in West Car Park

Figure 62 – TCCS Streetlights in Southern Car Park

Figure 64 – TCCS Streetlights on Redfern Street Looking West

Figure 63 – TCCS Streetlight Bowman Street (east) Looking North

Based on DBYD information, information received from Evoenergy, and a visual site audit, the electrical infrastructure within and in close proximity to the subject site has been identified as follows:

- Overhead high voltage (HV) lines are located within the northern verge of Redfern Street. Refer to Figure 70, Figure 71, Figure 72, and Figure 73 for photos taken in different directions and perspectives of these overhead lines.
- Overhead HV lines are also present within part of the east verge of Bowman Street (west), between the west access road and Henshall Way. See photos of these overhead electricity lines in Figure 75.
- The overhead HV lines in Bowman Street (west) extend into the site along the northern verge of Henshall Way toward a substation in Block 45 Section 50 (S 9163). Refer to Figure 74 and Figure 76 for photos of the overhead lines in Henshall Way and Figure 67 for a photo of the substation.
- Underground HV, low voltage (LV), and service lines exit substation S 9163 toward Jamison Plaza. An LV and service line enters Block 42 via a point of entry cubicle on the southern side of the plaza. Another LV and service line extend to the east toward Block 35 and Block 18, reaching another point of entry cubicle to service Block 5 Section 50.
- Underground HV and service lines also extend from substation S 9163 to the west and north adjacent to Block 42, turning east to traverse along the southern verge of the Jamison

Centre access road (east) to another substation (S 9144) located in the northeast corner of Block 42. Refer to Figure 71 for a photo of this substation.

- An underground HV electricity line exits substation S 9144 to the east along the northern verge of the Jamison Centre access road (east), crossing Bowman Street (east) to connect via an overhead link to overhead HV lines in the northern verge of Wiseman Street, northeast of the site.
- Underground LV and service lines exit substation S 9144 to provide service via point of entry cubicles along the northern boundary of Block 42 Section 50. Additionally, service lines extend to the south and east to point of entry cubicles servicing Block 10 and Block 4 Section 50, respectively.
- There is another substation (S 11041) outside the site, in the north west corner of Block 47 Section 50, to the south west of the subject site. A photo of this substation can be seen in Figure 68 below.
- The electricity and streetlight services that traverse through blocks to service other blocks do not have easements within the group centre that are indicated on ACTmapi. Substation S 9144 is only shown with an easement over it.

Refer to Figure 65 for the electrical BYDA information, depicting HV lines in red dashed lines, LV lines in green linework and service lines shown in lighter green dashed or solid lines for underground and overhead lines, respectively.

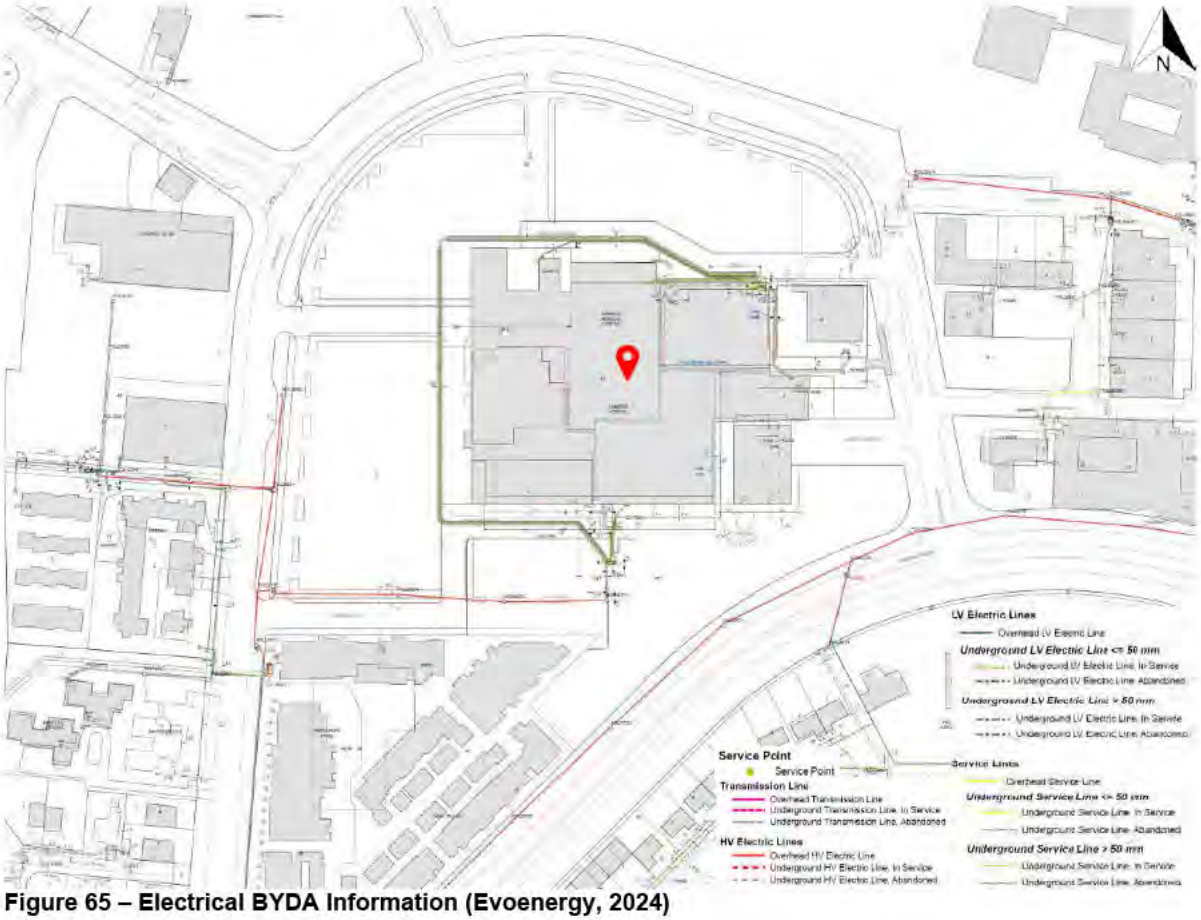


Figure 65 – Electrical BYDA Information (Evoenergy, 2024)

Figure 66 – Electrical Distribution Box Near Jamison Centre Internal Access Road (south)

Figure 67 – Electrical Substation S 9163 Near Jamison Centre Internal Access Road (south)

Figure 68 – Electrical Substation S 11041 South West of Site

Figure 69 – Electrical Substation S 9144 and Distribution Box in North East Corner of Block 42 Section 50

Figure 70 – Electrical Overhead Power Lines in Redfern Street Looking West

Figure 71 – Electrical Overhead Power Lines in Redfern Street Looking East

Figure 72 – Electrical Overhead Power Lines in Redfern Street Looking East

Figure 73 – Electrical Overhead Power Lines in Redfern Street Looking West

Figure 74 – Electrical Overhead Power Lines in Henshall Way Looking West

Figure 75 – Electrical Overhead Power Lines in Bowman Street (west) Looking South

Figure 76 – Electrical Overhead Power Lines in Henshall Way Looking East

6.9 Boundaries and Easements

A review of ACTmapi does not show any easements within the subject site's extent, with the exception of electrical substation S 9144 in the north west most corner of Block 42 Section 50. There are however sewer, water, stormwater, telecommunications, gas, and electrical services that traverse through blocks within the group centre as mentioned in the previous sections of this report.

A search on ACTmapi indicates that there are several survey markers within and surrounding the subject site. These include:

- Kerb markers (KBM1741, KBM1476 and KBM 1744) in the northern kerbline of Bowman Street (north). Figure 78 shows a photo of kerb marker (KBM1476) located during the site inspection.
- A kerb marker (KBM3854) in the southern kerbline of the Jamison Centre internal access road (east).
- A kerb marker (KBM1738) located at the intersection of Catchpole Street and Bowman Street (west).
- A kerb marker (KBM1479) at the intersection of Redfern Street and Bowman Street (east).
- A coordinated reference marker (CRM1845) in the west verge of Bowman Street (west), south west of the site.

Refer to Figure 77 for an extracted image from ACTmapi showing the location of these survey markers and easements that are situated surrounding the site. Easements are depicted in blue for drainage, red for sewer, yellow for electricity, and green for an access easement in this map extract.

Figure 77 – Existing Survey Markers and Easements Surrounding the Site (ACTmapi, 2024)

Figure 78 – Kerb Survey Marker KBM

6.10 Transport

6.10.1 Traffic and Vehicular Access

The subject site comprises the Macquarie (Jamison) Group Centre, which is surrounded by Bowman Street to the east, west and north. Redfern Street forms the southern boundary of the site, which is a two lane, two separated carriageway that is signposted as 60km/h. See Figure 84 below for a photo of this signposted area on Redfern Street. Other general perspective views of Redfern Street looking east and west from the southern part of the site can be seen in Figure 80 and Figure 82 below.

On entry to Bowman Street, the speed limit has been reduced to 40km/h in the vicinity of the group centre, indicating a high pedestrian activity area. This can be seen in the photos in Figure 83 and Figure 87. Further to this, a 40km/h school zone is imposed on Bowman Street to the north of the group centre to cater for Canberra High School and a bus stop zone on Bowman Street (north). Refer to Figure 88 for a photo of the school zone in Bowman Street (north)

Further to the east of the subject site, Bindubi Street provides broader district access as a key arterial road. It is joined by Redfern Street at a signalised intersection.

Within the group centre, an internal road network from Bowman Street connects to various car parking areas in the site. The internal roads that enter the site from the east, south east, and south, are named Jamison Centre. This Site Investigation Report refers to the various sections of Jamison Centre that are registered public road reserves as 'east', 'south east, and 'south'. The photos in Figure 81, Figure 86, Figure 89, Figure 90, Figure 91, and Figure 92 provide a general view from different perspectives of these sections of Bowman Street. Additionally, Henshall Way branches off Bowman Street in the south west corner of the site, which extends east to connect to the Jamison Centre (south) internal access road.

For the length of Redfern Street adjacent the subject site, residential properties do not have driveway access to Redfern Street. However, for commercial and residential developments along Bowman Street (west), driveway access is provided.

If any areas within the subject site are deemed suitable for development/redevelopment, a comprehensive traffic assessment will be necessary to evaluate the potential impact on the surrounding public road network once the development details and connection arrangements are established.

Based on the Active Travel Infrastructure Practitioner Tool (refer to Figure 79 for an excerpt), a summary of the classifications of roads within the vicinity of the site are detailed in Table 2 below. The road geometry requirements for each of these classifications, with the exception of 'arterial road' is provided within the Estate Development Code (2020). TCCS standard MIS 01 'Street Planning and Design' also provides guidance on functional road classifications based on traffic volumes, whilst MIS 06 Verges provides guidance on verge widths. These documents were all referred to in confirming the road classifications provided in Table 2 below.

Table 2 – Road Traffic Classification

Road Name	Classification
Bindubi Street	Arterial
Redfern Street	Major Collector
Bowman Street	Major Collector
Henshall Way/Jamison Centre	Access Street B

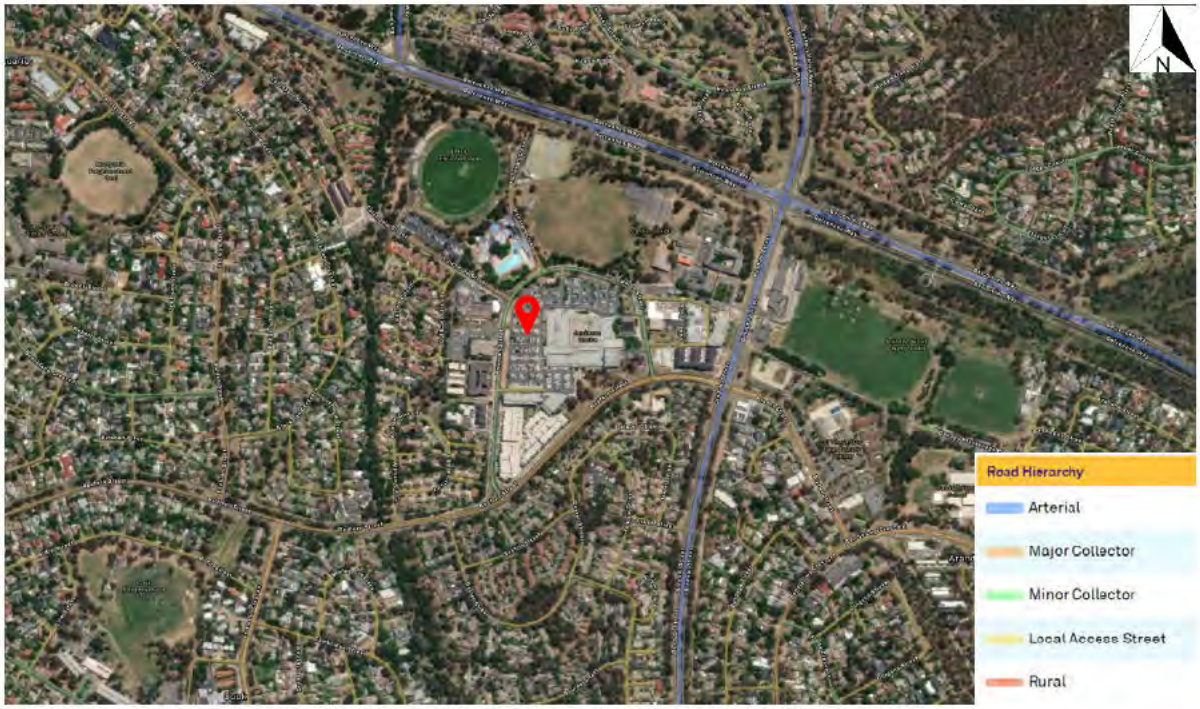


Figure 79 – Extract from the Active Travel Infrastructure Practitioner Tool (2024)

Figure 80 – Redfern Street Intersection with Bowman Street (east) Looking East

Figure 81 – Access to the Site from Redfern Street to Bowman Street (east)

Figure 82 – Redfern Street Looking West

Figure 84 – Redfern Street 60km/h Speed Limit Sign

Figure 83 – 40km/h and High Pedestrian Activity Sign on Bowman Street (east)

Figure 85 – Redfern Street Aged Pedestrian Sign South West of Site

Figure 86 – Bowman Street (north) Looking West

Figure 87 – Bowman Street (north) 40km/h Speed Sign

Figure 88 – Bowman Street (north) Signposted School Zone

Figure 89 – Bowman Street (north) Looking West

Figure 90 – Bowman Street (north) Bus Stop Area

Figure 92 – Bowman Street (west) Bus Stop Area Adjacent Site

Figure 91 – Bowman Street (west) Looking South

TCCS was consulted to obtain their Canberra Strategic Transport Model (CSTM) outputs with assumed turn movements for the AM and PM travel peak periods in the 2026, 2031 and 2041 forecast scenarios. These outputs are provided in Figure 93 to Figure 98 below. From these maps, it can be seen that all roads in the immediate vicinity of the subject site, show peak hour traffic volumes that are within each respective roads' capacity in both the 2026, 2031 and 2041 morning and afternoon peak periods. However, Redfern Street, to the south east of the site (between Bowman Street (east) and Bindubi Street), shows that both eastbound and westbound carriageways operate over capacity during the morning and evening peak hour, respectively. This is the case for Redfern Street in the 2031 and 2041 scenarios. Redfern Street to the west of Bowman Street (east) is shown to have the highest peak hour traffic volumes in the 2031 afternoon model output, with 499 vph in the westbound carriageway. This however, is still within 85% of the road's capacity, and by 2041, is shown to reduce to 447 vph in the afternoon peak, which is within 70% of its capacity. The westbound lane in Redfern Street is shown in the 2031 AM peak to have 499 vph, which indicates a

significant rise in traffic volume compared to previous years. This volume of vehicles in 2031 represents a substantial increase from the 2026 volumes, which show 351 vph in the AM peak on Redfern Street. By 2041, the traffic volume decreases to 447 vph. The percentage increase in traffic is therefore approximately 42% from 2026 to 2031, followed by a decrease of 10% from 2031 to 2041. The overall percentage increase in traffic from 2026 to 2041 is projected to be approximately 27%.

Bowman Street (east and north) are shown with the largest traffic volumes, with Bowman Street (west) having a traffic volume that is either lower than able to be recorded or no greater than 11vph in the CSTM model. Therefore, the section of Bowman Street (west) from Catchpole Street and Redfern Street is shown in all future scenarios in the morning and evening peak periods to be operating within 25% of the road's geometric capacity. East of the Catchpole Street intersection, Bowman Street (north and east) are shown with similar traffic volumes, peaking at in the 2031 morning scenario with 662 total vehicles per hour in both directions. The south bound lane in Bowman Street (east) is shown in the 2031 AM peak to have 462 vph, which pushes the road to just within its capacity. This volume of vehicles in 2031 increase substantially from 2026 volumes, which show 344 vph in the AM peak on Bowman Street (east). The traffic volume decreases by 2041 to 423 vph. The percentage increase in traffic is therefore approximately 34% from 2026 to 2031 and a decrease of 8% from 2031 to 2041. The overall percentage increase in traffic from 2026 to 2041 is therefore projected to be approximately 23%.

The Jamison Centre internal access roads and Henshall Way, being lower tier roads, do not have modelled traffic volumes shown on the CSTM output. Regardless, the traffic volumes on these sections of roads are shown to be less than 25% of their capacity.

MIS 03 'Pavement Design' stipulates that the average AM and PM peak hour traffic volumes represent between 10% and 12% of the average annual daily traffic. Therefore, for Bowman Street, taking the most conservative scenario of 462 vph in the 2031 AM peak in a single direction, this would translate to approximately 4,620 vehicles per day (vpd), which is within the Major Collector classification provided in MIS 01 of 3,001-6,000 vpd. A single direction is taken, as the Bowman Street is separated by a central median for part of the road.

When examining the most trafficked section of Redfern Street, located south of the subject site, the traffic volume in the critical westbound carriageway is 4,990 vpd in the 2031 PM peak. This volume also falls within the abovementioned Major Collector range. Redfern Street is separated into two 2 lane carriageways, which provides the road sufficient capacity to accommodate this flow. However, for the section of Redfern Street closer to Bindubi Street, the traffic volume in the westbound carriageway is estimated as 8,140 vpd, which pushes this section of road beyond the capacity of a Major Collector road.

Bindubi Street, is the closest arterial road to the site, and indicates that the 2031 AM peak hour will accommodate 1,399 vph, translating to 13,990 vpd, which falls outside the range specified for a Major Collector road classification according to MIS 01, confirming its status as an arterial road.

The Jamison Centre internal access roads and Henshall Way either have very low or no projected traffic volumes in the CSTM output, due to their relatively low traffic compared to surrounding roads. However, it can be safely assumed that both roads fall within the Access Street B threshold of 1,000 vpd for commercial zones, as stipulated in MIS 01.

Figure 93 – CSTM Modelling – 2026 AM Peak Volumes (TCCS, 2024)

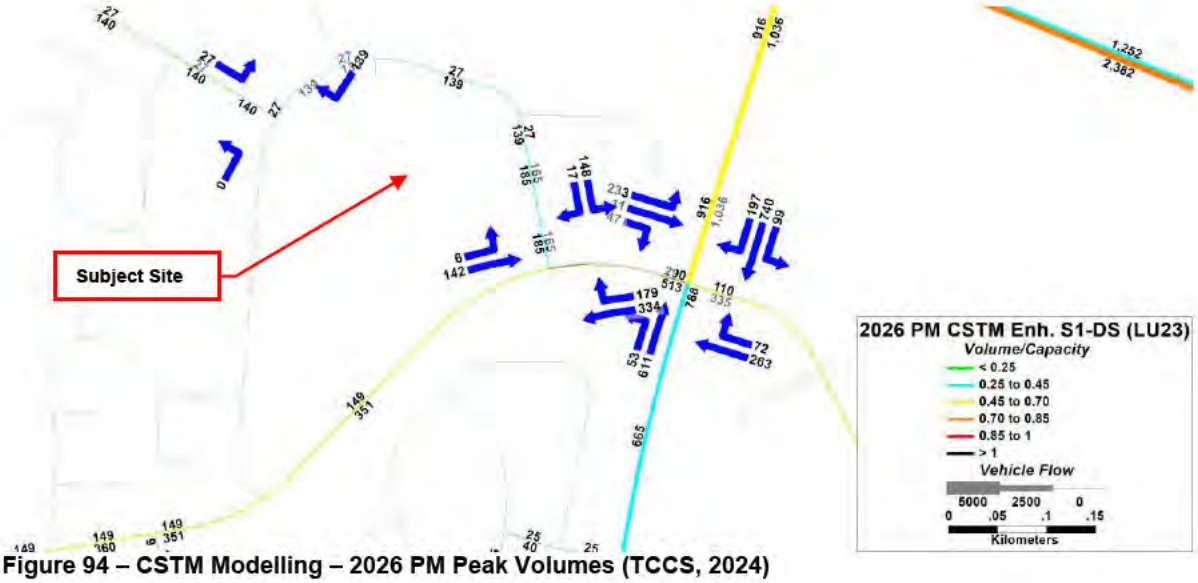


Figure 94 – CSTM Modelling – 2026 PM Peak Volumes (TCCS, 2024)

Figure 95 – CSTM Modelling – 2031 AM Peak Volumes (TCCS, 2024)

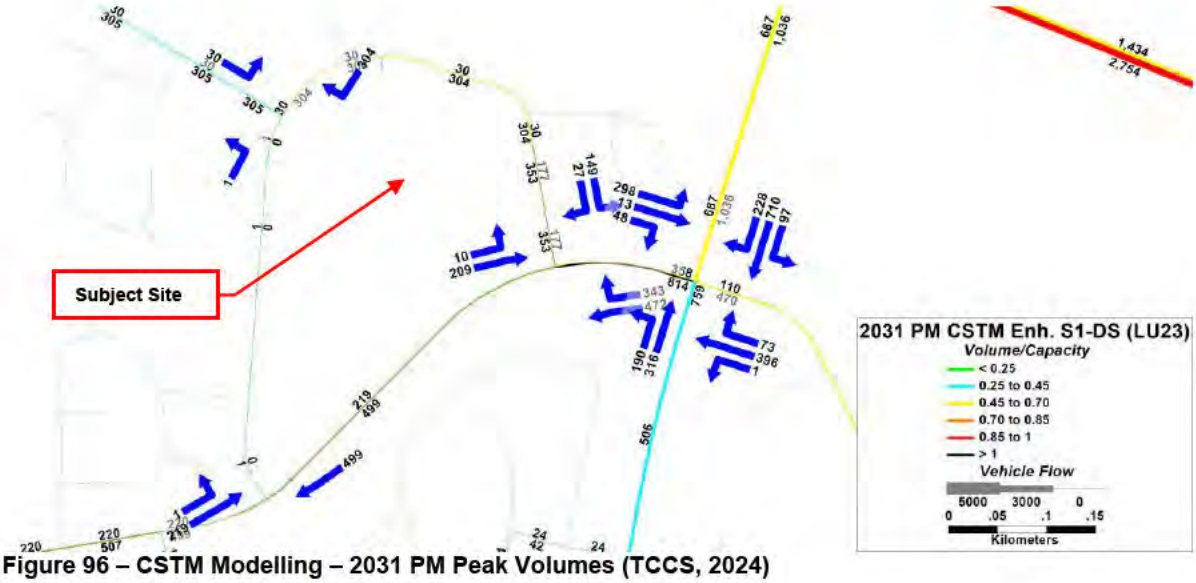


Figure 96 – CSTM Modelling – 2031 PM Peak Volumes (TCCS, 2024)

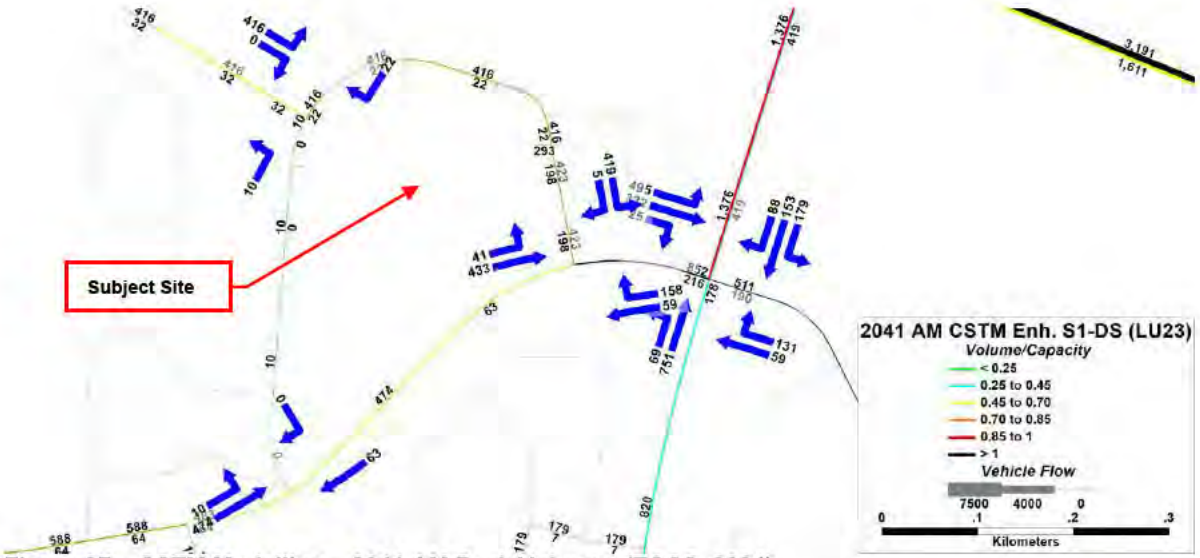


Figure 97 – CSTM Modelling – 2041 AM Peak Volumes (TCCS, 2024)

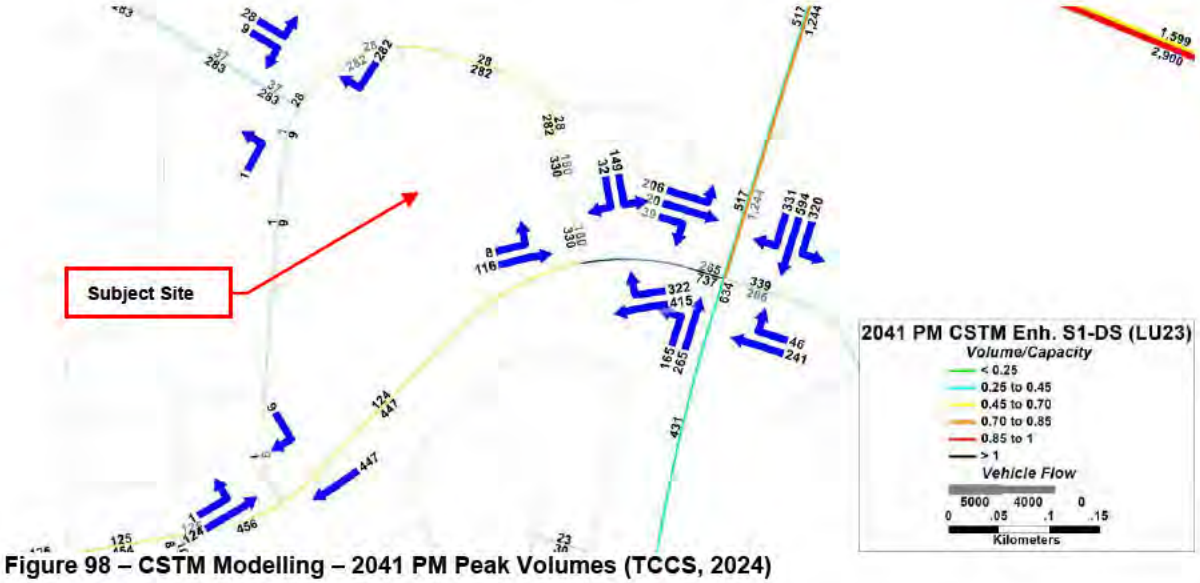


Figure 98 – CSTM Modelling – 2041 PM Peak Volumes (TCCS, 2024)

The demographics and associated populations assumed for the local area that is applied to the Canberra Strategic Transport Model (CSTM) was provided by ACT Government TCCS and is detailed in Figure 99 and Table 3 below. The data confirms that the site is located in an area (CSTM Zone 032002) that is a mix of residential, employment, retail space and school enrolment (Canberra High School). Residential population numbers show a steady increase over the years, with 634 in 2026, rising to 680 in 2031, and further increasing to 691 by 2041. Employment also sees a rise, from 768 in 2026 to 833 in 2031, with a slight decrease to 830 by 2041. Retail space, measured in square meters, shows consistent growth from 17,634m^2 in 2026 to 18,265m^2 in 2031, reaching 19,949m^2 by 2041. School enrolment numbers show minor fluctuations, with a decrease from 859 in 2026 to 841 in 2031, followed by a slight increase to 855 by 2041.

Table 3 – CSTM Assumed Demographic Data (TCCS, 2024)

SUBURB	CSTM ZONE ID	POPULATION			EMPLOYMENT			RETAIL SPACE			SCHOOL ENROLMENT		
		2026	2031	2041	2026	2031	2041	2026	2031	2041	2026	2031	2041
Macquarie	032001	1,435	1,538	1,562	123	133	133	-	-	-	-	-	-
Macquarie	032002	634	680	691	768	833	830	17,634	18,265	19,949	859	841	855
Macquarie	032003	1,219	1,307	1,327	157	170	169	1,982	2,052	2,242	348	341	347

Figure 99 – Canberra Strategic Transport Model (CSTM) Zone ID (TCCS, 2024)

6.10.2 Parking

Car parking is extensively provided around the Macquarie Group Centre predominantly as off street public parking, mainly provided in the northern, western and southern car parks and internal roads. An approximation of the existing car park spaces within the subject site is listed below:

- 166 parking bays in the east car park, including 20 in the south east area of the site
- 135 parking bays in the northern car park
- 211 parking bays in the west car park
- 70 parking bays in the southern car park
- 16 (2 hour) parallel parking bays in Henshall Way
- Loading Zone and a pick up and set down area in Jamison Centre (south)
- 4 short term (5 minute) parallel parking bays in the Jamison Centre (east) access road
- 2 on street parking bays in Bowman Street (east)

Aerial imagery from ACTmapi, captured over various periods, was used to estimate the occupancy rate of the off street public car parking available in the group centre. This includes the cumulative off street parking spaces in the surrounding car parks, totalling approximately 691 parking spaces. From this analysis, the observed average percentage usage of the car parks is approximately 80%. See Table 4 below for details. The observation data represents different seasons and times throughout the years to ensure a comprehensive overview of parking usage. Specific dates and times for the imaging are not available.

Table 4 – Parking Utilisation Estimates

	May-17	Mar-18	Oct-19	Nov-20	Dec-21	Jul-22	Nov-23	Average
Spaces in Use	447	490	611	470	578	659	591	**549**
% Full	65%	71%	88%	68%	84%	95%	86%	**80%**

Please note that this assessment is preliminary and any development/redevelopment proposed on the site that could potentially generate traffic will be assessed in accordance with TCCS requirements (Transport Canberra and City Services).

The Planning (Commercial Zones) Technical Specifications 2024 (effective: 20 March 2024) establishes parking generation rates, considering the site's location and intended uses. For various group centre developments, the parking provision rates as applicable to a commercial zone are comprehensively provided in Schedule 3 of the Commercial Zones Technical Specifications.

The Planning (Commercial Zones) Technical Specifications stipulates that the location of long stay, short stay and operational parking are as follows for a development other than residential, early childhood, and residential care accommodation in a commercial zone:

- Long stay parking – On-site or within 200 metres
- Short stay parking – On-site or within 100m
- Operational parking – On-site
- Visitor parking – On-site or within 100m

Under the Planning (Commercial Zones) Technical Specifications, the following requirements apply for parking spaces designated for motorcycles and motor scooters:

- Three dedicated spaces per 100 car parking spaces are necessary, with at least one space mandated for car parks containing a minimum of 30 car parking spaces.
- These provisions must be in addition to the required number of car parking spaces. Compliance with AS 2890 standards (both part 1 - Off-street and part 5 - On-street) is essential for the provision of motorcycle parking spaces.

Also, in line with the Technical Specification, for public car parks containing more than 10 spaces, parking spaces designated for people with disabilities must constitute a minimum of 3% (rounded up to the nearest whole number) of the total number of parking spaces required for the development.

In accordance with Clause 22.1 of the Commercial Zones Technical Specifications, electric vehicle ready parking only needs to be provided to at least 20% of non-residential parking spaces in new community facility developments.

The design of the proposed parking layout and its associated geometrical dimensions on the site must adhere to Australian Standard AS2890.1, with disability parking conforming to AS2890.6.

In case of a new development, any proposed use of existing parking surrounding the subject site needs to be agreed with TCCS.

Photos in Figure 100 to Figure 104 show existing car parking and associated infrastructure within the subject site including some parking signage.

Figure 100 – South Car Park Looking North West

Figure 103 – West Car Park Looking South

Figure 101 – North Car Park Looking South West

Figure 104 – Parking Sign in South West Car Park

Figure 102 – North Car Park Looking South West

6.10.3 Pedestrian and Cycle Access

Fully paved verges surround Jamison Plaza, and segmental paved paths are situated in part of the car parks. An extensive path network is available within and surrounding the subject site, with a

bicycle parking area near the plaza's front entrance on the west side of Block 42 Section 50. In summary, the path network within and around the site includes:

- An approximately 1.5m wide concrete footpath in the east and west verges of Bowman Street (east).
- An approximately 1.2m wide concrete footpath in the northern verge of Bowman Street (north). This path transitions to an approximate 5.5m wide concrete bus stop platform at the bus layover. The path continues past this platform as an approximate 1.2m wide concrete path to the west.
- An approximately 1.5m wide concrete path in the west verge of Bowman Street (west), south of Catchpole Street.
- The paths in bowman Street (east, west and north) have connections to the group centre with kerb ramps and refuge islands in the centre of the road.
- Jamison Centre (east) internal access road has an approximately 1.5m wide concrete path in its northern and southern verges, for part of the road.
- The small open space area in the north east corner of the site has an approximately 1.5m wide concrete path crossing through it diagonally, connecting Bowman Street (north) to the northern car park.
- Redfern Street has an approximately 1.5m wide concrete path in its northern verge.
- An approximately 1.2m wide concrete path enters the group centre from the abovementioned 1.5m wide concrete path in the west verge of Bowman Street (east), diagonally crossing the north east corner of Bock 45 Section 50.
- An approximately 3m wide concrete path extends from the abovementioned path in Redfern Street's northern verge through approximately the centre of Block 45 Section 50 and leads toward Jamison Plaza. A short length of approximately 2.0m wide concrete path also branches into this 3m path from Redfern Street. Concrete stairs and a ramp connect this path to Block 35 Section 50.
- An approximately 1.5m wide concrete path leads from Block 47 Section 50 to the southern entrance to Jamison Plaza.
- An on grade pedestrian crossing is provided at the main entrance to Jamison Plaza, providing access from the west car park across the internal access road.
- Fully paved group centre areas with segmental pavers and concrete surrounding Blocks 42, 10, 23, 4, 5 and 35. The southern verge of Henshall Way is also a fully paved.

The photos in Figure 106 to Figure 120 provide a visual representation of these paths and connections as identified during a site inspection.

An excerpt from the CBR Cycle Routes map in Figure 105, published by ACT Government Transport Canberra, illustrates a local route on Redfern Street. This route connects to the principal C5 Belconnen Town Centre to Tuggeranong route on Coulter Drive to the west of the site. The local route also connects to a main route north west of the site, that runs along Belconnen Way, connecting to the City Centre.

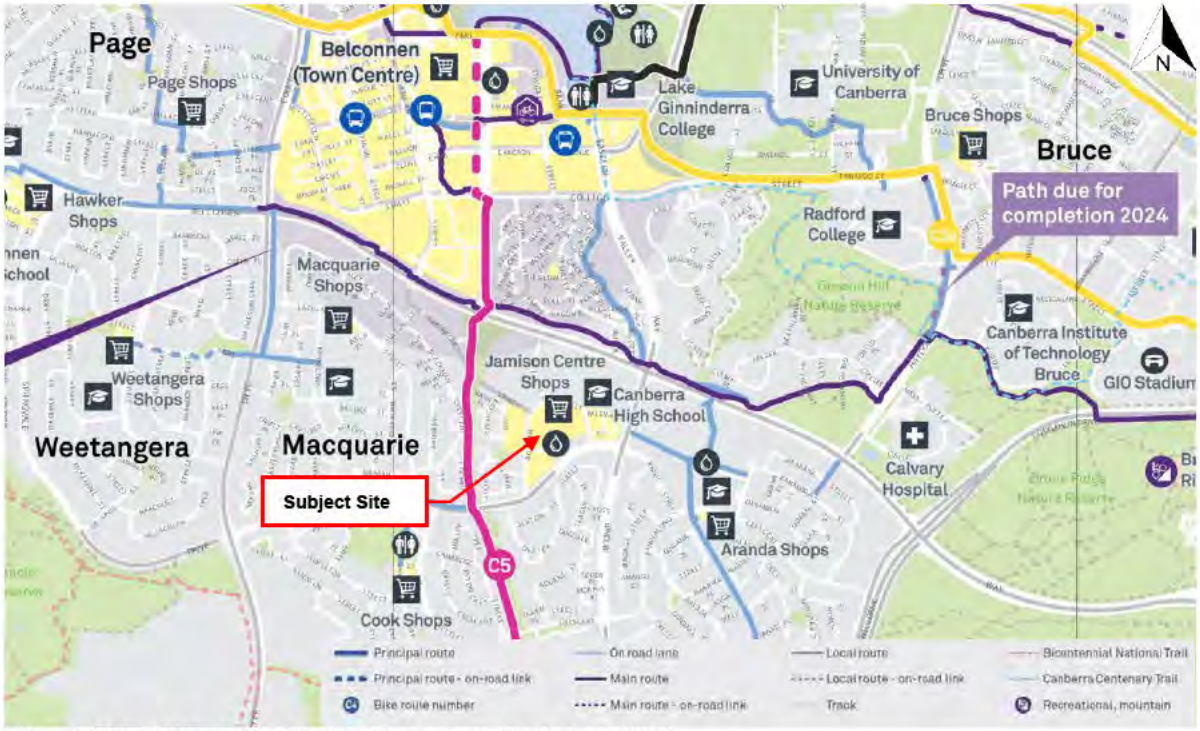


Figure 105 – CBR Cycle Routes (Transport Canberra, 2024)

Figure 106 – Footpaths Through Block 45 Section 50

Figure 107 – Footpaths on Bowman Street (east)

Figure 108 – Footpath from Redfern Street Through Block 45 Section 50 to Jamison Plaza

Figure 110 – Footpaths from Redfern Street Through Block 45 Section 50 to Jamison Plaza

Figure 109 – Footpath in Southern Verge of Redfern Street

Figure 111 – Main Jamison Plaza Entry

Figure 112 – Paths and Ramps in Block 45 Section 50

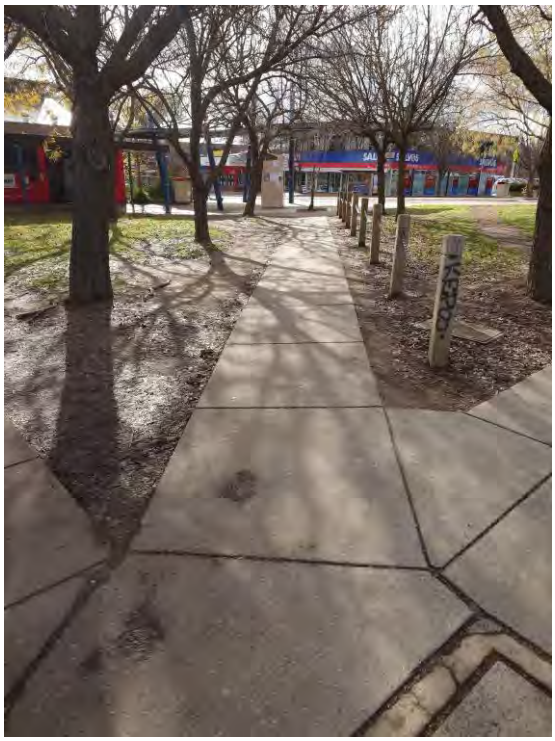


Figure 113 – Footpath from Subject Site to Bowman Street (east)

Figure 114 – Footpath Kerb Ramps and Median Refuge on Bowman Street (east)

Figure 115 – Footpath Crossing from Bowman Street (north) to Subject Site

Figure 116 – Footpath in Northern Verge of Bowman Street (north) Looking West

Figure 118 – Footpath in Northern Verge of Bowman Street (north) Looking South West

Figure 117 – Path Transition to Bus Platform on Bowman Street (north)

Figure 119 – Footpath in West Verge of Bowman Street (west) and Centre Island Refuge

Figure 120 – Centre Island Refuge in Bowman Street (west) and Path to West Car Park

6.10.4 Transport Canberra and Bus Servicing

The subject site is situated in a location where a bus route runs adjacent the group centre, along Bowman Street. Bus stops are available directly west and east of the group centre. See Figure 122 and Figure 124 below for photos of bus stops in Bowman Street (east and west). In Bowman Street (north) there is another bus stop as shown in Figure 123, that is dedicated to the nearby school as a school service only bus stop.

The following bus route has been identified within the general vicinity of the subject site to support the public transport needs to the group centre:

- Bus Route 32 operates between the City Interchange, Aranda, Cook, Weetangera, Macquarie, Jamison Centre, Belconnen, the Belconnen Interchange.

This bus route provides a much broader linkage across the ACT through the nearby Belconnen Interchange.

Refer to Figure 121 for an excerpt from the Transport Canberra bus route map showing this bus route in relation to the subject site and the proximity to other bus routes connecting the ACT.

Figure 121 – Bus Routes Adjacent the Subject Site – Extracted from Transport Canberra (2024)

Figure 122 – Bus Stop on Bowman Street (east)

Figure 123 – Bus Stop on Bowman Street (west)

Figure 124 – School Bus Stop on Bowman Street (north)

6.11 Specialist Investigations

6.11.1 Heritage

A heritage assessment was not completed as part of this Site Investigation Report. However, reference was made to the ACTmapi database and the ACT Heritage Register located on the ACT Government Environment and Sustainable Development website (https://www.environment.act.gov.au/heritage/heritage_register/register-by-place).

The ACTmapi mapping shows that there are no apparent heritage factors pertaining the subject site, with a heritage listed area (Gossan Hill, Bruce) to the distant north east of the site as can be seen in Figure 125 below.

To validate the information sourced from ACTmapi and the ACT Heritage Register, the ACT Heritage Council was consulted by EPSDD through a section 57 access to information request. The following heritage reports that were provided have been reviewed in relation to the Macquarie Group Centre:

1. 'National Heritage Studies Pty Ltd, 1991, NHS Ginninderra Archaeological Survey-Belconnen Latham, A Report to Dwyer Leslie Pty. Ltd., ACT.'
    - The nearest study area to the Macquarie Group Centre is Group 1, Number 1, located approximately 3 km from the site.
2. 'Peter Rimas Kabaila, 1997, Belconnen's Aboriginal Past, a glimpse into the archaeology of the Australian Capital Territory, Black Mountain Projects Pty. Ltd., ACT.'
    - The closest Aboriginal site to the Macquarie Group Centre is the Aranda Bushland Nature Reserve (No. 23), located approximately 2 km from the site.
3. 'University of Canberra Cultural Heritage Research Centre, 2000, Cultural and Military Heritage Assessment, Belconnen Naval Transmitter Station and ACT Government Land, Lawson, Report to the Department of Defence and ACT Government.'
    - This study is located in Lawson, approximately 4 km away from the Macquarie Group Centre, and therefore, it is irrelevant to the current investigation.
4. 'ACT Heritage Council, 2002, Australian Capital Territory Interim Heritage Place Register, Aboriginal Places in the District of Belconnen, ACT.'
    - The ACT Heritage Places Register does not identify any Aboriginal sites or potential deposits within the Macquarie Group Centre.
5. 'Navin Officer Heritage Consultants Pty. Ltd., 2006, Belconnen to City Transit Way, Cultural Heritage Assessment, A Report to Brown Consulting Pty. Ltd., ACT.'
    - The study areas in this report do not include the Macquarie Group Centre, making the findings irrelevant to the site.
6. 'Navin Officer Heritage Consultants Pty. Ltd., 2008, Belconnen Naval Transmitting Station, Brief Report, Artefact Collection (Site L19), ACT'
    - The report is focused on the Lawson Naval Transmitting Station and is not applicable to the Macquarie Group Centre.
7. 'Navin Officer Heritage Consultants Pty. Ltd., 2008, Belconnen Naval Transmitting Station Lawson CHA, Indigenous Cultural Heritage Assessment, Draft, A Report to Godden Mackay Logan, ACT.'
    - The study areas in this report are located in Lawson, and the findings do not pertain to the Macquarie Group Centre.
8. 'Navin Officer Heritage Consultants Pty. Ltd., 2009, Lawson ACT Concept Planning Study, Cultural Heritage Assessment of Territory Land, A Report to Maunsell AECOM, ACT.'
    - This report is irrelevant to the Macquarie Group Centre, as the study area is located in Lawson.

9. 'Navin Officer Heritage Consultants Pty. Ltd., 2011 Relocation of Emergency Services Agency Sites, Aranda, Charnwood and Calwell, Conder, Cultural Heritage Assessment, A Report to peckvonhartel, ACT.'
    - This report does not address the Macquarie Group Centre, as it focuses on Aranda, Charnwood, and Calwell, making it irrelevant to the Macquarie site.
10. 'Navin Officer Heritage Consultants Pty. Ltd., 2014, Town Centre Master Plan, Belconnen Town Centre, Draft, A report to Phillip Leeson Architects, ACT.'
    - The study areas in this report are situated near Lake Ginninderra in the Belconnen Town Centre, approximately 2 km away from the Macquarie Group Centre, making it irrelevant to this investigation.
11. 'Past Traces Heritage Consultants Pty. Ltd., 2019, Belconnen Trunk Sewer Augmentation Project – Aboriginal and Historical Cultural Heritage Impact Assessment, Report Prepared for WSP, ACT.'
    - The study areas identified in this report are along Ginninderra Drive, from Tillyard Drive to Copland Drive, and do not include the Macquarie Group Centre.
12. 'Past Traces Heritage Consultants Pty. Ltd., 2022, Completion of Heritage Site Survey and Impact Assessment - Umbagong Park Bridges 1193, 1194, 1195, ACT.'
    - The study areas in this report are along Ginninderra Creek and do not cover the Macquarie Group Centre.

Figure 125 – Heritage Map (ACTmapi, 2024)

6.11.2 Ecological

Reviewing ACTmapi data indicates that the subject site does not contain ecologically sensitive habitat areas. Figure 126 below provides a depiction of the area that incorporates ecologically sensitive vegetation and potential habitat areas in proximity of the site, taken from ACTmapi.

Figure 126 – Ecological Map (ACTmapi, 2024)

To verify these findings, the ACT Conservator of Flora and Fauna were consulted. The Conservator of Flora and Fauna advised that an ecological impact assessment should be completed for the site, if any development is proposed, addressing several key considerations:

- The Conservator emphasised the importance of maintaining connectivity for small woodland birds, particularly in the red shaded areas on the map provided in Figure 127 below, which indicate high connectivity values concentrated in the green space to the south east of the site and along the northern border of the Bowman Street car park.
- The Conservator pointed out that mature native trees are scattered across the site. A comprehensive tree assessment is required to identify all mature native trees. The assessment should also evaluate how the proposed development aligns with the objectives of the Loss of Mature Native Trees Key Threatening Process Action Plan (2023).
- The Conservator noted the site has multiple trees that may provide significant habitat value, including at least three trees in the southeast of the site. The tree assessment should determine if these and any other trees impacted by a proposed development meet the criteria for registration on the ACT Tree Register.
- The Conservator advised that the site contains at least one hollow-bearing tree. All hollows on site must be measured to determine their suitability for Gang-gang Cockatoos, and impacts on this species should be considered in the ecological impact assessment. Images of these trees were provided by the Conservator and reproduced below in Figure 128 and Figure 129.
- The Conservator advised that any development on the site is likely to trigger the Biodiversity Sensitive Urban Design Guide. The ecological impact assessment should consider how to incorporate these guidelines into the site redesign.
- The Conservator indicated that development may require a Construction and Environment Management Plan to be approved by the Conservator. In cases where native trees are removed, specific replanting ratios may need to be applied. These ratios are provided in Table 5 below from the Conservator with respect to tree diameter at breast height (DBH).

This advice from the Conservator ensures that ecological considerations are integrated into the planning and development process, maintaining the environmental integrity of the site.

Figure 127 – Ecological Habitat Connectivity (Conservator of Flora and Fauna, 2024)

Table 5 – Native Tree and Shrub Replacement Ratios

DBH Class (cm)	Replacement Ratios
<5	1:1
5 - 20	1:3 + relocate as native mulch or at Conservator discretion
21 - 30	1:8 + relocate as coarse woody debris
31 - 40	1:13 + relocate as coarse woody debris
41 - 50	1:40 + relocate as coarse woody debris
50+	1:90 + reinstate as vertical habitat structure or at Conservator discretion
100+	1:180 + reinstate as vertical habitat structure or at Conservator discretion

Figure 128 – Hollow-Bearing Tree (Conservator of Flora and Fauna, 2024)

Figure 129 – Hollow-Bearing Tree (Conservator of Flora and Fauna, 2024)

If any development is proposed within the subject site, it is recommended to engage with the ACT Conservator of Flora and Fauna during the project's design phase, which will lead to the need for a full ecological and tree assessment of the site and its immediate surrounds.

The subject site is not within an Environmental Offset area.

The ACTmapi database indicates that there are no registered trees within the site, however, there is a registered tree to the south west of the site in Section 65 Macquarie. See below Figure 130 for the location of this tree and Figure 131 for a photo of the tree taken on site.

Figure 130 – Registered Tree Map (ACTmapi, 2024)

Figure 131 – Registered Tree South West of Site in Section 65 Macquarie

6.11.3 Environmental

A contaminated land search of the entire subject site's contamination status was initiated with the ACT Environment Protection Authority (EPA). This was to gather an understanding of the potential development constraints due to site contamination. The EPA advised that records for Blocks 4, 5, 10, 18, 23, 31, 35, 36, 39, 42, 45 Section 50 Macquarie indicate the following:

- The blocks in the Macquarie Group Centre are not recorded on the EPA's contaminated sites management database or geographic information system.
- Blocks 4, 5, 10, 18, 35, 42 Section 50 Macquarie are currently occupied by commercial complexes. Before the introduction of natural gas to the ACT in the 1980s, some of these complexes utilised boiler heating or similar systems. These systems were generally fuelled by diesel or heating oil, which was mainly stored in underground fuel storage tanks.
- The remainder of the Macquarie Group Centre is occupied by car parks and a playground. While there is no recorded information on potential site contamination, car parks and playgrounds have been associated with potential site contamination due to the placement of uncontrolled fill during the establishment of the site.

The ACT EPA Contaminated Sites Environment Protection Policy 2017 lists fuel storage and landfilling as activities associated with land contamination, which may pose a risk to human health and the environment. Other potentially contaminating activities may have also been undertaken at the site associated with current and past uses.

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1), environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2), or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the subject site. Consequently, the entire subject site is not recorded on the Register of contaminated sites under section 21A of the Act.

The EPA advised that the information detailed above only relates to records held by the EPA and may not represent the actual condition of the site. While the EPA has no additional information on contamination of the blocks other than what has been provided above, this does not absolutely rule out the possibility of contamination. The EPA recommends conducting independent tests if absolute certainty of the site's current condition needs to be fully confirmed.

Refer to Appendix C for detailed responses from the ACT EPA.

6.11.1 Geotechnical

The site, in relation to surrounding levels, shows signs of substantial earthworks likely carried out during the subdivision of Macquarie. Considering the levels of the surrounding roads and residential areas, it is likely that extensive cutting and filling activities were conducted within the group centre to create a level surface, facilitating commercial development and accessibility.

A preliminary geotechnical site assessment, including a review of geological mapping, indicates that the subject site spans two geological formations: purple and greenish-grey Dacitic Ignimbrite, and interbedded sandstone, siltstone, and shale. Volcanic and alluvial soils are expected across the site as the area is mapped in the Winnunga and Williamsdale soil landscapes.

The subject site has a relatively gentle grade across it with a moderate slope from the south east to the north west, with some flatter areas in car parks. This is with the exception of the open space area in Block 45 Section 50, which is steeper than the remaining site area. It is likely that previous fill operations have created the generally level surface across the group centre site. Key geotechnical considerations include the depth, strength, and excavation characteristics of shallow rock, potential uncontrolled fill operations affecting site classification, the impact of four mature trees onsite, and the shrink-swell (reactive) properties of the soils.

A comprehensive geotechnical intrusive analysis is recommended to better understand ground conditions and to inform future development on the site.

6.11.2 Bushfire

The current bushfire mapping listed on ACTmapi demonstrates that the subject site is relatively distant to a recorded Bushfire Prone Zone, to the north east, within and beyond Belconnen Drive. The site is however closer to a Strategic Bushfire Management Zone, shown in mapping to include part of Bindubi Street, north east of the site. Refer to Figure 132 and Figure 133 for a bushfire prone area map and strategic bushfire management zone map, respectively, reproduced from ACTmapi. These include the subject site and broader area to provide context.

ACT Fire & Rescue confirmed that the development is located outside the area declared by the ESA as a Bushfire Prone Area. Therefore, applying bushfire protection measures will not be mandatory for the site. However, ACT Fire & Rescue advised that consideration should always be given to bushfire protective measures, as these can improve the survival of any structure in the event of a nearby bushfire or structural fire.

ACT Fire & Rescue advised that the entire site of Section 50 Macquarie is mapped to be capable of providing a Fire Risk Type rating of FRT4, with a minimum available firefighting flow provision of 100L/s. ACT Fire & Rescue have no concerns with water delivery for future development on the site as there appears to be sufficient flow and pressure. For a community development, a Fire Risk Type

of FRT3 with a minimum available firefighting flow provision of 60L/s will be required. For commercial development, depending on structure and use type, it may be assessed as FRT3 or potentially FRT4, with a minimum available firefighting flow provision of 100L/s. This advice is consistent with Icon Water's Supplement to WSA Water Supply Code of Australia for commercial developments. The minimum hydrant spacing in an FRT3 zone is at 60 metres along the mains, whilst FRT4 requires a spacing of 45m and double hydrants every 135m and at cul-de-sac ends. This is in accordance with the Icon Water Supplement to WSA Water Supply Code of Australia.

Additional advice from ACT Fire & Rescue suggests that the verification of the fire risk rating can be conducted during the development application stage, with particular consideration given to the size and type of development.

Refer to Appendix C for detailed correspondence with the ACT Fire & Rescue.

Figure 132 – ACTmapi Bushfire Prone Map (ACTmapi, 2024)

Figure 133 – ACTmapi Bushfire Strategic Management Zone Map (ACTmapi, 2024)

6.11.3 Tree Assessment

The following observations have been made on site and through an onsite inspection for existing trees on and within close vicinity of the site.

- Numerous large mature trees are present within the southern and south east open space areas of the site, predominantly within Block 45 Section 50 Macquarie. Refer to Figure 137, Figure 138, and Figure 140 for examples of large mature trees within this open space area.
- Some isolated very large trees in excellent health were also noted in the open space areas within the site, an example of this can be seen in Figure 142.
- There are also newly planted trees that were observed during a site inspection within the open space area in and around Block 45 Section 50. Photos of these newly planted saplings can be seen in Figure 135 and Figure 136 below.
- There are also some large mature trees that are located along the internal access roads, the medians within car parks on site and in road verges. An example of these trees on Bowman Street (north) can be seen in Figure 141.
- Some dead and felled trees were also observed within the site, an example of which is shown in Figure 139 below, which is a photo of a felled tree with remnant stump within Block 45 Section 50.
- Some small relatively newly planted trees were observed during the site inspection within the Maribyrnong Avenue south verge and within the northern portion of the subject site. See Figure 135 and Figure 136 for an example of these newly planted trees observed within the subject site.
- Based on ACTmapi information, none of these trees present on the site are registered trees. However, there is a registered tree in Section 65, south west of the subject site, as shown in Figure 143 and its locality on map in Figure 130. Additionally, mature trees as of 2020 with approximate canopies and colour coded sizes are shown in ACTmapi mapping, as can be seen in Figure 134 below.
- Based on an initial onsite inspection and an aerial imagery review, some of the trees appear to meet the criteria of a regulated tree as defined in the Urban Forest Act 2023 (effective date 1 January 2024).
- A regulated tree is protected under the ACT Urban Forest Act 2023. A regulated tree is defined as:

  a living tree on leased land that:

  - *is at least 8m high; or*
  - *has a canopy at least 8m wide; or*
  - *has 1 trunk that, 1.4m above natural ground level, has:*
    - *a circumference of at least 1m; or*
    - *a diameter of at least 318mm; or*
  - *has 2 or more trunks and, 1.4m above natural ground level, the average circumference of the trunks is at least 625mm, and:*
    - *the sum of the circumferences of each trunk is at least 1m; or*
    - *the sum of the diameters of each trunk is at least 318mm; or*
  - *regardless of the size of the tree:*
  - *has been planted for not more than 5 years:*
    - *under a canopy contribution agreement; or*
    - *in accordance with a tree protection condition of a development approval; or*

  a dead native tree on leased land that, 1.4m above natural ground level, has a trunk with:

- *a circumference of at least 1.88m; or*
- *a diameter of at least 600mm.*

- In accordance with the Urban Forest Act 2023, any construction work should be more than 2m away from the vertical projection of the tree canopy and 4m away from the area surrounding the trunk as measured at 1m above natural ground level.

A tree assessment has not been undertaken on the site, however, it is recommended that one is carried out by an accredited arborist in conjunction with a tree survey, to provide detailed information on the location and status of trees within the site. This information would aid in the development or redevelopment of any portion of the site by identifying and assessing trees that are Protected and Regulated, as covered by the Urban Forest Act 2023. Following a tree assessment, the findings should be provided to the ACT Tree Protection Unit for comment/validation.

Refer to Figure 135 to Figure 142 for site photographs of some of the potentially regulated trees, felled tree, and newly planted trees identified during the site inspection.

Figure 134 – Mature Trees Canopy and 2020 Size Map (ACTmapi, 2024)

Figure 135 – Mature Trees and Newly Planted Trees in the East Portion of Block 45 Section 50

Figure 136 – Newly Planted Trees in Eastern Portion of Block 45 Section 50

Figure 137 – Large Mature Trees within South East Area of Site

Figure 138 – Mature Large Trees within Block 45 Looking Toward Block 5 Section 50

Figure 139 – Felled Tree within Block 45 Section 50

Figure 140 – Large Mature Stand of Trees in Block 45 Section 50

Figure 141 – Large Mature Trees Along Bowman Street (north)

Figure 142 – Very Large Tree in Southern Area of Block 45 Section 50

Figure 143 – Registered Tree South West of the Subject Site

6.11.4 Water Sensitive Urban Design

Any proposed development on the subject site will drain via TCCS's stormwater infrastructure into the significant piped network that drains toward the Belconnen Town Centre. These flows will continue through Benjamin Way, which ultimately discharge into Lake Ginninderra further to the north west of the site. It is important the Developer is aware of this and complies with all legislative requirements with regards to stormwater runoff quality and quantity.

Stormwater design for the proposed development shall comply with the EPSDD ACT Biodiversity Sensitive Urban Design Guide, for which the requirements are summarised within the Commercial Zones Planning Technical Specifications (March 2024), including but not limited to the following requirements:

- Mains water use reduction of 40% in comparison to an equivalent development constructed in 2003.
- On site stormwater retention and detention.
- The developer must not increase the peak stormwater runoff from the development from the peak rate of runoff from an unmitigated (rural) site of the same area for minor and major storms.
- A summary of the minimum required WSUD targets and achievements are listed below:
    - Gross pollutants reduction ≥ 90%
    - Reduction in suspended solids ≥ 60%
    - Reduction in total phosphorous ≥ 45%
    - Reduction in total nitrogen ≥ 40%
    - Minimum permeable area of the site ≥ 15%
    - Effluent reuse is optional

The 'ACT Practice Guidelines for Water Sensitive Urban Design' (2018) document provides various methods that can assist in meeting these water sensitive urban design requirements for the proposed development. The following measures can be considered as part of the Development Application for the proposed development to achieve best practice in water sensitive urban design:

Mains water use reduction:

- Water efficient irrigation systems
- Use of stormwater to replace mains water for irrigation
- Water efficient landscaping
- Rainwater tanks for garden watering and internal uses, such as toilet flushing
- Use of greywater for irrigation and toilet flushing on individual dwellings
- Wastewater treatment and reticulation to commercial or industrial users who do not require water of a potable water mains standard

Stormwater management:

- Filter strips
- Swales and Bio-retention swales in lieu of piped drainage systems
- Downpipes and impervious surface areas not directly connected to the stormwater system, direct runoff across lawns and gardens
- Minimising impervious surfaces

- Installing on-site detention storage, which may be increased in size to allow for water harvesting
- Creating extended detention volume in ornamental ponds or landscaped depressions
- Direct connection of downpipes to a separate collection system to discharge to ornamental ponds to maintain water quality

Wastewater reuse:

- Use of domestic greywater, treated or untreated

Construction of the proposed development will also be required to comply with the Environment Protection Authority's document, 'Environment Protection Guidelines for Construction and Land Development in the ACT' (August 2022).

7 Proposed Site Servicing

7.1 General

A potential development, as discussed in Section 3 of this report is unknown with no planning design or massing work being carried out on the subject site to date, with the exception of the relatively dated master planning.

The following recommendations serve as a preliminary discussion of the site servicing options based on the constraints identified in this investigation. The location and size of the proposed services are to be confirmed following a planning design phase that can confirm a development's scale and extent. Therefore, in the context of this due diligence process, the existing services, infrastructure and other specialist components outlined in previous sections of this report have been considered for any potential development/redevelopment on the site and potential site servicing needs.

The advice provided in this section of the report is based on several aspects that necessitate a comprehensive evaluation for a proposed development.

Recommendations pertaining to additional servicing for the site, whilst based on sound engineering principles and judgement, are contingent on the completeness and accuracy of the available information regarding the existing services. Whilst every effort has been made to ensure the accuracy of this information, neither is guaranteed by JPS Engineering Consultants. It is recommended to physically verify the location and size of existing services before proceeding with detailed designs.

7.2 Sewer Supply

Using the Icon Water Supplement to WSA Gravity Sewerage Code of Australia, the sewage flow rate for the proposed development should be calculated to determine the loading induced on the existing network. According to BYDA information, two DN150 sewer mains service the group centre. One of these runs service the west side of the group centre, whilst the other DN150 sewer main services the east portion of the group centre. Both of these mains extend to the north west to a DN225 sewer in Bowman Street (north), being the lowest point of the site. To meet Icon Water Standards, a new sewer tie may be necessary for a potential future development. This will need to be designed to comply with the appropriate depth and grade requirements. Considering the extent of the existing DN150 sewer mains within the subject site area and the natural fall across the site to the low point and DN225 receiving main, these DN150 mains may be feasible to connect to. The exact connection point will rely on several factors, namely, the main's depth, its available capacity, and the necessary depth for the proposed development to efficiently gravity drain.

The capacity of the DN150 and receiving DN225 sewer mains is undetermined. It's essential to confirm the capacity of the mains that run through the site in consultation with Icon Water after calculating the sewer loading of the proposed development. This calculation will be based on the proposed development's size, intended usage, and accurate site and sewer levels. This process is important to confirm the feasibility of establishing a tie connection to either of the existing manholes over the DN150 or DN225 mains, in coordination with Icon Water. The impact to the existing downstream DN225 sewer line in Halloran Close, which will receive any additional flow from a potential development/redevelopment will also need to be verified.

7.3 Potable Water Supply

According to BYDA information, a comprehensive water main network is available surrounding the subject site within the group centre, surrounding the commercial developments and within Bowman Street and Redfern Street.

Once the details of any proposed development within the group centre is known, Icon Water's Supplement to the WSA Water Supply Code of Australia is to be used to calculate the required water demand to service the development. This estimated peak demand, along with the Fire Risk Type (FRT) requirement, mandates achieving a minimum flow rate of 60L/s at a pressure head of 20m for firefighting and 30m for peak demand for FRT3, and 100 L/s for FRT4. The Fire Risk Type of any

proposed development and its exact location must be confirmed with ACT Fire & Rescue. The flow rate should align with Icon Water's Supplement to the WSA Water Supply Code of Australia, Table IW.3. Confirmation from Icon Water is essential to ascertain whether their external network can meet this demand while meeting the minimum pressure requirements.

The capacity of the DN150 reticulation loop main throughout the subject site is unknown and must be verified with Icon Water once peak demand calculations are finalised for any proposed development on the site.

To meet the hydrant coverage requirement for Fire Risk Type FRT3, hydrants must be spaced at 60m intervals, as outlined in Table IW.8 of the Icon Water Supplement to the WSA Water Supply Code of Australia. For FRT4 areas, the minimum spacing is 45m between hydrants, with dual hydrants every 135m or at cul-de-sac ends.

Given the current hydrant spacing of approximately 40 to 80 meters along the DN150 main within the site, additional hydrants will likely be necessary to support future development. Hydrant spacing on Bowman Street (east) is sparse and does not currently meet Icon Water standards for spacing on the DN150 main, east of the site. Additionally, some hydrants on the remaining section of Bowman Street (north and west) are also in excess of what is required to meet FRT3 or FRT4 standards. The DN150 main in Bowman Street will need additional hydrants to be installed to adequately meet fire safety requirements. The addition of hydrants on existing mains is dependent on the final location of any proposed development in the group centre, and is to be undertaken in coordination with ACT Fire & Rescue and Icon Water.

7.4 Stormwater Drainage

According to WAE information and the TCCS Stormwater Database, there is a comprehensive stormwater network within and surrounding the site. Of note is the trunk stormwater pipes in Bowman Street (north and west), including a DN900 main that runs down Halloran Close near the lowest point of the site. Smaller stormwater pipes are available within the subject site that predominantly drain the car parks, internal roads and rooftops of the developments. Several structures that may be suitable for a stormwater tie connection to a proposed development are available within the subject site.

Once a proposed development scenario has been determined, the stormwater drainage requirements are to be assessed in accordance with TCCS Municipal Infrastructure Standards (MIS) 08 for Stormwater. The development site has been designated in accordance with the requirements of a 'Group and Neighbourhood Shopping Centre' and assessed for the 10 year ARI (10% AEP) in the minor storm event, as per 'Table 8-3 Minor System Design AEP' within TCCS MIS08.

The calculation of the impervious area, crucial for this assessment, depends on the proposed land usage and layout, including any on site basement parking and pumping requirements. Additionally, the area to the south west of the subject site in Blocks 47 and 48 Section 50, identified as a minor catchment, requires analysis as it potentially flows toward the site. Importantly, the capacity of Bowman Street and Redfern Street must be confirmed in their ability to intercept upstream overland flows and convey them sufficiently during a major 1% AEP storm event. A hydrological and hydraulic analysis, ensuring compliance with TCCS MIS 08 for the 1% AEP plus 300mm freeboard, is required to determine potential stormwater redirection at the southern and eastern boundary of the subject site, where there is likelihood for the southern catchment to drain toward and through the site. The ability to drain major flows along Bowman Street and Redfern Street adequately will ensure safeguarding the existing developments within the group centre and any proposed development. This assessment is to be undertaken once the development's extent, location and site grading has been established.

Following the standards of TCCS MIS 08, a hydrological and hydraulic analysis must be conducted to determine the feasibility of utilising the existing stormwater mains within and surrounding the subject site to connect into and the downstream pipe capacities. This will be particularly important for the receiving trunk stormwater mains at the north west most end of the site in Halloran Close.

The design flows generated by the site and any proposed development is to be calculated using the Australian Rainfall and Runoff Guidelines and ACT Government MIS 08 Standards. Design rainfall

intensities can be obtained from the Bureau of Meteorology Design Rainfall Data System (2019), which accounts for climate change.

Additionally, site detention and retention measures should be considered to manage and reduce site flows to pre-development levels, preventing any increase in flows in the adjacent roadways.

7.5 Telecommunications

NBN lines are present within and around the site, running along the southern and eastern sides of Jamison Plaza (Block 42, Block 5, and Block 10). Additionally, NBN lines run in the west verge of Bowman Street (east), the northern verge of Bowman Street (north), and the west verge of Bowman Street (west).

TPG Telecom TransACT lines are situated in Redfern Street's northern verge. A TransACT line branches off from this line in Redfern Street, enters the site through Block 45 Section 50, and terminates near the end of the Jamison Centre (south) internal access road.

Once the specific scope of the development is defined, and a telecommunications/internet service provider is selected, the developer is to engage in consultation with them to establish the connection process for the site.

NBN necessitates the submission of a Development Application to request a telecommunication connection to their service.

7.6 Electricity

The subject site has an extensive electrical network, including two substations in the southern and northern sides of the group centre development. Correspondence with Evoenergy will be required to determine the best connection to a proposed development for an electricity supply once the development's electrical demand is known. This demand is also to include any provision for solar and EV car charging initiatives.

It is assumed that an electrical connection can be established to the underground low voltage electricity lines located within the group centre. However, to meet the servicing needs of any proposed development, coordination with Evoenergy is necessary. This includes assessing the residual capacity of this electricity service and arranging for any required additional electrical infrastructure or upgrades.

The appropriate location to connect to Evoenergy's electricity network will be determined when the developer submits their final electrical load details (to AS 3000) and final site plans.

If vulnerable usage is proposed as part of the future development on the site, it may be necessary to conduct a step and touch potential test due to the proximity of the two pad mounted substations within the site and the third that is to the south west of the site in the north west corner of Block 47 Section 50 (S 11041), to confirm any earthing requirements.

7.7 Gas

There is a comprehensive gas network within and surrounding the site, providing service to some of the blocks within the group centre. There is also a DN110 gas main in the northern verge of Bowman Street (north) and west verge of Bowman Street (west). However, it is important to note that, as per the Climate Change and Greenhouse Gas Reduction Act, new gas network connections have been prohibited in all residential, commercial, and community facility land use zones since December 8, 2023.

7.8 Traffic and Parking

The subject site currently has vehicular access through an extensive network of external and internal roads. The Jamison Centre access roads (east, southeast, west, and south) and Henshall Way internal road are all accessible from Bowman Street, serving the east, west, south, and north central areas of the group centre. Bowman Street has a 40 km/h speed limit due to the high pedestrian activity in the area and its proximity to Canberra High School.

The site is near Bindubi Street and Belconnen Drive, offering arterial road access to the broader district. Additionally, Bowman Street serves as a bus route with bus stops near the main entrance of the group centre to the west and the group centre to the east of the site.

The site provides over 690 car parking bays, extending from the abovementioned internal access roads. The utilisation of these off street car parks has been estimated to be approximately 80%. The parking demand generated by a proposed development is to be calculated using the Planning (Commercial Zones) Technical Specifications 2024, as outlined in section 6.10.2 of this report. While the Technical Specifications outline ideal parking provision rates, considering the well connected public transport and active travel network within the group centre, the possibility of reducing parking numbers may be granted at the discretion of the Transport Canberra and City Services (TCCS). Any proposals for accommodating parking needs by using off site parking will need to be agreed to with TCCS prior to submitting a Development Application. The existing parking utilisation in the general group centre appears to have some residual capacity whilst accommodating current demands. However, this situation may change in the future, and any replacement parking for that removed to allow development on the subject site will need to be agreed upon with TCCS.

Any proposed development on the subject site will generate additional traffic volume to the local roads. In accordance with the TCCS Guidelines for Transport Impact Assessment (April 2020), a Transport Effects Form (TEF) or Traffic Assessment Report (TAR), depending on the final scale of the development, will be required prior to a Development Approval.

8 Site Opportunities, Constraints and Risk Assessment

A table of constraints is prepared below for the Macquarie Group Centre, based on the existing site services heritage, ecological, and environmental opportunities/constraints discussed within this report. A risk rating was established for each issue identified utilising the following risk matrix definitions.

Table 6 – Risk Matrix Rating Definitions

Risk Rating	Definition of Risk Rating Against Site Constraints
Insignificant	Sufficient, relevant and recent information to inform future development prospect, no additional work necessary at this stage.
Low	Information available is sufficient to inform future development with only minor works or investigations required to progress the design development. It is advised further investigation is undertaken to continue the development process.
Medium	Information available is lacking or absent. Significant risks reside in other investigations undertaken and the timing and cost of the proposed development. It is recommended that these investigations are undertaken.
High	Information available is severely lacking or absent. Major risks reside in other investigations undertaken and the viability of the proposed development. It is advised that these investigations are undertaken as a priority prior to recommended investigations that have been given a lower risk rating.
Extreme	Information is absent, not relevant or insufficient. The outcome of the investigation required is needed to determine whether a portion of the site is developable or unviable.

With respect to the relevant disciplines covered within this Site Investigation Report for the future development of the subject site, the following table has been developed, which incorporates the perceived issues, or gaps in information, the associated risk and a subsequent risk rating.

Table 7 – Assignment of Risk Rating to Identified Constraints

Discipline	Description of Potential Constraint	Allocated Risk Rating
Ecological	Potential ecological fauna habitat areas are identified within the site, particularly high connectivity values concentrated in the green space to the south east of the site and along the northern border of the Bowman Street car park. An ecological impact assessment has not been produced for the subject site and its surrounds.	High
Contamination	The site currently indicates variable surface conditions and potential uncontrolled fill material in the car park, which was placed as part of the group centre and subdivision construction. Furthermore, commercial businesses may have utilised fuel heating, potentially contaminating the land within the site. Currently, there is no available information from the EPA on any potential site contamination, and no studies are available within the general area of the site.	High

Discipline	Description of Potential Constraint	Allocated Risk Rating
Planning	The proposed development's extent and purpose is not fully known and therefore servicing and infrastructure requirements are unable to be accurately determined.	Medium
Trees	Some large mature trees that would likely fall under the category of being 'Regulated' in accordance with the ACT Urban Forest Act 2023 are located within and surrounding the subject site, particularly within Block 45 Section 50. All of these trees may inhibit a potential development if unable to be removed and replaced. A professionally undertaken tree survey and arborist assessment is not available.	Medium
Geotechnical	The site currently represents significant variable surface conditions and the potential of uncontrolled fill material that was placed on the site as part of the group centre's construction. Geotechnical information on the site is not available.	Medium
Flooding	Stormwater hydrological and hydraulic analysis for the subject site, particularly for the southwest catchment (Block 47 and 48 Section 50), and the conveyance of overland flows by the surrounding road network to prevent flows through the group centre, has not been undertaken. As a proposed development has not yet been defined, the impact of stormwater flows on the development, as well as the adequacy of overland flow management surrounding the site, and the site's flood immunity, remains unknown.	Medium
Electrical	Connection to the existing underground LV or HV services within the subject site and any upgrade requirements to electrical infrastructure to provide electricity to a potential development in the site is unknown. The existing substations that are adjacent the south and north plaza areas, and the substation in Block 47 Section 50, may need assessment if vulnerable usage is expected as part of future developments.	Medium
Easements	Easements are not registered over the existing sewer, water, stormwater, telecommunications, gas and electricity lines that are present within the subject site that traverse through blocks to provide service to other blocks.	Medium
Traffic	A proposed development will increase traffic generation on the surrounding roads, necessitating an assessment of the impact on these roads in future years to determine compliance and the need for any upgrades. The section of Redfern Street between Bowman Street (east) and Bindubi Street is of particular concern in the future. Additionally, any increase in traffic due to future development or redevelopment of the site must consider existing residential and commercial access points on Bowman Street.	Low
Water	The capacity of the existing potable water network within and surrounding the site is not known with respect to a proposed development.	Low

Discipline	Description of Potential Constraint	Allocated Risk Rating
	Peak demand and firefighting flow requirements are to be determined once the final development/redevelopment is understood. Current hydrant coverage does not meet Icon Water and ACT Fire & Rescue requirements in most areas within the site and along Bowman Street.	
Sewer	A potential connection to the DN150 sewer mains within the site, or the DN225 sewer main to the north of the site has not been checked for capacity against a proposed development scenario, or the likelihood of Icon Water's acceptance.	Low
Stormwater	The existing DN600 and DN675 stormwater main in Bowman Street (west), the DN525 stormwater main in Bowman Street (north) and the receiving DN900 stormwater main capacity in the north west low point of the site has not been assessed as to whether this is suitable to drain a potential development. The capacity of the downstream stormwater infrastructure has also not been checked for suitability to accept the site's discharge flows.	Low
Services	Existing service's exact locations are unconfirmed.	Low
Utilities	Telecommunications service capacity is not known across the site.	Insignificant
Gas	Gas servicing to a potential development within the site has not been explored.	Insignificant

When holistically considering the above noted constraints and risk ratings, the subject site possesses some constraints and the need for additional information to inform a future development. Therefore, the subject site is considered viable for a potential future development, pending address of the recommendations provided in the following section that respond to the above risks.

9 Recommendations

Based on the level of risk, recommendations have been listed in order of priority, to assist in programming the recommended works. The priority listing has been developed by assessing the importance of the additional investigations recommended and the effect that this work would have on other reports. The aim is to provide a comprehensive prioritised list of recommended additional investigations to complete the assessment of the subject site.

It is noted that a residual risk rating has not been provided, however, once recommended additional information and studies has been sought, the residual risk can be assessed based on the outcomes of these reports.

The Macquarie Group Centre has been assessed in this Stage 1 Site Investigation Report based on all existing technical constraints and unknowns, with a focus on compiling with a Development Application submission for development/redevelopment in part of the group centre site. A summary of the recommendations and necessary actions required to enable this site for development with the associated risk colour coded to that which is presented in section 8 of this report is provided below.

- **Contamination Management:** As no investigations are available on the potential of site contamination, an initial environmental study should be undertaken. This study will determine whether further studies are warranted, based on a potential development in the site. Measures should be taken as recommended in the environmental investigation to manage and remediate any potential contamination on site. EPA regulations and guidelines are to be strictly followed to ensure that development potential is not restricted by environmental conditions.

- **Ecological Assessment:** Liaise with the Conservator of Flora and Fauna to establish a scope of work to address likely ecological constraints to development on the site during the planning phase. Preliminary consultation with the Conservator of Flora and Fauna have advised that an ecological impact assessment should be completed for the site.

- **Trees and Vegetation:** Commission a tree survey and qualified arborist to assess the existing trees to ensure the protection of regulated trees on or near the subject site. Validate the tree assessment with the ACT Urban Treescapes Unit (TCCS) and the Conservator of Flora and Fauna, before proceeding with any activities that could impact existing trees. Furthermore, if trees are proposed to be removed to accommodate a proposed development, replacement trees at a ratio and location agreed to with TCCS, the Conservator and EPSDD Climate Change and Energy will need to be considered.

- **Urban Planning and Impact Study:** Undertake detailed urban planning design to comprehensively assess the impact and demand of any proposed development on services and infrastructure. This should also include an evaluation of how the development may interact with the adjacent residential and commercial properties to ensure holistic compatibility. The proposal is to be made in accordance with EPSDD's Development Application process.

- **Stormwater Management:** Undertake a stormwater hydrological and hydraulic analysis for any proposed development in line with TCCS MIS documents. This includes the catchment and capacity analysis of the south west area in Block 47 and 48 Section 50 that appears to drain through the site. Validate whether the size and grade of the existing DN600 and DN675 stormwater mains in Bowman Street (west), the DN525 stormwater main in Bowman Street (north) and the receiving DN900 stormwater main capacity in the north west low point of the site have sufficient capacity to accommodate a potential development's stormwater flows. Analyse the potential development's drainage needs along with any on site detention/retention initiatives.

- **Geotechnical Investigation:** Given the variable surface levels in comparison to the surrounding levels, and existing development timeframe of the group centre, a detailed geotechnical investigation should be undertaken, which is tailored to a proposed development. A geotechnical assessment is particularly important if basement parking is proposed. This will provide accurate data for foundation/pavement design and construction planning.

- **Electrical Service:** Determine the best connection point to service the site, once development demands are calculated. Address any necessary upgrades to the electrical infrastructure to service a potential development/redevelopment. This is to be undertaken through collaborative consultation with Evoenergy. If vulnerable use is proposed on the site, seek advice from Evoenergy as to whether a step and touch potential test needs to be undertaken due to the nearby pad mounted substations, within the western and eastern portions of the site.

- **Easements:** An appropriate easement width and protection zone is to be determined for the existing sewer, water, stormwater, telecommunications, gas and electricity lines that are present within the subject site. This is to be confirmed with all relevant service authorities. Once this is done, for the services if the mains are intended to remain within the blocks affected, a new deposited plan is to be produced.

- **Traffic Impact:** In accordance with the TCCS Guidelines for Transport Impact Assessment, either a Transport Effects Form (TEF) or Transport Assessment Report (TAR), will be required to be undertaken, depending on the scale and intended use of a future potential development. Evaluate the potential impact of increased traffic on the existing transport network and parking supply in the group centre as part of this work.

- **Potable Water Supply:** For a potable water connection to a potential development within the site, work closely with Icon Water to establish a connection to their existing DN150 main network, wither internal to the site or within Bowman Street. This is to be established once the development and its potable water demand is known. Icon Water generally do not allow service connections to large distribution water mains and for this reason, a connection to the existing DN300 main in Redfern Street is unlikely. Determine best locations for additional hydrants on existing mains to meet the Fire Risk Type of the development. Ensure compliance with all requirements and standards set by Icon Water and ACT Fire & Rescue throughout the preliminary and detailed design process.

- **Sewer Service:** For a sewer service to a potential development within the site, work closely with Icon Water to establish a connection to their existing DN150 or DN225 main network. The connection point will likely be to one of the existing manholes over these mains. The sewer connection point is to be established once the development is known, demand calculated, and detailed survey information available. Ensure compliance with all requirements and standards set by Icon Water throughout the preliminary and detailed design process.

- **Service Location Confirmation:** Confirm the exact locations of existing services to ensure accurate planning and prevent any conflicts during the development process. This is to be undertaken using non-destructive methods by the developer.

- **Telecommunications Service:** Liaise with NBN or TPG Telecom for a telecommunications service connection to a potential development, if required.

10 Drawings

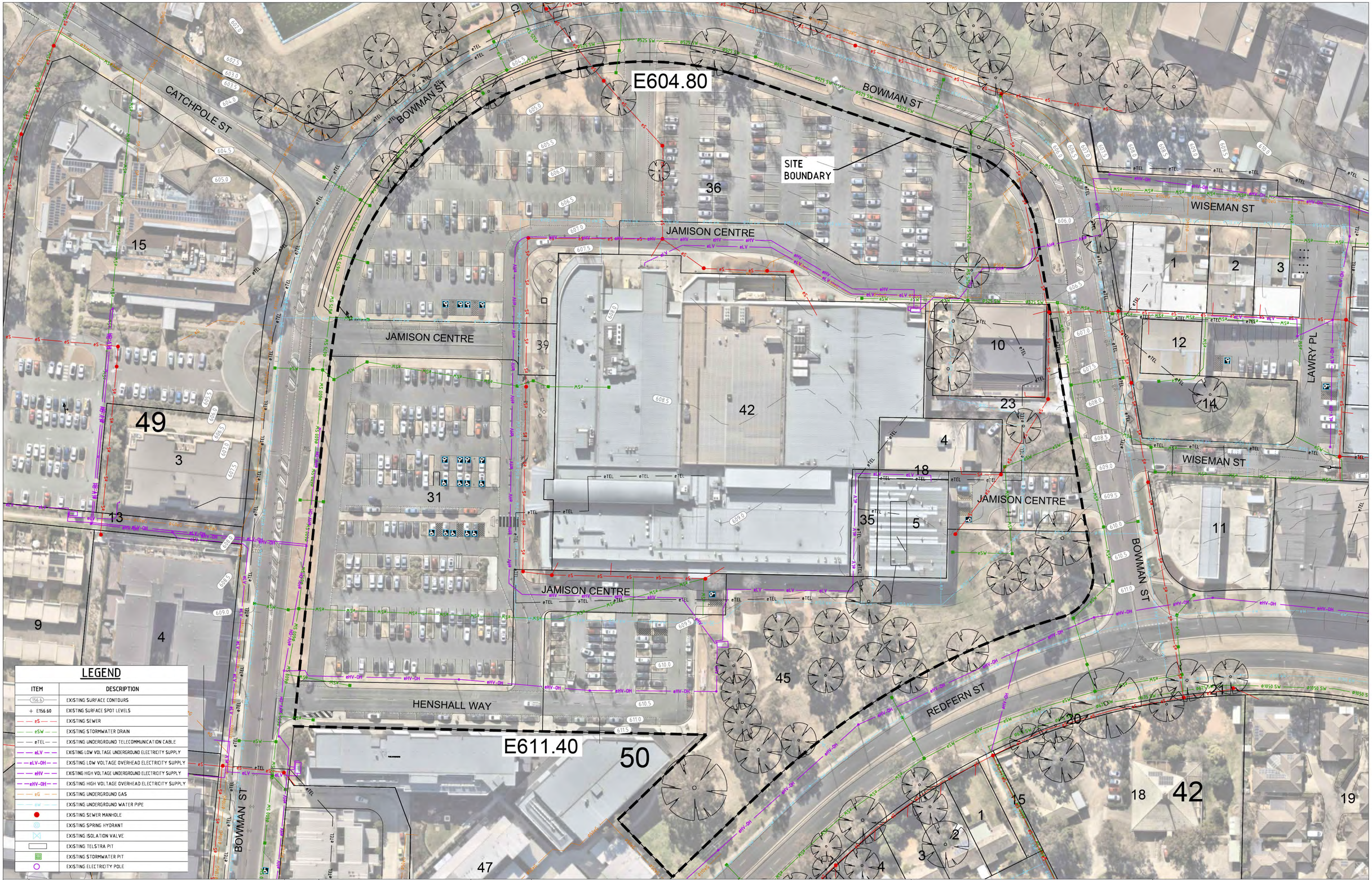
As part of this Site Investigation Report, the following drawing has been prepared and is provided within Appendix A.

Drawing No.	Description	Revision
20240334-DRG-CIV-UT-100	Existing Utilities Plan	A

This drawing is to be read in conjunction with this report. The plans are based upon information and consultation provided by service providers and authorities. All services details are to be confirmed on site. The existing services in the vicinity of the site are represented in an indicative format. This plan was prepared solely for the purposes of this report and for the use of the EPSDD.

Appendix A

Drawing



LEGEND

ITEM	DESCRIPTION
156.6	EXISTING SURFACE CONTOURS
+ E156.60	EXISTING SURFACE SPOT LEVELS
eS	EXISTING SEWER
eSW	EXISTING STORMWATER DRAIN
eTEL	EXISTING UNDERGROUND TELECOMMUNICATION CABLE
eLV	EXISTING LOW VOLTAGE UNDERGROUND ELECTRICITY SUPPLY
eLV-OH	EXISTING LOW VOLTAGE OVERHEAD ELECTRICITY SUPPLY
eHV	EXISTING HIGH VOLTAGE UNDERGROUND ELECTRICITY SUPPLY
eHV-OH	EXISTING HIGH VOLTAGE OVERHEAD ELECTRICITY SUPPLY
eG	EXISTING UNDERGROUND GAS
eW	EXISTING UNDERGROUND WATER PIPE
	EXISTING SEWER MANHOLE
	EXISTING SPRING HYDRANT
	EXISTING ISOLATION VALVE
	EXISTING TELSTRA PIT
	EXISTING STORMWATER PIT
	EXISTING ELECTRICITY POLE

Rev	Description	Date	Drawn By
A	REVISION UPDATES	06.08.2024	DM

Scales

12 6 0 12 24 36 48 60
LENGTHS ARE IN METRES
SCALE 1 : 600 @ A1

North

JPS Engineering Consultants

Client Logo

ACT Government
Environment, Planning and Sustainable Development

Status: NOT FOR CONSTRUCTION

Original Size	A1	Drawn By: AD	Drafting Check: DA
Date Plotted	06-August-24	Designed By: JS	Design Check: JS
Coordinate System	STROMLO GRID	Approved: JS	Approved Date: --
Height Datum	AHD	Approved Signature	

Project Name and Location
SITE INVESTIGATION
MACQUARIE GROUP CENTRE

Drawing Title
EXISTING UTILITIES PLAN

Project Number	Type	Discipline	Sub-Discipline	Drg No.	Rev
20240334	DRG	CIV	UT	100	A

Appendix B

BYDA and Work as Executed Information

Job No 36546968

byda.com.au

Contact Details

Contact	Contact number	Company	Enquirer ID
John Samoty	[redacted]	JPS Engineering Consultants	3541136

Email
john.samoty@jpsengineering.com.au

Address
28 Barrallier Street
Griffith ACT 2603

Job Site and Enquiry Details

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

Enquiry date	Start date	End date	On behalf of	Job purpo e	Location	On ite activitie
26/04/2024	30/06/2024	01/07/2025	Other EPSDD	Excavation	Both Road, Nature Strip, Footpath	Mechanical Excavation, Non Destructive Digging, Subdivision

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

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

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

U er Reference	Addre	Note /de cription
29-41 Jamison Centre	29-41 Jamison Centre Macquarie ACT 2614	-

Your Responsibility and Duty of Care

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

Asset Owner Details

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

Referral ID (Seq. no)	Authority Name	Phone	Status
238428478	Evoenergy Icon Water	(02) 6293 5770	NOTIFIED
238428474	NBN Co NswAct	1800 687 626	NOTIFIED
238428477	Telstra NSW South	1800 653 935	NOTIFIED
238428476	TPG Telecom (NSW)	1800 786 306	NOTIFIED
238428475	Transport Canberra and City Services	(02) 7801 3960	NOTIFIED

END OF UTILITIES LIST

The 5Ps of Safe Excavation

Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

Prepare

Prepare by communicating with asset owners if you need assistance. Look for clues onsite. Engage a skilled Locator.

Pothole

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.

Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

Proceed

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.

Engage a skilled Locator

When you lodge an enquiry you will see skilled Locators to contact

Visit the Certified Locator website directly and search for a locator near you

dbydlocator.com/certified-locating-organisation

Book a FREE BYDA Session

BOOK NOW

BYDA offers two different sessions to suit you and your organisation's needs. The free sessions are offered in two different formats online and face to face:

1. **Awareness Session:** Understand the role of BYDA, safe e cavation practices, complying with asset owner instructions, and the consequences of damages. Learn how to mitigate and avoid potential damage and harm and ensure a safe work environment.
2. **Plan Reading Session:** Develop the skills to interpret asset owners' plans, legends, and symbols effectively. Understand the comple ities of plan interpretation to ensure smooth project e ecution.

To book a session, visit:
byda.com.au/contact/education awareness enquiry form/

Lodge your FREE enquiry online any time at byda.com.au

Working near nbn™ cables

nbn has partnered with Dial Before You Dig to give you a single point of contact to get information about **nbn** underground services owned by **nbn** and other utility/service providers in your area including communications, electricity, gas and other services. Contact with underground power cables and gas services can result in serious injury to the worker, and damage and costly repairs. You must familiarise yourself with all of the Referral Conditions (meaning the referral conditions referred to in the DBYD Notice provided by **nbn**).

Practice safe work habits

Once the DBYD plans are reviewed, the Five P's of Excavation should be adopted in conjunction with your safe work practices (which must be compliant with the relevant state Electrical Safety Act and Safe Work Australia "Excavation Work Code of Practice", as a minimum) to ensure the risk of any contact with underground **nbn** assets are minimised.

Plan: Plan your job by ensuring the plans received are current and apply to the work to be performed. Also check for any visual cues that may indicate the presence of services not covered in the DBYD plans.

Prepare: Prepare for your job by engaging a DBYD Certified Plant Locator to help interpret plans and identify on-site assets. Contact **nbn** should you require further assistance.

Pothole: Non-destructive potholing (i.e. hand digging or hydro excavation) should be used to positively locate **nbn** underground assets with minimal risk of contact and service damage.

Protect: Protecting and supporting the exposed **nbn** underground asset is the responsibility of the worker. Exclusion zones for **nbn** assets are clearly stated in the plan and appropriate controls must be implemented to ensure that encroachment into the exclusion zone by machinery or activities with the potential to damage the asset is prevented.

Proceed: Proceed only when the appropriate planning, preparation, potholing and protective measures are in place.

Working near **nbn**™ cables

Identify all electrical hazards, assess the risks and establish control measures.

When using excavators and other machinery, also check the location of overhead power lines.

Workers and equipment must maintain safety exclusion zones around power lines.

Once all work is completed, the excavation should be re-instated with the same type of excavated material unless specified by **nbn**. Please note:

- Construction Partners of **nbn** may require additional controls to be in place when performing excavation activities.
- The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

Contact

All **nbn**™ network facility damages must be reported online here.
For enquiries related to your DBYD request please call 1800 626 329.

DIAL BEFORE YOU DIG
www.1100.com.au

To:	John Samoty
Phone:	Not Supplied
Fax:	Not Supplied
Email:	john.samoty@jpsengineering.com.au

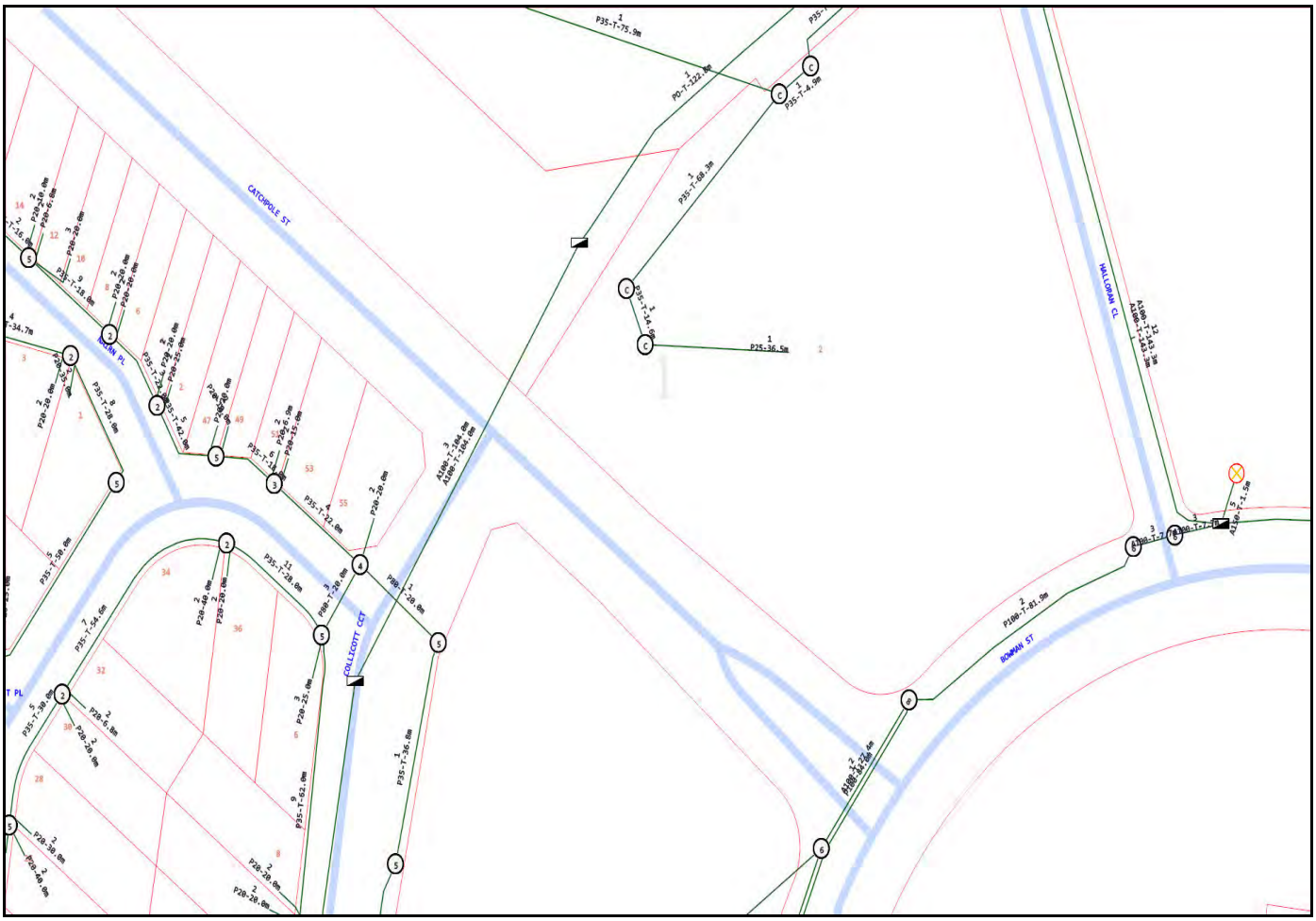
Dial before you dig Job #:	36546968	BEFORE YOU DIG www.byda.com.au Zero Damage - Zero Harm
Sequence #	238428474	
Issue Date:	25/04/2024	
Location:	29-41 Jamison Centre , Macquarie , ACT , 2614	

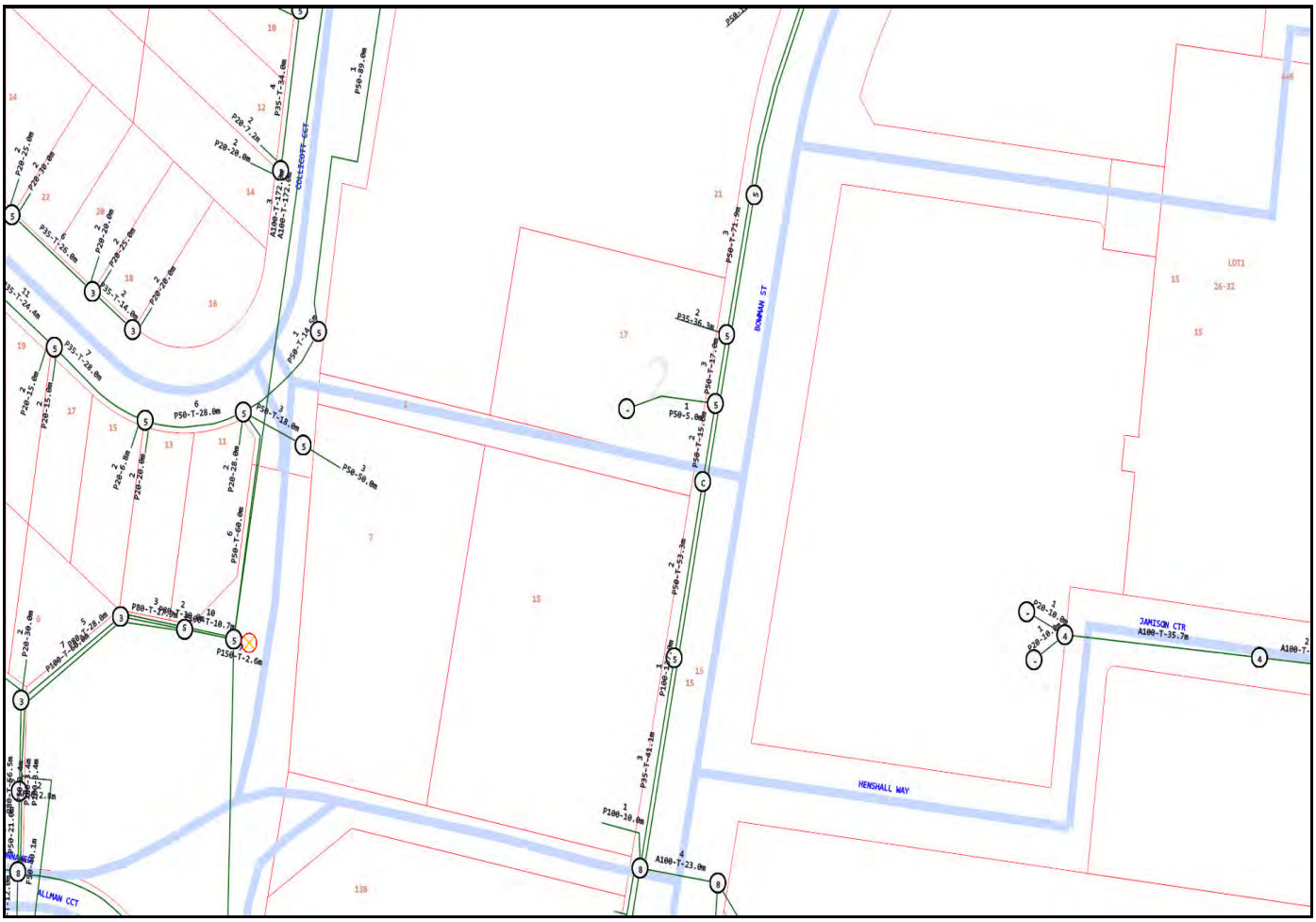
Indicative Plans

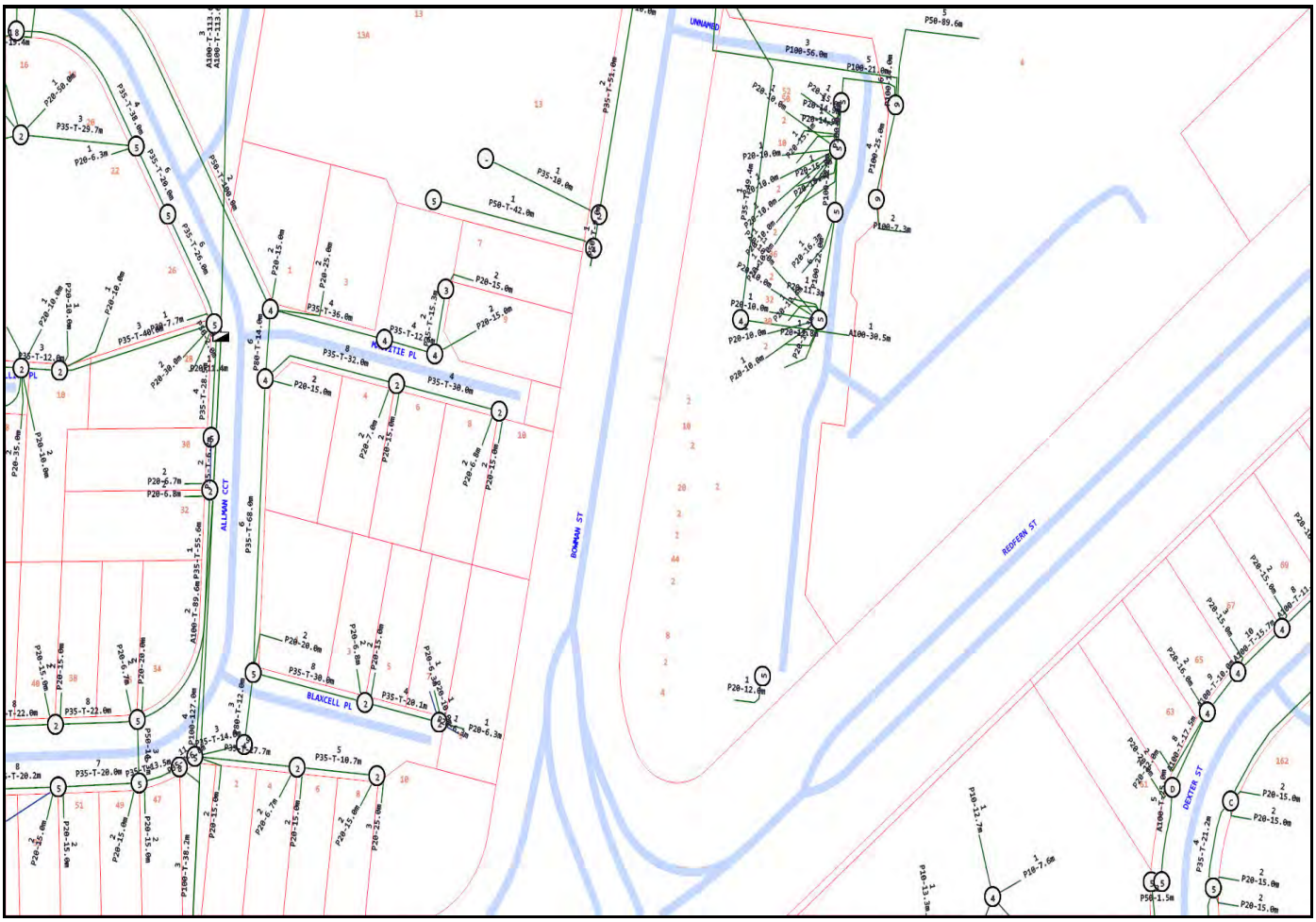
1	4
2	5
3	6

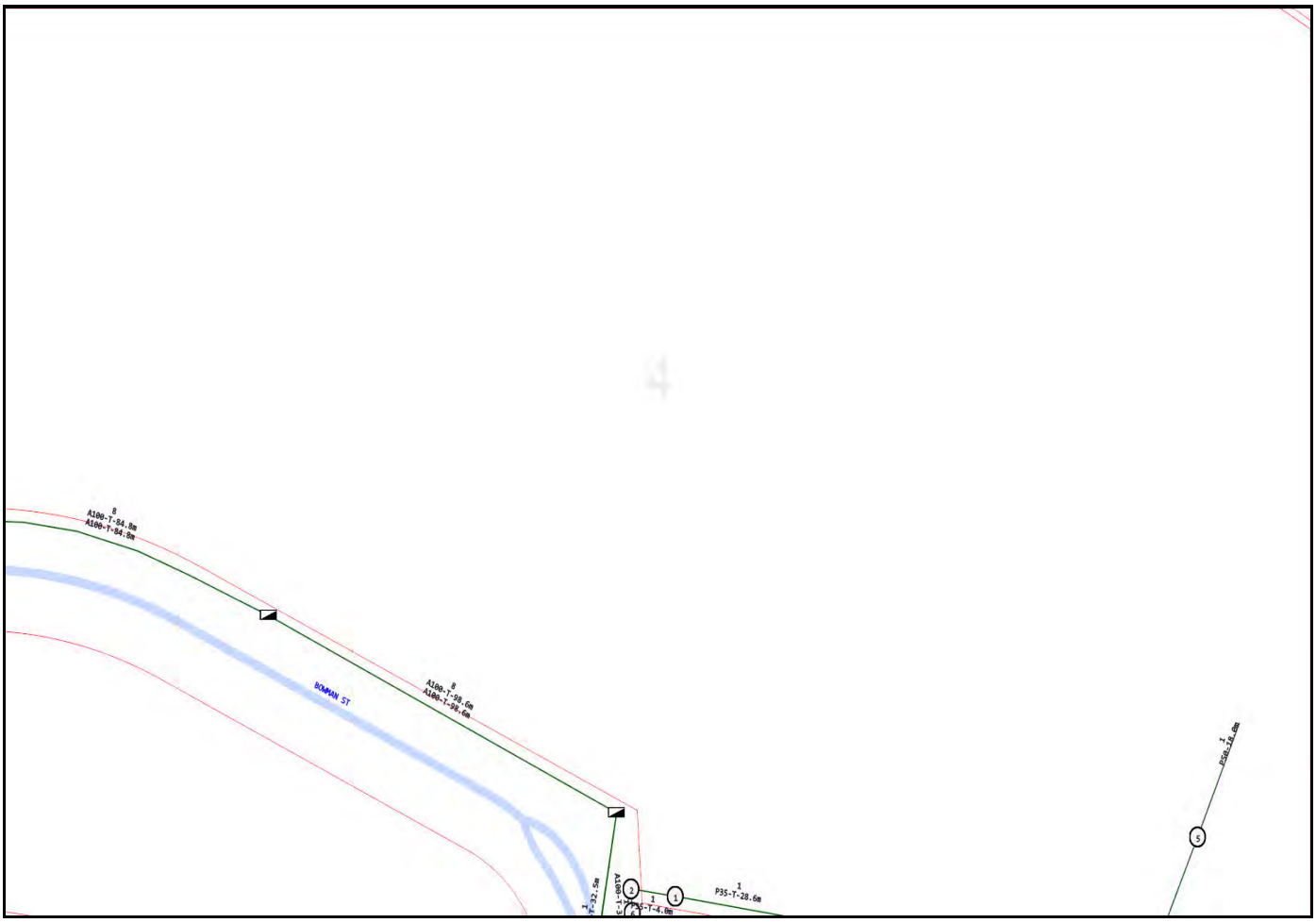
LEGEND

44	Parcel and the location
5	Pit with size "5"
2E	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
2 PO – T- 25.0m P40 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m


CATOPOLE ST
HALLORAN CL
BOWMAN ST
COLLIGOTT CCT


COTTLEVORTH CCT
ROWMAN ST
HEMSHALL WAY
JAMISON CTR
ALLMAN CCT
LOT1
16-32


UNNAMED
ROMANN ST
REDFERN ST
DEXTER ST
ALLMAN CCT
BLANCELL PL
P50-89.6m
P100-56.0m
P100-21.0m
P100-7.3m
P50-T-42.0m
P35-T-91.0m
P35-10.0m
P35-T-36.0m
P35-T-32.0m
P35-T-30.0m
P35-T-20.1m
P35-T-10.7m
P35-T-22.0m
P35-T-20.0m
P35-T-29.7m
P20-6.3m
P20-6.7m
P20-6.8m
P20-12.0m
P10-12.7m
P10-7.6m
P50-1.5m
A100-30.5m


8
A100-T-54.0m
A100-T-54.0m
8
A100-T-98.6m
A100-T-98.6m
BOWMAN ST
1
P35-T-28.6m
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P35-T-4.6m
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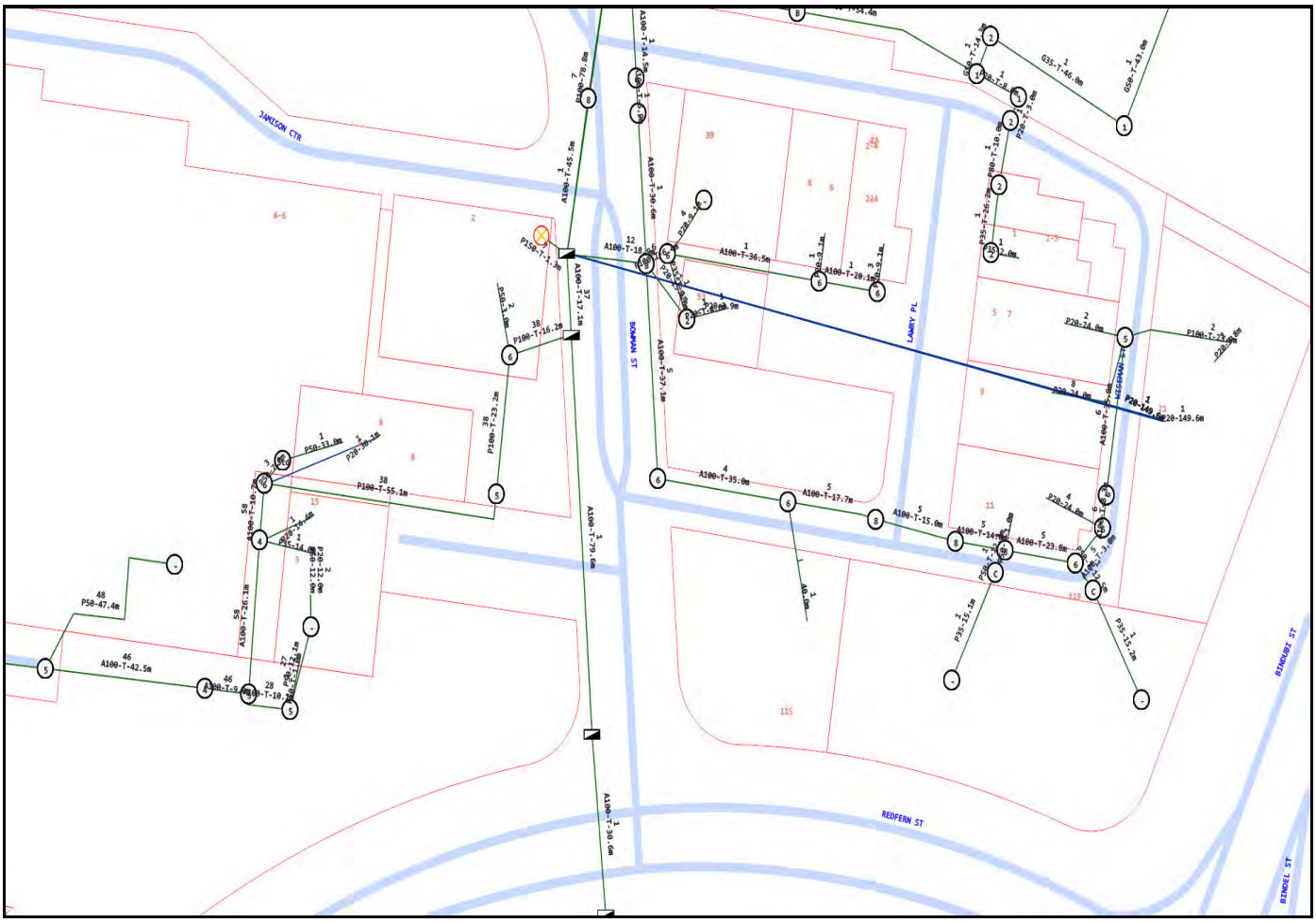
P35-T-32.5m
1
P35-T-18.4m
2
1
5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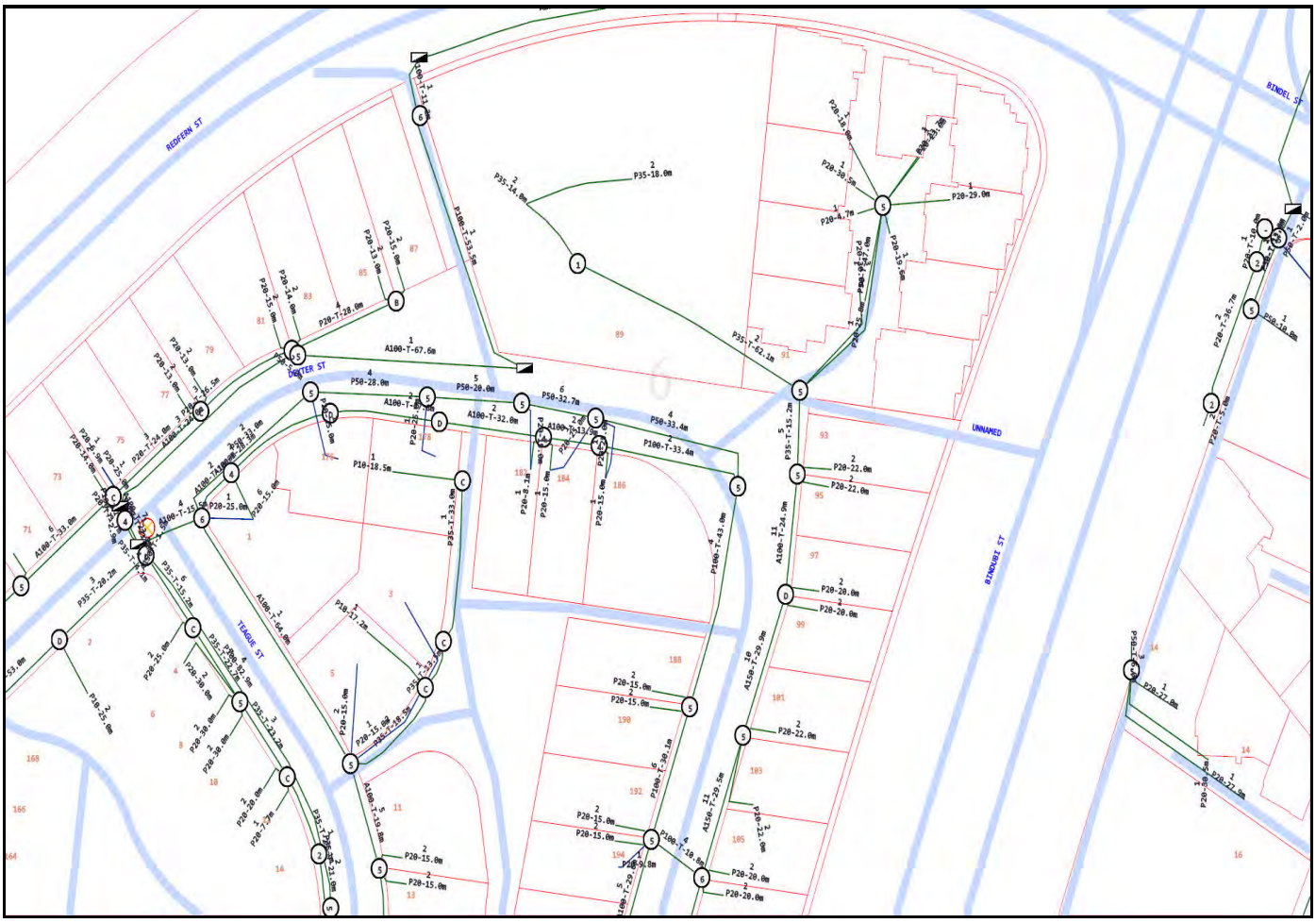
BOWMAN ST
LAMEY PL
REDFERN ST
BINGARA ST
BINGARA ST



Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

To:	John Samoty
Phone:	Not Supplied
Fax:	Not Supplied
Email:	john.samoty@jpsengineering.com.au

Dial before you dig Job #:	36546968	BEFORE YOU DIG www.byda.com.au Zero Damage - Zero Harm
Sequence #	238428474	
Issue Date:	25/04/2024	
Location:	29-41 Jamison Centre , Macquarie , ACT , 2614	

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1	4
2	5
3	6

LEGEND

44	Parcel and the location
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	Pillar
2 PO – T- 25.0m P40 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m


CATOPOLE ST
HALLORAN CL
NATIN PL
COLLIGOTT CCT
BOWMAN ST
T PL
14
12
10
8
6
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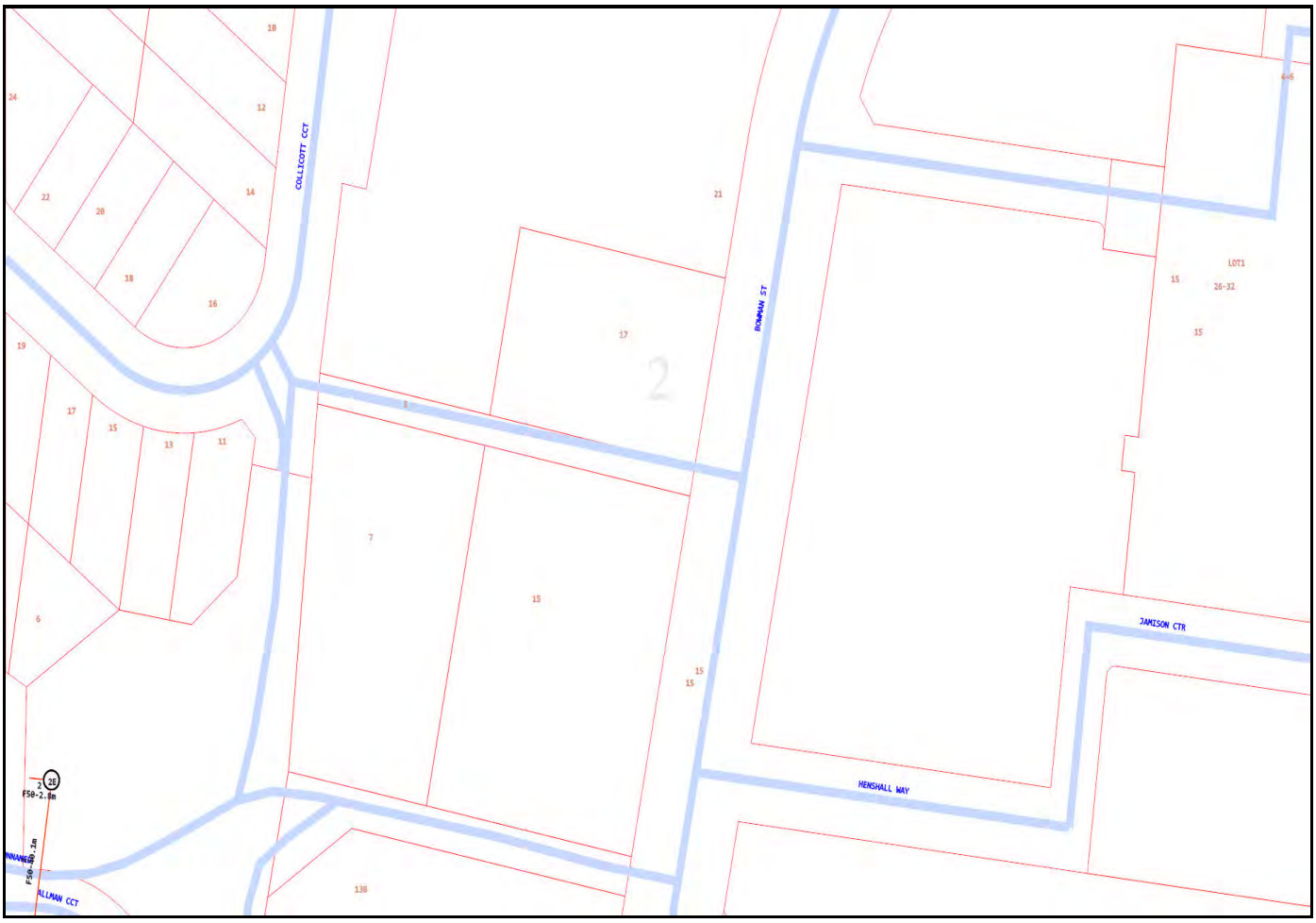
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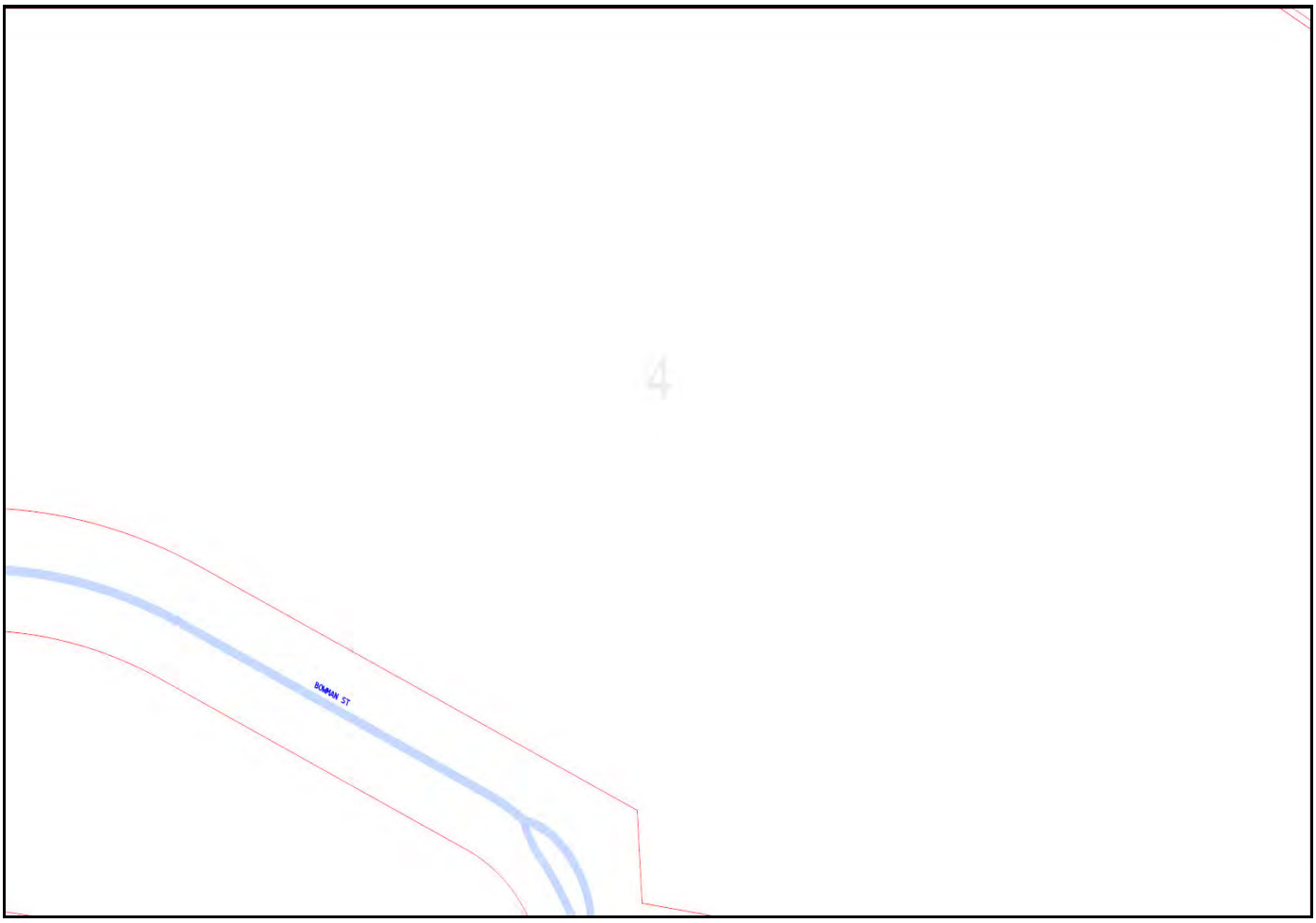
ROXMAN ST
JAMISON CTR
HENSHALL WAY
ALLMAN CCT
LOT1
16-32
2
FS0-2.0m


UNNAMED
MACVITIE PL
ALLMAN CCT
BOWMAN ST
REDFERN ST
BLAXCELL PL
DEXTER ST


BOWMAN ST


JAMISON CTR
4-6
2
39
8
6
224
53
LAMRY PL
WISEMAN ST
1
1-3
5
7
9
11
21
8
8
8
15
3
110
115
REDFERN ST
BINGUBI ST
BINGEL ST

Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

To:	John Samoty
Phone:	Not Supplied
Fax:	Not Supplied
Email:	john.samoty@jpsengineering.com.au

Dial before you dig Job #:	36546968	
Sequence #	238428474	
Issue Date:	25/04/2024	
Location:	29-41 Jamison Centre , Macquarie , ACT , 2614	

Information

The area of interest requested by you contains one or more assets.

nbn™ Assets	Search Results
Communications	Asset identified
Electricity	Asset identified

In this notice **nbn™ Facilities** means *underground fibre optic, telecommunications and/or power facilities, including but not limited to cables, owned and controlled by* ***nbn™***

Location of **nbn™** Underground Assets

We thank you for your enquiry. In relation to your enquiry at the above address:

- **nbn's** records indicate that there **ARE nbn™** Facilities in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").
- The Indicative Plan/s show general depth and alignment information only and are not an exact, scale or accurate depiction of the location, depth and alignment of **nbn™** Facilities shown on the Plan/s.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- You should note that, at the present time, the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables. As such, consistent with the notes below, particular care must be taken by you to make your own enquiries and investigations to precisely locate any power cables and manage the risk arising from such cables accordingly.
- The information contained in the Indicative Plan/s is valid for 28 days from the date of issue set out above.You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn™** Facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Dial Before You Dig Service. For any enquiries related to moving assets or Planning and Design activities, please visit the **nbn** Commercial Works website to complete the online application form. If you are planning to excavate and require further information, please email dbyd@nbnco.com.au or call 1800 626 329.

Notes:

1. You are now aware that there are **nbn™** Facilities in the vicinity of the above property that could be damaged as a result activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995* (CoA) which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn's** network facilities.
3. Any information provided is valid only for **28 days** from the date of issue set out above.

Referral Conditions

The following are conditions on which **nbn** provides you with the Indicative Plans. By accepting the plans,you are agreeing to these conditions. These conditions are in addition, and not in replacement of, any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn™** Facilities during any activities you carry out on site).
2. You acknowledge that **nbn** has specifically notified you above that the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables.
3. You should not assume that **nbn™** Facilities follow straight lines or are installed at uniformed depths

along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.

4. In carrying out any works in the vicinity of **nbn™** Facilities, you must maintain the following minimum clearances:
   - 300mm when laying assets inline, horizontally or vertically.
   - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates.
   - 1000mm when operating mechanical excavators.
   - Adherence to clearances as directed by other asset owner's instructions and take into account any uncertainty for power cables.
5. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn™** fibre optic,copper and coaxial cables,and power cable feed to **nbn™** assets).Damage to underground electric cables may result in:
   - Injury from electric shock or severe burns, with the possibility of death.
   - Interruption of the electricity supply to wide areas of the city.
   - Damage to your excavating plant.
   - Responsibility for the cost of repairs.
6. You must take all reasonable precautions to avoid damaging **nbn™** Facilities. These precautions may include but not limited to the following:
   - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example: the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
   - If any undisclosed underground cables are located, notify **nbn** immediately.
   - All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
   - The safety of the public and other workers must be ensured.
   - All excavations must be undertaken in accordance with all relevant legislation and regulations.
7. You will be responsible for all damage to **nbn™** Facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include, without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
8. You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.
9. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any plans(including Indicative Plans) attached hereto. Except as expressly provided to the contrary in this information sheet or the attached plans(including Indicative Plans), all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

State/Territory	Documents
National	Work Health and Safety Act 2011
	Work Health and Safety Regulations 2011
	Safe Work Australia - Working in the Vicinity of Overhead and Underground Electric Lines (Draft)

	Occupational Health and Safety Act 1991
NSW	Electricity Supply Act 1995
	Work Cover NSW - Work Near Underground Assets Guide
	Work Cover NSW - Excavation Work: Code of Practice
VIC	Electricity Safety Act 1998
	Electricity Safety (Network Asset) Regulations 1999
QLD	Electrical Safety Act 2002
	Code of Practice for Working Near Exposed Live Parts
SA	Electricity Act 1996
TAS	Tasmanian Electricity Supply Industry Act 1995
WA	Electricity Act 1945
	Electricity Regulations 1947
NT	Electricity Reform Act 2005
	Electricity Reform (Safety and Technical) Regulations 2005
ACT	Electricity Act 1971

Thank You,

nbn DBYD

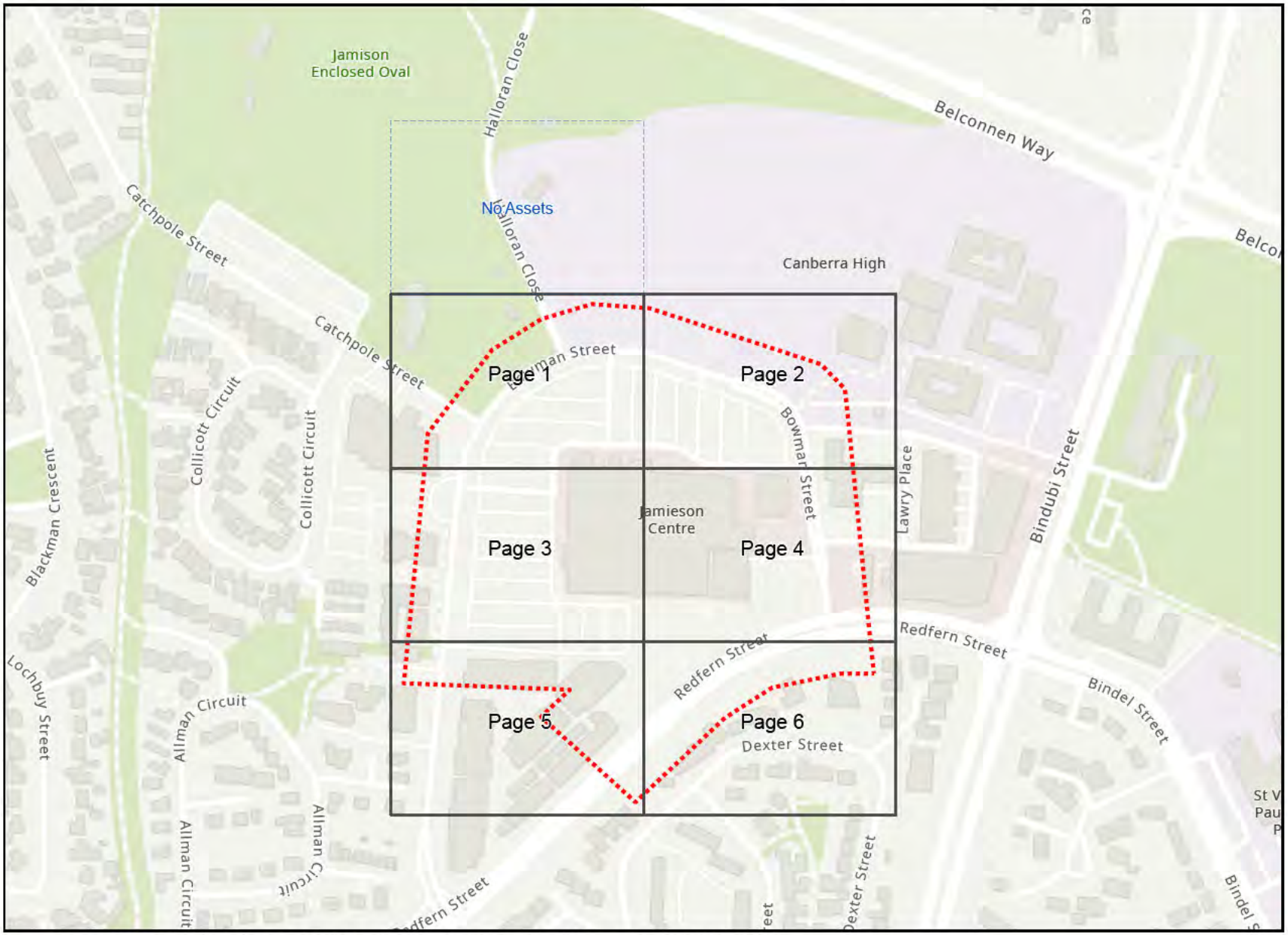
Date: 25/04/2024

ACT Government
Transport Canberra and City Services

Job # 36546968
Seq # 238428475

Provided by Transport Canberra and City Services

BEFORE YOU DIG
www.byda.com.au



Legend

- BYDA Enquiry
- Detailed map page
- No dig site assets

In an emergency contact Transport Canberra and City Services on (02) 7801 3960

Index Sheet

Plans generated by SmarterWX™ Automate

0 50 100 200 m

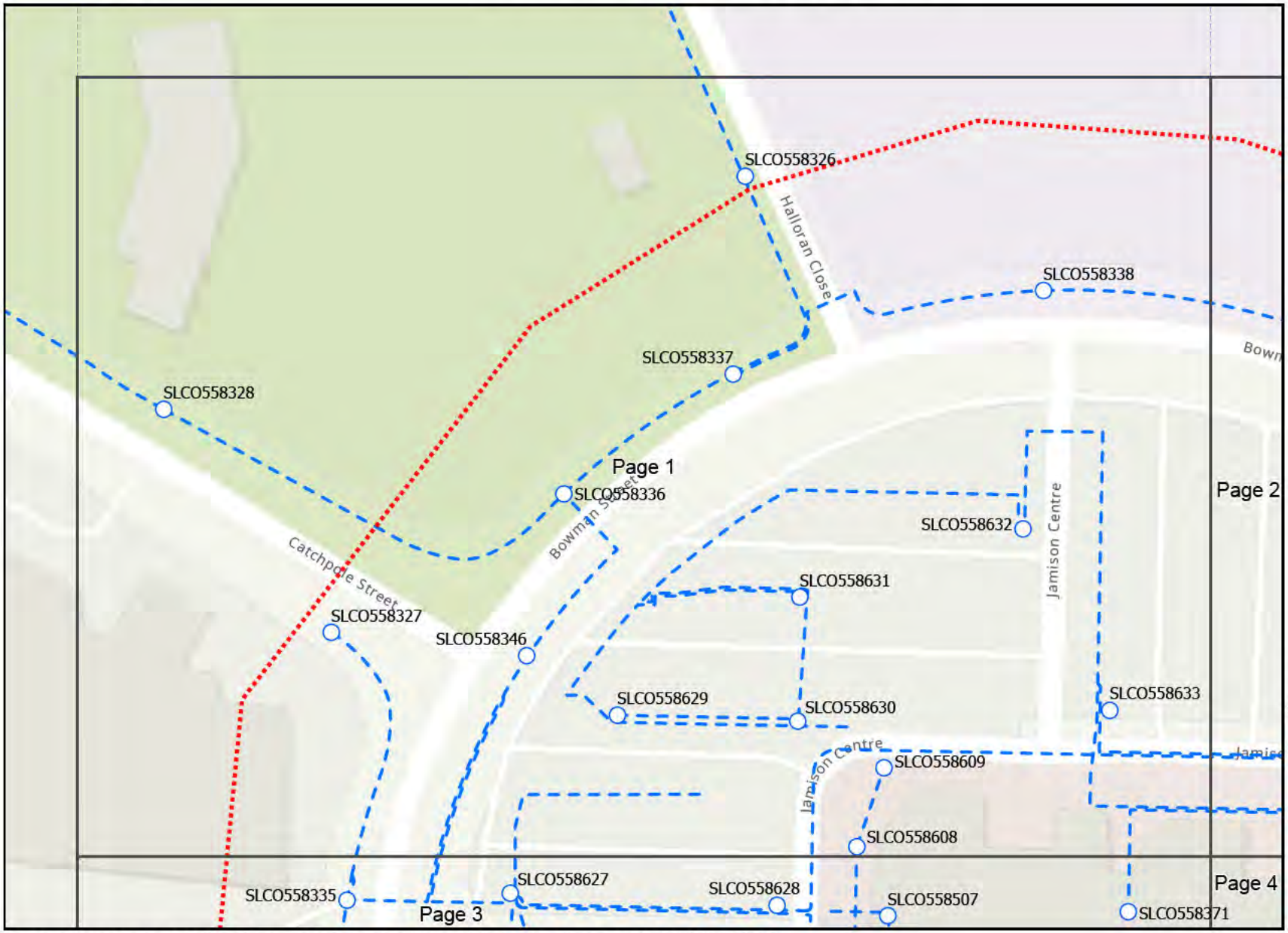
N

Scale 1:4,500

ACT Government
Transport Canberra and City Services

Job # 36546968
Seq # 238428475
Provided by Transport Canberra and City Services

BEFORE YOU DIG
www.byda.com.au



Legend

- BYDA Enquiry

Streetlighting Infrastructure

- Streetlight
- Underground Cable - In Service

In an emergency contact Transport Canberra and City Services on (02) 7801 3960

26/04/24 (valid for 30 days)

Plans generated by SmarterWX™ Automate

0 10 20 40 m

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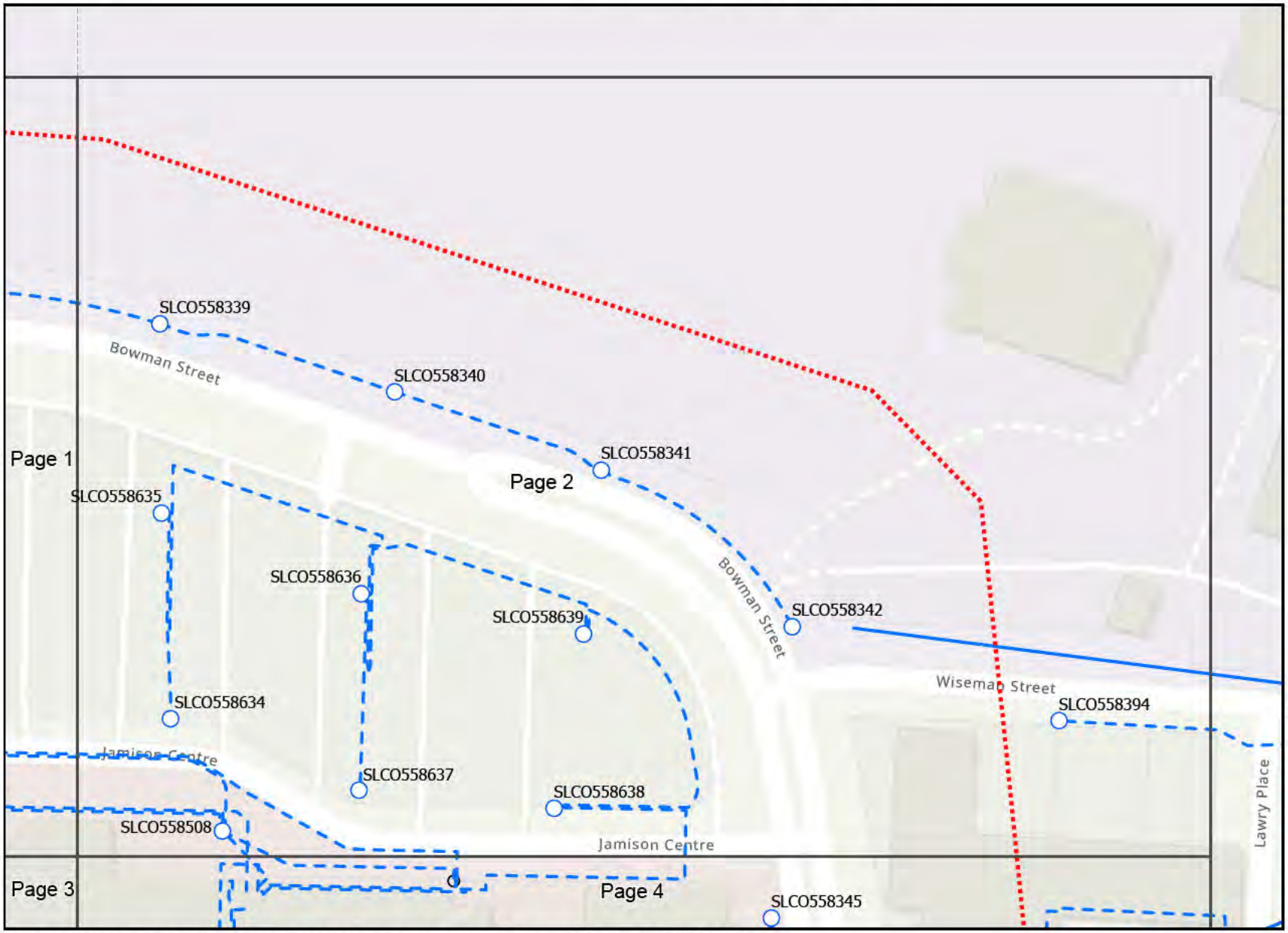
Scale 1:1,000

ACT Government
Transport Canberra and City Services

Job # 36546968
Seq # 238428475
Provided by Transport Canberra and City Services

BEFORE YOU DIG
www.byda.com.au



Legend

- BYDA Enquiry

Streetlighting Infrastructure

- Control Box
- Streetlight
- Overhead Cable - In Service
- Underground Cable - In Service

In an emergency contact Transport Canberra and City Services on (02) 7801 3960

26/04/24 (valid for 30 days)

Plans generated by SmarterWX™ Automate

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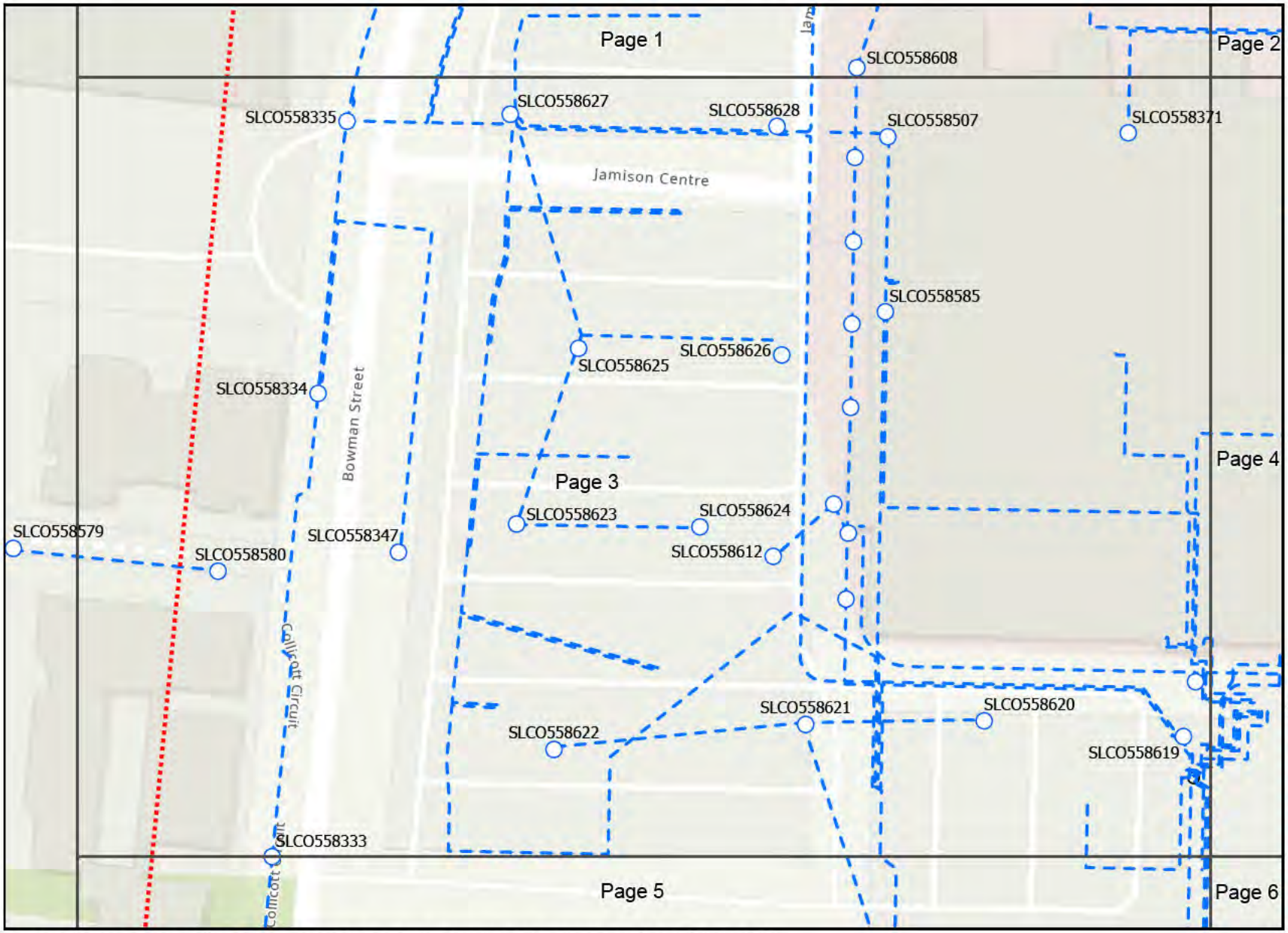
Scale 1:1,000

ACT Government
Transport Canberra and City Services

Job # 36546968
Seq # 238428475
Provided by Transport Canberra and City Services

BEFORE YOU DIG
www.byda.com.au



Legend

- BYDA Enquiry
- Streetlighting Infrastructure
  - Control Box
  - Streetlight
  - Underground Cable - In Service

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26/04/24 (valid for 30 days)

Plans generated by SmarterWX™ Automate

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Scale 1:1,000

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Job # 36546968
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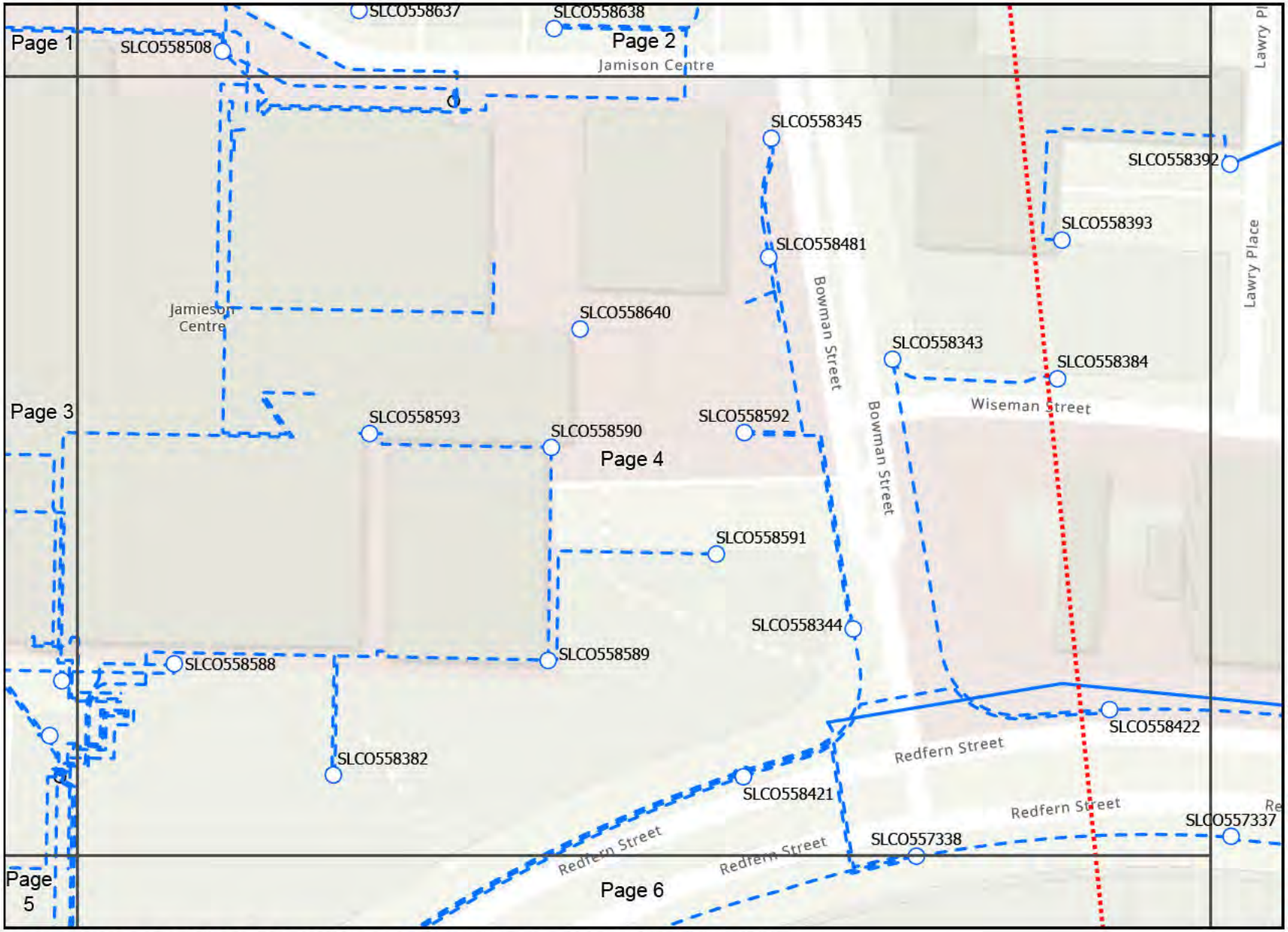
www.byda.com.au



Legend

- BYDA Enquiry

Streetlighting Infrastructure

- Control Box
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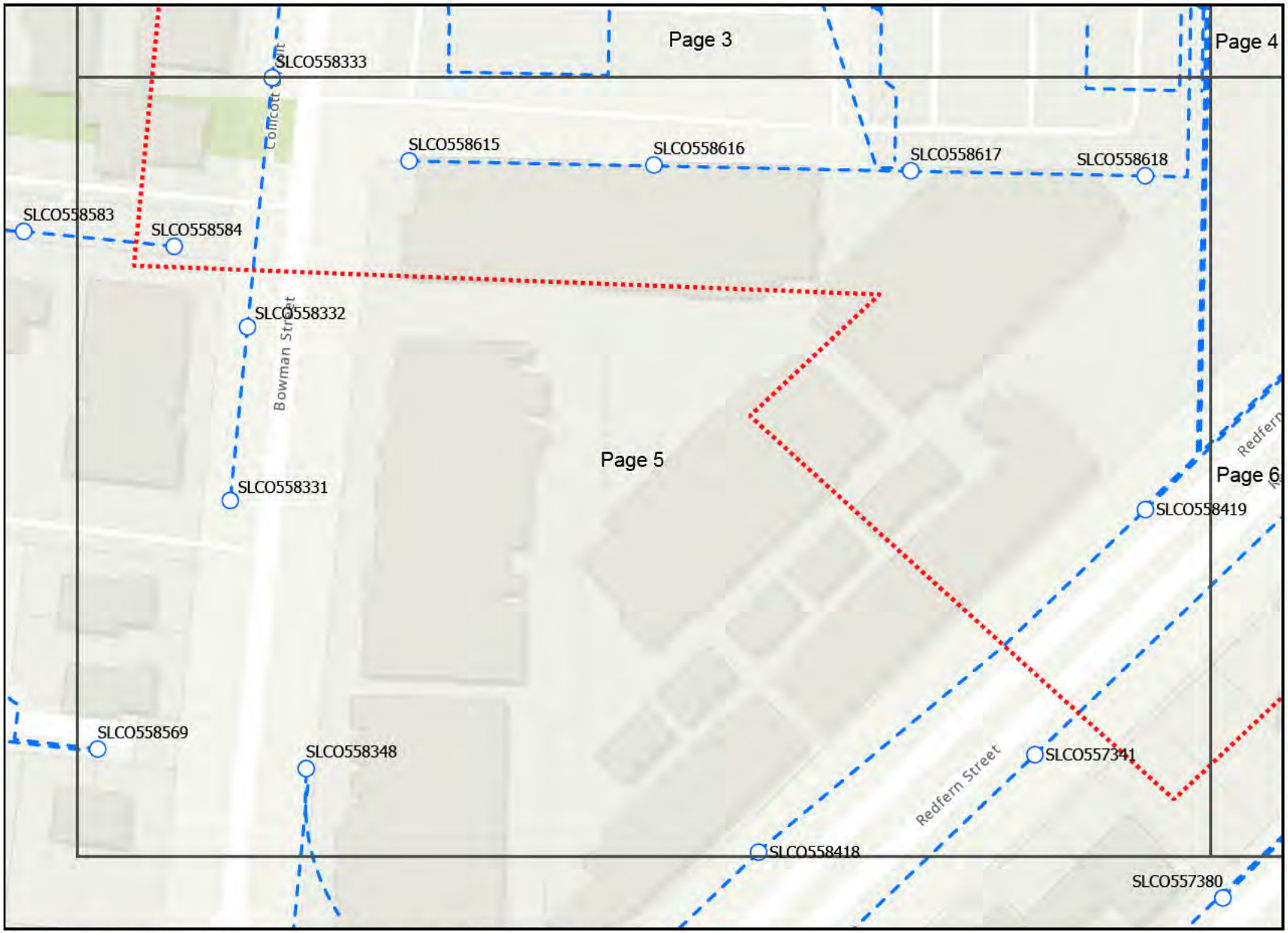
www.byda.com.au



Legend

- BYDA Enquiry

Streetlighting Infrastructure

- Streetlight
- Underground Cable - In Service

In an emergency contact Transport Canberra and City Services on (02) 7801 3960

26/04/24 (valid for 30 days)

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Scale 1:1,000

ACT Government
Transport Canberra and City Services

Job # 36546968
Seq # 238428475
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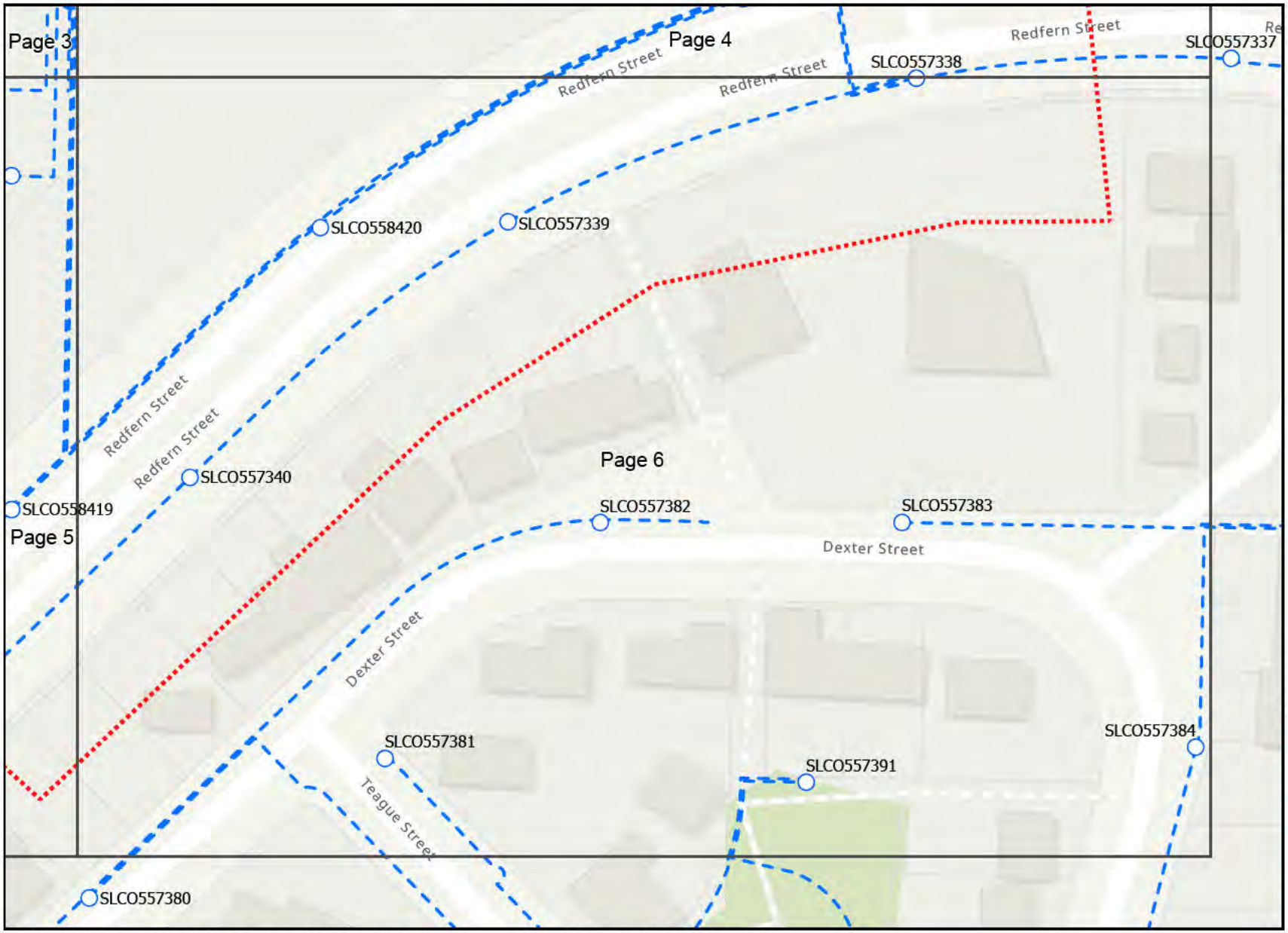
BEFORE YOU DIG
www.byda.com.au



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- BYDA Enquiry

Streetlighting Infrastructure

- Streetlight
- Underground Cable - In Service

In an emergency contact Transport Canberra and City Services on (02) 7801 3960

26/04/24 (valid for 30 days)

Plans generated by SmarterWX™ Automate

0 10 20 40 m

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Scale 1:1,000

ACT Government
Transport Canberra City Services

Before You Dig Australia (BYDA)
Location Information
Streetlights and related assets

Asset owner:

Streetlighting Unit
Roads ACT, Transport Canberra and City Services
GPO Box 158
Fyshwick ACT 2601

To:

John Samoty
28 Barrallier Street
Griffith ACT 2603

Enquiry Details	
Utility ID	90520
Job Number	36546968
Sequence Number	238428475
Enquiry Date	26 April 2024
Response	AFFECTED
Address	29-41 Jamison Centre Macquarie ACT 2614
Location in Road	Road, Nature Strip, Footpath
Activity	Mechanical Excavation,Non-Destructive Digging,Subdivision

Enquirer Details	
Customer ID	3541136
Contact	John Samoty
Company	JPS Engineering Consultants
Email	john.samoty@jpsengineering.com.au
Phone	+61

PLEASE READ ALL THE INFORMATION AND DISCLAIMERS PROVIDED ON THE ATTACHED PAGES

General location only

- The approximate location of Streetlights and related assets (**the Assets**) in the nominated area are shown on the attached maps (**the Asset Plan**).
- The Asset locations provided with this response are based on the information available at the time and are only an indication of the presence of Assets within the nominated location. If the nominated area is not what you require, please resubmit another inquiry.
- The Asset Plans provided do not show the presence of any other assets, including private property assets.
- Please be aware that the location of the Assets may change to those indicated on the Asset Plan. The Asset locations shown on the attached Asset Plan are indicative only. Due to changes in surface levels and surrounding infrastructure, and works undertaken by other parties, Asset location may differ to those shown on the Asset Plan.
- *It is your responsibility to verify the location of the Assets shown on the Asset Plan through positive identification process*
- A new Asset Plan should be obtained every 28 days to ensure currency and accuracy. It is your responsibility to obtain a new Asset Plan if required.
- While every endeavour has been made to provide information that is accurate and reliable, complete accuracy cannot be guaranteed. Transport Canberra and City Services (TCCS) does not represent or warrant that you or any user of the Asset Plan will achieve any particular objective or guarantee any outcome.

Limitation of Liability

To the maximum extent permitted by law, TCCS and its officers, employees, contractors and agents accept no liability and are not responsible for any actions, liabilities, losses, damages (including consequential damages), costs, claims or expenses of whatever nature and regardless of the cause of action, whether in contract, tort (including negligence) or otherwise, arising out of or in connection with or as a consequence of any inaccuracies in the Asset Plan or the use of the information contained in the Asset Plan.

Without limiting the above, TCCS and its officers, employees, contractors and agents are not responsible to any person for:

- The currency, accuracy or completeness of the information provided in the Asset Plan; or
- Any delays in respect of delivery or supply by TCCS of the information sought in connection with the location of the Assets.

To the maximum extent permitted by law, TCCS specifically excludes any conditions, terms or warranties that may be implied into, or in respect of the provision of the Asset Plan and to the extent that any such condition, term or warranty or liability cannot be excluded, TCCS liability for breach of such implied term, condition or warranty is limited to the resupply of the Asset Plan provided by TCCS or the payment of the reasonable costs of having the Asset Plan supplied again.

Work to be carried out without interference or damage to Assets

Any work undertaken near the Assets, must be performed in a way that does not interfere with the reliability of or access to the Assets. Any work carried out that includes changing the surface level in any area where Assets are indicated must be carried out with care and you will be responsible for any damage caused through failure to exercise such care. TCCS may pursue the person or organisation responsible for causing any damage or interference to the Assets.

TPG Telecom Limited
ABN 76 096 304 620
Level 1, 177 Pacific Hwy
North Sydney NSW 2060
Phone: 1800 786 306 (24hrs)

Date: 26/04/2024

Enquirer Name:John Samoty
Enquirer Address:28 Barrallier Street
Email: john.samoty@jpsengineering.com.au
Phone: +[redacted]

Dear John Samoty

The following is our response on behalf of each of the TPG carriers (listed below) to your Before You Dig Australia enquiry – Sequence 238428476

It is provided to you on a confidential basis under the following conditions and must be shredded or securely disposed of after use.

Assets Affected: 29-41 Jamison Centre Macquarie

Carriers (each a "TPG carrier") and assets affected:

TransACT

Location:

According to our records, the underground assets in the vicinity of the location stated in your enquiry are **AFFECTED**. Please read the below information and disclaimers in addition to the any attached plans provided prior to any construction activities.

IMPORTANT INFORMATION

- The information provided is valid for 30 days from the date of this response. If your work site area changes or your construction activity is beyond 30 days please contact Before You Dig Australia on 1100 or www.1100.com.au to re-submit a new enquiry.
- Due to the nature of underground assets and the age of some assets and records, our plans are indicative of the general location only and may not show all assets in the location. You should not solely rely on these plans when undertaking construction works. It is also inaccurate to assume depth or that underground network conduit and cables follow straight lines, and careful on-site investigations are essential to locate an asset's exact position prior to excavation. It is your responsibility to locate and confirm the exact location of our infrastructure using non-destructive techniques. We make no warranty or guarantee that our plans are complete, current or error free, and to the maximum extent permitted by law we exclude all liability to you, your employees, agents and contractors for any loss, damage or claim arising out of or in connection with using our plans.
- Please note that some of our conduits carry electrical cables and gas pipes. Please exercise extreme care when working within the vicinity of these conduit and take into account the minimum clearance distances under Duty Of Care below.
- You (and your employee and contractors) must not open, move, interfere, alter or relocate any of our assets without our prior approval.
- **Note** It is a criminal offence under the *Criminal Code Act 1995 (Cth)* to tamper or interfere with communication facilities owned by a carrier. Heavy penalties may apply for breach of this prohibition, and any damages suffered, or costs incurred by us as a result of such unauthorised works may be claimed against you.

DAMAGE

- You must report immediately any damage to our network on **1800 786 306** (24hrs). We will hold you liable and seek compensation for any loss or damage to our network, our property and our customers that is caused by or arises out of your activities.

DUTY OF CARE

You have a duty of care to carefully locate, validate and protect our assets when carrying out works near our infrastructure. For construction activities that may impact on or interfere with our network, you will need to call us on **1800 786 306** to discuss a suitable engineering solution, lead time and cost involved. The below precautions must be taken when working in the vicinity of our network:

- Contact us on **1800 786 306** to discuss and obtain relevant information and plans on our infrastructure in a particular location if the information provided in this response is insufficient.
- Physically locate and mark on-site our network infrastructure using non-destructive techniques i.e. pot holing or hand digging every 5 metres prior to commencing any construction activities. Assets located must be marked to AS5488 standard. **NO CONSTRUCTION WORK IS ALLOWED UNTIL THIS STEP IS COMPLETED**. You must use an approved telecommunications accredited locator, or we can provide a locator for you at your expense. If we provide you with a locator, and this locator attended the site and is proven to be grossly negligent in physically locating and marking our infrastructure, then to the extent any TPG carrier is liable for this locator's negligence, acts and omissions, the total liability aggregated for all TPG carriers is limited, at our option, to attend the site and re-mark the infrastructure or to pay for a third party to re-mark the infrastructure.
- If you require us to locate or monitor our infrastructure, please allow five business days' notice for us to respond.
- Ensure all information, including our network requirements and any associated plans provided by us are kept confidential and remain on-site throughout your construction works.

- Use suitably qualified and supervised professionals, particularly if you are working near assets that contain electricity cables or gas pipes.
- Ensure the below minimum clearance distances between the construction activities and the actual location of our assets are met. If you need clearance distances for our above ground assets, or if the below distances cannot be met, call **1800 786 306** to discuss.

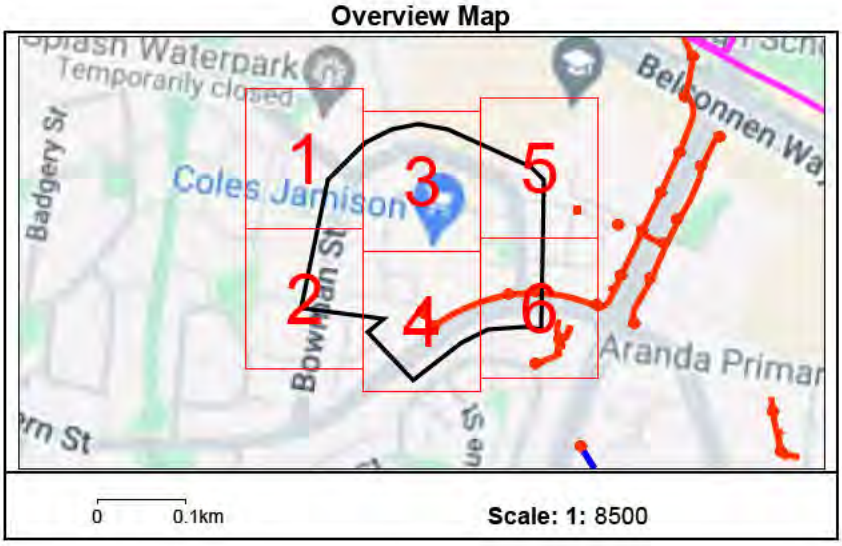
  Minimum assets clearance distances.

  - 300mm when laying asset inline, horizontal or vertical.
  - 1000mm when operating vibrating equipment. Eg: vibrating plates. No vibrating equipment on top of asset.
  - 1000mm when operating mechanical excavators or jackhammers/pneumatic breakers.
  - 2000mm when performing directional bore in-line, horizontal and vertical.
  - No heavy vehicle over 3 tonnes to be driven over asset with less than 600mm of cover.
- Reinstate exposed TPG network infrastructure back to original state.

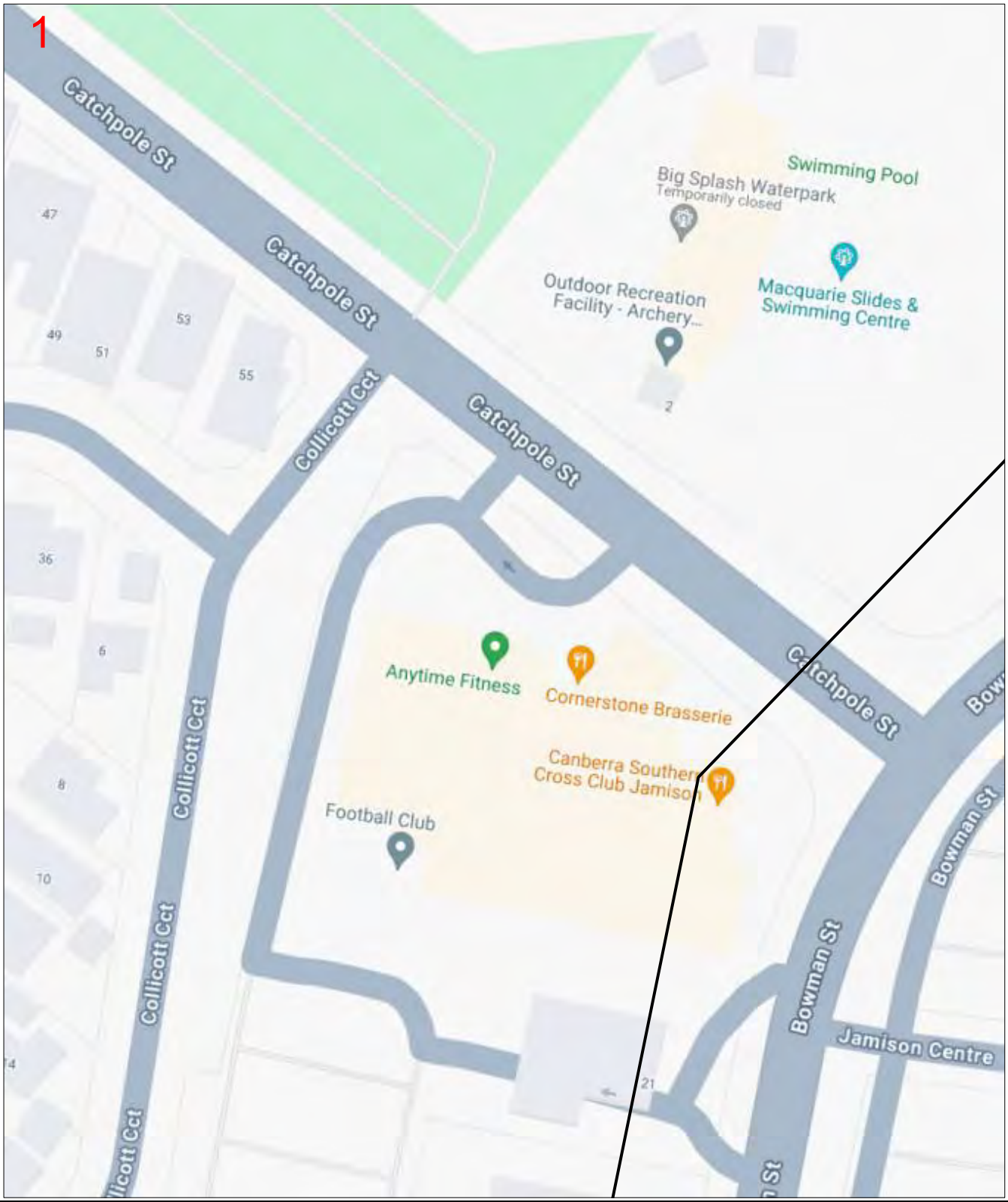
PRIVACY & CONFIDENTIALITY

- Privacy Notice – Your information has been provided to us by Before You Dig Australia to respond to your Before You Dig Australia enquiry. We will keep your personal information in accordance with TPG's privacy policy, see www.tpg.com.au/about/privacy.
- Confidentiality – The information we have provided to you is confidential and is to be used only for planning and designing purposes in connection with your Before You Dig Australia enquiry. Please dispose of the information by shredding or other secure disposal method after use. We retain all intellectual property rights (including copyrights) in all our documents and plans.

Overview Map



TPG Telecom Limited



Enquiry Number: 238428476

Map Sheet: 1

Scale: 1: 750

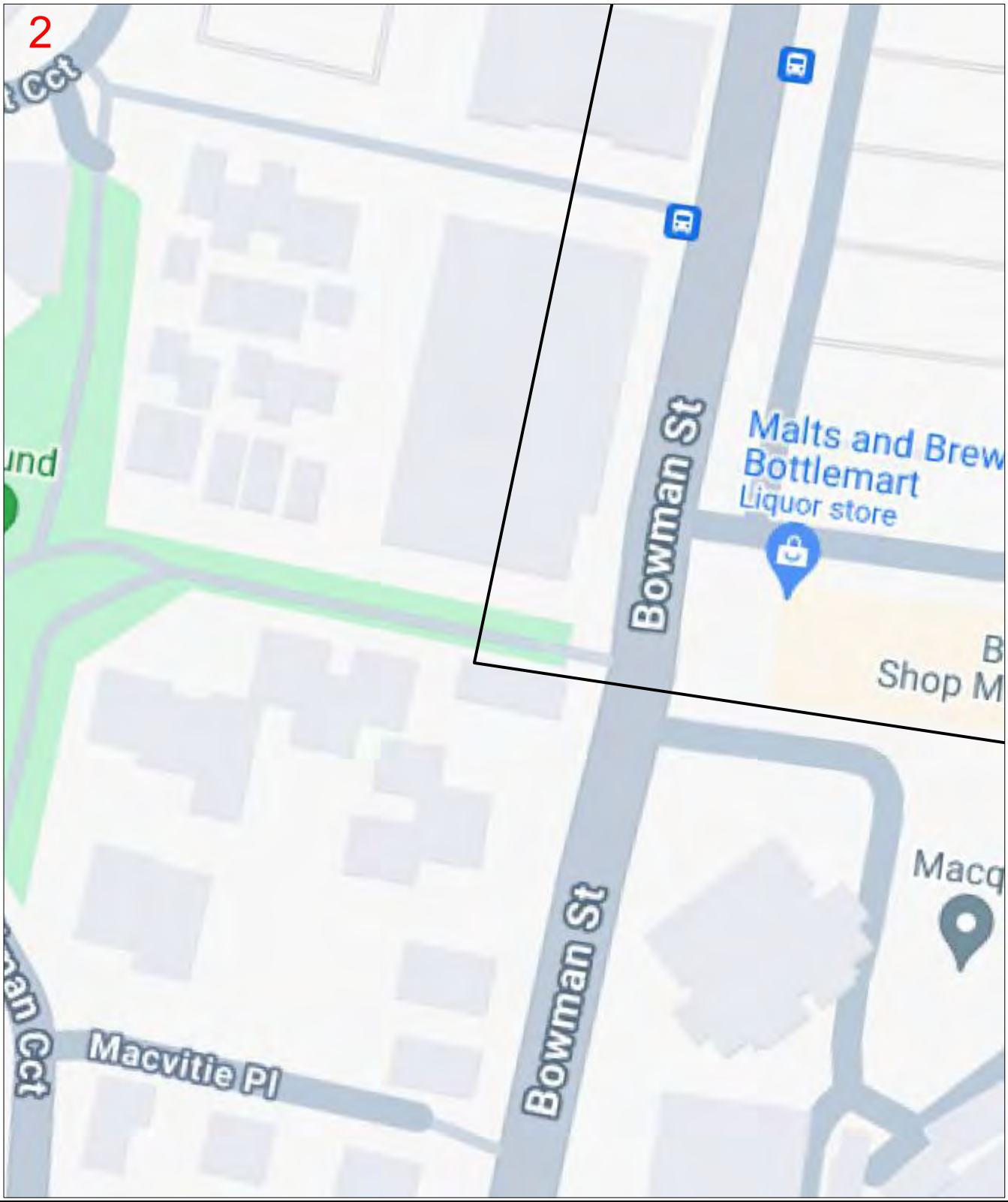
0 0.008km

N

LEGEND

BYDA Work Area

AAPT/PowerTel Pit	TransACT Pit
AAPT/PowerTel Duct	TransACT Duct
DDA Pit	SOUL Pattinson Telecoms Pit
DDA Duct	SOUL Pattinson Telecoms Duct
Agile/Adam Pit	PIPE Networks Pit
Agile/Adam Duct	PIPE Networks Duct



Enquiry Number: 238428476

Map Sheet: 2

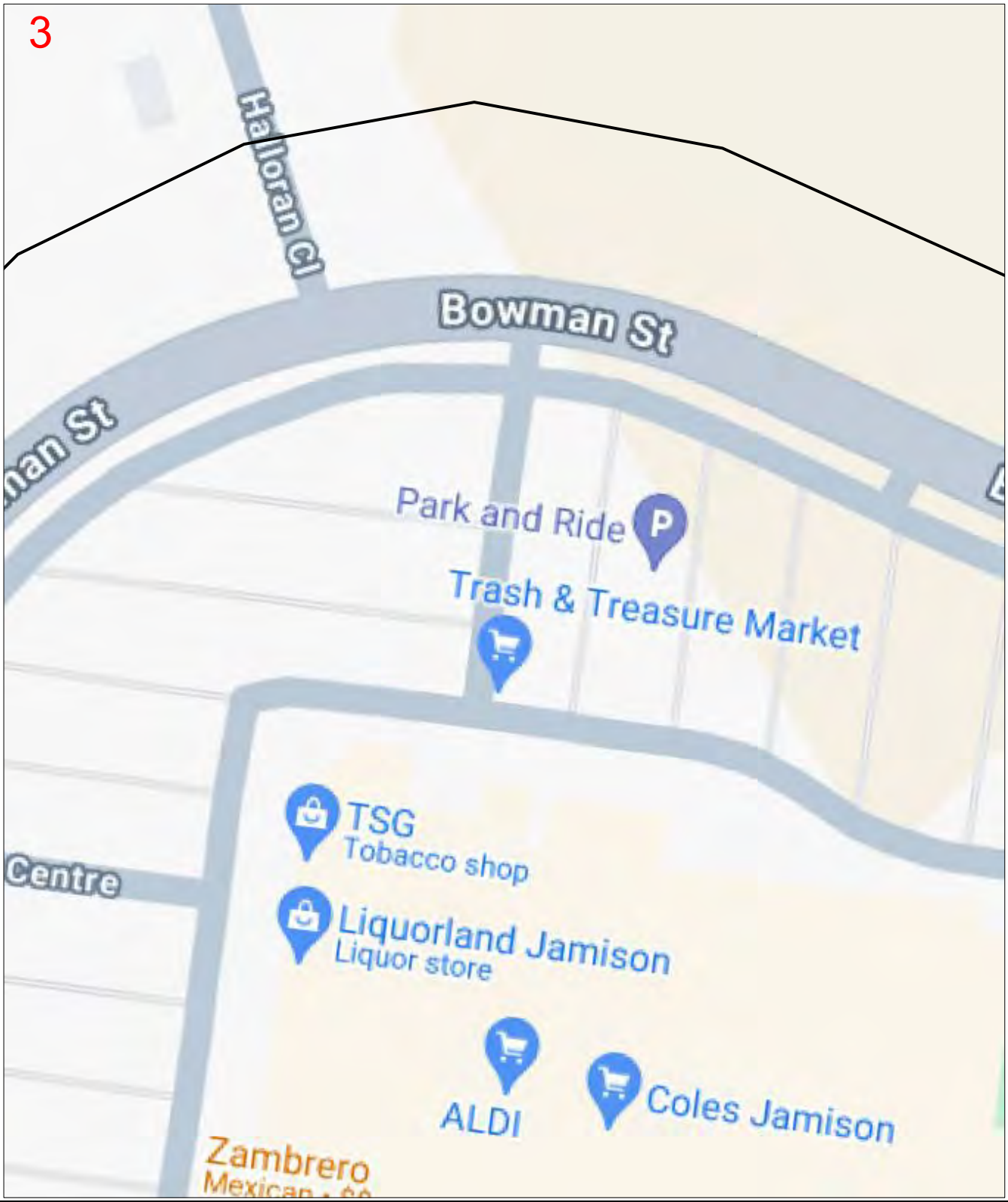
Scale: 1: 750

0 0.008km

N

LEGEND

BYDA Work Area			
AAPT/PowerTel Pit		TransACT Pit	
AAPT/PowerTel Duct		TransACT Duct	
DDA Pit		SOUL Pattinson Telecoms Pit	
DDA Duct		SOUL Pattinson Telecoms Duct	
Agile/Adam Pit		PIPE Networks Pit	
Agile/Adam Duct		PIPE Networks Duct	



Enquiry Number: 238428476

Map Sheet: 3

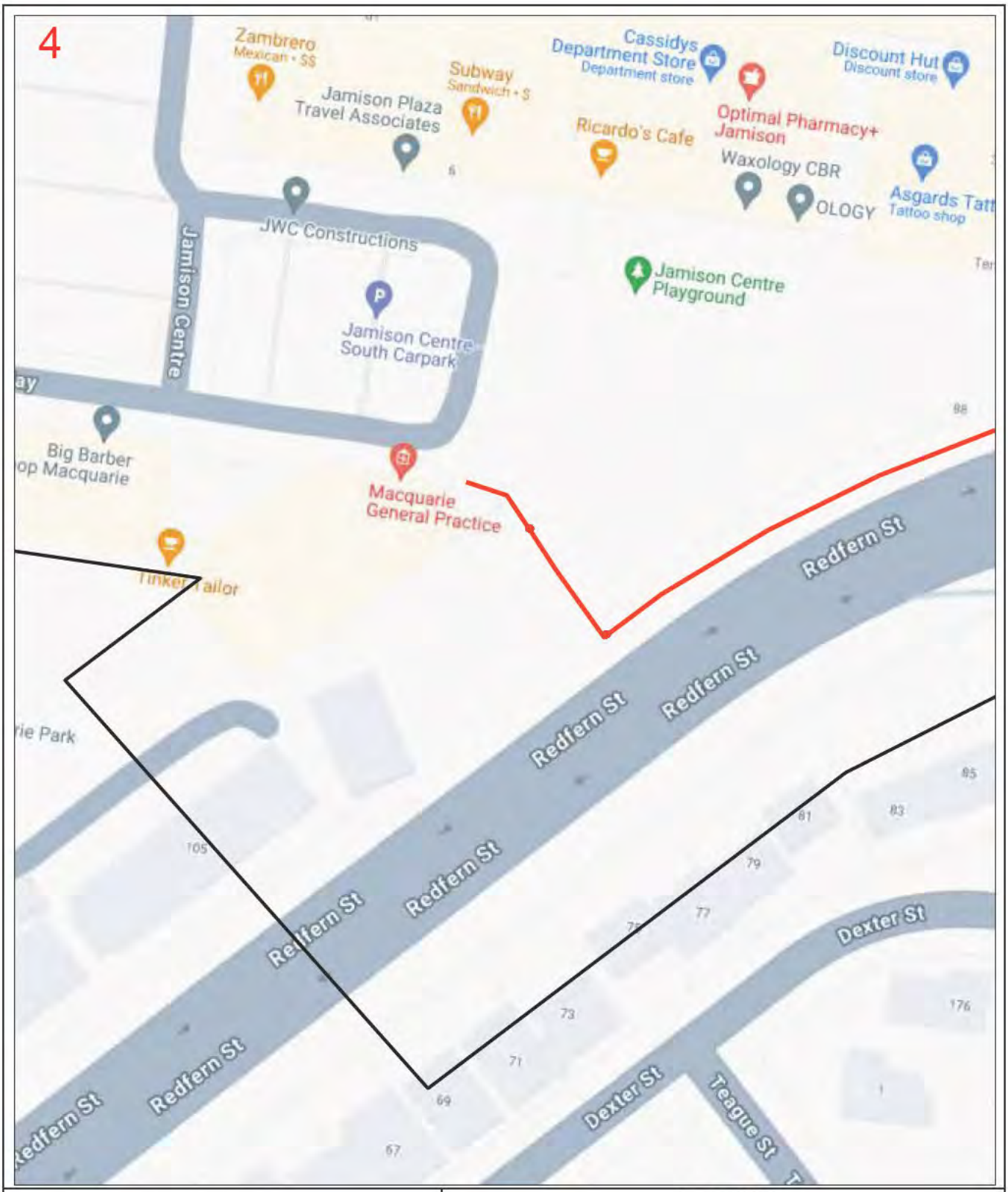
Scale: 1: 750

0 0.008km

N

LEGEND

BYDA Work Area			
AAPT/PowerTel Pit		TransACT Pit	
AAPT/PowerTel Duct		TransACT Duct	
DDA Pit		SOUL Pattinson Telecoms Pit	
DDA Duct		SOUL Pattinson Telecoms Duct	
Agile/Adam Pit		PIPE Networks Pit	
Agile/Adam Duct		PIPE Networks Duct	



Enquiry Number: 238428476

Map Sheet: 4

Scale: 1: 750

0 0.008km

N

LEGEND

BYDA Work Area

AAPT/PowerTel Pit	TransACT Pit
AAPT/PowerTel Duct	TransACT Duct
DDA Pit	SOUL Pattinson Telecoms Pit
DDA Duct	SOUL Pattinson Telecoms Duct
Agile/Adam Pit	PIPE Networks Pit
Agile/Adam Duct	PIPE Networks Duct

Enquiry Number: 238428476

Map Sheet: 5

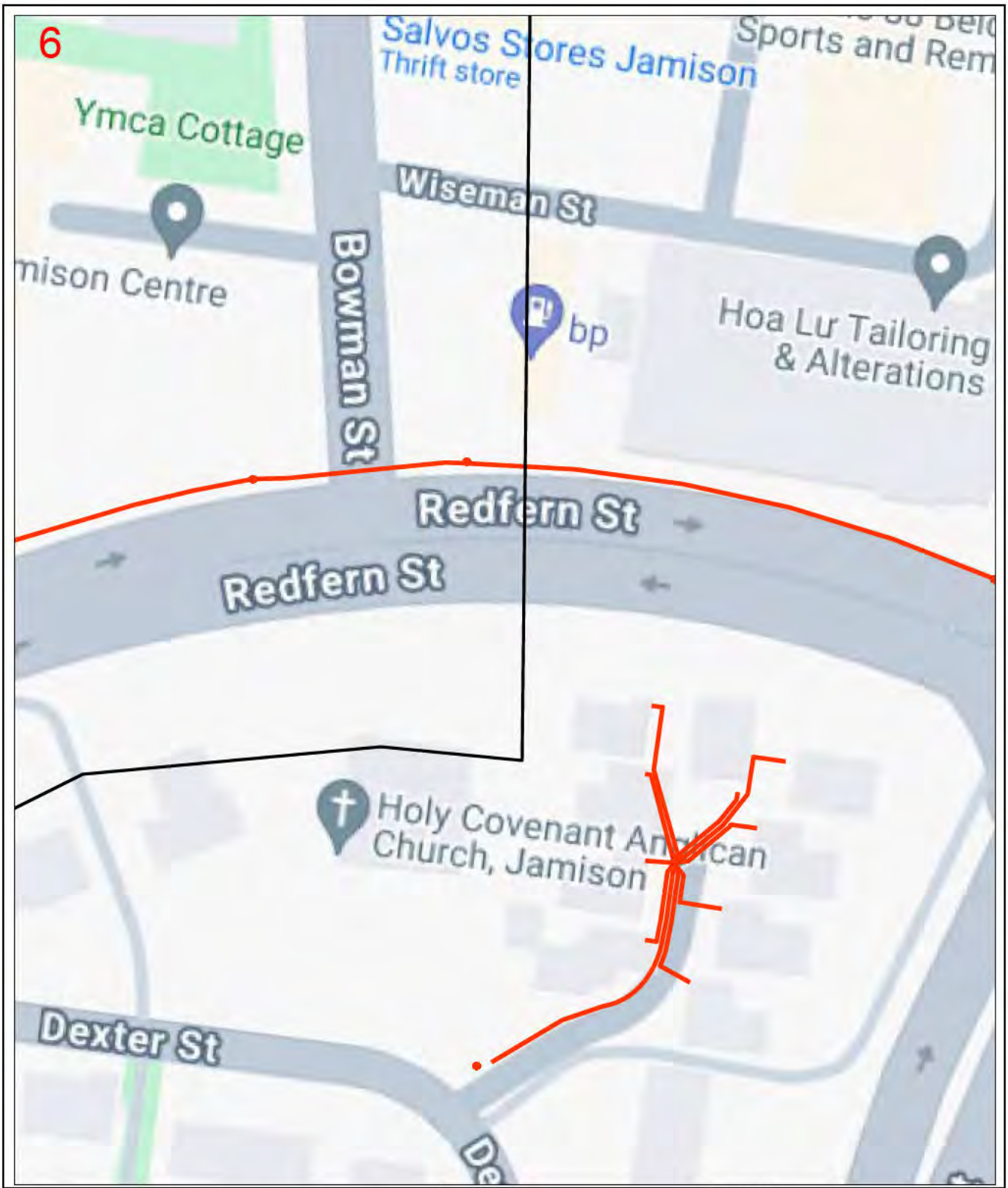
Scale: 1: 750

0 0.008km

N

LEGEND

BYDA Work Area			
AAPT/PowerTel Pit		TransACT Pit	
AAPT/PowerTel Duct		TransACT Duct	
DDA Pit		SOUL Pattinson Telecoms Pit	
DDA Duct		SOUL Pattinson Telecoms Duct	
Agile/Adam Pit		PIPE Networks Pit	
Agile/Adam Duct		PIPE Networks Duct	



Enquiry Number: 238428476

Map Sheet: 6

Scale: 1: 750

0 0.008km

N

LEGEND

BYDA Work Area	◇		
AAPT/PowerTel Pit	●	TransACT Pit	●
AAPT/PowerTel Duct	／	TransACT Duct	／
DDA Pit	●	SOUL Pattinson Telecoms Pit	●
DDA Duct	／	SOUL Pattinson Telecoms Duct	／
Agile/Adam Pit	●	PIPE Networks Pit	●
Agile/Adam Duct	／	PIPE Networks Duct	／

Cable Plan

Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment
Ph - 13 22 03
Email - Telstra.Plans@team.telstra.com
Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries

TELSTRA LIMITED A.C.N. 086 174 781

Generated On 26/04/2024 08:47:18

Sequence Number: 238428477

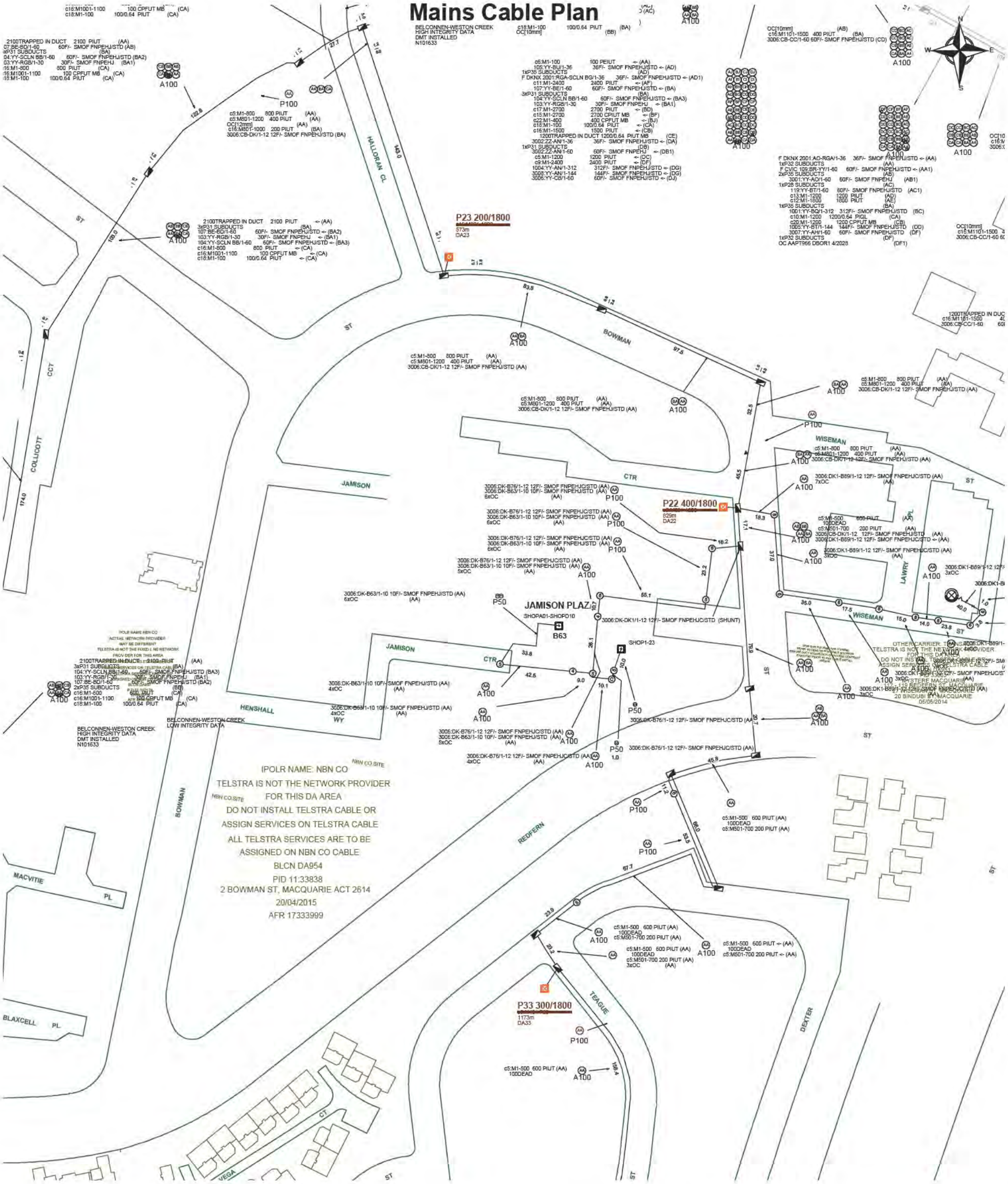
CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

WARNING
Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.
As such,Telstra supplied location information is indicative only.Spatial accuracy is not applicable to Quality Level D.
Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it.
Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy.
Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work.
A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

See the Steps- Telstra Duty of Care that was provided in the email response.

Mains Cable Plan



Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment Ph - 13 22 03 Email - Telstra.Plans@team.telstra.com Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries	Sequence Number: 238428477
TELSTRA LIMITED A.C.N. 086 174 781	CAUTION: Fibre optic and/ or major network present in plot area. Please read the Duty of Care and contact Telstra Plan Services should you require any assistance.
Generated On 26/04/2024 08:47:22	

WARNING
Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.
As such,Telstra supplied location information is indicative only.Spatial accuracy is not applicable to Quality Level D.
Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it.
Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy.
Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work.
A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

See the Steps- Telstra Duty of Care that was provided in the email response.

Certified Locating Organisations (CLO)

Find the closest CLO to your worksite on: https://dbydlocator.com/certified-locating-organisation/

Read the disclaimer and click: Accept and Search Now

A national map and an A-Z list of Certified Locating Organisations is displayed.

Use the map to zoom to your work area and choose the closest Locator indicated.

OR search by entering the **postcode** of your work area.

1. **Enter the post/zip code**
2. **Choose your search radius**
3. **Click filter** (If there is no result, you may have to increase the search radius)
4. **Click on the closest for CLO details or view the results displayed below the map**

Locator skills have been tested, and the Organisation has calibrated location and safety equipment.

Telstra is aware of each Certified Locating Organisation and their employee locators.

Only a DBYD Certified Locator registered with a Certified Locating Organisation is authorised to access Telstra network for locating purposes.

Each Certified Locator working for a CLO is issued with a photo ID Card, authorising them to access Telstra pits and manholes for the purpose of cable and plant locations.

Please ask to see your Locators' CLO ID Card.

Before You Dig Australia

Think before you dig

This document has been sent to you because you requested plans of the Telstra network through Before You Dig Australia (BYDA).

If you are working or excavating near telecommunications cables, or there is a chance that cables are located near your site, you are responsible to avoid causing damage to the Telstra network.

Please read this document carefully. Taking your time now and following the steps below can help you avoid damaging our network, interrupting services, and potentially incurring civil and criminal penalties.

Our network is complex and working near it requires expert knowledge. Do not attempt these activities if you are not qualified to do so.

Useful information

Further Information

Cable Plan enquiries
1800 653 935 (AEST business hours only)

Telstra.Plans@team.telstra.com

Information on how to find cables and request asset relocations:

https://www.telstra.com.au/consumer-advice/digging-construction

Opening Digital Plan Attachments. Asset Plan Readers:

PDF Adobe Acrobat Reader DC Install for all versions
DWF Map Files (all sizes over A3)
Autodesk Viewer (Browser) or
Autodesk Design Review (Microsoft Windows)

Report any damage immediately

https://www.telstra.com.au/forms/report-damage-to-telstra-equipment

13 22 03
If you receive a message asking for an account or phone number say
"I Don't have one"
Then say, "Report Damage" and listen to the prompts.

Relocating Telstra Assets

If your project requires the relocation of a Telstra asset, please contact the Telstra Network Integrity Group:

1800 810 443 (AEST business hours only)

NetworkIntegrity@team.telstra.com

Never try to move or alter our network infrastructure without authorisation. By law, only authorised people can work on our assets or enter a facility owned or operated by us. Any interference, including unauthorised entry or tampering, may result in legal action.

Certified Locating Organisation (CLO)

Engage a CLO

Find your Closest CLO to identify , validate and protect Telstra Assets before you commence you work.
https://dbydlocator.com/certified-locating-organisation/

Your checklist

1. Plan

Plan your work with the latest plans of our network.

Plans provided through the BYDA process are indicative only*.

This means the actual location of our asset may differ substantially from that shown on the plans.

Refer to steps 2 and 3 to determine actual location prior to proceeding with construction.

2. Prepare

Engage a DBYD Certified Locating Organisation (CLO) via dbydlocator.com to identify, validate and protect Telstra assets before you commence work.

3. Pothole

Validate underground assets by potholing by hand or using non-destructive vacuum extraction methods.

Electronic detection alone (step 2) is not deemed to validate underground assets and must not be used for construction purposes.

If you cannot validate the Telstra network, you must not proceed with construction.

4. Protect

Protect our network by maintaining the following distances from our assets:

- 1.0m Mechanical Excavators, Farm Ploughing, Tree Removal
- 500mm Vibrating Plate or Wacker Packer Compactor
- 600mm Heavy Vehicle Traffic (over 3 tonnes) not to be driven across Telstra ducts or plant
- 1.0m Jackhammers/Pneumatic Breakers
- 2.0m Boring Equipment (in-line, horizontal and vertical)

5. Proceed

You can proceed with your work only once you have completed all the appropriate preparation, potholing and protection.

Disclaimer and legal details

*Telstra advises that the accuracy of the information provided by Telstra conforms to Quality Level D as defined in AS5488-2013.

It is a criminal offence under the Criminal Code Act 1995 (Cth) to tamper or interfere with telecommunications infrastructure.

Telstra will also take action to recover costs and damages from persons who damage assets or interfere with the operation of Telstra's networks.

By receiving this information including the indicative plans that are provided as part of this information package you confirm that you understand and accept the risks of working near Telstra's network and the importance of taking all of the necessary steps to confirm the presence, alignments and various depths of Telstra's network. This in addition to, and not in replacement of, any duties and obligations you have under applicable law.

When working in the vicinity of a telecommunications plant you have a "Duty of Care" that must be observed. Please read and understand all the information and disclaimers provided below.

The Telstra network is complex and requires expert knowledge to interpret information, to identify and locate components, to pothole underground assets for validation and to safely work around assets without causing damage. If you are not an expert and/or qualified in these areas, then you must not attempt these activities. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers. Construction activities and/or any activities that potentially may impact on Telstra's assets must not commence without first undertaking these steps. Construction activities can include anything that involves breaking ground, potentially affecting Telstra assets.

If you are designing a project, it is recommended that you also undertake these steps to validate underground assets prior to committing to your design.

This Notice has been provided as a guide only and may not provide you with all the information that is required for you to determine what assets are on or near your site of interest. You will also need to collate and understand all of the information received from other Utilities and understand that some Utilities are not a part of the BYDA program and make your own enquiries as appropriate. It is the responsibility of the entities undertaking the works to protect Telstra's network during excavation / construction works.

Telstra owns and retains the copyright in all plans and details provided in conjunction with the applicant's request. The applicant is authorised to use the plans and details only for the purpose indicated in the applicant's request. The applicant must not use the plans or details for any other purpose.

Telstra plans or other details are provided only for the use of the applicant, its servants, agents, or Certified Locating Organisation. The applicant must not give the plans or details to any parties other than these and must not generate profit from commercialising the plans or details.

Telstra, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Telstra against any claim or demand for any such loss or damage.

Please ensure Telstra plans and information provided always remains on-site throughout the inspection, location, and construction phase of any works.

Telstra plans are valid for 60 days after issue and must be replaced if required after the 60 days.

Data Extraction Fees

In some instances, a data extraction fee may be applicable for the supply of Telstra information. Typically, a data extraction fee may apply to large projects, planning and design requests or requests to be supplied in non-standard formats. For further details contact Telstra Planned Services.

Telstra does not accept any liability or responsibility for the performance of or advice given by a Certified Locating Organisation. Certification is an initiative taken by Telstra towards the establishment and maintenance of competency standards. However, performance and the advice given will always depend on the nature of the individual engagement.

Neither the Certified Locating Organisation nor any of its employees are an employee or agent for Telstra. Telstra is not liable for any damage or loss caused by the Certified Locating Organisation or its employees.

Once all work is completed, the excavation should be reinstated with the same type of excavated material unless specified by Telstra

The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

When using excavators and other machinery, also check the location of overhead power lines.

Workers and equipment must maintain safety exclusion zones around power lines

WARNING: Telstra plans and location information conform to Quality Level 'D' of the Australian Standard AS 5488 - Classification of Subsurface Utility Information. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. FURTHER ON SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK. A plant location service is an essential part of the process to validate the exact location of Telstra assets and to ensure the assets are protected during construction works. The exact position of Telstra assets can only be validated by physically exposing them. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

Privacy Note

Your information has been provided to Telstra by BYDA to enable Telstra to respond to your BYDA request. Telstra keeps your information in accordance with its privacy statement. You can obtain a copy at www.telstra.com.au/privacy or by calling us at 1800 039 059 (business hours only).

OPENING ELECTRONIC MAP ATTACHMENTS -

Telstra Cable Plans are generated automatically in either PDF or DWF file types, dependent on the site address and the size of area selected. You may need to download and install free viewing software from the internet e.g.

DWF Map Files (all sizes over A3)

Autodesk Viewer (Browser) (https://viewer.autodesk.com/) or

Autodesk Design Review (http://usa.autodesk.com/design-review/) for DWF files. (Windows PC)

PDF Map Files (max size A3)

Adobe Acrobat Reader (http://get.adobe.com/reader/)

Telstra BYDA map related enquiries email

Telstra.Plans@team.telstra.com

1800 653 935 (AEST Business Hours only)

REPORT ANY DAMAGE TO THE TELSTRA NETWORK IMMEDIATELY

Report online - https://www.telstra.com.au/forms/report-damage-to-telstra-equipment

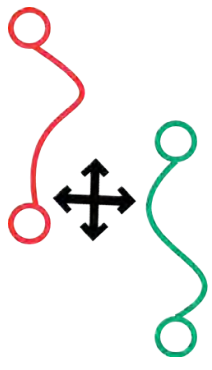
Ph: **13 22 03**

If you receive a message asking for a phone or account number say:

“I don’t have one” then say “Report Damage” then press 1 to speak to an operator.

Telstra New Connections / Disconnections

13 22 00



Telstra asset relocation enquiries: 1800 810 443 (AEST business hours only).

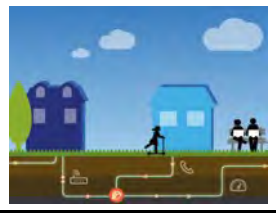
NetworkIntegrity@team.telstra.com

https://www.telstra.com.au/consumer-advice/digging-construction

Certified Locating Organisation (CLO)

https://dbydlocator.com/certified-locating-organisation/

Please refer to attached Accredited Plant Locator.pdf



Telstra Smart Communities
Information for new developments (developers, builders, homeowners)
https://www.telstra.com.au/smart-community

LEGEND

For more info contact a Certified Locating Organisation or Telstra Plan Services 1800 653 935

Exchange
(Major Cable Present)

Footway Access Chamber
(can vary from 1-lid to 12-lid)

or

Pillar / Cabinet
(above ground / free standing)

Above ground complex equipment housing (eg RIM)
Please Note: This equipment is powered by 240V Electricity

OC

Other Carrier Telecommunications Cable/Asset

Dist

MC

Distribution cables in Main Cable ducts
Main Cable ducts on a Distribution plan
Blocked or damaged duct.

5
P20
2
O59
1 DEAD
107

Roadside / Front Boundary
2 pair lead-in to property from pit in street 1
pair working (pair ID 059)
1 pair dead (i.e. spare, not connected)
Side / Rear Property Boundary
Property Number

or or or
P100

Single to multiple round conduit
Configurations 1,2,4,9 respectively
(attached text denotes conduit type and size)

or or
E85

Multiple square conduit
Configurations 2, 4, 6 respectively
(attached text denotes conduit type and size)

6

Cable Jointing Pit
(number / Letter indicating Pit Type)

EJ

Elevated Joint
(above ground joint on buried cable)

Telstra Plant in shared Utility trench

Aerial Cable / Overhead (includes on wall)

Aerial Cable
(attached to joint Use Pole e.g. Power)

Direct Buried Cable

T or TR

Marker Post Installed
Buried Transponder

MT

Marker Post, Transponder

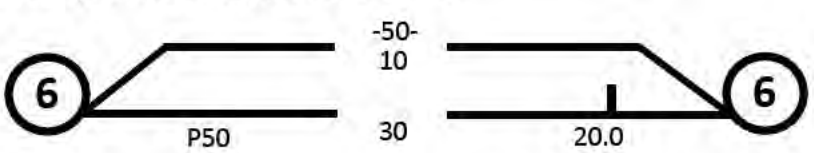
SMOF

Optical Fiber cable direct buried

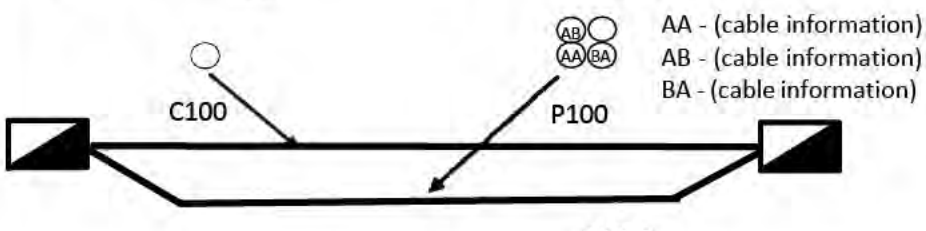
Some examples of conduit type and size:

A - Asbestos cement, P - PVC / Plastic, C - Concrete,
GI - Galanised iron, E - Earthenware
Conduit sizes *nominally* range from 20mm to 100mm
P50 50mm PVC conduit
P100 100mm PVC conduit
A100 100mm asbestos cement conduit

Some Examples of how to read Telstra Plans



One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6-pits. approximately 20.0m apart, with a direct buried 30-pair cable along the same route



Two separate conduit runs between two footway access chambers (manholes) approximately 245m apart A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100)

Asset location information

Applicant/Contractor **Job No.** 36546968 **DBYD Sequence No.** 238428478

Company: JPS Engineering Consultants
Contact: John Samoty
Telephone: +61
Address: 28 Barrallier Street Griffith ACT 2603

Work Details

Suburb: Macquarie
Address: 29-41 Jamison Centre

Description:

Enquiry Date: 26-Apr-2024 Issue Date: 26-Apr-2024

WARNING – HIGH PRESSURE GAS PIPELINE IN THE VICINITY

The records of Evoenergy Gas Networks indicate that High Pressure Underground Assets/Pipes ARE present in the vicinity of and/or surrounding area of the above enquiry. Please read all the information and conditions below and overleaf.

No excavations within 15 metres of this asset are permitted without the prior approval of Zinfra PHONE 1300 503 237

IN THE EVENT OF A GAS EMERGENCY CALL 13 19 09 (24 hours)

CONDITIONS FOR WORKS IN THE VICINITY OF EVOENERGY GAS NETWORK ASSETS

Any information provided is valid only for 90 days from the date of issue. If the work operation extends beyond this period, or if the designs are altered in any way, you are requested to re-submit your proposal for re-assessment.

Consistent with the requirements of Part 2 General – Section 8 of the Utility Networks (Public Safety) Regulations 2001 No. 28, Evoenergy require that:

- The requestor shall ensure that all workers on site are aware of the presence of natural gas.
- The requestor shall ensure that under no circumstances will mechanical excavation be carried out within 1.0 metres of a gas main without there being a Zinfra Representative on site.
- The requestor shall be responsible to maintain the presence / visibilities of all gas markings.
- **No live or Isolated gas pipes shall be cut, altered or removed without APPROVAL from Zinfra.**

Note: Individual customer gas connections are generally not shown on the accompanying maps. For information regarding individual gas connections we recommend that you request a site meeting / inlet service location.

You can obtain additional information or arrange a site meeting by contacting Zinfra on **1300 503 237. Note that 24 hours notice is required for site meetings.**

Please read the following important information (overleaf)

DIAL BEFORE YOU DIG www.1100.com.au
The Essential First Step

evoenergy

1. High Pressure Pipelines

No excavations or heavy construction are permitted within 15m of these pipelines without notification to and authorisation from Jemena. If separation distance is 15m or less, you are required to notify Jemena of your works.

Prior to commencing works near or over the High Pressure Gas Mains you must supply Jemena with your proposal of works including design plans. You must allow four weeks for Jemena to review your works. Please mail your proposed works details to:

Jemena Asset Management Pty Ltd
Land Services Dept
PO Box 1220
North Sydney, NSW, 2059

or email: land.services@jemena.com.au

Once Jemena has reviewed your proposal and design plans and you have received Jemena's approval to proceed, you must organise for a Pipeline Technician to be on Stand-by during your works (charges may apply).

To arrange for a Pipeline Technician to be on site please call the High Pressure Coordinator on **1300 503 237** two working days prior to the works commencing.

2. High Pressure Steel and Large Diameter Medium Pressure Plastic Pipelines

You **must** contact a Pipeline Technician to conduct a survey **before** commencing any work in this area. You can arrange a survey by contacting the High Pressure Response Coordinator on **1300 503 237. Please note that two working days notice is required to arrange a survey.** For all works in the vicinity of High Pressure Gas Mains you are required to arrange for a Pipeline Technician to attend. Charges apply for attendance of any works outside the hours of 7am to 4pm, Monday to Friday ("Standard Business Hours") and for any attendance during Standard Business Hours that is longer than 2 hours.

WARNING. It is essential that ALL these documents be handed to the principal contractor carrying out the work. A photocopy may be taken for office records. All documents must be on site at the time of excavation. The information provided is to be used as guide only and does not absolve third parties in their "Duty of Care" obligations to take additional precautions where the work has the potential to impact on gas assets and the safety of people.

All work that may impact upon the Evoenergy Gas Network should be carefully planned with notification to Jemena (Zinfra) well in advance of commencement. This includes excavation of gas pipelines, crossings of pipelines by other underground infrastructure (drains, power cables, etc), road works or structural installations.

Evoenergy plans have been provided to show the position of underground gas mains and equipment in public gazetted roads only. Individual customers' services are not generally included on these plans. These plans have been prepared solely for Evoenergy's own use and indicate the position of underground mains and installations relative to boundaries and kerbs as at the time the mains were installed, and do not necessarily reflect any subsequent changes eg: changes to road alignments.

Evoenergy and / or Jemena (Zinfra) will accept no liability for inaccuracies in the information or lack of information on such plans for any cause whatsoever arising. Persons excavating or carrying out other earthworks will be held responsible for any damage caused to underground mains and equipment, and the costs associated with replacement or repair.

Please note that the information contained on the map provided is not a method of determining gas availability for the purposes of connection to a natural gas supply. Please contact a gas retailer to determine the availability of gas as an energy source.

IN THE EVENT OF A GAS EMERGENCY CALL 13 19 09 (24 hours)

Extinguish all sources of ignition and keep the area clear of all persons. Any attempt by third parties to repair damaged gas mains or services may result in prosecution under the Utility Networks (Public Safety) Regulations 2001

DIAL BEFORE YOU DIG www.1100.com.au
The Essential First Step

evoenergy

Asset location information

evoenergy

Applicant/Contractor **Job No.** **36546968** **BYDA Sequence No.** **238428478**

Company: JPS Engineering Consultants
Contact: John Samoty
Telephone: +61
Address: 28 Barrallier Street Griffith ACT 2603

Work Details

Suburb: Macquarie
Address: 29-41 Jamison Centre

Description:

Enquiry Date: 26-Apr-2024 Issue Date: 26-Apr-2024

High pressure critical gas network assets detected within your search area
As High Pressure critical gas assets are present, you must not commence any works without first emailing Jemena Land Services at lands@jemena.com.au (see Item 13 in the Disclaimer).

Check for underground transmission line assets within your search area
Check the attached map for the location of underground transmission lines. If the map indicates there are underground transmission lines in the vicinity of the search area, you must not commence any works without first contacting Evoenergy (see Item 15 in the Disclaimer).

Information

The approximate location of Evoenergy or Icon Water assets in the area-of-enquiry are shown on the attached maps. Review all attached maps to check for utility assets in your work area.

Please refer to your Before You Dig Australia (BYDA) enquiry information to ensure you have received asset maps from all relevant utility owners before you commence work. There may be additional pages attached dependent on what assets are found in the area; and maps might be on pages of different sizes.

Individual customer gas connections are generally not shown on any attached Evoenergy Gas Network map. For information regarding individual gas connections we recommend you request a site meeting / inlet service location as per Item 7 in the Disclaimer.

This information is valid from **26-Apr-2024** to **26-Jul-2024**

In case of an emergency or to report damage
13 10 93 electricity | **02 6248 3111** water & sewer | **13 19 09** gas

Please read the following important information (overleaf)

BEFORE YOU DIG www.byda.com.au

evoenergy | icon WATER

Disclaimer

1. General location only

The Applicant acknowledges that:

a. while Icon Water and Evoenergy have used reasonable endeavours to keep Asset location records current, neither party makes any warranty, guarantee or representation as to the accuracy, currency or completeness of the information contained in the attached Asset Plans.

b. Asset Plans:

   i. may not show all assets in the work area;

   ii. show only the general and approximate location of Assets;

   iii. may show the position of Assets relative to fences, buildings, property lines, kerbs and/or other points of reference that existed at the time the Assets were installed. Any subsequent alterations to those fences, buildings etc may not have been updated on the Asset Plans. Persons should not rely on such things as a point of reference to estimate location of the Assets.

2. Limitation of liability

To the maximum extent permitted by law:

a. subject to paragraph 2(b), Icon Water, Jemena and Evoenergy and the officers, employees and agents of each accept no responsibility or liability for any loss, damage, liability, cost, expense, claim or proceeding of whatever nature and howsoever arising, incurred by or awarded against the Applicant or its officers, employees, agents, contractors or subcontractors, arising out of, connected with or as a consequence of use of the Asset Plans or any inaccuracies in the Asset Plans;

b. where:

   i. a Jemena or Evoenergy representative has, at the Applicants request, attended the work site to mark the location of Assets prior to commencement of any works on the work site, and

   ii. the Jemena or Evoenergy representative has been proven to be negligent in marking the Asset location

then Icon Water, Jemena and Evoenergy's liability, and the liability of the officers, employees and agents of each, is limited, at Icon Water / Jemena / Evoenergy's option, to re-attending the work site to re-mark the Asset location or paying the costs of having a third party attend the work site to re-mark the Asset location.

3. Evoenergy Authorisation and Accreditation for Working on or near the Electricity Network

Accreditation is the process of ensuring that a company or person, wishing to carry out work on or near Evoenergy electricity network, has the necessary level of skills, resources and insurance to undertake the work in a safe and reliable way. Evoenergy has obligations under the Utilities (Management of Electricity Network Assets Code) Determination 2013 to ensure that anyone working on or near its electricity network is adequately and safely trained. Evoenergy takes these obligations seriously.

Anyone working on or near Evoenergy's electricity network must have the appropriate accreditation and authorisation to do so prior to commencing works.

To gain authorisation to work on or near the electricity network you will need to:

1. Ensure you or your company is accredited with Evoenergy by making an application with Evoenergy. The application form can be found on the Evoenergy website: www.evoenergy.com.au
2. Wait for Evoenergy to assess your application and notify you of the outcome.
3. Receive your Compliance tool login and QR code from Evoenergy as proof of authorisation. The QR code is required to be available at all times when working on or near the network.

For further information contact:
accreditations@evoenergy.com.au

4. Electricity cables to be treated as LIVE

ALL electricity cables and conductors identified on the attached Asset Plans, including those marked as 'Abandoned', **MUST** be treated as 'LIVE' and dangerous until such time that they are tested and proven to be 'DE-ENERGISED'. Evoenergy recommends that cables identified as 'Abandoned' and which may be impacted, severed, damaged and/or removed by excavation works be proven 'DE-ENERGISED' and safe before commencing full-scale excavations.

5. Location of Assets may change

Assets may be moved, or additional Assets may be installed at any time. Persons using the attached Asset Plans are advised to be alert for changed locations or new installations performed after the Issue Date. If work extends for a period of 3 months beyond the Issue Date, a new application MUST be made to Before You Dig Australia for up to date Asset Location Information.

6. Work to be undertaken without interference or damage to assets

Any work undertaken near Assets, including without limitation excavation, structures, material storage, heavy vehicle parking, blasting or change of surface level, must be performed in a way that does not interfere with the reliability of, or access to Icon Water or Evoenergy Assets, including electricity lines or plant. Persons excavating are required to exercise care if Assets are indicated on Asset Plans and will be held responsible for any damage caused through failure to exercise such care. Icon Water or Evoenergy (as applicable) will pursue the person responsible for causing the damage or interference to their Assets to recover costs and expenses incurred in remedying such damage or interference.

7. Asset location marking

You may request our representative to visit the work site to mark the approximate location of Assets by calling **02 6293 5770** (Water and Electricity – excluding streetlight assets) or **1300 503 237** (Gas) between 7:30 am and 4 pm. Irrespective of any mandatory directions given in this notice, Evoenergy recommends that a site visit be conducted before commencing any works near Assets. Appointments will be accepted only if the Asset Location Information Sequence

Number is supplied. The location and marking of Assets will not take place unless the Asset Location Advice and attached Asset Plans are in colour and to the same scale as supplied, and are at the work site. Evoenergy does not charge for these site visits. Alternatively, the Applicant may wish to engage a private underground Asset locator, at the Applicant's expense.

You are responsible for maintaining the presence / visibility of all markings and to ensure that all workers on site are aware of:

- the presence of Icon Water / Evoenergy infrastructure in the vicinity of the intended work and
- Icon Water, Jemena and Evoenergy's requirements.

NB: Arranging for marking of approximate Asset locations by either an Evoenergy representative or private underground asset locator will not relieve the Applicant and persons working on their behalf of responsibility to exercise care when working near Evoenergy / Icon Water Assets or for any damage they cause to Evoenergy / Icon Water Assets while performing works.

8. Underground Assets must be located by potholing

Potholing or other non-destructive techniques must be used until underground Assets are located. When located, excavation may commence provided that persons carrying out the excavation work must follow Evoenergy's recommended specifications concerning minimum safety distances when excavating within the vicinity of Icon Water or Evoenergy's networks. Unless otherwise approved by Jemena, **under no circumstances can mechanical excavation be carried out within 1.0 metres of a gas main without a Jemena Representative on site.**

9. Water, Sewer and Effluent Mains

Icon Water requires mandatory supervision by authorised Icon Water personnel when potholing and excavating within the vicinity of critical water and sewer network assets (as determined by Icon Water) or Icon Water mains with a diameter of 300mm and above. **All effluent mains are classified as critical assets.**

To arrange an inspection or for any emergency please call Icon Water **02 6248 3111**.

10. Substation Earthing Conductors

The information does not include details of substation earthing conductors. These are installed within the vicinity of pole and ground mounted substations. Earthing conductors extend 1.0m in each direction from the substation. However, please be aware that site-specific requirements mean earthing conductors may be installed beyond this distance. Further information can be provided upon request.

11. Indications of the Presence of Cables

The presence of cables or conduits may be indicated by the following warning and marking devices

- Letter "E" inscriptions on Kerbs or "Electrical" inscriptions on pit lids
- Danger signs on above ground posts, walls etc
- Thin Orange "Caution Electrical Cables" Warning Tape
- Orange /Black PLASTIC Polymeric slab (3-6mm thick x 200mm wide)
- Concrete Bricks or slabs (approx 200mm x 500mm)
- Orange PVC or white Asbestos Cement (AC) Conduit or Galvanized Pipe
- Cylindrical concrete "ACTEA Electric Cable" markers
- Weak Concrete encasement directly around cables / conduits
- Texture/ colour change of excavated material (bedding sand, cracker dust, clean fill)

Note that some cables may have been installed without the presence of such marking devices.

12. Gas mains

a. Evoenergy gas mains are managed by Jemena Asset Management Pty Ltd and operated by Zinfra.

b. Mandatory stand-by / supervision by Zinfra personnel is required when excavating within the vicinity of critical gas network assets OR where mechanical excavation is required within 1.0 metres of the gas network. Your activity around critical gas assets will be supervised by Zinfra at no charge for the first two hours. This supervision is to ensure the integrity of Evoenergy's assets is maintained.

Note: Charges may apply if stand-by is required for longer than two hours.

Please contact Zinfra on **1300 503 237** between 7.30 am and 4 pm if you require a stand-by person.

13. High Pressure Gas Network Assets

You must supply Jemena with your proposal of works including a written outline of your works and design plans for review. It may take up to four weeks for Jemena to review your works proposal. Following review, we will advise you of Jemena's requirements for protecting the High Pressure gas main. Please mail your proposed works details to:

Jemena Asset Management Pty Ltd
Attention: Land Services Department
PO Box 1220 North Sydney NSW 2059

or email lands@jemena.com.au

Please note that a duty of care exists to ensure that this gas main is not compromised or damaged during future development or construction work.

14. Streetlight Assets

Streetlight assets in the ACT are owned and maintained by the ACT Government. You expressly acknowledge and agree that

a. Evoenergy does not maintain streetlight asset information; and

b. any such information provided by Evoenergy may not be up to date, reliable or complete and is provided strictly on an "as is" basis without any warranty of any kind. Please contact Access Canberra on **13 22 81** during business hours if you require further information.

15. Underground Transmission Line Assets

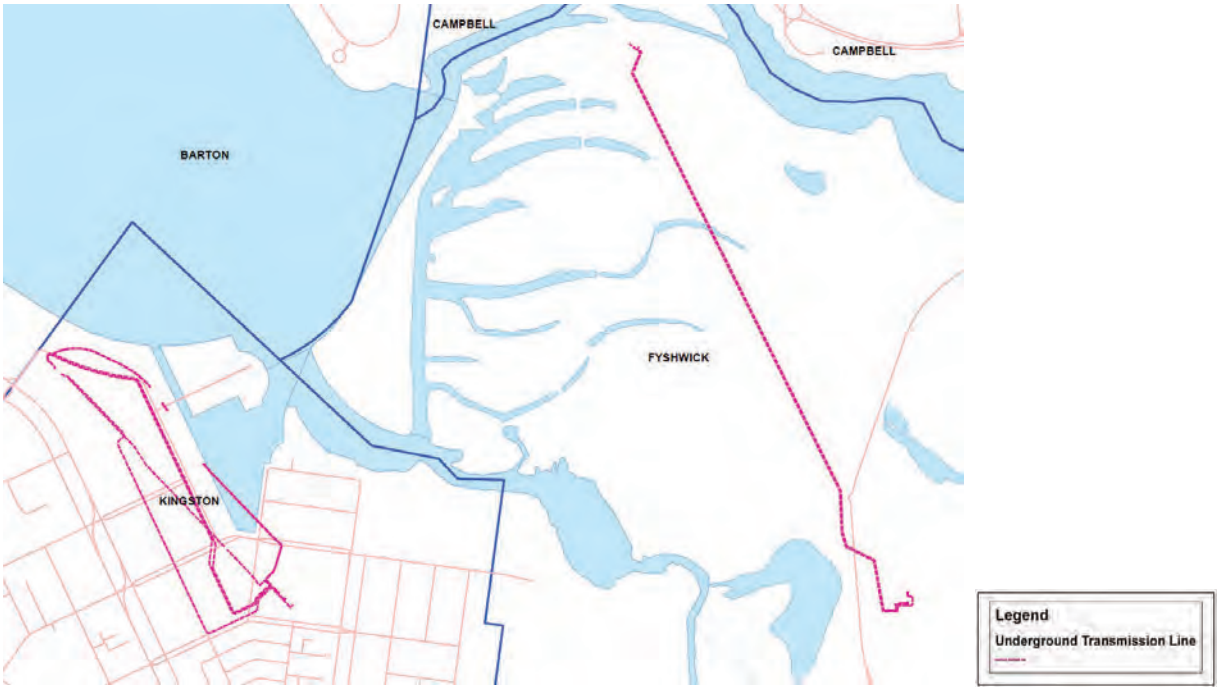
You must supply Evoenergy with your proposal of works including a written outline of your works and design plans for review.

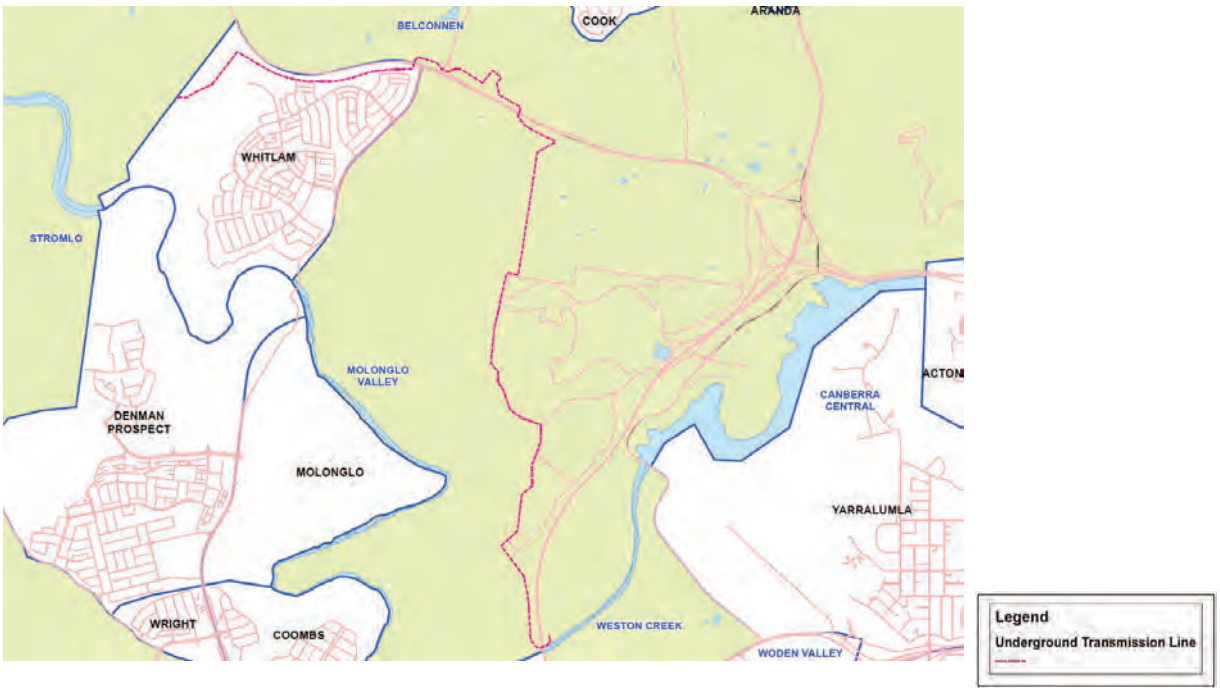
It may take up to four weeks for Evoenergy to review your works proposal. Following review, we will advise you of Evoenergy's requirements for protecting the Underground Transmission Line Assets.

Please email your proposed work details to:
Network.ConnectionAdvice@evoenergy.com.au

Please note that a duty of care exists to ensure that this Electrical Asset is not compromised or damaged during future development or construction work.

THIS DOCUMENT AND ASSOCIATED ASSET PLANS MUST BE KEPT AT THE WORK SITE.





Icon Water: Effluent Re-use Network Legend

Hydrant

- OverheadFillingPoint
- MillCock
- PillarHydrant
- HighCapacity
- SpringHydrant

Fitting

- Outlet
- Inlet
- Blank Flange
- Dual Service Tee
- End Cap
- Gibault Joint
- Maintenance Hole
- Open End
- Orifice Plate
- Reducer
- Tapping Band Bend

Service Connection (Meter)

- Flow Element
- Billing Large Diameter
- Billing Small Diameter

TestStation

- Flow Recording Device
- Sampling Point

Pump

- Pump

SystemValve

- <all other values>
- Ball Valve
- Butterfly Valve
- Cone Valve
- Gate Valve
- Globe Valve
- Needle Valve
- Scour Valve

Control (Protection) Valve

- Double Check
- Reflux Valve
- Single Air Valve
- Double Air Valve
- Enhanced Double Air Valve
- Reduced Pressure Zone Valve
- Pressure Relief Valve
- Float Valve

CurbStop Valve

- Main Cock Valve
- Tapping Band Valve

ReservoirSupply

- ReservoirSupply

Main

- RisingMain
- BulkSupply
- DistributionMain
- Reticulation

Lateral Line

- Irrigation
- Wash Down
- Overflow
- Scour
- Drain

EffluentStructure

- Dam
- Pump Station
- Reservoir Structure
- Treatment Plant
- Valve Chamber

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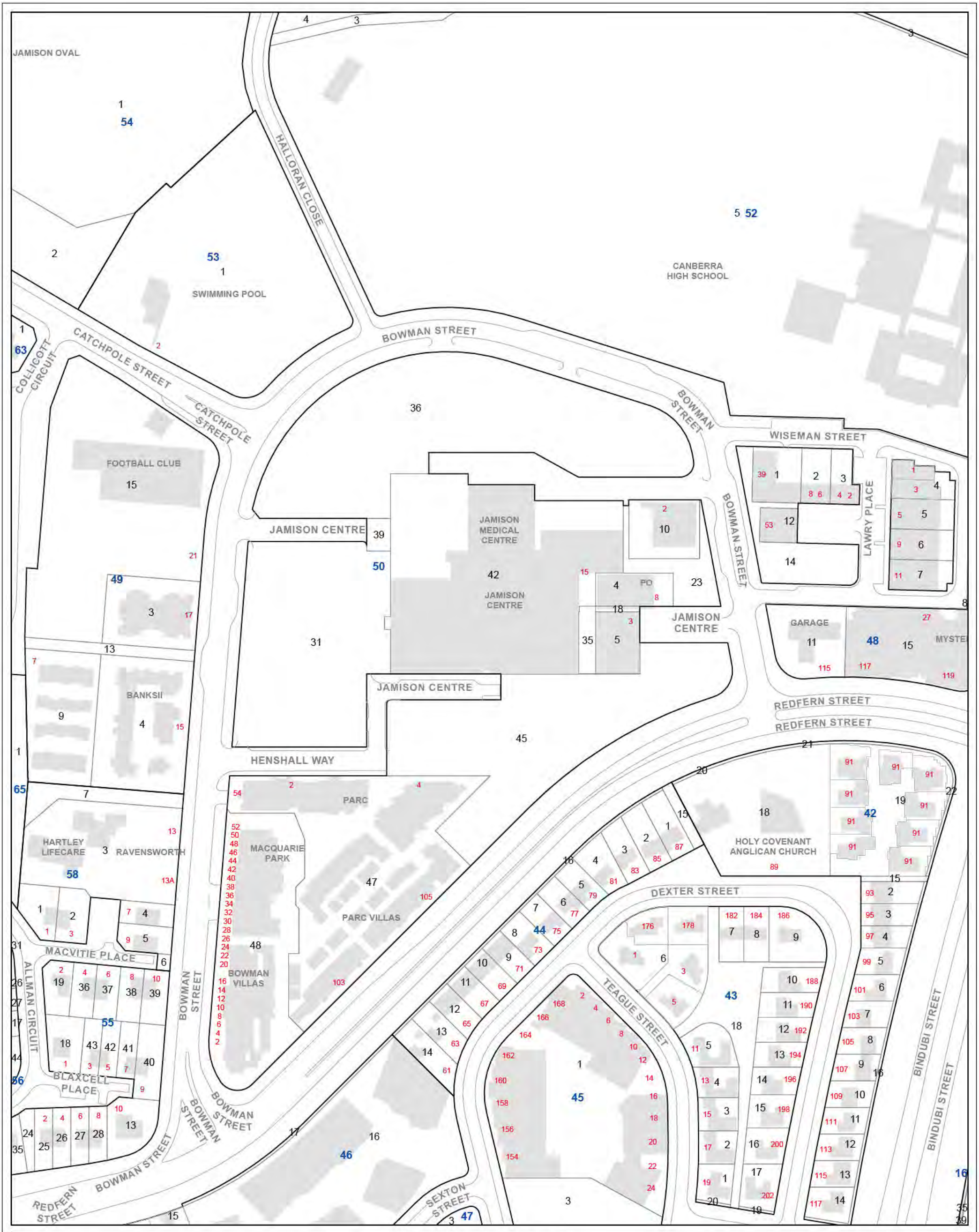
icon WATER



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Seq #: 238428478

29-41 Jamison Centre, Macquarie

Effluent Network

icon WATER

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Template: EffluentA3Portrait

Creation Date: 26-Apr-2024

ELECTRICITY NETWORK LEGEND

Support Structure (Distribution)
- Pole
- Streetlight-Only Pole

Support Structure (Transmission)
- Pole
- Tower
- Yard Structure

Underground Structure
- Pit

Recloser
- Recloser

Building
- Zone Building
- Standalone Chamber

Switches
- Air Break
- Load Break
- Overhead Link

Fuse
- Drop Out Fuse

Service Point
- Service Point

Streetlight
- Streetlight Controller

Joint
- Cable Joint

Underground Earth Cable
- Underground Earth Cable

Fibre Optic Cable
- Overhead Fibre Optic Cable
- Underground Fibre Optic Cable

Copper Communication Cable
- Pilot Cable

Streetlight
- Streetlight
- Streetlight Controller
- Streetlight Photoelectric Controller
- Other Streetlight Support
- Streetlight Column

Streetlight Cable
- Overhead Streetlight Line
- Underground Streetlight Line, In Service
- Underground Streetlight Line, Abandoned

Transmission Line
- Overhead Transmission Line
- Underground Transmission Line, In Service
- Underground Transmission Line, Abandoned

HV Electric Lines
- Overhead HV Electric Line
- Underground HV Electric Line, In Service
- Underground HV Electric Line, Abandoned

LV Electric Lines
- Overhead LV Electric Line

Underground LV Electric Line <= 50 mm
- Underground LV Electric Line, In Service
- Underground LV Electric Line, Abandoned

Underground LV Electric Line > 50 mm
- Underground LV Electric Line, In Service
- Underground LV Electric Line, Abandoned

Service Lines
- Overhead Service Line

Underground Service Line <= 50 mm
- Underground Service Line, In Service
- Underground Service Line, Abandoned

Underground Service Line > 50 mm
- Underground Service Line, In Service
- Underground Service Line, Abandoned

Underground Route
- Duct

DuctBank
- <all other values>
- Conduit
- DepthIndicatorDeep
- DepthIndicatorShallow

Ground Mounted Structure
- Streetlight Control Cubicle
- Distribution Box
- Point-Of-Entry Cubicle
- HV Switching Station
- Kiosk
- Padmount
- Link Pillar
- Micro Pillar
- Mini Pillar
- Pregnant Column
- Communication Cubicle
- SCADA Cubicle

Electric Supply Site
- 132kV Switching Station
- Bulk Supply Station
- Mobile Zone Substation
- Zone Substation
- Overhead Substation
- Chamber Substation
- Stockade

IMPORTANT NOTE:

- The term 'ABANDONED' is utilised to identify an underground cable that has been physically disconnected from the Evoenergy electricity network, is not in service and cannot readily be put back into service without specific augmentation and/or reconnection works. Cable(s) identified by Evoenergy as 'ABANDONED' have been discarded in-situ by Evoenergy. ALL cables should be treated as 'LIVE' and Dangerous until proven de-energised and safe.

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BEFORE YOU DIG www.byda.com.au

JAMISON OVAL

SWIMMING POOL

CANBERRA HIGH SCHOOL

FOOTBALL CLUB

JAMISON MEDICAL CENTRE

JAMISON CENTRE

HARTLEY LIFECARE

RAVENSWORTH

MACQUARIE PARK

PARC

PARC VILLAS

BOWMAN VILLAS

JAMISON INN

HOLY COVENANT ANGLICAN CHURCH

GARAGE

BANKSIA

NBN

ABANDONED

FLOODLIGHT CONTROLLER

1x100 SPARE

1x100 BETWEEN CABLE TURNS

SPARE 1x100

1x140, 2142308 SPARE

2x140 UNDER DRIVEWAYS

SERVICES IN 1x50 JOINT TO POE

SERVICES UNITS 1-18 BLOCK 16 IN 1x50 PILLAR TO POE. 2x140 UNDER DRIVEWAYS

ALIGNMENT VARIES

PUBLIC LIGHTING

SERVICES 94.5 3a NS IN 1x50 PL TO POE

SERVICES IN 1x50 PL TO POE

SERVICES IN 1x50 UNDER ROAD

SERVICES IN 1x50 PL TO POE

SERVICES IN 1x50 PL TO POE

SERVICES IN 1x50 PL TO POE

CATCHPOLE STREET

COLLICOTT CIRCUIT

HALLORAN CLOSE

BOWMAN STREET

HENSHALL WAY

WISEMAN STREET

LAWRY PLACE

MACVITIE PLACE

BLAXCELL PLACE

REDFERN STREET

SEXTON STREET

TEAGUE STREET

CROSS STREET

BINDUBI STREET

VEGA COURT

DWYER STREET

ILLMAN CIRCUIT

Seq #: 238428478

29-41 Jamison Centre, Macquarie

Evoenergy Electricity Network

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0 5 10 20 30 40 M

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Template ElectricityA0Portrait

Creation Date 26-Apr-2024

GAS NETWORK LEGEND

GasStation CRITICAL

- DistrictRegulator
- TrunkReceivingStation
- PrimaryRegulatingStation
- BulkMeteringStation
- PressureMonitoringStation
- ScraperStation
- BR BoundaryRegulatorSet
- BRS SecondaryBoundaryRegulatorSet
- ValveStation

GasDevice

- <all other values>
- IsolationValve
- Odouriser
- Siphon
- WaterbathHeater
- Filter
- Catalyst Heater
- Silencer
- Regulator

GasDevice High Risk Valve CRITICAL

- HighRiskAreaIsolation

GasMeter

- DomesticMeter
- IndustCommMeter
- SecondaryMeterSet

GasFitting

- EndCap
- Tee
- ExpansionJoint
- Flange
- Reducer
- Cross
- ServiceSaddle
- InsulationJoint
- GaugingPoint

CPAnode

- AnodeGroundBed
- SacrificialAnode

CPRectifier

- R TransformerRectifier

CPCable

- CPRectifierCable
- CPGroundBedCable

Conduit

- Conduit

GasStructure

- <all other values>
- CPKiosk
- Pit
- StationStructure

GasService

- <all other values>
- Gas Service IN USE
- Gas Service NOT IN USE

GasService STEEL or MAOP>=1050 OR DIA >=75mm CRITICAL

- Gas Service IN SERVICE
- Gas Service NOT IN SERVICE

GasPipe

- <all other values>
- DistributionMain, Nylon, InService
- Gas Pipe NOT IN USE
- DistributionMain, PE, InService
- DistributionMain, Copper, InService

GasPipe STEEL OR MAOP>=1050 OR DIA>=75mm CRITICAL

- DistributionMain, Copper, InService
- DistributionMain, Nylon, InService
- DistributionMain, PE, InService
- PrimaryMain, Steel, InService
- PrimaryMain, Steel, Proposed
- SecondaryMain, Steel, InService
- SecondaryMain, Steel, Proposed
- TransmissionMain, Steel, InService
- Gas Pipe NOT IN USE

R 10.0 = DISTANCE TO ROAD
B 10.0 = DISTANCE TO BOUNDARY
E 10.0 = DISTANCE TO END
C 10.0 = DISTANCE TO CHANGE OF DIRECTION

4.4 = DISTANCE FROM MAIN TO KERB
0.6 = DISTANCE FROM MAIN TO BOUNDARY

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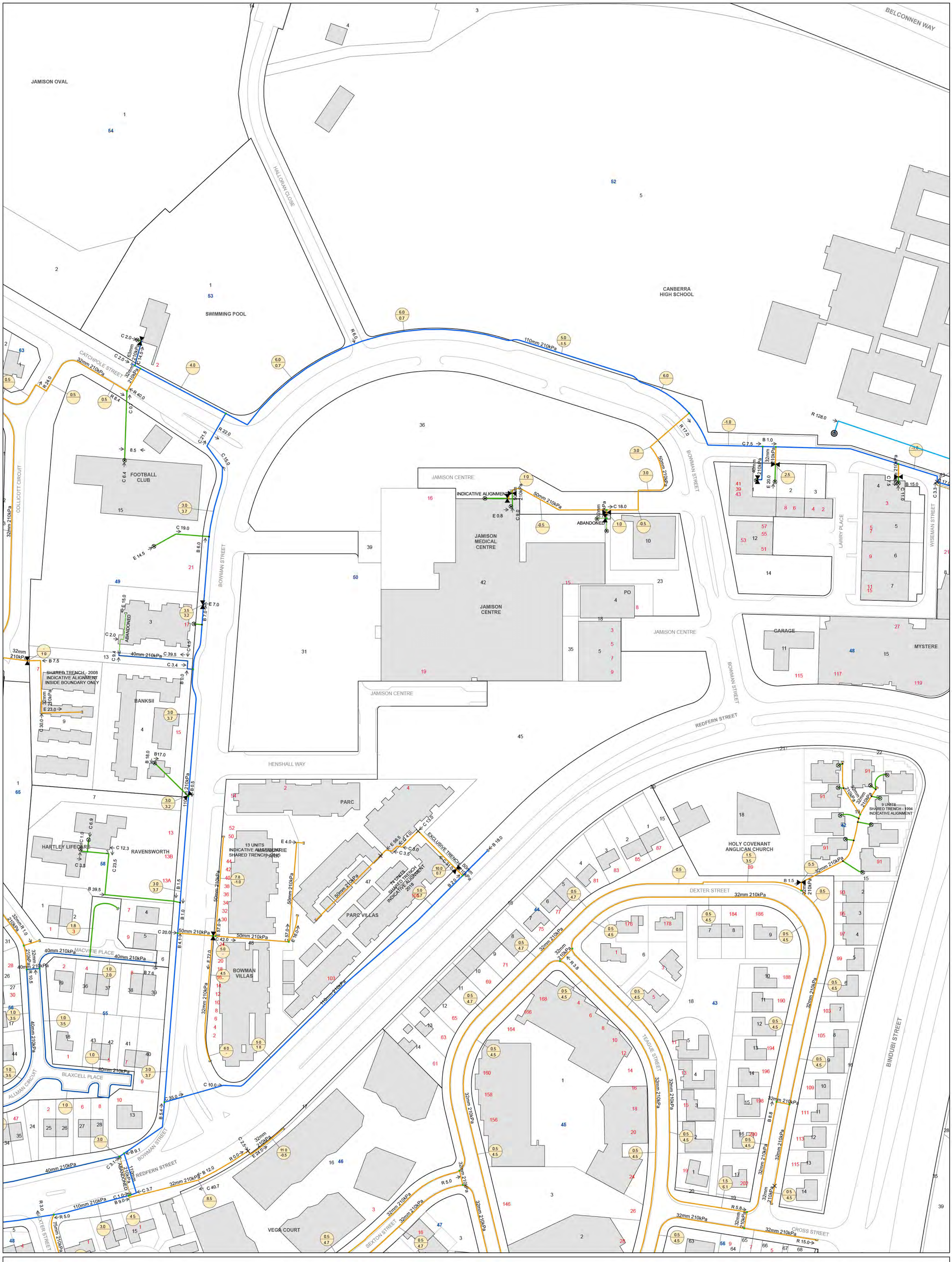

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Evoenergy Gas Network

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Seq #: 238428478

29-41 Jamison Centre, Macquarie

Template: GasA1Portrait

Creation Date: 26-Apr-2024

Icon Water: Sewer Network Legend

Abandoned Point
- Abandoned Point

Maintenance Hole
- Active
- De-Commissioned

Fitting
- Buried Vertical Riser
- Dead End
- Reducer
- Riser
- Tee

Service Connection
- Service Connection

DischargePoint
- DischargePoint

Gauging Point / Test Station
- ChemicalTransducer
- ElectroMagnetic
- Flume
- PressureTransducer
- Sonic
- Venturi
- WeirGauge

Inspection Shaft
- Special Inspection Shaft
- Standard 225 Inspection Shaft

Clean Out Point
- Rodding Point

Control (Protection) Valve
- Air Valve
- Reflux Valve

Pump
- Pump

Storage Tank / Vault
- Storage Tank / Vault

SystemControlValve
- Scour Valve
- Ball Valve
- Plug
- Gate Valve
- Stop Log
- Penstock

Sewer Structures
- Odour Scrubber
- Sewer Fan
- Vent

Vertical Drop
- Vertical Drop

VortexDrop
- VortexDrop

Weir
- Weir

Gravity Main
- Vent Pipe
- Reticulation Main
- Trunk Main
- Tunnel
- Siphon
- Overflow Pipe
- Inline Storage

Pressure Main
- Pressure Main

Lateral Line
- Property Service Line
- Scour Line

De-Commissioned Mains
- De-Commissioned Mains

Abandoned Mains
- Abandoned Mains

Sewer Structure
- DiversionChamber
- DiversionPoint
- PumpStation
- SplitManhole
- StorageBasin
- TreatmentPlant
- DischargeStructure
- PipeBridge
- SeptageFacility
- ValveChamber

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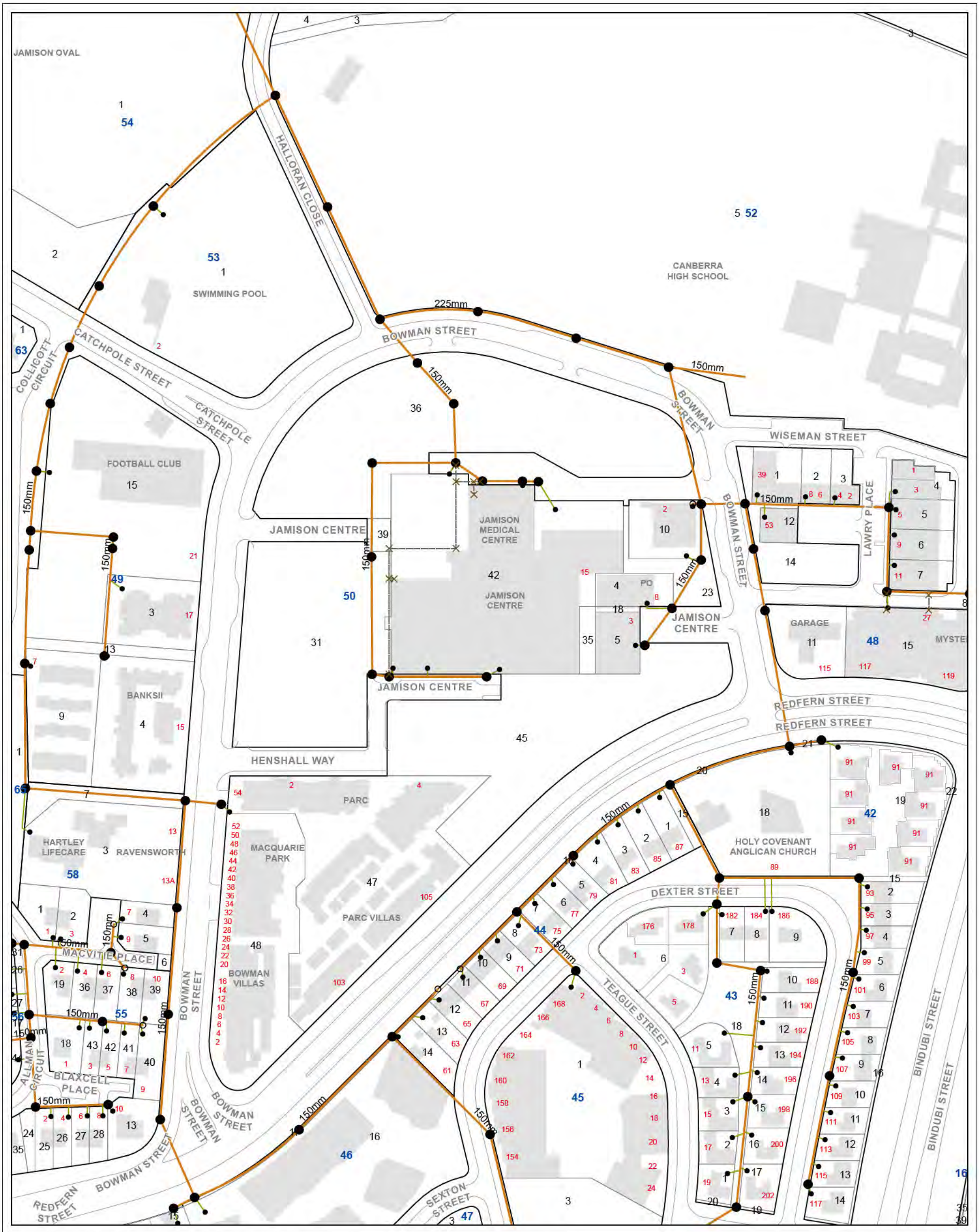
icon WATER



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Seq #: 238428478

29-41 Jamison Centre, Macquarie

Sewer Network

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0 12.5 25 50 75 100 M

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Template: SewerA3Portrait

Creation Date: 26-Apr-2024

Icon Water: Water Network Legend

Hydrant
- HighCapacity
- MillCock
- OverheadFillingP...
- PillarHydrant
- SpringHydrant

Service Connection (Meter)
- Flow Element
- Billing Large Diameter
- Billing Small Diameter

Test Station
- Pressure Recording Device
- Flow Recording Device
- Sampling Point

Pump
- Pump

System Valve: Ball
- Ball Valve

System Valve: Butterfly
- Altitude Inlet Control
- Back Up
- DualFlowRate
- Flow Altitude
- Flow Rate Control
- Isolation
- Normally Closed Isolation
- Pump Control

System Valve: Butterfly Motorised
- Altitude Inlet Control
- Back Up
- DualFlowRate
- Flow Altitude
- Flow Rate Control
- Isolation
- Normally Closed Isolation
- Pump Control

Control (Protection) Valve
- Double Air
- Double Check
- Enhanced Double Air Valve
- Float Valve
- Pressure Relief Valve
- Reduced Pressure Zone
- Reflux Valve
- Single Air

System Valve: Cone
- Altitude Inlet Control
- Outlet Control

System Valve: Gate
- Zone Valve
- Normally Closed Isolation
- Isolation
- Flow Rate Control
- Back Up
- Altitude Inlet Control

System Valve: Gate Motorised
- Isolation

System Valve: Globe
- Pump Control
- Pressure Sustaining
- Pressure Reducing
- Flow Rate Control
- Flow Altitude
- Outlet Control
- Back Up
- Altitude Inlet Control

System Valve: Needle
- System Valve: Needle

System Valve: Scour
- System Valve: Scour

Network Structure
- Service Reservoir
- Treatment Plant Reservoir
- NonPotable Water Reservoir
- Minor Tanks

Main
- Reticulation Main
- Distribution Main
- Bulk Supply Main
- Rising Main

Lateral Line
- Domestic Service
- Fire Service
- Overflow
- Wash Down
- Scour
- Drain

Abandoned Mains and Lateral Lines
- Abandoned Mains and Lateral Lines

Water Structure
- Dam
- Pipe Bridge
- Pump Station
- Reservoir Structure
- Treatment Plant
- Valve Chamber
- Warning Zone: Contact Icon Water before any excavation in this area 62483111

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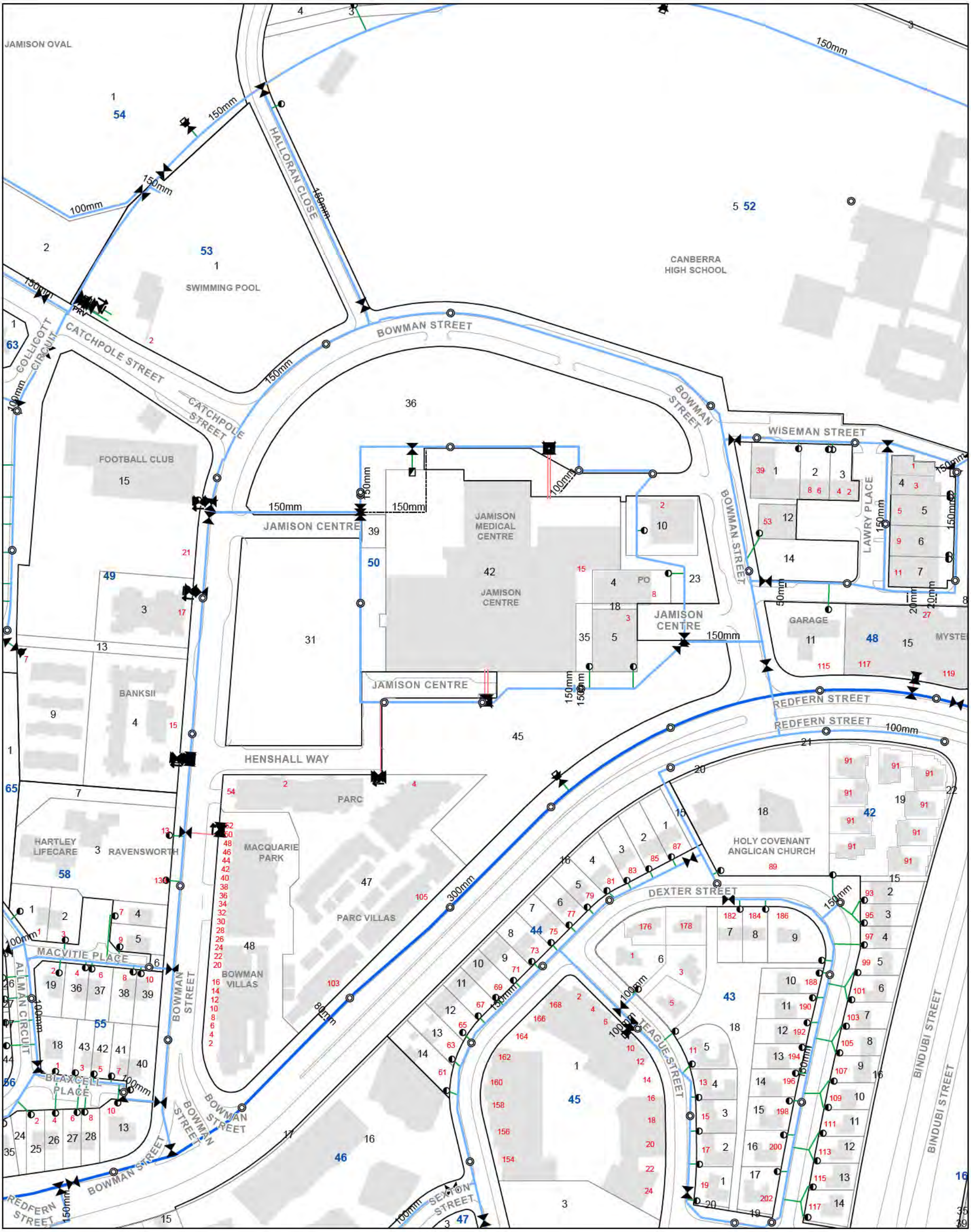
The Essential First Step

icon WATER



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Seq #: 238428478

29-41 Jamison Centre, Macquarie

Water Network

icon WATER

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Template: WaterA3Portrait

Creation Date: 26-Apr-2024

Appendix C

Correspondence

From: ConservatorFloraFauna
To: John Samoty
Cc: ConservatorFloraFauna; Baines, Greg
Subject: RE: Macquarie Group Centre - Flora and Fauna Review
Date: Thursday, 16 May 2024 2:12:36 PM
Attachments: image001.png
image002.png

OFFICIAL

Hi John,

Please find a high-level overview of ecological constraints and considerations for future developments within the Macquarie Group Centre, below.

An ecological impact assessment should be completed for the site that includes consideration of the following matters:

- Maintaining connectivity for small woodland birds. The red shaded areas in the map below indicate connectivity values, which area concentrated in the green space to the south-east of the site and along northern border of the Bowman Street carpark. It will be important to maintain this connectivity.
- Mature native trees are scattered across the site, as outlined in the below map. A tree assessment will be required, it should identify all mature native trees and the report should consider how the development conforms with the objectives of the Loss of Mature Native Trees Key Threatening Process Action Plan.
- The site has multiple trees that may provide significant habitat value, including at least 3 trees in the south-east of the site. The assessment should consider whether the trees meet the criteria for registration on the ACT Tree Register.
- The site contains at least 1 hollow-bearing tree (see attached images). All hollows on site must be measured to determine their suitability for Gang-gang Cockatoos and impacts to this species should be considered in the ecological impact assessment.
- Any development on site is likely to trigger the Biodiversity Sensitive Urban Design Guide, the ecological impact assessment should consider how these guidelines can be incorporated into a redesign of the site.
- Development may require a Construction and Environment Management plan to be approved by the Conservator. In this situation the below replanting ratios may be applied if native trees are removed.

Native Tree and Shrub Replacement Ratios

DBH class (cm)	REPLACEMENT RATIOS
<5	1:1
5 - 20	1:3 + relocate as native mulch or at Conservator discretion
21 - 30	1:8 + relocate as coarse woody debris
31 - 40	1:13 + relocate as coarse woody debris
41 - 50	1:40 + relocate as coarse woody debris
50+	1:90 + reinstate as vertical habitat structure or at Conservator discretion
100+	1:180 + reinstate as vertical habitat structure or at Conservator discretion

Kind regards,
Alex

Alex Santiago
Conservation Officer I Office of the Conservator of Flora and Fauna
Phone: [redacted] I Email: alex.santiago@act.gov.au
Environment Division I Environment, Planning and Sustainable Development Directorate I ACT Government
Level 2, 480 Northbourne Avenue Dickson | GPO Box 158 Canberra ACT 2601 I www.environment.act.gov.au

---

From: John Samoty <John.Samoty@jpsengineering.com.au>
Sent: Tuesday, May 14, 2024 8:41 AM
To: ConservatorFloraFauna <ConservatorFloraFauna@act.gov.au>
Cc: Taylor, Karen <Karen.Taylor@act.gov.au>
Subject: Macquarie Group Centre - Flora and Fauna Review

Dear Conservator of Flora and Fauna,

JPS Engineering has been engaged by EPSDD to undertake a Site Investigation Report for the Macquarie (Jamison) Group Centre. EPSDD is reviewing existing group and local centres to enhance their activation and vitality as part of the latest Territory Plan District Strategy implementation. This includes assessing the site's role as community meeting places and ensuring they remain viable within the broader network of centres. Therefore, the purpose of the site investigation is to undertake a due diligence assessment to inform the feasibility of future development within this site.

Based on a review of ACTmapi records, there do not appear to be nearby threatened habitat areas within the site. However, it is noted that numerous mature native trees are on the site. Based on this, could you please confirm whether there are any ecological constraints for future development within the blue highlighted area in the image below?

Please contact me if you have any questions regarding this request.

Kind regards,

John Samoty, MIEAust, CPEng, NER, RPEQ, APEC Engineer, IntPE(Aus)
Director

JPS Engineering Consultants

28 Barrallier Street, Griffith, ACT 2603
M [redacted]
E John.Samoty@JPSEngineering.com.au

From: ACTF&R Risk & Planning
To: John Samoty
Cc: ACTF&R Risk & Planning
Subject: RE: Fire Advice and Risk Rating - Macquarie Group Centre
Date: Thursday, 30 May 2024 9:46:33 AM
Attachments: image005.png
image006.png
image007.png
image008.png
image009.png
image010.png
image011.png

OFFICIAL

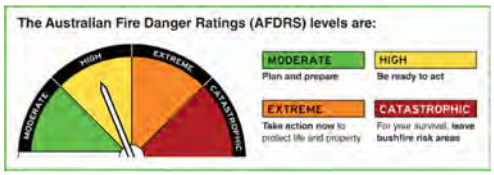
Good morning John,

ACTF&R can confirm this development is located outside of the area declared by the ESA as the Bushfire Prone Area. Applying bushfire protection measures will not be mandatory for the site however, due to the sites location, consideration should be given to bushfire protective measures as these simple measures can improve the survival of any structure in the event of a nearby bushfire or structural fire.

The whole site is mapped to be capable of providing FRT4 with a minimum available firefighting flow provision of 100 l/s. ACTF&R have no concerns with water delivery for future development on the site as community development will require FRT3 - with a minimum available firefighting flow provision of 60 l/s and commercial development, depending on structure/use type, may be assessed as FRT3 or potentially FRT4 - with a minimum available firefighting flow provision of 100 l/s.

Regards

Station Officer Graeme Hoskinson
Bushfire and Development Assessment Officer
ACT Fire & Rescue | Community Safety
9 Amberley Avenue, Majura ACT 2609
p. 62078472
e. ACTF-RRisk-Planning@act.gov.au



From: John Samoty <John.Samoty@jpsengineering.com.au>
Sent: Thursday, May 30, 2024 2:05 AM
To: ACTF&R Risk & Planning <ACTF-RRisk-Planning@act.gov.au>
Subject: RE: Fire Advice and Risk Rating - Macquarie Group Centre

Dear ACT Fire & Rescue Team,

Just following up on the below request for information.

Kind regards,

John Samoty, MIEAust, CPEng, NER, RPEQ, APEC Engineer, IntPE(Aus)
Director

JPS Engineering Consultants

28 Barrallier Street, Griffith, ACT 2603
M [redacted]
E John.Samoty@JPSEngineering.com.au

From: John Samoty
Sent: Tuesday, 14 May 2024 4:25 AM
To: ACTF&R Risk & Planning <ACTF-RRisk-Planning@act.gov.au>
Subject: Fire Advice and Risk Rating - Macquarie Group Centre

Dear ACT Fire & Rescue Team,

JPS Engineering Consultants are currently engaged by EPSDD to undertake a Site Investigation Report for the Macquarie (Jamison) Group Centre. See below an image of the site outlined and highlighted in blue.

EPSDD is reviewing existing group and local centres to enhance their activation and vitality as part of the latest Territory Plan District Strategy implementation. This includes assessing the site's role as community meeting places and ensuring they remain viable within the broader network of centres.

ACTmapi shows that there is a bushfire prone area along Belconnen Way and areas further to the north east that there are also strategic bushfire management zones in this area, the nearest to the site being the playing fields to the east. See below relevant extracts from ACTmapi.

Based on this information, can you please advise whether there would need to be any special bushfire mitigation allowances incorporated into any proposed development in the Group Centre? Also, could you please confirm what the most appropriate Fire Risk Type (FRT) would be for any commercial/community type development in the Group Centre, and any other concerns that ACT Fire & Rescue may have toward future development(s) within this site?

Kind regards,

John Samoty, MIEAust, CPEng, NER, RPEQ, APEC Engineer, IntPE(Aus)
Director

JPS Engineering Consultants

28 Barrallier Street, Griffith, ACT 2603
M [redacted]
E John.Samoty@JPSEngineering.com.au

From:	Zhang, Jianmin on behalf of Contaminated Sites
To:	John Samoty
Cc:	Jennings, RussellC
Subject:	Contaminated land search result - Macquarie Group Centre (Jamison Centre)
Date:	Tuesday, 11 June 2024 12:26:10 PM

OFFICIAL

Dear Mr Samoty

RE: CONTAMINATED LAND SEARCH

Thank you for your search form request of 25/05/2024 enquiring about:

Blocks 4, 5, 10, 18, 23, 31, 35, 36, 39, 42, 45 Section 50 Macquarie Belconnen

Records held by the Environment Protection Authority (EPA) for the above block(s) indicate the following:

Macquarie Group Centre
The blocks are not recorded on the EPA's contaminated sites management database or geographic information system.

Blocks 4, 5, 10, 18, 35, 42 Section 50 Macquaire
These blocks are currently occupied by commercial complexes. Commercial complexes prior to the introduction of natural gas to the ACT in the 1980's utilised boiler heating or similar systems. These systems were generally fuelled by diesel or heating oil which was mainly stored in underground fuel storage tanks.

The Rest of Macquarie Group Centre
Aerial photographs indicate that the other blocks of Macquarie Group Centre are occupied by car parks and playground. Whilst there is no recorded information on potential site contamination, car parks and playgrounds have been associated with potential site contamination due to the placement of uncontrolled fill during the establishment of the site.

The ACT EPA Contaminated Sites Environment Protection Policy 2017 lists fuel storage and landfilling as activities associated with land contamination which may pose a risk to human health and the environment.

Other potentially contaminating activities may have also been undertaken at the site associated with current and past uses.

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the *Environment Protection Act 1997* (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

Regards

Jianmin Zhang |Environment Protection Officer |Office of the Environment Protection Authority
Phone: 02 6207 2151|Email: jianmin.zhang@act.gov.au
Access Canberra|Chief Minister, Treasury and Economic Development Directorate |ACT Government
GPO Box 158, Canberra City, ACT 2601 | www.act.gov.au/accessCBR

We acknowledge the Traditional custodians of the ACT, the Ngunnawal people. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

Appendix D

Site Photos

Photo #1

Photo #2

Photo #3

Photo #4

Photo #5

Photo #6

Photo #7

Photo #8

Photo #9

Photo #10

Photo #11

Photo #12

Photo #13

Photo #14

Photo #15

Photo #16

Photo #17

Photo #18

Photo #19

Photo #20

Photo #21

Photo #22

Photo #23

Photo #24

Photo #25

Photo #26

Photo #27

Photo #28

Photo #29

Photo #30

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Photo #36

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Photo #38

Photo #39

Photo #40

Photo #41

Photo #42

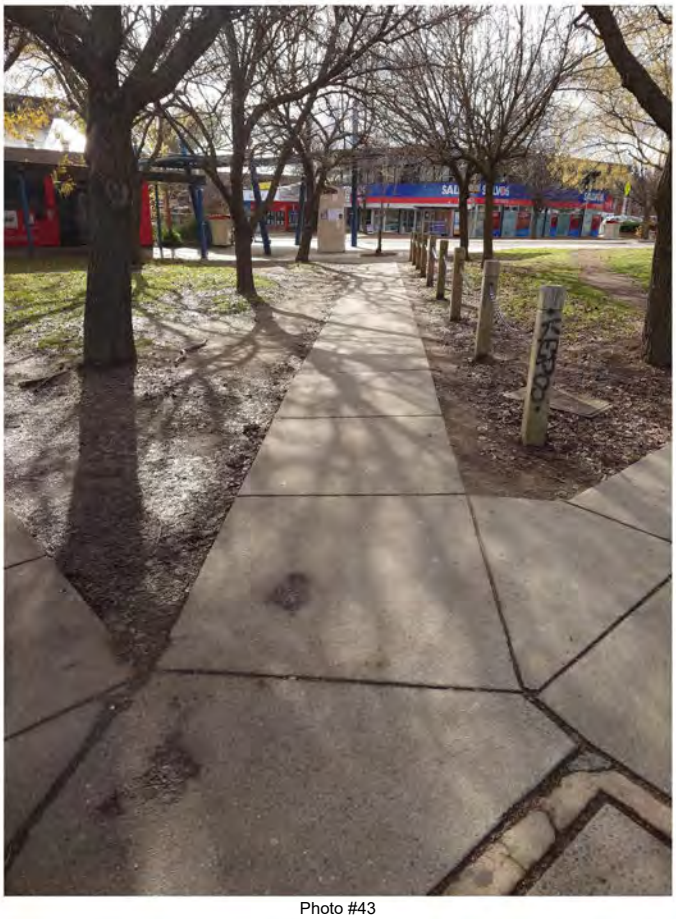

Photo #43

Photo #44

Photo #45

Photo #46

Photo #47

Photo #48

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Photo #51

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Photo #60

Photo #61

Photo #62

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Photo #64

Photo #65

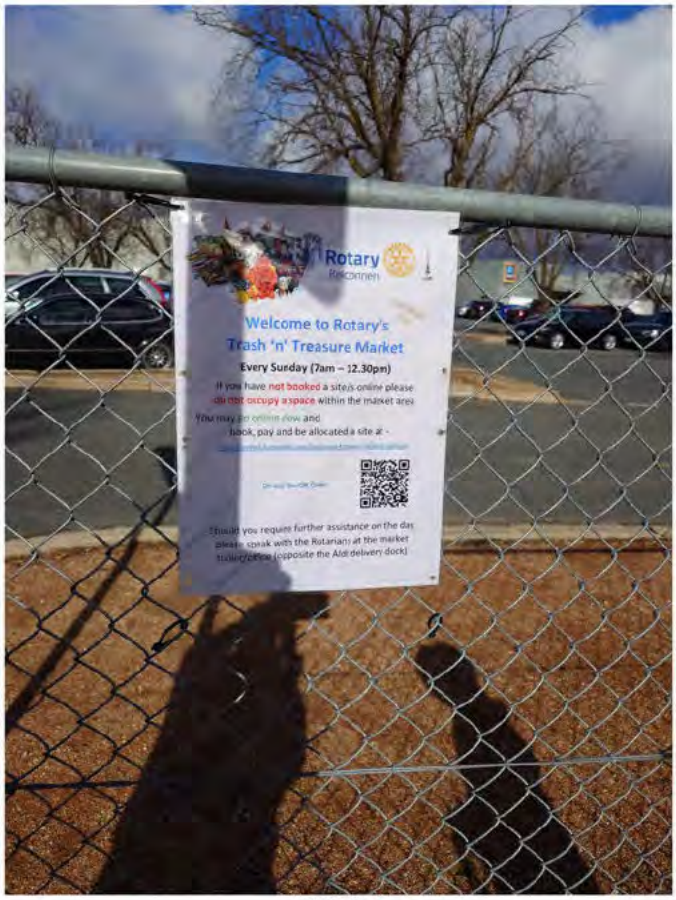

Photo #66

Photo #67

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Photo #96

Photo #97