ORDINARY COUNCIL MEETING

ATTACHMENTS BOOKLET

Under Separate Cover

Tuesday, 18 June 2024

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Planning Proposal Report

7 Concord Avenue, Concord West

[Project Address]

Submitted to City of Canada Bay Council
on behalf of Gyde Consulting

8 March 2024

gyde.com.au

Acknowledgment of Country

Towards Harmony by Aboriginal Artist Adam Laws

Gyde Consulting acknowledges and pays respect to Aboriginal and Torres Strait Islander peoples past, present, Traditional Custodians and Elders of this nation and the cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander people. We recognise the deep and ongoing connections to Country – the land, water and sky – and the memories, knowledge and diverse values of past and contemporary Aboriginal and Torres Strait communities.

Gyde is committed to learning from Aboriginal and Torres Strait Islander people in the work we do across the country.

This report was prepared by:

Approver:	Stephen Kerr
Author:	Belinda Barrie
Project:	7 Concord Avenue, Concord West
Report Version:	Draft for client review

Disclaimer

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Report Title	Prepared by	Date
Concept Architectural Plans	Antoniades Architects	29 February 2024
Urban Design Report	Gyde Consulting	March 2024
Concept Landscape Plan	Turf Landscaping	29 February 2024
Flood Impact and Risk Assessment	Worley	February 2024
Utilities Servicing Strategy	Infrastructure & Development Consulting	November 2023
Transport Assessment	Ason Group	20/02/2024
Environmental Works Report	Canopy Enterprises	February 2024

Executive Summary

This Planning Proposal (PP) is submitted to the City of Canada Bay Council (Council) on behalf of the Concord West Partnership.

This PP explains the intended effect of, and justification for, the proposed amendment to the *Canada Bay Local Environmental Plan 2013* (the LEP). The amendment applies to 7 Concord Avenue, Concord West (the site).

This Report addresses Section 3.33 of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) and relevant guidelines issued by the NSW Department of Planning and Environment (DPE), including *Local Environmental Plan Making Guideline* (August 2023) to provide:

- A description of the subject site and its present context,
- A description of the proposed development as relevant to the objectives and intended outcomes of the PP,
- An explanation of provisions that would give effect to the objectives or intended outcomes,
- Justification of the strategic and site-specific merit of the proposal,
- Proposed mapped provisions,
- Recommendations with respect to consultation and the timeline to prepare the LEP amendment.

Information presented in this Report addresses matters relevant to Planning Proposals identified in Ministerial Directions made under Section 9.1 of the EP&A Act and State Environmental Planning Policies (SEPPs).

The proposal involves an amendment to the LEP as follows:

Provision	Existing	Proposed
Zoning	E4 – General Industrial	R3 – Medium Density Residential
Height of Buildings	12 metres	36 metres
Floor Space Ratio	1:1	1.8:1

Strategic Merit

The site was identified as a future residential area in the Parramatta Road Corridor Urban Transformation Strategy.

This PP demonstrates strategic merit by aligning with several key strategies applicable to the site and surrounding local area. The proposal enables greater contribution to the housing supply of the Canada Bay LGA and delivery of community spaces and publicly accessible open space. In relation to consistency with strategic documents:

- **Greater Sydney Regional Plan (GSRP)** – the proposal is consistent with the applicable elements of the GSRP. This includes through the site's proximity to 'city-shaping infrastructure' such as the T9 Northern Line via Concord West train station and connectivity to the Sydney Metro West. The proposal will contribute to the vision for liveability and productivity in the region and a 30-minute city.
- **Eastern City District Plan (District Plan)** – the proposal is consistent with the planning priorities outlined in the District Plan. While Concord is identified as a local centre in the District Plan, Concord West will also serve a role in terms of serving its own local neighbourhood. The proposal (and the ultimate renewal of this site) will reinforce one of the key intents of the District Plan by nurturing quality lifestyles through well designed housing in neighbourhoods close to transport and other infrastructure. The PP is entirely consistent in this regard.
- **Local Strategic Planning Statement (LSPS)** – the LSPS identifies the general area as an 'Urban Renewal Area' given it is located in the Parramatta Road North Planned Precinct". The proposal directly

responds to this statement, as it seeks to renew a site in this precinct and in accordance with the Parramatta Road Corridor Strategy.

- **Local Housing Study (LHS)** – the proposed concept incorporates opportunities for diverse housing as well as increased housing supply and delivery. The redevelopment of the land for housing will enable provision of housing to assist Canada Bay LGA in meeting its housing targets to 2036. The site aligns with the typology of ideal housing locations particularly given its proximity to Concord West train station.

Site Specific Merit

The PP demonstrates site-specific merit, with the unique elements and location of the site informing the development of the proposal. In relation to the suitability of the site for the proposal:

- The site is extremely well located within 200m of Concord West Railway Station.
- There is sufficient infrastructure available to accommodate the proposed development.
- The proposal has carefully considered neighbouring land uses, including the surrounding commercial and residential uses. The site will not detrimentally impact the local area, given the proposed uses already largely occur in the local area.
- No adverse shadowing impacts to the surrounding locality to the south of the site will occur, and privacy impacts have been managed through the proposed built form.

It is noted that the main constraint of this site is flooding. The proposal demonstrates that the risk of flooding can be addressed, and it is not inconsistent with the Ministerial Direction.

The LEP Making Guidelines delineate four categories of planning proposals based on the strategic consistency and complexity. Council is required to identify the planning proposal category when submitting the planning proposal to the Department for Gateway determination and the Department will confirm the category during its review.

The categories of planning proposals are for administrative purposes only and not set out in the EP&A Act. The categories are used to indicate (for example) benchmark timeframes and the scope of information and technical studies required to support its assessment.

This PP has been prepared in line with the Standard category for the following reasons:

- It relates to altering a principal development standard of the LEP, namely height of building and floor space ratios.
- It is not inconsistent with the endorsed Eastern District Plan or Canada Bay Local Strategic Planning Statement (LSPS).
- It is not inconsistent with the Parramatta Road (PRCUTS)

This PP demonstrates strategic and site-specific merit and addresses all relevant considerations under the *Local Environmental Plan Making Guidelines* (Aug 2023). The proposed concept is consistent with State, Regional and Local planning policies and the relevant Section 9.1 Ministerial Directions.

Site and Locality Context

Site Details

The site is located at 7 Concord Avenue, Concord West, and part of Homebush Bay Drive, Liberty Grove. The site is located within the Local Government Area (LGA) of Canada Bay. Concord West is approximately 11km west of the Sydney Central Business District (CBD) and 7m east of Parramatta CBD.

Site Features and Existing Development

The majority of the site is legally described as Lot 1, DP219742, is irregular in shape and has an area of approximately 1.65 hectares. The area in orange is legally described as Lot 1 DP 270137. It can be seen in **Figure 1**.

Figure 1 Aerial picture of site (Source: Gyde Consulting)

The site contains a warehouse style building which is largely used for indoor recreational purposes (namely paintball and indoor go-karting). It is also used for the storage of concrete equipment. The building is generally surrounded by hardstand (both sealed and unsealed) along with pockets of vegetation, particularly to the north of the site.

Vehicle access to the site is currently provided by Station Avenue. Concord Avenue abuts the site to the north, however while there is a road reserve, the road pavement discontinues before it reaches the site's boundary. The western boundary adjoins Homebush Bay Drive, however no pedestrian or vehicle access is provided to this road.

Figure 2 **View of existing go-kart track on site (Source: Gyde Consulting)**

Figure 3 **Rear of go-kart track building and vegetation buffer along Homebush Bay Drive (Source: Gyde Consulting)**

Figure 4 **View of eastern boundary of the site (Source: Gyde Consulting)**

Surrounding Land Use Context

The surrounding land uses are mixed, with low and medium density residential to the north and the east and light industrial to the immediate south. The development to the immediate east along King Street are made up of single storey detached dwellings in a mix of architecture from pre-war to post war

Homebush Bay Drive forms the immediate western boundary to the site. Beyond that, there is Bicentennial Park, Homebush Bay Parklands, Sydney Olympic Park and Powells Creek.

Figure 5 Surrounding context (Source: Gyde Consulting/ Nearmaps)

The site is located in proximity to a number of local facilities including (but not limited to) the following:

A) Concord West Train Station (approximately 300m)

B) Concord West commuter car park (approximately 350m)

C) Concord West Playground and Bicentennial Park (approximately 200m)

D) Victoria Avenue Public School (approximately 200m)

E) Victoria Avenue Long Day Childcare (approximately 200m)

F) Victoria Avenue Community Hall (approximately 200m)

G) Concord Only About Children Preschool (approximately 400m)

H) Concord West local neighbourhood shops (approximately 350m)

Concord Hospital is located approximately 1.5km to the north-east of the subject site and is both a major health facility and a key employment hub for the area, employing approximately 3,000 staff.

Existing Planning Provisions

The Canada Bay Local Environmental Plan 2013 is the relevant environmental planning instrument (EPI) applicable to the site. The following controls are relevant to the PP.

Land Use Zoning

The majority of site is zoned E4 – General Industrial under the LEP as shown in **Figure 6**: The small triangle piece of land to the northwest is zoned R3 – Medium Density Residential.

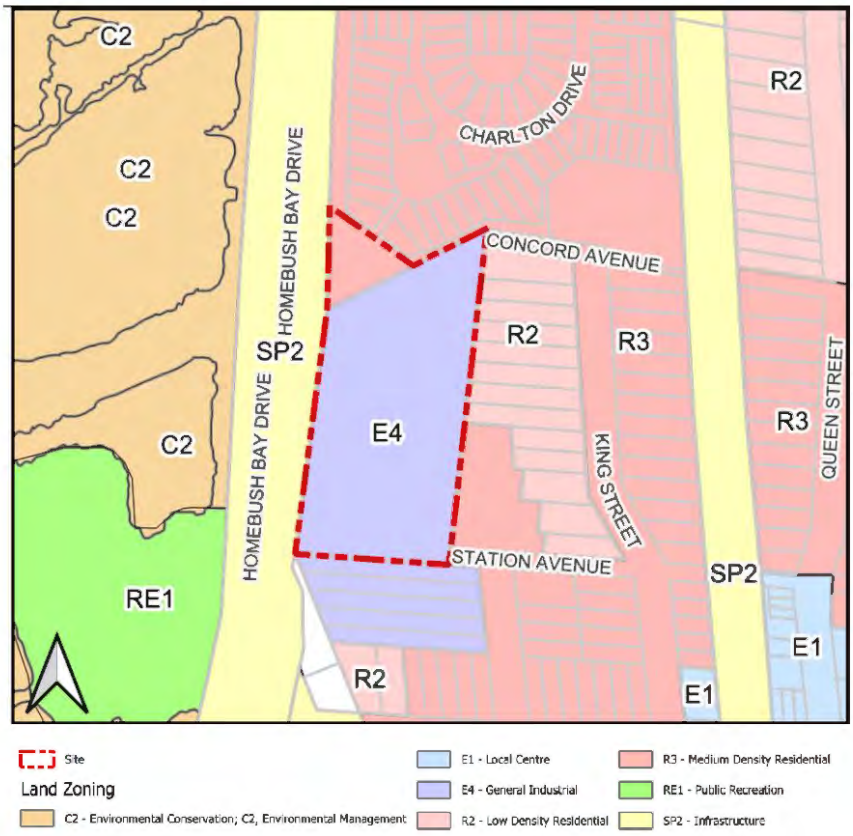

Figure 6 : Extract of land zoning map (Source: NSW Planning Portal)

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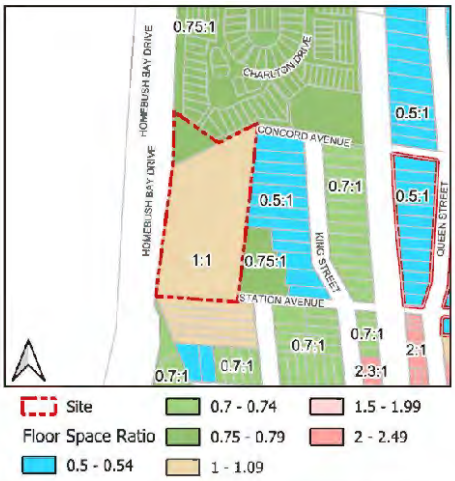
Other key planning controls

Provision	Map
Height of Buildings The maximum height of building applicable to the majority of the site is 12 metres. A 20m height of building standard applies to the small triangle in the north west.	
Floor Space Ratio The current Floor Space Ratio (FSR) applicable to the site is 1:1. The small triangle in the north west has a FSR of 0.75:1.	
Minimum Lot Size The minimum lot size applicable to the majority of the site is 450sqm	

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Provision	Map
Acid Sulfate Soils The site is mapped as Class 2 Acid Sulfate Soils	
Local Provisions The site is mapped as being within an Affordable Housing Contribution Area	
Heritage The site itself is not a heritage item nor within a heritage conservation area. However, it is near a listed heritage item that being Powells Creek Reserve (heritage item I467)	

BACKGROUND

A PP was previously lodged for this site in 2017. The PP sought to rezone the land from IN1 General Industrial (the zoning available at the time) to R3 Medium Density Residential and increase the height control from 12m to 25m and the FSR from 1.1:1 to 1.76:1, consistent with the recommendations of the Parramatta Road Corridor Urban Transformation Strategy (PRCUTS).

The PP was subject to a rezoning review process, which culminated in the Sydney Eastern City Planning Panel (SECPP) deciding not to proceed with this PP at its meeting on 11 March 2021.

The reasons why the SECP decided not to proceed with the planning proposal were:

- They were not satisfied that the Planning Proposal is consistent with the Ministerial Direction, section 9.1 direction 4.3 pertaining to flood prone land. The Panel believed the inconsistency was not minor.
- The Planning Proposal is for a significant increase in not only the development of the site, but the population density, and having regard to the precautionary principle the Panel considers the potential residential redevelopment would be inconsistent with good planning principles.

Part of the reason for the extended assessment process was around the classification of the flooding on the site. It was acknowledged that the site if flood prone, however there was conjecture around whether the site was in a floodway. Ministerial Direction 4.3 (now 4.1) stated, among other things, that planning proposals must not contain provisions which allow development in floodway areas.

In February 2023 Canada Bay Council adopted a new flood study for the Powells Creek Catchment, which includes the site. The new flood study and additional modelling on behalf of the proponent demonstrates that the site is not within a floodway.

The PP has progressed on this basis, and a detailed assessment against the Ministerial Direction in relation to flooding is provided as part of this report.

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Planning Proposal

PART 1 – OBJECTIVES AND INTENDED OUTCOMES

Objective

To facilitate the redevelopment of the site for medium density residential purposes.

Intended Outcomes

- To contribute towards the provision of a sufficient supply and diversity of housing close to centres and public transport.
- To ensure the use of land is appropriate to managing and minimising environmental risks.
- Contribute to the rejuvenation of Concord West by encouraging and supporting development activity in the local area and contribute to the viability of the local centre.

PART 2 – EXPLANATION OF PROVISIONS

Intended Provisions

The PP amends the land use zoning, maximum height of building and maximum floor space ratio permitted on the site.

Provision	Existing	Proposed
Zoning	E4 – General Industrial	R3 – Medium Density Residential
Height of Buildings	12 metres	36 metres
Floor Space Ratio	1:1	1.8:1

Area' as per Clause 6.10 of the LEP.

Specifically, the PP will:

- Amend the *Canada Bay Local Environmental Plan 2013* Land Use Zoning map from E4 – General Industrial to R3 – Medium Density Residential.
- Amend the *Canada Bay Local Environmental Plan 2013* Height of Buildings Map from 11.5m to a maximum building height of 36m.
- Amend the *Canada Bay Local Environmental Plan 2013* Floor Space Ratio Map from 1:1 to provide a maximum Floor Space Ratio of 1.8:1.
- Amend the *Canada Bay Local Environmental Plan 2013* Intensive Urban Development Area map to include this property.

The objective of the PP is to allow for the redevelopment of the land and increase housing supply in line with local strategic planning policy. Approximately 324 dwellings are proposed on this site.

A site-specific Development Control Plan (DCP) is proposed to be prepared once the PP is approved. This site specific DCP will provide guidance as to the height graduation proposed on site, setbacks and access requirements.

A concept DCP summary plan is provided below:

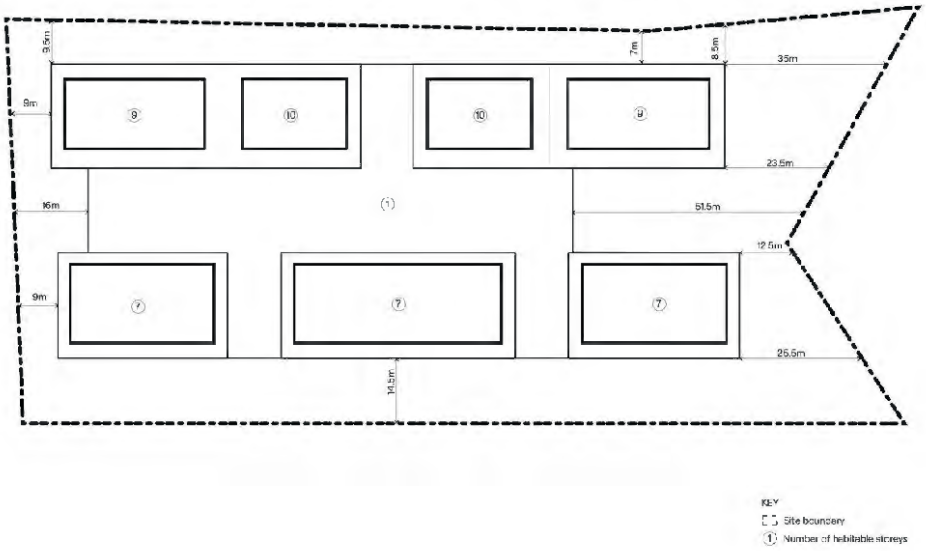
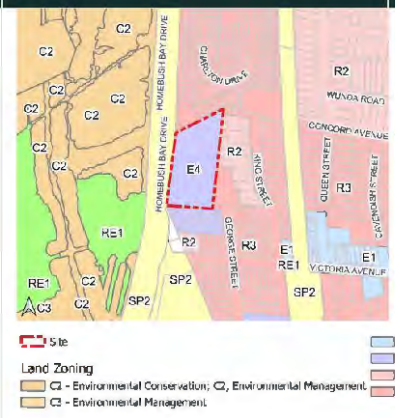
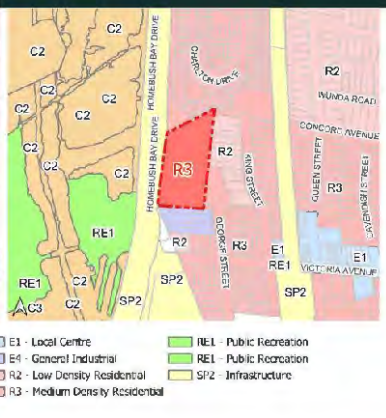


Figure 7 **Concept site specific DCP chapter showing indicative setbacks and building heights (in storeys) (Source: Gyde Consulting)**

Indicative mapping is provided to demonstrate these changes below:

Table 1 **Existing and proposed zoning and development standards**

Provision	Existing	Proposed
Land Use Zoning		

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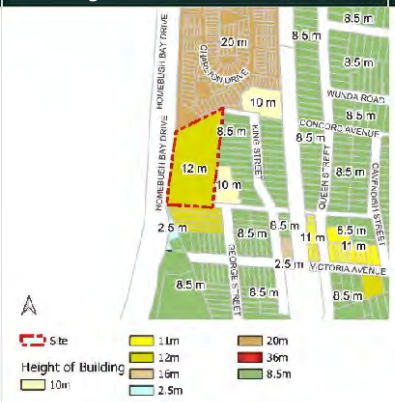
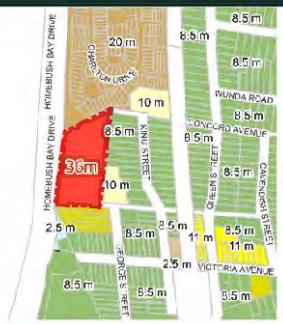
Provision	Existing	Proposed
Height of Buildings		
Floor Space Ratio		

PART 3 – JUSTIFICATION OF STRATEGIC AND SITE SPECIFIC MERIT

Section A – Need for a Planning Proposal

Q1 - Is the planning proposal a result of an endorsed LSPS, strategic study or report?

The PP is consistent with and/ or will enact specific recommendations from the following strategic documents:

- Parramatta Road Corridor Urban Transformation Strategy (PRCUTS)
- Canada Bay Local Strategic Planning Statement (LSPS)
- Canada Bay Local Housing Strategy (LHS)

Parramatta Road Corridor Urban Transformation Strategy

The Parramatta Road Corridor Urban Transformation Strategy (PRCUTS) sets out the NSW Government's 30-year plan for the Corridor and identifies the future land use, development decisions and long-term infrastructure to be provided. It is adopted by the NSW Government and given statutory effect by Ministerial Direction 1.5 under Section 9.1 of the EP&A Act. It also has an Implementation Tool Kit

PRCUTS is an urban renewal strategy and designed to redevelop and transform the Parramatta Road Corridor from the vehicle dominated road to place based precincts with new housing, commercial and retail opportunities, employment generation, open space and public areas. It is underpinned by quality urban design principles, the delivery of important community infrastructure and targeted investment.

The site is identified in PRCUTS' 2016-2030 release area for the Homebush precinct, which has a target of providing 9,500 new dwellings and 12,900 jobs by 2050.

PRCUTS proposed planning controls

PRCUTS provides recommendations for land use zonings, heights of buildings and FSR, which mirror those in the Concord West Precinct Masterplan 2014 which is a local strategy. The recommendations were based on a broad review of the study area rather than a detailed urban analysis of individual sites. The provisions for this site are summarised as follows:

Table 2 Comparison of PRCUTS v proposed development standards

Provision	PRCUTS	Proposed
Land use zoning	R3- Medium Density Residential	R3- Medium Density Residential
Height of Building	25 metres	36 metres
Floor Space Ratio	1.6:1	1.8:1

While it is noted that the height of building and floor space ratio control are above and beyond the provisions listed in PRCUTS, they are considered to be appropriate for the site as outlined in this report.

Affordable Housing

Principle 1 of PRCUTS is to 'plan for a diversity of housing types to accommodate a wide range of community needs, including affordable housing, family housing, student housing and seniors housing'. One of the strategic actions around affordable housing is to 'provide a minimum of 5% of new housing as affordable housing, or in line with government policy of the day'. Five percent of 324 equates to 17 dwellings (16.2 rounded up).

The site is already mapped as being within an 'Affordable Housing Contribution Scheme' as per Clause 6.12 of the LEP. The site is within the Homebush Affordable Housing contribution area which requires a contribution of 4% of the relevant floor area. The clause allows for a monetary contribution, land containing 1 or more dwellings or a combination of two. This application proposes 4% monetary contribution. This percentage is in line with the current government policy and Council feasibility studies, which were undertaken with the introduction of Clause 6.12 into the LEP.

Special Infrastructure Contribution

PRCUTS identifies that increased development in the area will place increased demands onto state infrastructure. The need to secure arrangements towards funding infrastructure is to be determined during the PP process. This can be achieved by way of a planning agreement through the PP process or as part of a future Development Application.

Precinct wide Traffic Review

PRCUTS requires a Precinct-wide traffic study and supporting modelling to be completed before any rezonings are pursued.

A Traffic and Transport Study for the Parramatta Road corridor was undertaken by Bitzios Consulting in 2022 (2022 Traffic Study).

The following identifies the key findings of this study:

- Traffic flows on Parramatta Road have increased to pre WestConnex levels.
- TfNSW advised that growth rates to 2036 will continue to increase and will exceed 2019 levels in 2036. That is, WestConnex has not provided any spare capacity within Parramatta Road.
- TFNSW advised "not to include kerbside bus lanes as an assumption in this study".
- It is unclear whether Sydney Metro West (in isolation) satisfies the requirement of the WestConnex approval condition for "an alternative public transport route that provides an improved public transport outcome". However, TfNSW advised that as "MetroWest has been confirmed with stations at Burwood North and Strathfield North. Bus service planning is likely to be modified significantly to anchor to with these new stations whilst also servicing the existing train stations and residential areas in the study area".
- The modelling generally demonstrates that there are no reasonable major works that can provide congestion relief in the new uplifted precincts as they develop. The main issue remains high level of background traffic in the future year scenarios (estimated at 75%). Therefore, regardless of the uplift in development associated with the PRCUTS, the road network would still be heavily congested.
- The traffic capacity-related measures in the report therefore highlight "pinch point" solutions only and do not provide sufficient capacity to off-set development and growth demands along the Corridor. This raises considerable risk to any future development as by its own admission, the 2022 Traffic Study acknowledges capacity constraints that are unable to be resolved.
- Transport impacts need to be mitigated with public and active transport mode shifts as well as network traffic improvements which provide traffic relief on Parramatta Road. The 2022 Traffic Study notes that "Early intentions in this study to provide more opportunities for turning and cross-movements at Parramatta Road, to the benefit of local traffic, have not been able to be progressed due to the forecast congestion and unknown outcomes of public and active transport planning currently being progressed by TfNSW".
- It is noted that TfNSW have commenced a Public Transport Corridor study - assessing long-term public transport options along the corridor. The report notes that the outcomes of this assessment are likely to guide the direction and vision for the corridor.
- The key modelling outcomes concluded that the worst traffic issues were observed to be concentrated at the western end of the study area with some near Concord Road, George Street and Underwood Road.

However, the proposed upgrades identified by the 2022 Traffic Study would assist in “Reduced average delay times across the network by around 30% and consistently higher average speeds across modelled area”.

The key findings in regard to the general connections at Parramatta Road, in most relevance to the Site were:

- The section of Parramatta Road is heavily constrained due to the M4 to the north and railway line to the south. Therefore, “north-south traffic heading towards or across Parramatta Road is funnelled into a few crossing points, generally high turning demands at a few key intersections, generating significant pinch points by 2036”.
- George Street / Pomeroy Street and Underwood Road / Pomeroy Street intersections currently have extensive queueing and delays during both peak periods, changes to signal phasing is recommended to ease congestion.
- It is understood Canada Bay Council has plans to upgrade the George Street / Pomeroy Street intersection, with:
  - New dedicated short right turn bay on the west approach (Pomeroy Street)
  - New left turn slip lane from the northern approach (George Street) to the eastern departure (Pomeroy Street)
  - Changed to single diamond overlap signal phasing (on Pomeroy Street).
- Other key initiatives relevant to the Site, as illustrated in Figure 25, include the following.
  - Proposed bus stop to the west of Concord West Station, with routes travelling through Victoria Avenue and George Street.
  - Pedestrian facilities along the Site’s eastern frontage, this presents an opportunity with the Proposal already seeking to provide these facilities.
  - Improved pedestrian facilities along Station Avenue.

The 2022 Traffic Study identifies the following opportunities.

- There is capacity on George Street available for additional precinct traffic.
- New developments may be designed with constrained parking allowances to encourage use of the adjacent railway station.
- Additional bus services may result in a shift towards public transport for short trips between the precinct and places that are not directly connected by the rail network.
- Recreational cycling and walking facilities in the adjacent Bicentennial Park may encourage residents to reconsider active transport and then use active transport for commuting and shopping.

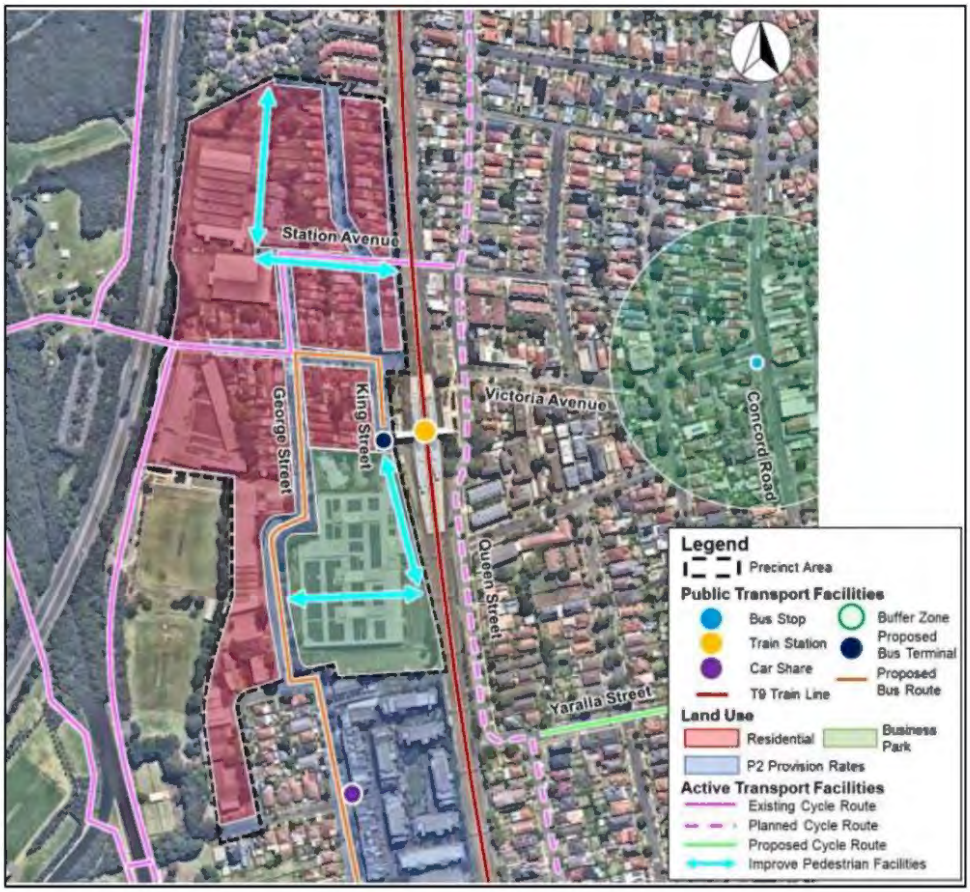


Figure 8 Proposed PRCUTS upgrades (Source: Ason)

Flooding

The strategy lists flooding as a key challenge in Concord. In February 2023 Canada Bay Council adopted a new flood study for the Powells Creek Catchment (known as the Powells Creek Flood Study), which includes the site. This flood study demonstrates that the site is not within a floodway but is classified as a combination of flood fringe and flood storage and flooding can be appropriately managed on site.

The Powells Creek Flood Study has formed the basis of the flood modelling for this site to address site specific requirements. The full detail and response to flooding is provided in **Question 9**.

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Canada Bay Local Strategic Planning Statement (LSPS)

Council's LSPS, which was endorsed by the Greater Sydney Commission on 25 March 2020, provides the core strategic planning document for the LGA and gives effect to the Eastern District City Plan. The LSPS sets a 20 year vision for the LGA based on the themes of infrastructure and collaboration, liveability, productivity and sustainability.

The four main planning priorities for the LSPS are:

- Infrastructure and collaboration,
- Liveability,
- Productivity, and
- Sustainability.

The key land use vision coming from the LSPS is to:

- Create great streets, places and buildings for people,
- Plan for a diversity of housing types and affordability,
- Protect and enhance local character,
- Connect and strengthen neighbourhoods and centres,
- Align growth the delivery of infrastructure,
- Ensure Sydney Metro west delivers 'density done well',
- Improve access to the Parramatta River foreshore,
- Facilitate sustainable development and renewal, and
- Increase biodiversity and the urban tree canopy.

The LSPS is implemented by way of a series of listed actions. This PP is consistent with the following actions.

Table 3 LSPS Key Actions

Action	Response
5.1 - Implement the Parramatta Road Corridor Strategy generally in accordance with the 2016-2023 Implementation Plan, following finalisation of a precinct wide traffic and transport study, and an urban design study, including the preparation of: • precinct wide Planning Proposal; • draft Development Control Plan; • Affordable Housing Contributions Scheme; and Local Contributions Plan	The proposal is consistent with this action as it is generally implementing the actions of PRCUTS. The proposal includes an offer for Affordable Housing on site. A site-specific Development Control Plan can be created post approval of the PP.
5.3 - Investigate changes to the planning framework to encourage a greater diversity of dwellings (such as dual occupancy and terraces) within the immediate vicinity of Concord West station, Majors Bay Road (Concord), North Strathfield station and Five Dock Town Centre.	The proposal is consistent with this action as it is providing more apartments in the area, creating greater housing diversity.
5.5 Require a minimum of 5% of the Gross Floor Area of new development to be dedicated as affordable housing for: • Planned Precincts;	Complies. The proposal includes an offer for Affordable Housing on site consistent with this objective.

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Action	Response
• Parramatta Road Corridor precincts; and • where there is a significant increase in density arising from a Planning Proposal. An affordable housing contribution plan is required before the rezoning of above precincts / sites.	
5.6 Ensure that Planned Precincts, the Parramatta Road Corridor and the redevelopment of large sites deliver a diversity of housing types ranging from terraces to apartments	Complies. The proposal will increase the diversity of housing available in the general area as well as providing a range of apartment sizes on site.
5.1 - Implement the Parramatta Road Corridor Strategy generally in accordance with the 2016-2023 Implementation Plan, following finalisation of a precinct wide traffic and transport study, and an urban design study, including the preparation of: • precinct wide Planning Proposal; • draft Development Control Plan; • Affordable Housing Contributions Scheme; and Local Contributions Plan	The proposal is consistent with this action as it is generally implementing the actions of PRCUTS. The proposal includes an offer for Affordable Housing on site. A site-specific Development Control Plan can be created post approval of the PP.

Canada Bay Local Housing Strategy (LHS)

On 1 May 2021, the Department of Planning and Environment endorsed the Canada Bay Local Housing Strategy (LHS) 2019. The LHS is a primary technical study that was undertaken by Council to inform the LSPS and deliver needed housing, including housing diversity. The LHS estimated that the majority of new housing within the LGA will be delivered under PRCUTS and the Rhodes Planned Precinct (previously known as Rhodes East).

Given that the proposal is consistent with the PRCUTS, therefore it is consistent with the LHS.

Q2 - Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

Option 1 – No action

The first option is to undertake no action in relation to the site. This would not provide an outcome for the site that optimises its strategic position to provide wider public benefits. As such, this option was discounted.

Option 2 – Renew the site under current controls

The second option is to renew the site under the current development controls. However, this would be limited to industrial uses currently permitted in the zone. As an isolated industrial site in the midst of residential development this is not a desirable outcome for the locality or the site. The residential development envisaged by PRCUTS would not be permitted as 'residential accommodation' is listed as a prohibited use in the zone. As such, this option was discounted.

Option 3 – Site Specific Planning Proposal

The fourth option is to lodge a site-specific PP to enable the renewal of the site. The PP is the most transparent means of achieving the desired outcomes to facilitate the redevelopment of the land and provide public benefit. The PP enables the proposed land use (zoning) and built form (height of buildings and FSR controls) to be amended in a way that is more strategic and fitting to the site. Therefore, Option 4 is the preferred option, and a PP is required to facilitate the realisation of the proposed development.

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Section B – Relationship to Strategic Planning Framework

Q3 - Will the planning proposal give effect to the objectives and actions of the applicable regional, or district plan or strategy (including any exhibited draft plans or strategies)?

The Greater Sydney Region Plan 2036

The Greater Sydney Commission released the Greater Sydney Region Plan in March 2018, which outlines a series of actions to coordinate the growth of Sydney.

It is 20-year plan to manage growth and change and is built on a 40-year vision where the people of Greater Sydney live within 30 minutes of their jobs, education and health facilities, services and great places. This vision is consistent with the 10 Directions established in the Directions for a Greater Sydney that are a set of common guiding principles that will assist in navigating Greater Sydney's future as follows:

- A city supported by infrastructure.
- A well-connected city.
- A collaborative city.
- Jobs and skills for the city.
- A city for people.
- A city in its landscape.
- Housing the city.
- An efficient city.
- A city of great places.
- A resilient city.

The Plan encompasses a global metropolis of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City. It is envisioned that people of Greater Sydney will live within 30 minutes of their jobs, education and health facilities, services, and great places.

Consistency with the Greater Sydney Region Plan is provided in the following table:

Table 4 Greater Sydney Region Plan Criteria

Criteria	Comment
Alignment with investment in regional and district infrastructure which acknowledges the catalytic impacts of infrastructure such as Sydney Metro Northwest and Sydney Metro City & Southwest, NorthConnex, WestConnex, CBD and South East Light Rail, Parramatta Light Rail, Northern Beaches Hospital. Other possible future investments such as Western Harbour Tunnel and Beaches Link and Sydney Metro West and opportunities created by enhancements to existing infrastructure such as upgrades to schools, open space including sporting facilities and transport.	There is significant "city shaping" infrastructure within a short walking distance of the site, being the Concord West train station that contributes to the site's accessibility and connectivity with the Greater Sydney Metropolitan Area. As part of the North-Shore Line, Concord West has a direct connection to the nearest metro station being North Strathfield, which will offer direct and frequent metro services the CBD, as well as a direct train service to all heavy rail stations located in the CBD.
Accessibility to jobs, noting close to half of Greater Sydney's jobs are generated in strategic centres.	The site has major connections to several Strategic Centres and major employment hubs, including Hornsby, Macquarie Park, and Chatswood which can be accessed from the site.
Accessibility to regional transport, noting that high frequency transport services can create efficient	The site is within a short walkable distance (under 5 minutes) to the Concord West rail station and bus

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Criteria	Comment
connections to local transport services and expand the catchment area of people who can access regional transport.	interchange. The rail station provides frequent train services to major centres within the Sydney metropolitan area offering direct and frequent services to Strathfield, Epping, CBD and Hornsby and beyond.
Catchment areas within walking distance (up to 10 minutes) of centres with rail, light rail or regional bus transport.	The site is approximately 200 metres (or 5 minutes) from Concord West train station, which is situated on the T9 northern line, providing direct heavy rail access to key centres including Hornsby, Epping, Strathfield and the CBD. Once completed, metro access will be available at North Strathfield and Burwood.
Efficient interchanges with a comprehensive walking and cycling network.	Walking paths are available along the local street network to Concord West train station.
Areas of high social housing concentration where there is good access to services, transport and jobs.	The Concord West area does not comprise high levels of social housing, however, accompanying this PP is a offer to deliver a proportion of affordable housing on this highly accessible site.
Distance from special land uses such as ports and airports.	Not applicable. The site is not near any ports or airports.

Eastern City District Plan

The Eastern City District Plan is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It is a guide for implementing the Greater Sydney Region Plan, A Metropolis of Three Cities, at a district level and is a bridge between regional and local planning.

The vision for the Eastern City District Plan is to transform the district over the next 20 to 40 years to see it become more innovative and globally competitive, carving out a greater portion of knowledge-intensive jobs from the Asia Pacific Region. At the same time, the plan will improve the District's lifestyle and environmental assets.

Consistency with the plan's priorities, objectives and actions is demonstrated in **Table 5** below.

Table 5 Eastern City District Plan assessment

Planning Priorities	Greater Sydney Region Plan Objectives	Actions	Comments
E1 – Planning for a city supported by infrastructure	Infrastructure aligns with forecast growth-growth infrastructure compact. Infrastructure adapts to meet future needs. Objective 4 Infrastructure use is optimised.	Align forecast growth with infrastructure. Maximise the utility of existing infrastructure assets and consider strategies to influence behaviour changes, to reduce the demand for new infrastructure, including supporting the development of adaptive and flexible regulations to allow decentralised utilities.	The envisaged site renewal incorporates the principles of a Transit Oriented Development. It proposes a medium to high-density residential development, close to the Concord West train station, providing direct services to major centres and employment hubs.

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Planning Priorities	Greater Sydney Region Plan Objectives	Actions	Comments
E4 – Fostering healthy, creative, culturally rich and socially connected communities	Communities are healthy, resilient and socially connected. Greater Sydney's communities are culturally rich with diverse neighbourhoods	Deliver healthy, safe, and inclusive places for people of all ages and abilities that support active, resilient and socially connected communities. Facilitate opportunities for creative and artistic expression and participation, wherever feasible, with a minimum regulatory burden. Strengthen social connections within and between communities through better understanding of the nature of social networks and supporting infrastructure in local places.	The subject site is within walking distance of shopping and community services, train and bus services. The PP will provide opportunities for more housing, including affordable housing, in a highly accessible area, which promotes social cohesion and community connectivity. Overall, the proposal supports strong, healthy and well-connected communities.
E5 – Providing housing supply, choice and affordability with access to jobs, services and public transport	Greater housing supply. Housing is more diverse and affordable.	Prepare local or district housing strategies. Prepare Affordable Rental Housing Target Schemes following development of implementation arrangements.	The site is located in a highly accessible location, in close proximity to existing infrastructure, including the Concord West train station and Homebush Bay Drive. The PP is directly consistent with the Department's endorsement of Council's local housing strategy, which requires action to increase housing supply in the PRCUTS areas. The PP facilitates an appropriate mix and number of dwellings which will contribute to increasing the supply of housing in the locality.
E10 – Delivering integrated land use and transport planning and a 30 minute city	A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities.	Integrate land use and transport plans to deliver the 30-minute city.	The site is located within 30-minutes of existing and future employment opportunities from centres such as Rhodes, Strathfield, Epping, and also access

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Planning Priorities	Greater Sydney Region Plan Objectives	Actions	Comments
			to Hornsby and the CBD.
E15 – Protecting and enhancing bushland and biodiversity	Protect and manage biodiversity values across Greater Sydney	Protect and enhance biodiversity by supporting landscape-scale biodiversity conservation and the restoration of bushland corridors, managing urban bushland and remnant vegetation as green infrastructure, managing urban development and urban bushland to reduce edge-effect impacts.	The site is not mapped as being affected by biodiversity affectation. The future planting regime on site can contribute to biodiversity.
E19 – Reducing carbon emissions and managing energy, water and waste efficiently	A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change.	Support initiatives that contribute to the aspirational objective of achieving net-zero emissions by 2050, especially through the establishment of low-carbon precincts; and Support precinct-based initiatives to increase renewable energy, and energy and water efficiency.	The future built form would be able to include measures for renewable energy, as well as energy and water efficiency as part of the detailed design. These principles can be implemented at the Development Application stage.
E20 – Adapting to the impacts of urban and natural hazards and climate change	Exposure to natural and urban hazards are reduced.	Avoid locating new urban development in areas exposed to natural and urban hazards and consider options to limit the intensification of development in existing urban areas most exposed to hazards.	The site is identified as being flood prone. However, the site is not identified as being within a floodway or high hazard area. While the site is mapped as flood prone, the PP demonstrates that the risks to future residents of flood events can be mitigated and managed. Therefore, intensifying the use of the site is not a significant risk.

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Strategic Merit Considerations

The DPE has released assessment criteria for assessing PPs, to justify and determine if a PP has strategic and site-specific merit. **Table 6** and **Table 7** below demonstrates the site has clear strategic and site-specific merit.

Table 6 DPE Assessment Criteria – Strategic Merit

Does the proposal have strategic merit? Does it:	
Give effect to the relevant regional plan outside of the Greater Sydney Region, the relevant district plan within the Greater Sydney Region, and/or corridor/precinct plans applying to the site. This includes any draft regional, district or corridor/precinct plans released for public comment or a place strategy for a strategic precinct including any draft place strategy; or	The proposed concept is entirely consistent with the relevant priorities in the Greater Sydney Region Plan and the Eastern City District Plan as follows: The envisaged site renewal incorporates the principles of Transit Oriented Development. It proposes a medium to high-density mixed-use development, close to the Lindfield train station, providing direct services to major centres and employment hubs, in line with E1.- Planning for a city supported by infrastructure. The site is in a highly accessible location, near existing infrastructure, including the Concord West train station and Homebush Bay Drive. The PP is directly consistent with the Department's endorsement of Council's LHS which requires action to increase housing supply in the PRCUTS areas with access to jobs, services and public transport. The site is located within 30 minutes of existing and future employment opportunities with to centres in the vicinity, including North Strathfield, Rhodes, Concord, and Macquarie Park, consistent with E10. – Delivering integrated land use and transport planning and a 30-minute city. There are no other endorsed corridor/precinct strategies applicable to the site.
Demonstrates consistency with the relevant LSPS or strategy that has been endorsed by the Department or required as part of a regional or district plan; or	Q2 outlines in detail the consistency with both Council's LSPS and the endorsed LHS. There are no other local council strategies that we are aware of, that have been endorsed by DPE, relevant to the PP.
Respond to a change in circumstances that has not been recognised by the existing planning framework	The PP responds to a forecasted changes in circumstances which have been identified in PRCUTS, namely the delivery of Westconnex and other public transport improvements anticipated to relieve Parramatta Road and the greater area of traffic volumes. This presents the opportunity to provide for a more urban design-based approach to urban renewal in the area. -

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Table 7 DPE Assessment Criteria – Site Specific Merit

Does the site have site-specific merit, having regard to the following:	
Assessing the impacts to the natural environment on the site to which the proposal relates and other affected land (including known significant environmental values, resources or hazards)	The PP is located within an existing urban environment and seeks to allow for residential development and to increase height and density in a location where environmental hazards such as flooding and contamination can be mitigated and managed. The site is not bushfire prone, and the proposal will not have a significant impact on any threatened species or populations or TECs.
Assessing the impacts to existing uses, approved uses, and likely future uses of land in the vicinity of the land to which the proposal relates	The PP proposes to enable residential accommodation on the land in a type and form which is envisaged by PRCUTS. The Concord West Socio-Economic Study (which preceded PRCUTS) confirmed the appropriateness of rezoning the site from industrial to residential, along with other properties in the immediate locality. Therefore the PP is consistent with the proposed future uses as envisaged by these documents for the precinct.
Assessing the services and infrastructure that are or will be available to meet the demands arising from the proposal and any proposed financial arrangements for infrastructure provision.	The subject site is located in an existing urban area and has immediate access to servicing infrastructure, road and rail-based transport networks and public open space adjacent to the site.

Q4 - Is the planning proposal consistent with a council LSPS that has been endorsed by the Planning Secretary or GSC, or another endorsed local strategy or strategic plan?

As discussed in detail below, the proposed concept is consistent with the:

- Canada Bay Local Strategic Planning Statement (LSPS)
- Canada Bay Local Housing Strategy (LHS)

Canada Bay Local Strategic Planning Statement

The Canada Bay Local Strategic Planning Statement (LSPS) sets out a vision to 2036 to; identify the special characteristics and community values that are to be maintained and enhanced, and outline how growth and change will be managed into the future.

The four main planning priorities for the LSPS are:

- Infrastructure and collaboration,
- Liveability,
- Productivity, and
- Sustainability.

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The LSPS has a land use vision based on the following principles:

- Create great streets, places and buildings for people.
- Plan for a diversity of housing types and affordability.
- Protect and enhance local character.
- Connect and strengthen neighbourhoods and centres.
- Align growth with the delivery of infrastructure.
- Ensure Sydney Metro west delivers 'density done well'.
- Improve access to the Parramatta River foreshore.
- Facilitate sustainable development and renewal.
- Increase biodiversity and the urban tree canopy.

The LSPS is implemented by way of a series of listed actions. This PP is consistent with the following actions.

Table 8 LSPS Key actions

Action	Response
5.1 - Implement the Parramatta Road Corridor Strategy generally in accordance with the 2016-2023 Implementation Plan, following finalisation of a precinct wide traffic and transport study, and an urban design study, including the preparation of: • precinct wide Planning Proposal; • draft Development Control Plan; • Affordable Housing Contributions Scheme; and Local Contributions Plan	The proposal is consistent with this action as it is generally implementing the actions of PRCUTS. The proposal includes an offer for Affordable Housing on site. A site-specific Development Control Plan can be created post approval of the PP.
5.3 - Investigate changes to the planning framework to encourage a greater diversity of dwellings (such as dual occupancy and terraces) within the immediate vicinity of Concord West station, Majors Bay Road (Concord), North Strathfield station and Five Dock Town Centre.	The proposal is consistent with this action as it is providing more apartments in the area, creating greater housing diversity.
5.5 Require a minimum of 5% of the Gross Floor Area of new development to be dedicated as affordable housing for: • Planned Precincts; • Parramatta Road Corridor precincts; and • where there is a significant increase in density arising from a Planning Proposal. An affordable housing contribution plan is required before the rezoning of above precincts / sites.	Complies. The proposal includes an offer for Affordable Housing on site consistent with this objective.
5.6 Ensure that Planned Precincts, the Parramatta Road Corridor and the redevelopment of large sites deliver a diversity of housing types ranging from terraces to apartments	Complies. The proposal will increase the diversity of housing available in the general area as well as providing a range of apartment sizes on site.
16.5 Ensure that Master Plans and Precinct Plans achieve a minimum 25% canopy cover	Complies. The concept plans demonstrate that 28.4% of the site area is for deep soil landscaping.

Canada Bay Local Housing Strategy

The Local Housing Strategy (LHS) outlines Council's 20-year vision and priorities for housing in response to the Greater Sydney Region Plan and the Central City District Plan.

Given that the proposal is consistent with the PRCUTS, therefore it is consistent with the LHS.

Q5 - Is the planning proposal consistent with any other applicable State and regional studies or strategies?

Not applicable, there are no other State or regional studies/strategies applicable to the subject PP.

Q6 – Is the planning proposal consistent with applicable SEPPs?

Table 9 outlines consistency with the relevant SEPPs

Table 9 State Environmental Planning Policies assessment

SEPP Title	Consistency	Comment
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Yes	The PP will not contain provisions that will contradict or hinder the application of this SEPP.
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	Yes	The PP will not contain provisions that will contradict or hinder the application of this SEPP.
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	N/A	Not applicable.
State Environmental Planning Policy (Housing) 2021	Yes	The PP will not contain provisions that will contradict or hinder the application of this SEPP. In terms of the provisions of Chapter 4: Design of Residential Apartment Development, the Architectural Plans and the associated Urban Design Report has taken into consideration the principles of the SEPP. The indicative concept demonstrates that a future building complying with the proposed building height and FSR has the capability of being consistent with the design criteria of the Apartment Design Guide (ADG). Any future Development Application to be submitted to Council for this site will demonstrate detailed compliance with the requirements of this chapter of the SEPP.
State Environmental Planning Policy (Industry and Employment) 2021	N/A	Not applicable.
State Environmental Planning Policy (Planning Systems) 2021	N/A	Not applicable.

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SEPP Title	Consistency	Comment
State Environmental Planning Policy (Precincts—Central River City) 2021	N/A	Not applicable.
State Environmental Planning Policy (Precincts—Eastern Harbour City) 2021	N/A	Not applicable.
State Environmental Planning Policy (Precincts—Regional) 2021	N/A	Not applicable.
State Environmental Planning Policy (Precincts—Western Parkland City) 2021	N/A	Not applicable.
State Environmental Planning Policy (Primary Production) 2021	N/A	Not applicable.
State Environmental Planning Policy (Resilience and Hazards) 2021	Yes	Chapter 4 – Remediation of land applies to this PP. An Environmental Report has been undertaken and demonstrates that the site can be made suitable for residential development as per the requirements of Clause 4.6 of the SEPP.
State Environmental Planning Policy (Resources and Energy) 2021	N/A	Not applicable.
State Environmental Planning Policy (Transport and Infrastructure) 2021	Yes	Division 15, Subdivision 2 of the SEPP provides controls for "development immediately adjacent to rail corridors", "excavation in, above or adjacent to rail corridors", "impact of rail noise or vibration on non-rail development", "development within or adjacent to interim rail corridor" and "development near proposed metro stations". Consideration will need to be given to these matters as part of any future Development Application.

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Q7 – Is the planning proposal consistent with the applicable Ministerial Directions (section 9.1 Directions)?

It is considered that the PP is consistent with the relevant Directions issued under Section 9.1 of the Act by the Minister to councils, as demonstrated in **Table 10** below, except for Flooding. This is covered in **Table 12**.

Table 10 S9.1 Ministerial Directions Assessment

Direction Title	Consistency	Comment
Focus area 1: Planning Systems		
1.1 Implementation of Regional Plans	Yes	The proposal demonstrates consistency with the Greater Sydney Regional Plan and the stated locational criteria as it: • Is within the walking catchment of Concord West station, given its proximity to the station (approximately 200m walking distance). • Aligns with city shaping infrastructure, given the subject site is within walking distance to Concord West Train Station, which connects to North Strathfield and Burwood (which will have Metro access) as well as providing heavy rail access to the CBD. • Has accessibility to jobs, with major connections to several strategic centres and major employment hubs including Parramatta and Macquarie Park within 30 minutes. • Is accessible to regional transport given it is within 5-minute walking distance to Concord West Station and bus interchange. Concord West is located on the Northern Line with direct access to both the CBD and to Hornsby, the latter of which has connecting services to Newcastle, the Central Coast and the greater Hunter region. • Allows for both walking and cycling within the Concord West Centre given existing infrastructure.

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Direction Title	Consistency	Comment
		• Is offering the provision of affordable housing within the site in an area with good access to services, transport and jobs.
1.2 Development of Aboriginal Land Council land	N/A	Not applicable.
1.3 Approval and Referral Requirements	N/A	Not applicable.
1.4 Site Specific Provisions	N/A	
Focus area 1: Planning Systems – Place-based		
1.5 Parramatta Road Corridor Urban Transformation Strategy	Yes	The Direction gives the statutory weight to this strategy, and this is the primary Strategic Plan applying to the site. As demonstrated in Q1, the PP is consistent with PRCUTS and implementing the vision of the strategy. A full assessment is provided in **Table 11** below.
1.6 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	N/A	Not applicable.
1.7 Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	N/A	Not applicable.
1.8 Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	N/A	Not applicable.
1.9 Implementation of Glenfield to Macarthur Urban Renewal Corridor	N/A	Not applicable.
1.10 Implementation of the Western Sydney Aerotropolis Plan	N/A	Not applicable.
1.11 Implementation of Bayside West Precincts 2036 Plan	N/A	Not applicable.
1.12 Implementation of Planning Principles for the Cooks Cove Precinct	N/A	Not applicable.

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Direction Title	Consistency	Comment
1.13 Implementation of St Leonards and Crows Nest 2036 Plan	N/A	Not applicable.
1.14 Implementation of Greater Macarthur 2040	N/A	Not applicable.
1.15 Implementation of the Pyrmont Peninsula Place Strategy	N/A	Not applicable.
1.16 North West Rail Link Corridor Strategy	N/A	Not applicable.
1.17 Implementation of the Bays West Place Strategy	N/A	Not applicable.
1.18 Implementation of the Macquarie Park Innovation Precinct	N/A	Not applicable.
1.19 Implementation of the Westmead Place Strategy	N/A	Not applicable.
1.20 Implementation of the Camellia-Rosehill Place Strategy	N/A	Not applicable.
1.21 Implementation of the South West Growth Area Structure Plan	N/A	Not applicable.
1.22 Implementation of the Cherrybrook Station Place Strategy	N/A	Not applicable.
Focus area 2: Design and Place		
Focus area 3: Biodiversity and Conservation		
3.1 Conservation Zones	N/A	Not applicable.
3.2 Heritage Conservation	Yes	The site is not a heritage item nor is it within a heritage conservation area. Nonetheless, the site is adjacent to a heritage listed item in Concord West Public School, however no impact is expected on the heritage values of the school.
3.3 Sydney Drinking Water Catchments	N/A	Not applicable.
3.4 Application of C2 and C3 Zones and Environmental Overlays in Far North Coast LEPs	N/A	Not applicable.
3.5 Recreation Vehicle Areas	N/A	Not applicable.
3.6 Strategic Conservation Planning	N/A	Not applicable.

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Direction Title	Consistency	Comment
3.7 Public Bushland	N/A	Not applicable. The application is not on public bushland.
3.8 Willandra Lakes Region	N/A	Not applicable.
3.9 Sydney Harbour Foreshores and Waterway Area	N/A	Not applicable.
3.10 Water Catchment Protection	N/A	Not applicable.
Focus area 4: Resilience and Hazards		
4.1 Flooding	Inconsistent but appropriate.	Site is flood prone – a full assessment is provided below in **Table 12**.
4.2 Coastal Management	N/A	Not applicable.
4.3 Planning for Bushfire Protection	Yes	Not applicable as the site is not identified as Bushfire Prone Land.
4.4 Remediation of Contaminated Land	Yes	An Environmental Assessment has been undertaken and demonstrates that the site can be made suitable for residential development.
4.5 Acid Sulfate Soils	Yes	The site is mapped as Class 2 on the LEP Acid Sulfate Soils map. Any future Development application would need design to respond to the provisions of Clause 6.2 of the LEP.
4.6 Mine Subsidence and Unstable Land	N/A	Not applicable.
Focus area 5: Transport and Infrastructure		
5.1 Integrating Land Use and Transport	**Yes**	The PP will enable residential development close to (within 10 minutes' walk of) existing rail and bus infrastructure, local services, while encouraging walking, cycling and use of public transport.
5.2 Reserving Land for Public Purposes	N/A	Not applicable.
5.3 Development Near Regulated Airports and Defence Airfields	N/A	Not applicable.
5.4 Shooting Ranges	N/A	Not applicable.
Focus area 6: Housing		
6.1 Residential Zones	Yes	The PP proposes to rezone the land to R3 – Medium Density Residential in order to supply a variety and choice of housing

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Direction Title	Consistency	Comment
		types to provide for existing and future housing needs, whilst making efficient use of existing infrastructure and services. The PP demonstrates appropriate built form whilst minimising the impact of residential development on the environment.
6.2 Caravan Parks and Manufactured Home Estates	N/A	Not applicable.
Focus area 7: Industry and Employment		
7.1 Employment Zones	Inconsistent but justifiable	The proposal is inconsistent with this Direction as it is enabling residential land uses on a site zoned for industrial purposes. However, the inconsistency is justified since strategic planning has occurred which has identified this land for future residential and not employment land, particularly given its isolated location and limited redevelopment opportunities.
7.2 Reduction in non-hosted short-term rental accommodation period	N/A	Not applicable.
7.3 Commercial and Retail Development along the Pacific Highway, North Coast	N/A	Not applicable.
Focus area 8: Resources and Energy		
8.1 Mining, Petroleum Production and Extractive Industries	N/A	Not applicable.
Focus area 9: Primary Production		
9.1 Rural Zones	N/A	Not applicable.
9.2 Rural Lands	N/A	Not applicable.
9.3 Oyster Aquaculture	N/A	Not applicable.
9.4 Farmland of State and Regional Significance on the NSW Far North Coast	N/A	Not applicable.

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Ministerial Direction 1.5 - Parramatta Road Corridor Urban Transformation Strategy

The objectives of this direction are to:

(a) facilitate development within the Parramatta Road Corridor that is consistent with the *Parramatta Road Corridor Urban Transformation Strategy* (November, 2016), the *Parramatta Road Corridor Implementation Tool Kit*, and the *Parramatta Road Corridor Urban Transformation Implementation Update 2021*,

(b) provide a diversity of jobs and housing to meet the needs of a broad cross-section of the community, and

(c) guide the incremental transformation of the Parramatta Road Corridor in line with the delivery of necessary infrastructure.

An assessment against each direction is below:

Table 11 Ministerial Direction 1.5 – Parramatta Road Corridor Urban Transformation Strategy assessment

Direction	Response
A planning proposal that applies to land in the nominated local government areas within the Parramatta Road Corridor must:	
(a) give effect to the objectives of this direction	The proposal is considered to meet the objectives of this direction as: • The proposal is facilitating residential development on the site as envisaged by PRCUTs therefore meeting (a), • It will provide for a range of housing on site in terms of the mix of apartments offered, which also contributes to the diversity of housing stock in the Concord West area, therefore meeting (b), and • It will ensure that the site can be serviced by necessary infrastructure and is a logical extension to the area already rezoned under the Council's Stage 1 PRCUTS Planning Proposal, therefore meeting (c).
(b) be consistent with the Strategic Actions within the Parramatta Road Corridor Urban Transformation Strategy (November, 2016),	The strategic actions relate to: - Housing Diversity The proposal is providing 'diverse housing' to the area as a 'built to rent' model is being considered for the property which complies with this strategic action. The concept plans also show a mix of dwelling sizes and types to accommodate a broad mix of residents. - Affordable housing The proposal complies with this strategic action by providing a monetary contribution of 4% for the provision of affordable housing in the LGA in line with Clause 6.12 of the LEP, taken to be the government policy of the day for Homebush North. - Jobs, centres and clusters, resilient economy for the future, integrated transport network, on street rapid transit for Parramatta Road, street function network, 15-minute neighbourhoods, community infrastructure, heritage actions,

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Direction	Response
	design excellence, noise and air quality, new neighbourhood parks and open space, greening the Parramatta Road Corridor, adaptive sustainability practices, effective governance and funding options. There are no proponent actions in these sections.
(c) be consistent with the Parramatta Road Corridor Planning and Design Guidelines (November, 2016) and particularly the requirements set out in Section 3 Corridor-wide Guidelines and the relevant Precinct Guidelines,	The proposal is considered to be consistent with the Corridor wide Guidelines and the Precinct Guidelines. In terms of the Corridor guidelines, the site is located in Corridor East. This corridor is noted as being constrained in part by small lot size and land fragmentation, which means this site is a significant opportunity to achieve the redevelopment and densification that is envisaged in the strategy. In terms of the general Corridor requirements: • The site is not heritage listed or in a heritage area therefore these are not relevant. • The site does not contain creeks or watercourses, however further detailed design for the stormwater on site can be done at DA stage to ensure that there is appropriately treated water discharge coming off the site into nearby creeks and waterways. • There are no requirements for new public open space on site. However, the site can meet the public domain principles by increasing canopy cover and permeable ground surfaces for rainfall penetration. The shared zone will include planting along its edges to provide shade and make it a pleasant area for pedestrians to walk through. • There are no new community facilities required on site. However, there is communal open space available to residents with a variety of structured and unstructured activities to cater for a broad audience. • In terms of traffic and transport, the site will encourage travel behaviour change due to its proximity to the Concord West train station and the connectivity via footpath for pedestrians. There are also shared paths in the vicinity of the site to encourage cycling. • In terms of the street function, it is a shared zone designed for low speed vehicles as well as pedestrian and cycling. It would sit under the 'local streets' in the street hierarchy. • Regarding carparking, under the rates in PRCUTS, the site requires a maximum of 300 spaces. It is proposing 206 spaces, therefore

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Direction	Response
	under the maximum requirement. All spaces are located on site and no on street parking is proposed. The basement parking has been sleeved from the public domain by the built form. Bicycle parking is possible and can be incorporated into the final DA design. • Sustainability principles can be demonstrated with the future BASIX certificate. In terms of the Precinct Guidelines, the site is within the Homebush Precinct, sitting on the outer northern edge of the area. The site is identified as residential in this precinct which is reflected in the indicative zoning in the plan of R3 – Medium Density Residential, which in turn is the proposed zoning in this PP. The indicative height and FSR is 25m and 1.6:1, but as noted in C – Densities, these are 'loose fit envelopes' designed to flexibly respond to site conditions, particularly edge conditions, and the need to provide solar access and ADG requirements. This PP has demonstrated this in the concept design shown. There are no open space or active street frontage requirements for this site.
(d) be consistent with the staging and other identified thresholds for land use change identified in the Parramatta Road Corridor Implementation Plan 2016 – 2023 (November, 2016), and the Parramatta Road Corridor Urban Transformation Implementation Update 2021, as applicable	The site is located within the Homebush Precinct and Figure 4 of the 2016 Action Plan identified this site as being within the 2016-2023 Release aera. Therefore, the staging of this PP is consistent with the Implementation Plan timing. The 2016 Implementation Plan notes the need for a Precinct-wide traffic study to be completed prior to any rezoning commencing. The precinct-wide traffic study has been completed and has been addressed in the site-specific traffic report. This site was excluded from the Council's PRCUTS Stage 1 PP due to the requirement of a flood study to be completed on Powells Creek. This too has been completed, and has been addressed in the FIRA prepared for this site and submitted with the PP.
(e) contain a requirement that development is not permitted until land is adequately serviced (or arrangements satisfactory to the relevant planning authority, or other appropriate authority, have been made to service it) consistent with the Parramatta Road Corridor Implementation Plan 2016 –2023 (November, 2016),	The PP is accompanied by a Servicing and Infrastructure Report which demonstrates that the site can be adequately serviced with essential infrastructure (i.e. sewer, water etc.) and there is capacity in the network to accommodate the augmentation. The precinct-wide traffic study has been completed and has been addressed in the site-specific traffic report. Overall, it is considered that the provisions of (c) can be met, or alternatively as per the 2021 Implementation Update, the Department may impose a Gateway condition or the like to amend a PP to address State Infrastructure requirements.

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Direction	Response
(f) be consistent with the relevant District Plan.	The proposal is consistent with the Eastern City District Plan as outlined in detail to Q3. In particular, it is compliant with E5 – providing housing supply, choice and affordability with access to jobs, services and public transport. This is given that the site is located in a highly accessible location, in close proximity to existing infrastructure, including the Concord West train station and Homebush Bay Drive. The PP is directly consistent with the Department's endorsement of Council's local housing strategy, which requires action to increase housing supply in the PRCUTS areas. The PP facilitates an appropriate mix and number of dwellings which will contribute to increasing the supply of housing in the locality
A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the planning proposal is: (a) consistent with the 'Out of Sequence Checklist' in the Parramatta Road Corridor Implementation Plan 2016 – 2023 (November, 2016), or (b) justified by a study (prepared in support of the planning proposal) that clearly demonstrates better outcomes are delivered than identified in the Parramatta Road Corridor Urban Transformation Strategy (November, 2016) and Parramatta Road Corridor Implementation Plan 2016-2023 (November, 2016) having regard to the vision and objectives, or (c) of minor significance	The site is located within the Homebush Precinct and Figure 4 of the 2016 Action Plan identified this site as being within the 2016-2023 Release aera. Therefore, the staging of this PP is consistent with the Implementation Plan timing and therefore the provisions of (a) do not apply. It is noted that the PP does not propose development standard which align exactly with those indicated in PRCUTS. However, the PP is accompanied by architectural and landscape plans, and an Urban Design Report which looks at the site and locality in explicit details and justifies why the proposed standards are appropriate, therefore meeting the requirements of (b).

Ministerial Direction 4.1 – Flooding

A full assessment is provided given that the proposal is inconsistent with the provisions.

The objectives of this direction are to:

(a) ensure that development of flood prone land is consistent with the NSW Government's Flood Prone Land Policy and the principles of the Floodplain Development Manual 2005, and

(b) ensure that the provisions of an LEP that apply to flood prone land are commensurate with flood behaviour and includes consideration of the potential flood impacts both on and off the subject land.

An assessment against each direction is as follows:

Table 12 Ministerial Direction 4.1 – Flooding assessment

Provision	Comment
(1) A planning proposal must include provisions that give effect to and are consistent with:	A Flood Impact and Risk Assessment (FIRA)has been undertaken for the site by Worley.

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Provision	Comment
(a) the NSW Flood Prone Land Policy, (b) the principles of the Floodplain Development Manual 2005, (c) the Considering flooding in land use planning guideline 2021, and (d) any adopted flood study and/or floodplain risk management plan prepared in accordance with the principles of the Floodplain Development Manual 2005 and adopted by the relevant council.	The FIRA has used the Powells Creek Study as a basis for its work. This Study has also been adopted by Council. The study has taken into consideration the listed state policy.
(2) A planning proposal must not rezone land within the flood planning area from Recreation, Rural, Special Purpose or Conservation Zones to a Residential, Employment, Mixed Use, W4 Working Waterfront or Special Purpose Zones.	Not applicable to this PP.
(3) A planning proposal must not contain provisions that apply to the flood planning area which:	
(a) permit development in floodway areas,	The Powells Creek Flood Study and submitted flood report demonstrates that the site is not identified as a high hazard area or a floodway.
(b) permit development that will result in significant flood impacts to other properties,	The submitted flood study demonstrates that the future development on the site (if this PP is approved) will not result in significant flood impacts to other properties.
(c) permit development for the purposes of residential accommodation in high hazard areas,	The Powells Creek Flood Study and submitted flood report demonstrates that the site is not identified as a high hazard area. The Worley Flood Report confirms this and classifies the site as a Medium Flood Risk Precinct.
(d) permit a significant increase in the development and/or dwelling density of that land,	The proposal is inconsistent with this provision as it is proposing to rezone the land to residential and increase the height of building and FSR permitted on the land which will (if approved) permit a significant increase in the development as well as the dwelling density on the site. However, the planning proposal demonstrates that future development can be designed to respond to the flood constraints and mitigate the risks associated with flooding. The main factor in the design is the location of all habitable areas above the PMF level. It is also noted that the proposal has considered the flood emergency response strategy and provides options for both 'shelter in place' and two potential evacuation routes for horizontal evacuation away from the site. "Shelter in place" is a practical option for this site as all habitable floor levels are proposed above the PMF peak and also because the site is subject to 'flash flooding' meaning that this option would only be needed for a few hours at a time. The practicality of this

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Provision	Comment
	option is demonstrated in Table 4-2 of the FIRA, where it assesses the proposal against the draft "Shelter In Place' Guidelines. A combination of these factors, and management by the future strata committee to educate the residents on what to do in the case of an emergency will be required. The preparation and implementation of a detailed Flood Emergency Response Strategy can form part of conditions issued with a future development consent. In this respect, given that the existing development on the land is below the flood planning level, notwithstanding the increased development on the land, the current flood risk will be lessened.
(e) permit development for the purpose of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals, residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate,	The PP is proposing to rezone the land to R3 – Medium Density Residential which will permit the developments as listed in the direction. However, the use of the land is still subject to a future development application and this proposal demonstrates that standard residential accommodation in the form of dwellings can be safely accommodated on site. It is noted that the FIRA demonstrates two options for horizontal evacuation on site which may also be appropriate for the other uses listed. However, these uses should be assessed on their own merits.
(f) permit development to be carried out without development consent except for the purposes of exempt development or agriculture. Dams, drainage canals, levees, still require development consent	Not applicable as no agriculture exists or is proposed on this site.
(g) are likely to result in a significantly increased requirement for government spending on emergency management services, flood mitigation and emergency response measures, which can include but are not limited to the provision of road infrastructure, flood mitigation infrastructure and utilities, or	The submitted flood study demonstrates that the future development on the site (if this PP is approved) will manage the flood risks on site and not result in significant flood impacts to other properties. It will not significantly increase the requirement for government spending on managing the flood risk.
(h) permit hazardous industries or hazardous storage establishments where hazardous materials cannot be effectively contained during the occurrence of a flood event.	Not applicable. No hazardous industries or hazardous storage establishments are proposed with this PP.
(4) A planning proposal must not contain provisions that apply to areas between the flood planning area and probable maximum flood to which Special Flood Considerations apply which:	

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Provision	Comment
(a) permit development in floodway areas, (b) permit development that will result in significant flood impacts to other properties, (c) permit a significant increase in the dwelling density of that land (d) permit the development of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals, residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate, (e) are likely to affect the safe occupation of and efficient evacuation of the lot, or (f) are likely to result in a significantly increased requirement for government spending on emergency management services, and flood mitigation and emergency response measures, which can include but not limited to road infrastructure, flood mitigation infrastructure and utilities	Special Flood Considerations do not apply to this land or proposal as these controls relate to sensitive and hazardous development and generally the risk of hazardous industry and/ or hazardous storage establishments to the community and the environment in the event of a flood.
(5) For the purposes of preparing a planning proposal, the flood planning area must be consistent with the principles of the Floodplain Development Manual 2005 or as otherwise determined by a Floodplain Risk Management Study or Plan adopted by the relevant council.	The Flood Planning Area map contained in Figure 2-5 was prepared as part of the Powells Creek Flood Study (WMAwater, 2022), which has been adopted by City of Canada Bay Council and was prepared in accordance with the principles of the Floodplain Development Manual 2005.
Consistency A planning proposal may be inconsistent with this direction only if the planning proposal authority can satisfy the Planning Secretary (or their nominee) that: (a) the planning proposal is in accordance with a floodplain risk management study or plan adopted by the relevant council in accordance with the principles and guidelines of the Floodplain Development Manual 2005, or (b) where there is no council adopted floodplain risk management study or plan, the planning proposal is consistent with the flood study	In terms of the provisions listed: • It is understood that Council has not yet adopted a floodplain risk management study and plan for the area. Therefore (a) does not apply. • The FIRA used the flood model and results produced as part of the Powells Creek Study which has been adopted by Council for use in the FIRA. A 'post development' version of the associated TUFLOW model was created to assess the potential impacts of the development on existing flood behaviour which were found to be negligible. This complies with (b). • This Flood Impact and Risk Assessment report has been prepared in support of the planning proposal and has been prepared in accordance with the principles of the NSW Government's Flood Risk Management Manual 2023 and the City

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Provision	Comment
adopted by the council prepared in accordance with the principles of the Floodplain Development Manual 2005 or (c) the planning proposal is supported by a flood and risk impact assessment accepted by the relevant planning authority and is prepared in accordance with the principles of the Floodplain Development Manual 2005 and consistent with the relevant planning authorities' requirements, or (d) the provisions of the planning proposal that are inconsistent are of minor significance as determined by the relevant planning authority.	of Canada Bay DCP 2023. This complies with (c). The provisions of (d) are not likely to comply however this is at the discretion of the relevant planning authority.

Section C – Environmental, Social and Economic Impact

Q8 - Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The Planning Portal mapping indicates that the site is not mapped on the Biodiversity Values Map and Threshold Tool or the Terrestrial Biodiversity Map as per the LEP. It has not been identified as containing critical habitat, or threatened species or populations or ecological communities or their habitats.

Q9 - Are there any other likely environmental effects of the planning proposal and how are they proposed to be managed?

Architecture and Urban Design

The PP is accompanied by concept Architectural Plans prepared by Antoniades Architects. The proposed master plan provides for a series of buildings on site graduating in height from 7 storeys to the east to up to 10 storeys along Homebush Bay Drive. The height levels are proposed to be controlled by way of the site-specific DCP chapter.

The proposed heights are designed to provide a transition from the existing 1-2 storey levels dwellings prevalent along King Street. The building grain is also designed to break up the bulk of the development and respond to the residential context. The plans also show compliance with key Apartment Design Guide (ADG) criteria of solar access and cross ventilation as well as exceeding the landscape and deep soil minimum requirements in ADG.

A concept Landscape Plan has also been developed by Turf Landscape Architecture and submitted with the PP. The site vision demonstrates one that is adding to and providing canopy trees at the ground level, and treating stormwater flows before they enter Sydney Olympic Park. The ground level is also activated for passive open space for residents to enjoy. There are also landscaped spaces proposed for the podium levels and green roofs designed for passive cooling, reducing runoff and capturing solar energy. It is also noted that the ground plane has been designed to work with the flood conditions, particularly given that the area under the proposed buildings will be used for flood storage.

An Urban Design Study for this site has been prepared by Gyde Consulting. This study builds upon the Urban Design Study prepared for the greater precinct as part of the PRCUTS – Stage 1 PP which was approved in December 2022. The Urban Design Study (UDS) goes into extensive analysis in relation to the existing streetscape and development grain of the local area, the site edge conditions and the current proposal, which will form the basis of a site-specific DCP.

Key outcomes from the UDS in relation to the concept architectural plans are:

- A massing strategy which concentrates the height to the west of the site, with building heights tapering to the northern, eastern and southern site edges.
- A master plan outcome which strengthens the landscape outcomes within the site as well as along the site interfaces.
- Building envelopes which are carefully modulated to respond to the grain and texture of the surrounding built form to reduce the perceived bulk and scale to neighbouring areas.
- A design response addressing the flood constraints on site.
- High levels of amenity for the future residents on site in terms of solar access to apartments and communal open space and natural cross ventilation opportunities.
- Ensuring that overshadowing of the surrounding area is minimised.

Overall, it has been demonstrated that the proposed controls are appropriate in terms of the bulk and scale appropriateness for the locality and that the site can be conceptually developed for the purpose of residential accommodation in line with the proposed controls, and as per the principles of ADG.

Flooding

As per PRCUTS in Q1 above, flooding has been identified as a key challenge in Concord West. In February 2023 Canada Bay Council adopted a new flood study for the Powells Creek Catchment (known as the Powells Creek Flood Study), which includes the site. The mapping shown from the Powells Creek Flood Study below demonstrates that the site is not within a floodway but is classified as a combination of flood fringe and flood storage.

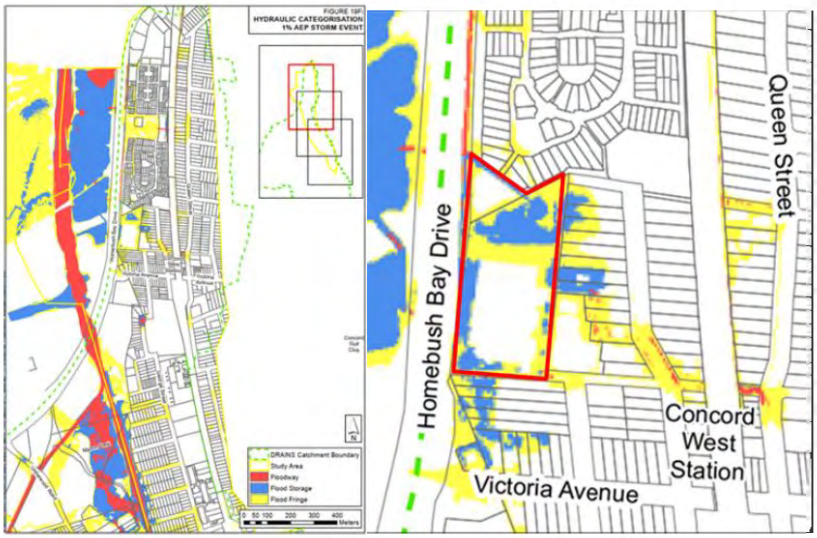

Figure 9 Extracts from the Powells Creek Flood Study with the subject site outlined in red (Source: Council)

A Flood Impact and Risk Assessment (FIRA) for the site has been prepared by Worley. The modelling for this work was based on the application of the TUFLOW model developed for the Powells Creek Flood Study.

The key outcomes from the FIRA are as follows:

- The Peak Flood Levels and Depths are as follows:
  - 20% AEP event: the majority of the site is inundated with peak depths between 0.25m-0.37m. The flood level for this event ranges from 1.74 to 1.87m AHD.
  - 1% AEP event: the peak flood dpeths are in the range of 0.3-0.5m across the site reaching maximums of 0.7m in parts. The flood level for this event is 2.0m AHD.
  - PMF event: the entire site is inundated to depths between 1.7m-2.2m. The flood level for this event is 3.55m AHD.
- The peak flow velocities on site are generally low for the 20% AEP event up to the 1% AEP event as they are less than 0.5m/s with localised higher peak velocities limited to the southeastern and northern boundaries due to local runoff entering then exiting the site. In the PMF event, the peak velocities range between 0.5-1.0 m/s with a maximum velocity of 1.4m/s reached locally.
- The flood hazard for the site is classified as follows:
  - 20% AEP event: H1 hazard with small patches of H2 hazard in lower lying areas.

- 1% AEP event:: H2 Hazard, with small areas of H1 Hazard on higher ground and H3 Hazard on lower ground. While peak velocities are low, the hazard is dictated by the depth of inundation.
- PMF event: the site is classified as H4 and H5 hazard, however as the velocities remain low, structurally sound buildings would not be expected to sustain structural damage.

Based on the Canada Bay DCP 2023 classification of Flood Risk Precincts (FRPs), the site is classified as a Medium FRP. The Medium FRP classification is due to the Site being within the 1% AEP flood extent but not being in a H4 or higher flood hazard category.

The development has taken into account the flood constraints and address the risk of flooding as follows:

- The residential floor levels are designed to be above the PMF at a minimum elevation of 3.6m AHD.
- The carpark will be fitted with floodgates to prevent inundation in a flood event up to and including the PMF.
- The area of the building footprint at ground level will be reduced by incorporating under croft spaces beneath the apartments around the southern and eastern perimeters of the building. Ground levels within the under croft spaces will be at similar elevations to existing condition which allows floodwaters to pass through the Site with minimal disturbance to existing flow conveyance and storage behaviour.
- A driveway / entry road will be constructed parallel to the eastern Site boundary, providing access to the carpark from Station Avenue and Concord Avenue. It is proposed that the driveway will have a minimum elevation of 1.8 mAHD which is 0.2 metres below the peak 1% AEP flood level. This elevation is based on criteria specified in DCP 2023 Part B8 Car Parking and Driveway Access control number C5. Floodwaters would pass beneath the driveway through regularly spaced culverts into a swale which would direct flows around the perimeter of the building to open space located in the north of the Site.
- The PP also includes the small triangular lot to the north-west of the Site as that will be acquired and used to improve flood conveyance and storage via excavation from existing levels of 1.7 to 2.6 m AHD down to a level of about 1.5 m AHD.
- The development can demonstrate that the filling required in the floodplain from the 20% AEP event up to and including the PMF is offset by volumes of cut in that a net increase in storage is provided.

In terms of the potential impact on other properties, the FIRA demonstrates that there will be no adverse impacts on peak flood levels of 20mm or more in the 1% AEP or PMF events. While there is a 28mm increase in the 20% AEP flood event, it is fully contained within the drainage channel along the eastern edge of the road easement and no private property or infrastructure is affected by this minor flood increase. The modelling results and analysis presented in the previous sections demonstrates that the proposed development is unlikely to cause any notable changes in peak flood levels or velocities in the design 20% AEP, 1% AEP and PMF events and that modifications to existing flood storage and flood conveyance behaviour would be negligible. Any filling within the floodplain is offset by compensatory excavation such that there is a net increase in flood storage.

It is expected that if development on other large industrial lots in the vicinity were to each meet these criteria individually that their combined impacts would also be negligible. Accordingly, it is considered that the potential for cumulative impacts to occur due to similar development in the vicinity is low.

On top of the development's design of all habitable areas above the PMF level, it is also noted that the proposal has considered the flood emergency response strategy and provides options for both 'shelter in place' and two potential evacuation routes for horizontal evacuation away from the site.

"Shelter in place" is a practical option for this site as all habitable floor levels are proposed above the PMF peak and also because the site is subject to 'flash flooding' meaning that this option would only be needed for a few hours at a time. The practicality of this option is demonstrated in Table 4-2 of the FIRA, where it assesses the proposal against the draft "Shelter In Place' Guidelines.

A combination of these factors, and management by the future strata committee to educate the residents on what to do in the case of an emergency will be required. The preparation and implementation of a detailed Flood Emergency Response Strategy can form part of conditions issued with a future development consent.

Based on the findings of this FIRA it is considered that the planning proposal is consistent with the provisions of the Flood Risk Management Manual 2023, the City of Canada Bay DCP 2023 and Ministerial Direction 4.3 Flooding.

With regard to Clause 6(d) of Ministerial Direction 4.3 Flooding, the planning proposal would result in an increase in residential development density at the Site. However, the proposed design incorporates all habitable areas above the level of the PMF and therefore occupants would not be subject to any direct flood risk.

This, together with the flood emergency response recommendations outlined in Chapter 4 of this report, are expected to be effective in managing the flood risk to future residents and visitors to the Site such that the risk to life associated with flooding is negligible.

Overall, the proposal has appropriately considered the potential impacts of flooding and these measures can be adequately mitigated without a significant impact of risk to life or additional strain on emergency services.

Heritage

The site is not listed as a local or state heritage item, nor is it part of a heritage conservation area. Local heritage item I467 (Powells Creek Reserve) abuts the site on a small part of the south-west boundary. Given the small interface, the limited connections between the sites and the existing character and development of the general precinct, it is unlikely that the PP will provide any significant adverse impacts on the listed heritage item. Therefore, no further assessment is considered warranted.

Traffic and Transport

A Transport Assessment has been prepared by Ason Group to support the PP.

Key outcomes of the Transport Assessment are as follows:

- The site is well serviced by local public and active transport by way of bus services, train services from Concord West station, and pedestrian/ cycle/ shared paths around the site.
- The architectural plans show a laneway along the eastern frontage of the site which provides vehicular and pedestrian access to the broader area. This laneway has been designed in accordance with the requirements with a Shared Zone, which also provides benefit to the general public.
- The proposed parking numbers equates to a rate of 0.64 per dwelling, which is below the maximum DCP rate and this is appropriate for allowing for parking on site for residents who are likely to work in surrounding areas which are not well serviced by public transport, but also not over-providing parking on site which then in turn encourages the use of nearby bus and train services.
- The completion of the Metro West services will improve public transport accessibility to key employment areas including the CBD, Sydney Olympic Park, Parramatta and the Westmead Health Precinct, which in turn attracts more patronage.
- The 2022 Traffic Study indicated that the Parramatta Road/ George Street intersection will exceed capacity in 2026 for the AM Peak and reach capacity by 2031. However, this intersection, among others on Parramatta Road corridor are ‘pinch points’ and it has been identified that there are no upgrades which can alleviate congestion at the intersection. Therefore, this PP does not require the upgrade of any intersections outside of the subject site.

As responded to in Q1, the 2022 Traffic Study identifies the following opportunities relevant to this site and area:

- There is capacity on George Street available for additional precinct traffic.

- New developments may be designed with constrained parking allowances to encourage use of the adjacent railway station.
- The site is an excellent candidate to accommodate residential uplift given the accessibility to public and active transport networks, with the proposal in line with PRCUTS.
- Additional bus services may result in a shift towards public transport for short trips between the precinct and places that are not directly connected by the rail network.
- Recreational cycling and walking facilities in the adjacent Bicentennial Park may encourage residents to reconsider active transport and then use active transport for commuting and shopping.

Overall, the PP can be accommodated without any significant or adverse effects on the local road network and its proximity to active and public transport will assist in encouraging an increase in the use of sustainable transport options.

Contamination

An Environmental Report has been prepared by Canopy Enterprises and submitted with the PP. The report has investigated the historical uses on site and undertaken soil samples in order to determine the risk of contamination.

A summary of the outcomes are as follows:

- The site is currently used for commercial/ industrial uses and has been so since the mid-20th century.
- The site has also been subject to a number of previous contamination investigations.
- The previous investigation discovered one Underground Storage Tank (UST) and one Above Ground Storage Tank (AST) along with associated infrastructure. The petroleum storage infrastructure was removed, and the excavation was backfilled with appropriately treated excavated material.
- A small underground void was identified by Ground Penetrating Radar near the area that had been previously marked as potentially containing an UST. However, further investigation couldn't occur due to the presence of live voltage lines in the area.
- There have been elevated levels of dissolved heavy metals in the groundwater from previous historical data, however these levels are stable, and the levels are typical for disturbed systems in a metropolitan area and don't warrant any remediation works.
- There are contaminants identified in ground water but they are either well below the adopted assessment criteria or at low level traces.
- Any further works require the updating to the Acid Sulfate Soil Management Plan on site.
- There have been areas identified which may be impacted by bonded asbestos. However not all areas can be determined as the existing building on site is required to be demolished first.

In conclusion, the report indicates that in line with Clause 4.6 of the R&H SEPP, the contamination on site is not present at levels which would preclude the site from being made suitable (to the satisfaction of Council) to a residential use, subject to the implementation of the recommendations provided in the report. These recommendations can form part of a future Development Application and associated works.

Q10 - Has the planning proposal adequately addressed any social and economic effects?

Impact on Employment Land

While the site is zoned E4 – General Industrial and the proposal will reduce the extent of industrial land in the LGA, this has been planned for and is appropriate.

Council's Concord West Socio-Economic Study 2013 highlighted the issues with attracting suitable tenants to industrial sites in this precinct due to a mix of factors such as a general shift away from traditional industrial uses, the ageing building stock, the close proximity to residential uses and lack of appropriate street access for trucks. The Concord West Precinct Masterplan commissioned in 2014 built on this strategy

to facilitate residential development and focused on individual sites (such as this one) which was capable of higher density residential development.

This PP is facilitating the intended outcomes of extensive strategic planning.

Economic Benefits

The existing tenants are not high employment generators and therefore the relocation of these services will not have a significant economic impact on the locality. As already mentioned above, there are multiple strategies identifying this site for rezoning to R3 -Medium Density Residential.

The proposal will provide for positive economic benefits in the construction phase and once operational. Once the building is finalised, there will be a net increase in the residents living in Concord West, which can utilise local businesses in the area.

The PP, in allowing residential development on the site, will accommodate more residents in the vicinity of the Concord West Town Centre, which will have a positive impact on the existing retail offerings with a greater catchment of people to serve.

Public Benefit

The proposal will have a public benefit in the form of the Affordable Housing contribution which will go towards the further provision of Affordable Housing in the LGA.

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Section D – Infrastructure (Local, Strate and Commonwealth)

Q11 - Is there adequate public infrastructure for the planning proposal?

Yes, existing public infrastructure can accommodate the demand generated by the PP.

The site is within a short walk (200m) of the Concord West station which provides connection to Greater Sydney. The site is also well serviced by bus routes providing connectivity to Greater Sydney and throughout the Canada Bay LGA.

Figure 10 **Sydney Train Network extract with Concord West circled in red (Source: Transport NSW)**

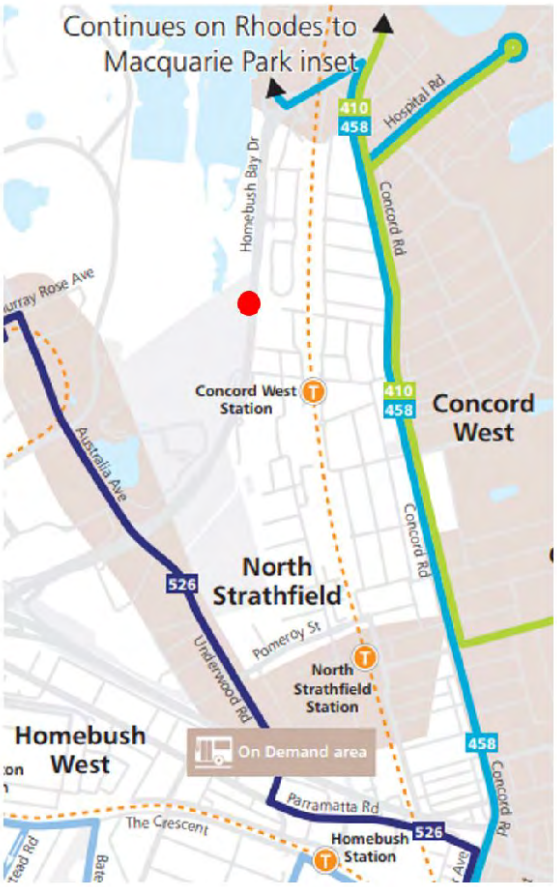


Figure 11 **Bus routes in the vicinity of the site (highlighted with a red dot) (Source: Transport NSW).**

Key local infrastructure includes:

- Local shops, with a Coles supermarket located in the neighbouring suburbs of Rhodes and Concord.
- Parks
- Victoria Avenue Public School located approximately 150m from the site to the south, and St Ambrose Catholic Primary School is approximately 450m to the south east.
- Waste management and recycling services are available through Council.
- Area well serviced with Police, Fire and other emergency services located nearby.

Infrastructure Servicing

The site is currently serviced by all necessary utilities. The specifics of any upgrades required can come with the future development application. We note that agency consultation with Sydney Water is likely to occur as part of the public notification process.

An engineering services report was prepared by Infrastructure and Development Consulting and submitted with this report. Key upgrades required are:

- Water: Proposing a new water main along the proposed road within the site boundary, which is connected into the existing water main on Concord Avenue.
- Sewer: Proposing to utilise the existing sewer located within the site boundary to supply future uses. Reticulation mains will be constructed from new buildings and connect to the existing 225mm reticulation main on the southern site boundary. From the 225mm main, flows will be transferred to the existing pump station on Victoria Avenue via a 750mm diameter trunk main.
- Electricity: There is capacity within the nearby Concord Zone Substation (ZS) and Olympic Park ZS which both have spare capacity to accommodate the development. Underground high voltage feeders originating from the Concord ZS extend down George Stret and Station Avenue to supply the site. It is proposed to extend the existing High Voltate (HV) feeder along the proposed road within the site to service the dwellings.
- NBN: The site is serviced by fixed line technology where a physical line connects to each property to provide a connection. Future uses on site will be able to connect to this fixed line network to receive telecommunications servicing. New infrastructure will be extended along the proposed road within the site boundary.
- Telstra 5G: Telstra has existing blanket 4G coverage across the site. 5G coverage is started to roll out over Sydney and the southern part of the site is already serviced by this technology. The northern part of the site can be serviced over time.
- Gas: While gas is not considered an essential service, if required it could be brought to the site by extending the existing medium pressure main on George Street.

In summary, the site is already well serviced by existing utilities infrastructure, and it is expected that this infrastructure can be extended to support the intensification of uses on site.

Section E – State and Commonwealth Interests

Q12 - What are the views of state and federal public authorities and government agencies consulted in order to inform the Gateway determination?

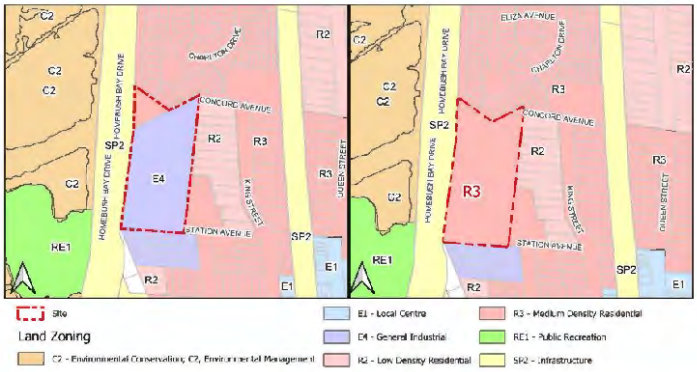
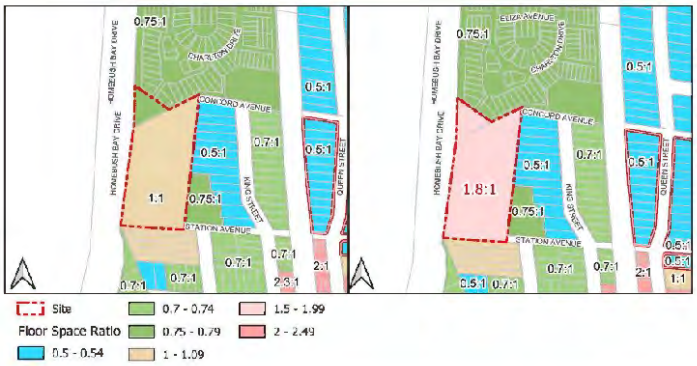
Relevant State and Commonwealth authorities will be contacted as part of the Gateway process.

GYDE

Part 4 – Maps

Draft LEP maps showing the proposed changes to the site have been prepared and are provided below.

Table 13 Existing and proposed LEP maps

Provision	Map
Land Use Zoning	
Height of Buildings	
Floor Space Ratio	

Draft mapping consistent with the Department of Planning and Environment's Standard Technical Requirements for Spatial Datasets and Maps can form part of the Gateway determination.

Part 5 – Community Consultation

Consultation completed prior to lodgement

It is noted that there has already been community consultation in the area as part of the Council's preparation of the LSPS and LHS as well as for the preparation of the Concord West Precinct Masterplan and the Parramatta Road Urban Transformation Strategy.

Council consultation

Consultation with Canada Bay Council took place on 28 June 2022 and 13 October 2023. The key concern expressed at the meetings was whether the land was suitable for residential development due to flooding.

The first meeting took place before the Powells Creek Flood Study was adopted by Council. The second meeting took place after the Study had been adopted and preliminary flood modelling had been prepared for the site.

The question of suitability remains. As an industrial site its ongoing suitability is limited. It is isolated and sits below the flood planning level. As the area continues to transition in accordance with the recommendations of PRCUTS the likelihood of land use conflict increases.

The proposal demonstrates that with a change of land use the site constraints can be managed and the risks mitigated. Moreover, the proposed use is compatible with the existing and emerging character of the locality, more so than the existing use, which PRCUTS recognised.

State Agency Consultation

No consultation with any state agencies was sought prior to lodgement.

It is noted that the following state agencies commented on the previous PP as follows:

- NSW Fire and Rescue
- Transport for NSW
- NSW Police Force
- Roads and Maritime Services
- NSW Office of Environment and Heritage
- NSW State Emergency Services
- NSW Health
- Ambulance Service of NSW
- Jemena
- Department of Education
- Sydney Water

Consultation to be completed

Public consultation

Division 2.6 of the EP&A Act requires the relevant planning authority to consult with the community in accordance with the Gateway Determination. It is anticipated that the Planning Proposal will be categorised as Standard, which is recommended to be publicly exhibited for a maximum period of 20 working days in accordance with the DPE's LEP Making Guideline. This term may be adjusted in the context of Council's

GYDE

Community Participation Plan or if the exhibition occurs during the exclusion period of 20 December and 10 January (inclusive).

It is anticipated that the PP will be placed on exhibition for a minimum of 20 working days. The community will be notified of the commencement of the exhibition period via a notice in a local newspaper and via a notice on the Council's website.

The written notice will:

- Give a brief description of the objectives or intended outcomes of the PP;
- Indicate the land affected by the PP;
- State where and when the PP can be inspected;
- Give the name and address of the RPA for the receipt of any submissions; and
- Indicate the last date for submissions.

During the exhibition period, the following material will be made available for inspection:

- The PP, in the form approved for community consultation by the Director General of Planning, Housing and Infrastructure;
- The Gateway determination;
- Any VPA negotiated between the parties; and
- Any studies relied upon by the PP.
- Agency consultation

The Gateway Determination may also identify the need for the Planning Proposal to be referred to one or more public authorities. Further consultation with the public authorities outlined in the following table is expected post-Gateway. Authorities and government agencies are afforded 30-40 working days to provide comments in accordance with the DPE's LEP Making Guideline.

Table 14 Proposed agency consultation list

Agency	Relating to
Transport for New South Wales (TFNSW)	Impact on classified road network – Homebush Bay Drive
Sydney Water	Proposed water and sewer servicing strategies
NSW Fire and Rescue	Access for emergency vehicles
Department of Education and Training	Implications on population growth for the existing public schools
NSW Police Force	Potential impacts on crime due to increased populations
NSW State Emergency Services	Impacts on services in a flood emergency
Department of Environment and Heritage	Biodiversity matters
NSW Health	Health related matters
Ambulance Service of NSW	Ambulance related matters
Jemena	Site within the vicinity of a high-pressure gas pipeline

Project timeline

The *Local Environmental Plan Making Guideline* (August 2023) provides a benchmark for different types of proposals.

For a Standard Planning Proposal, the timeline is as follows:

Stage	Minimum Benchmark Timeframe (Working Days)
Stage 1 – Pre-lodgement	50 days
Stage 2 – Planning Proposal	95 days
Stage 3 – Gateway Determination	25 days
Stage 4 – Post Gateway	50 days
Stage 5 – Public Exhibition and Assessment	95 days
Stage 6 – Finalisation	55 days
Sub-total (Department Target)	225 working days
Total (end to end)	**320 days**

CONCORD WEST PRECINCT MASTER PLAN

23004PP

PLANNING PROPOSAL

29 FEBRUARY 2024

ANTONIADES ARCHITECTS

Suite 305, Level 3, 19A Boundary St, Darlinghurst, NSW 2010
www.antoniades.com.au
Nominated Architect : Andreas Antoniades
NSW Reg. 7954 VIC Reg. 19449 ACT Reg. 2401
ABN 28 129 731 559

ACKNOWLEDGMENT OF COUNTRY

WARANARA ARTWORK BY KONSTANTINA (KATE CONSTANTINE)
A PROUD GADIGAL WOMAN OF THE EORA NATION

Antoniades Architects acknowledges and pays respect to Aboriginal and Torres Strait Islander, Traditional Custodians and Elders of this nation and Eora Country and the Wangal people.
It is with privilege that we get to work with this Country.

VISION STATEMENT

SITE VISION CONCEPT IMAGE
SOURCE: TURF DESIGN

VISION STATEMENT

Proposed vision demonstrates a strong connection to the green setting of the site. Proposed development will be full of vegetation, high-amenity with modulated built forms and an elegant presence, that would respond to its surrounding well.

A close proximity to Sydney Olympic park has been used as a design driver to create a more unique and lush approach to sites landscaping.

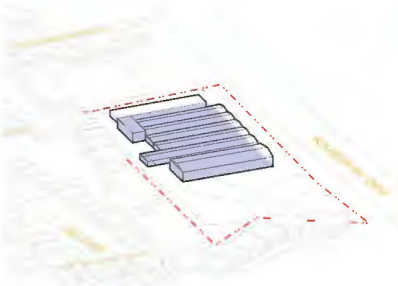
LEGEND:

- SITE BOUNDARY
- SITE ENTRY
- SITE EXIT

DEVELOPMENT VISION

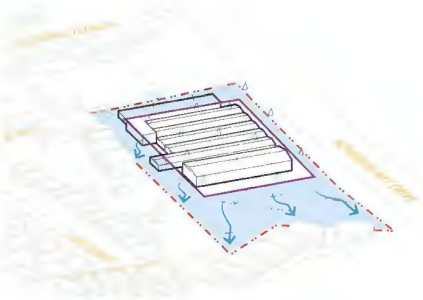
AN ARTISTIC IMPRESSION OF VIEW FROM STATION AVENUE TOWARDS PROPOSED DEVELOPMENT WITH A CONTEXTUAL MODEL OF LIKELY FUTURE DEVELOPMENT FORMS

DESIGN PRINCIPLES



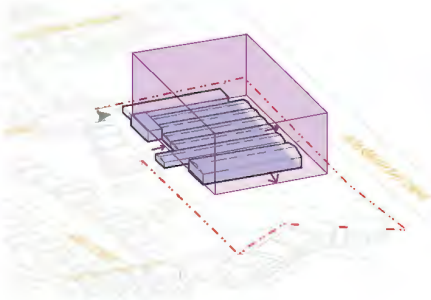
EXISTING FOOTPRINT

EXISTING FOOTPRINT ON CONSOLIDATED SITE AREA



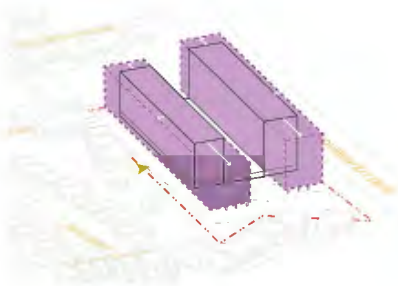
FLOOD EFFECT ON PROPOSED FOOTPRINT

EFFECT OF THE FLOODS HAVE BEEN CONSIDERED,TO ALLOW FOR THE SITE AREA TO ABSORB FLOOD WATERS



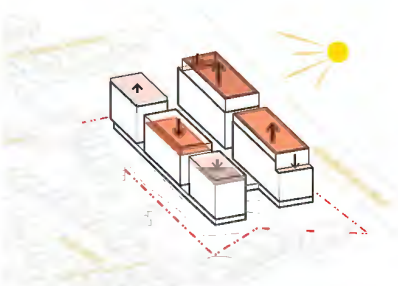
PROPOSED VS EXISTING FOOTPRINT

PROPOSED FOOTPRINT, ALTHOUGH LARGER IN SOME INSTANCES, ALLOWS FOR BETTER CONSIDERATION OF THE SITE USAGE AND ITS CONSTRAINTS



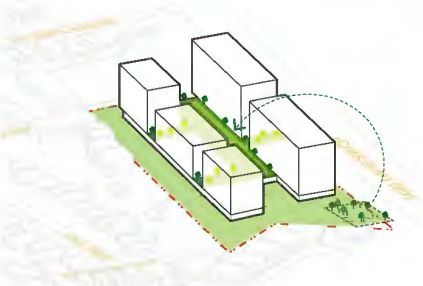
VOLUME EXTENDS OVER FLOOD LEVEL

PROPOSED RESIDENCES EXTEND OVER A REDUCED GROUND FLOOR FOOTPRINT AND LOCATED ABOVE FLOOD LEVEL



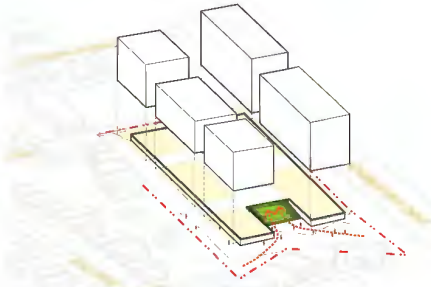
HEIGHTS CONSIDERATION

BUILDING HEIGHTS ALLOW FOR REDUCED IMPACT OF OVERSHADOWING + VISUAL BULK



REINSTATING 'GREEN' ASPECTS

NEW PROPOSAL ALLOWS FOR MORE VEGETATION ON SITE



INVITING EDGE CONDITIONS

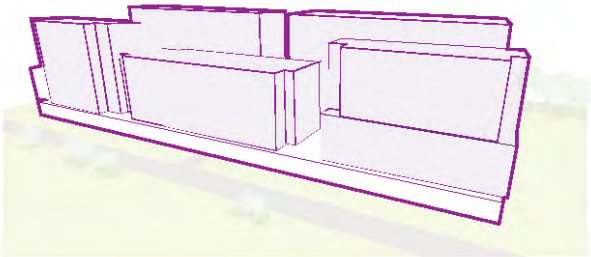
AN ORGANIC CONTINUATION OF THE SITE TERRAIN

LEGEND:

SITE BOUNDARY

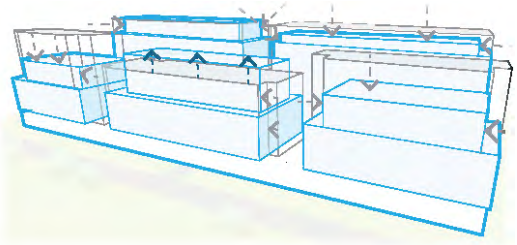
SITE ACCESS

MASSING SCENARIOS TESTED



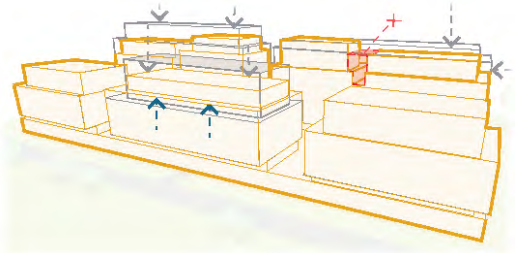
ORIGINAL BULK

PROPOSED BUILDING BULK WAS PROVIDING MINIMAL CONSIDERATION TO THE SURROUNDING CONTEXT, WITH PREDOMINANT FOCUS ON MAXIMIZING SITES CAPACITY



MODIFIED BULK

MODIFIED PROPOSAL WAS DEVELOPED BY ACCESSING DIFFERENT POINTS OF VIEW FROM THE NEIGHBOURING BUILDINGS AND ANALYSING BOUNDARY SETBACKS FROM A MORE CRITICAL POINT OF VIEW, THAT WOULD PROVIDE MORE PLEASANT BOUNDARY ASPECTS

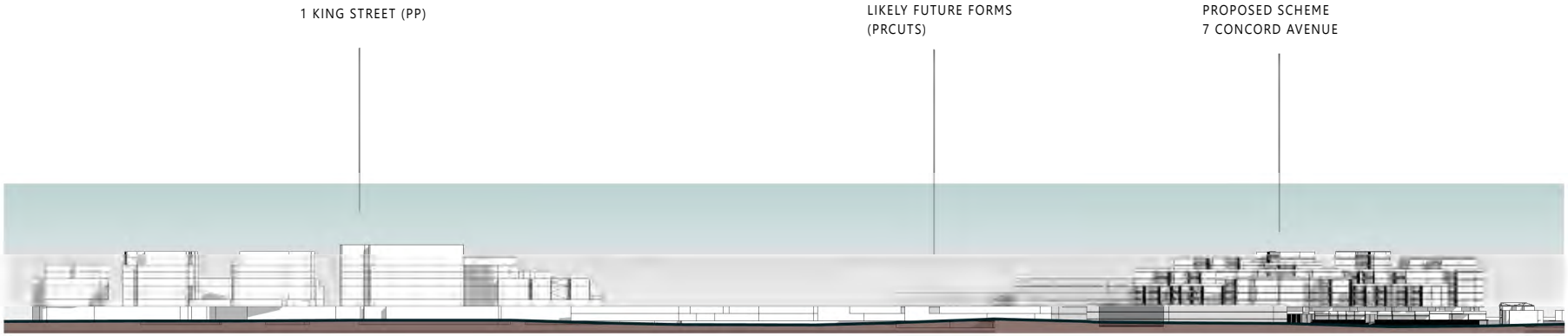


CURRENT PROPOSAL

CURRENT PROPOSAL IS MOST SYMPATHETIC TO EXISTING AND FUTURE DEVELOPMENTS IN THE SURROUNDING CONTEXT OF THE SITE. A HIGHLY CONSIDERATE BULK FORM WAS ADOPTED THROUGH A SERIES OF THROUGH VISUAL INVESTIGATIONS.

URBAN FORM RESPONSE

SECTIONAL VIEW



KEY PLAN

ANTONIADES ARCHITECTS

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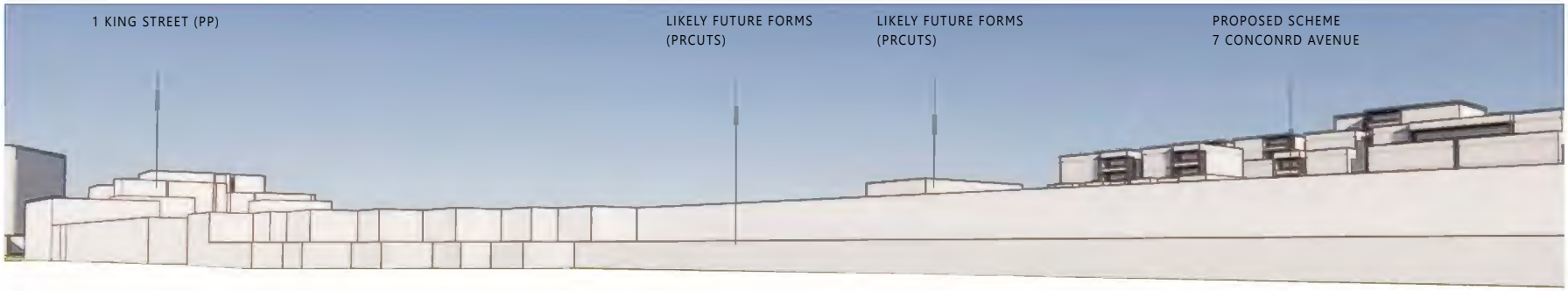
URBAN FORM RESPONSE

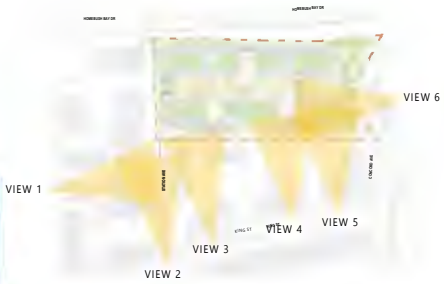
PERSPECTIVE VIEW



KEY PLAN

VISUAL BULK STREET LEVEL INVESTIGATIONS

KEY PLAN



All views are captured from an accurate 3D model from pedestrian eye-level.

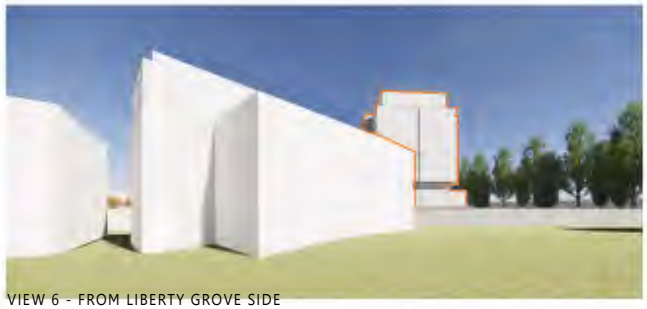
VIEW 1 - FROM VICTORIA AVENUE

VIEW 4 - FROM KING STREET

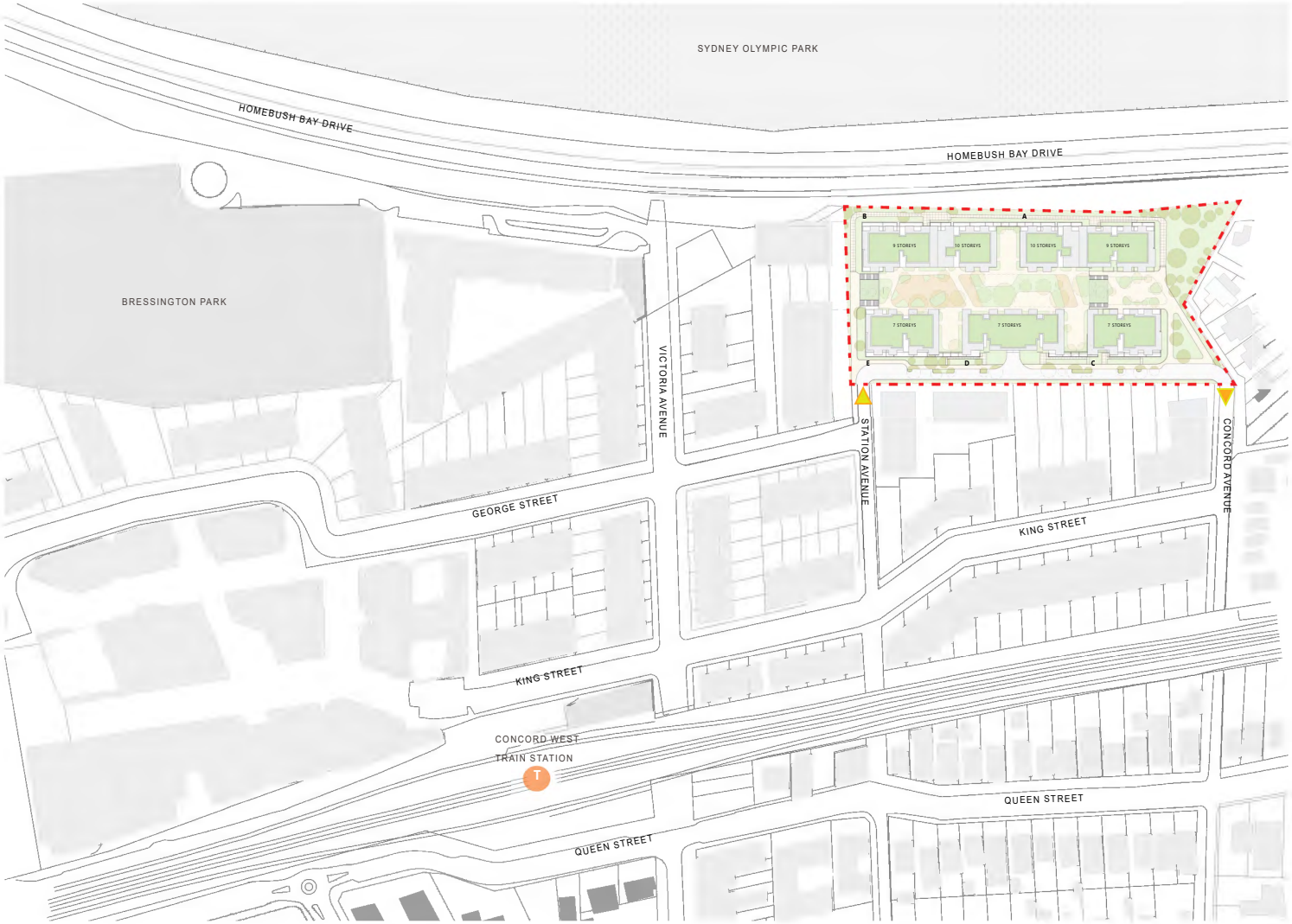
VIEW 2 - FROM KING STREET

VIEW 5 - FROM KING STREET

VIEW 3 - FROM KING STREET


VIEW 6 - FROM LIBERTY GROVE SIDE

WIDER CONTEXT



LEGEND:

- SITE BOUNDARY
- SITE ENTRY
- SITE EXIT

ANTONIADES ARCHITECTS

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PROPOSED MASTER PLAN

ANTONIADES ARCHITECTS

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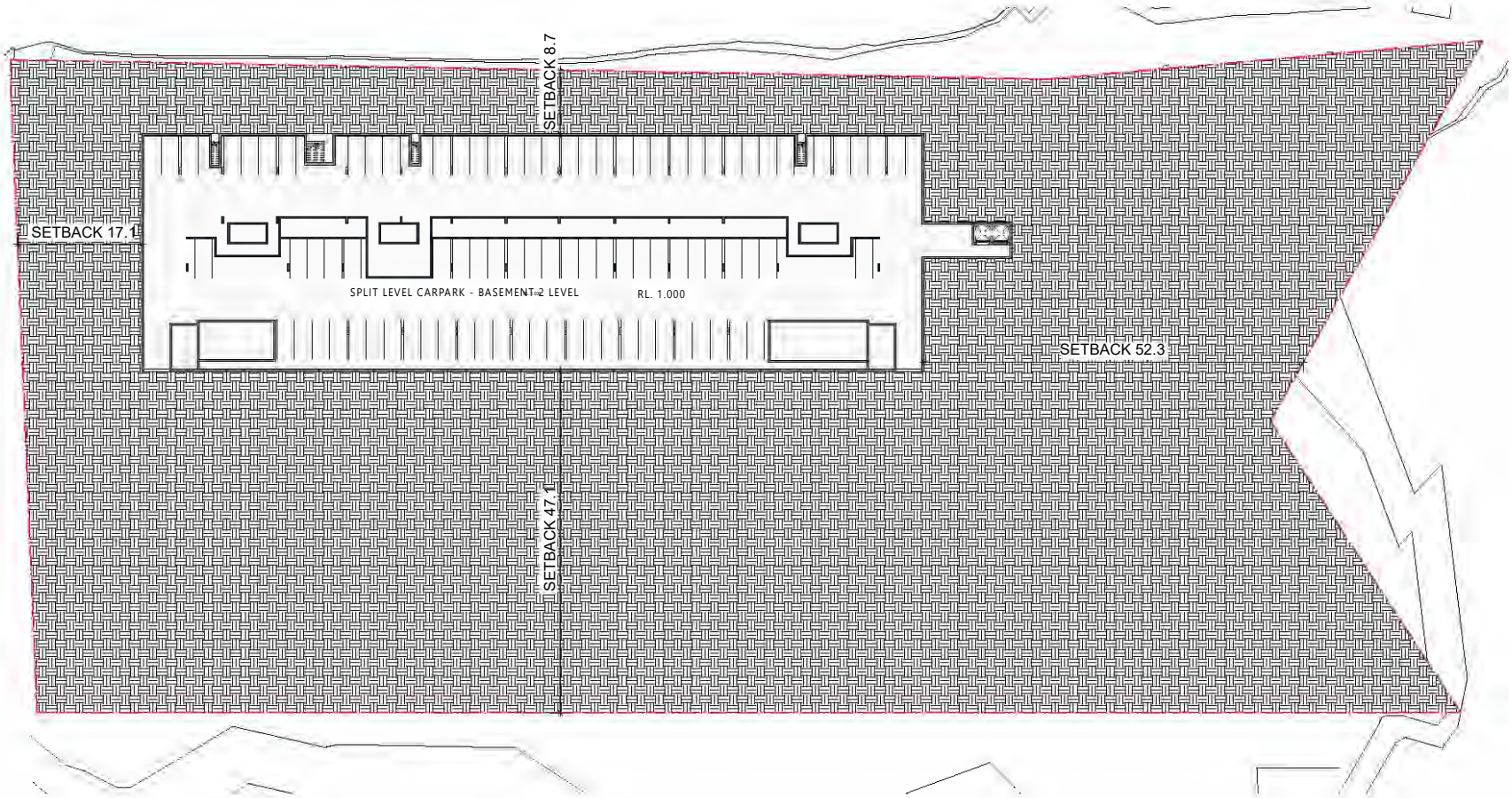
INDICATIVE CONCEPT PLANS

BASEMENT 2 CARPARK LEVEL



ANTONIADES ARCHITECTS

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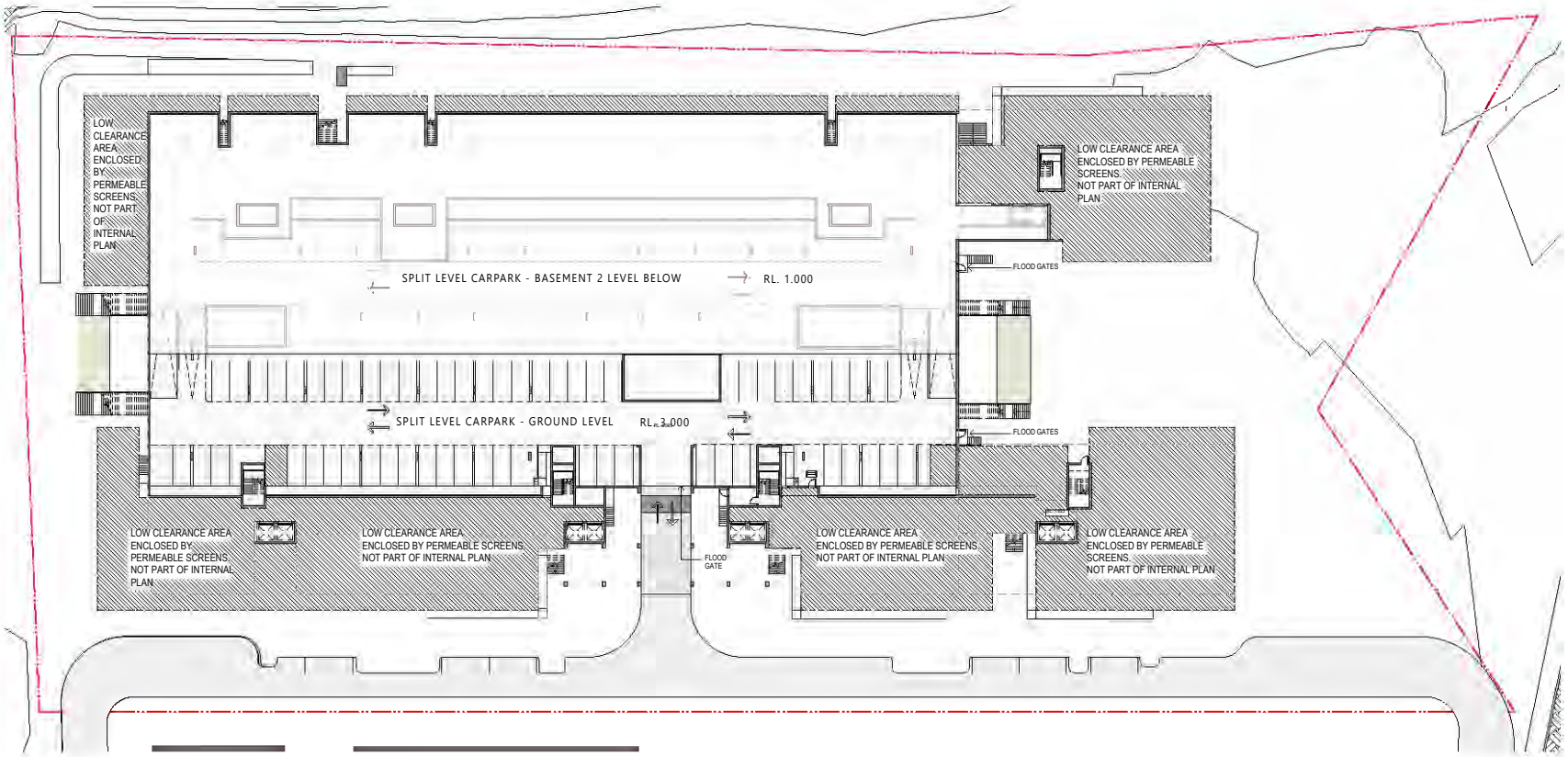
INDICATIVE CONCEPT PLANS

BASEMENT 1 LEVEL



ANTONIADES ARCHITECTS

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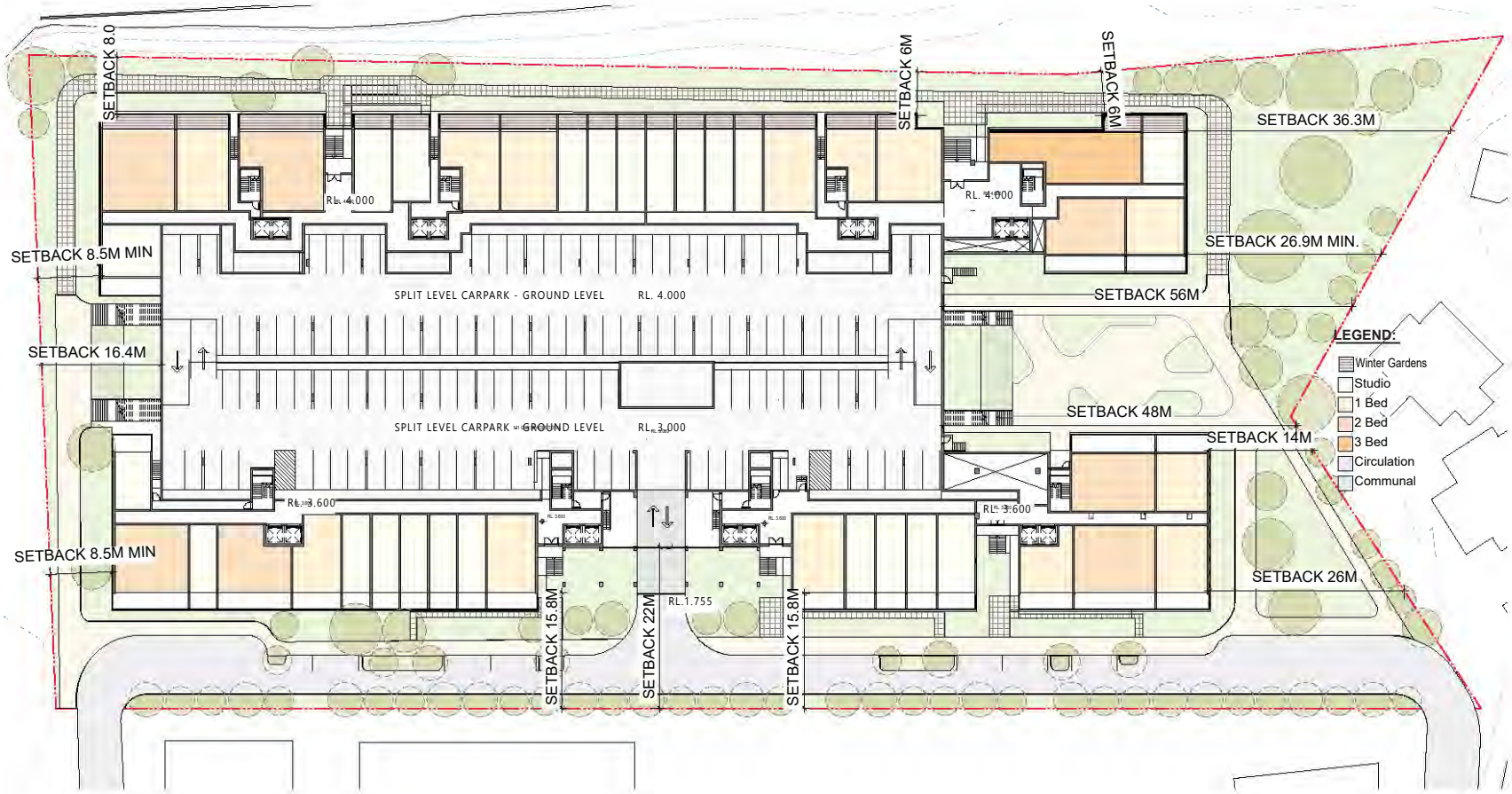
INDICATIVE CONCEPT PLANS

GROUND LEVEL



ANTONIADES ARCHITECTS

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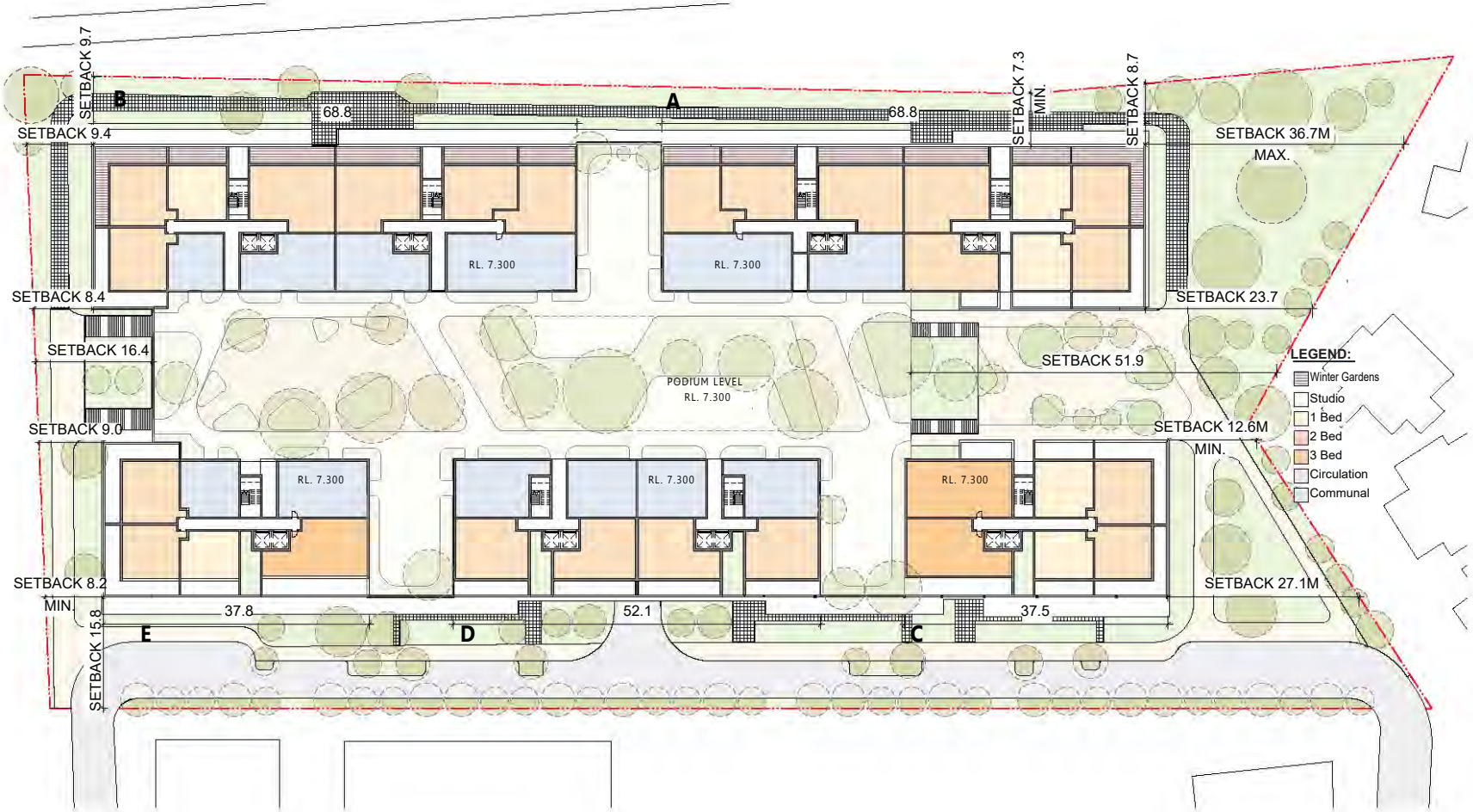
INDICATIVE CONCEPT PLANS

LEVEL 01



ANTONIADES ARCHITECTS

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INDICATIVE CONCEPT PLANS

TYPICAL LEVELS 02-04

ANTONIADES ARCHITECTS

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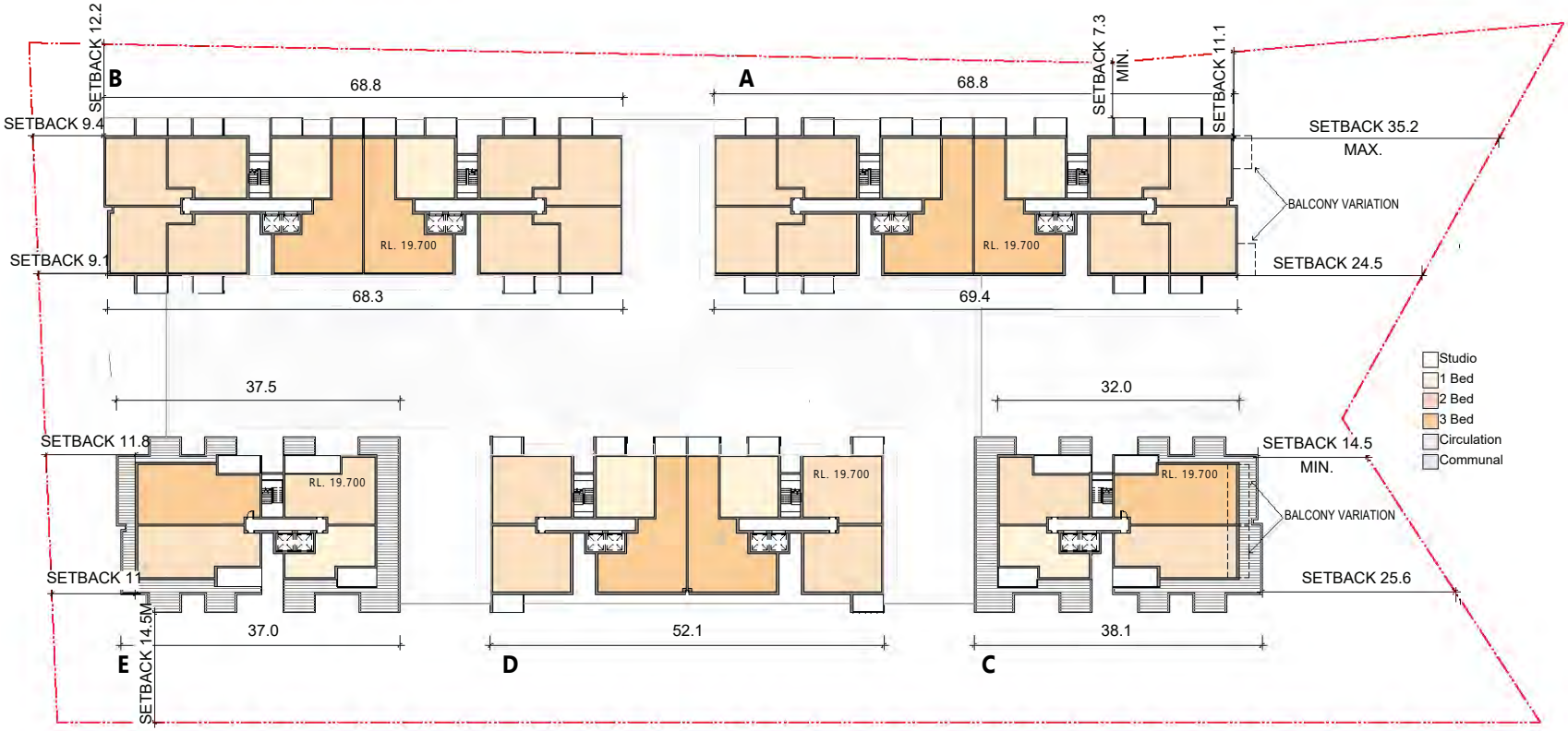
INDICATIVE CONCEPT PLANS

LEVEL 05



ANTONIADES ARCHITECTS

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INDICATIVE CONCEPT PLANS

LEVEL 06

ANTONIADES ARCHITECTS

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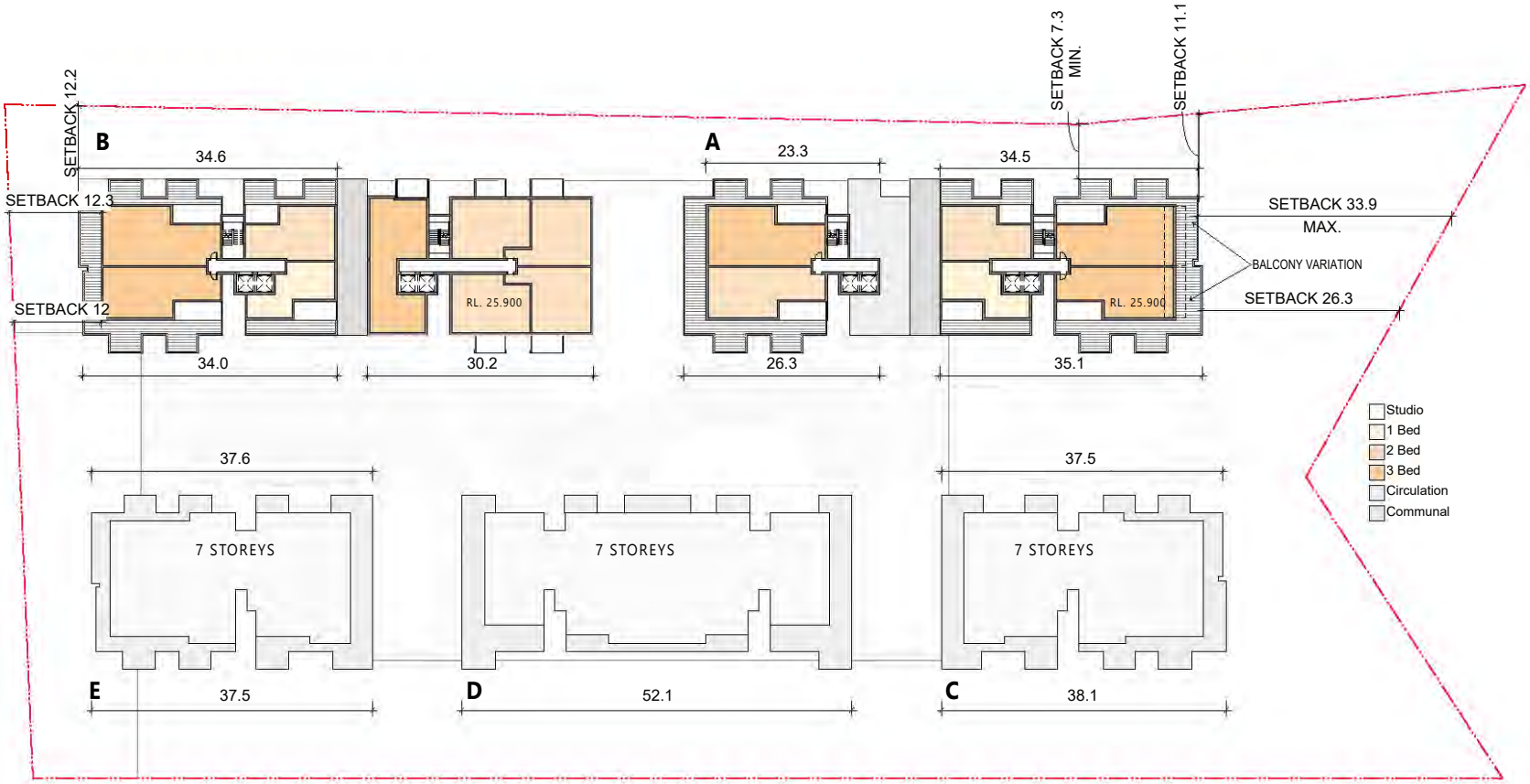
INDICATIVE CONCEPT PLANS

LEVEL 07



ANTONIADES ARCHITECTS

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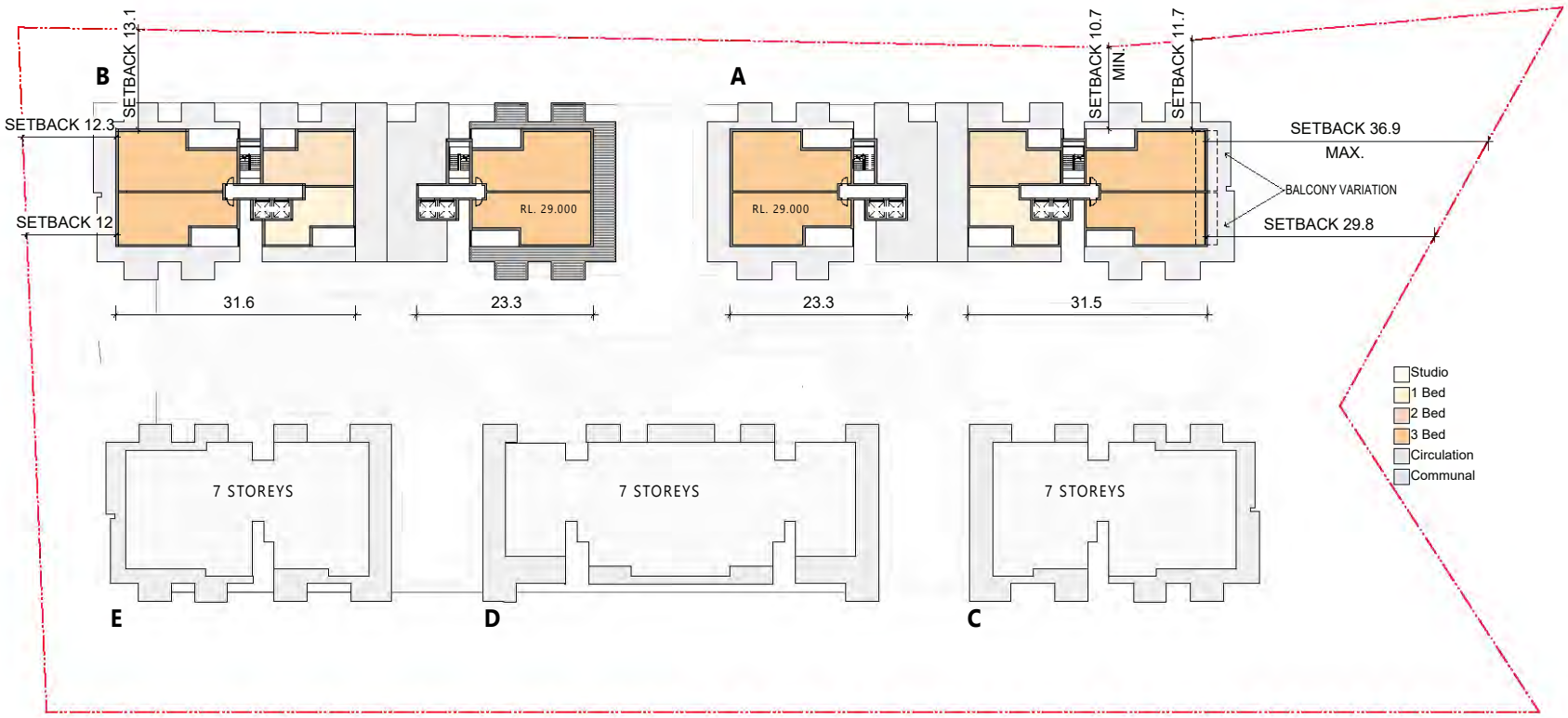
INDICATIVE CONCEPT PLANS

LEVEL 08



ANTONIADES ARCHITECTS

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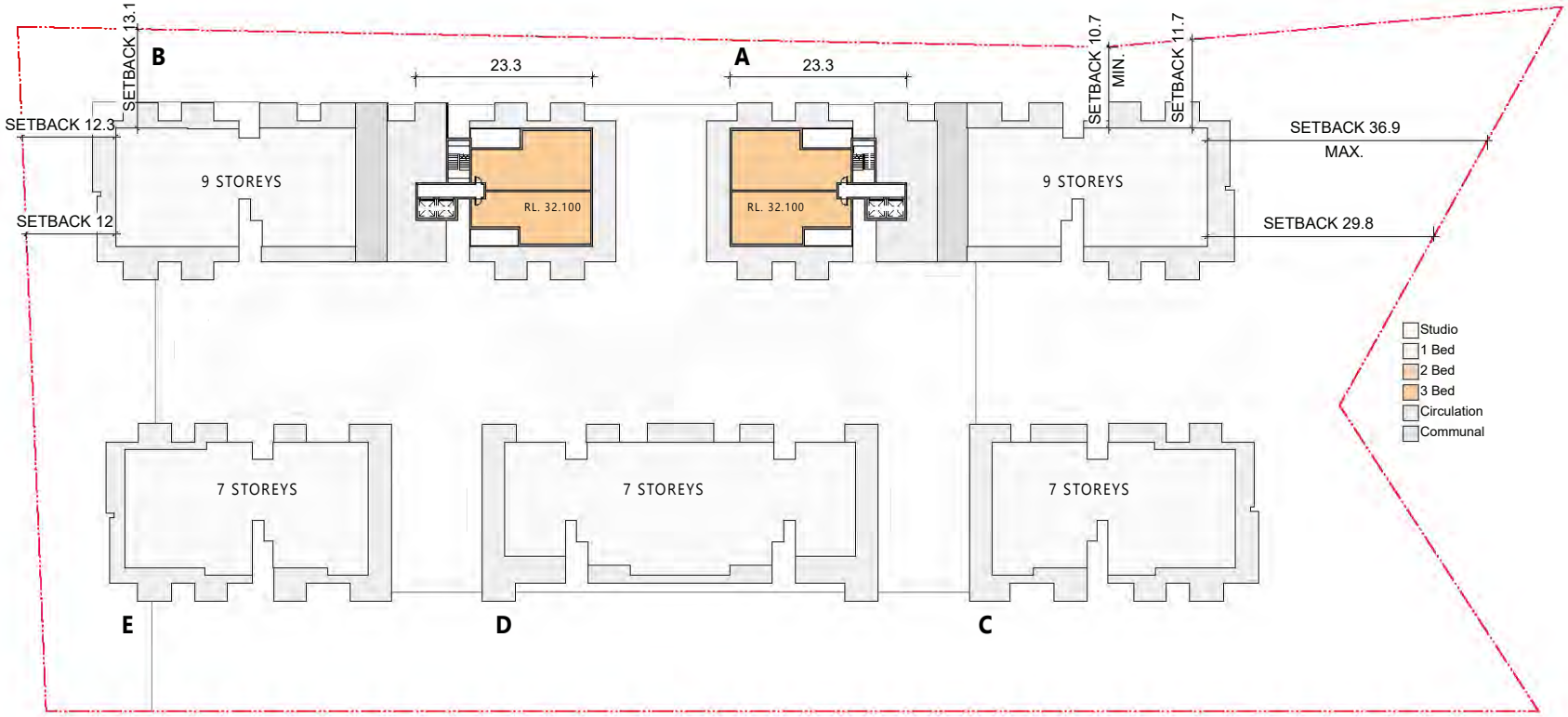
INDICATIVE CONCEPT PLANS

LEVEL 09



ANTONIADES ARCHITECTS

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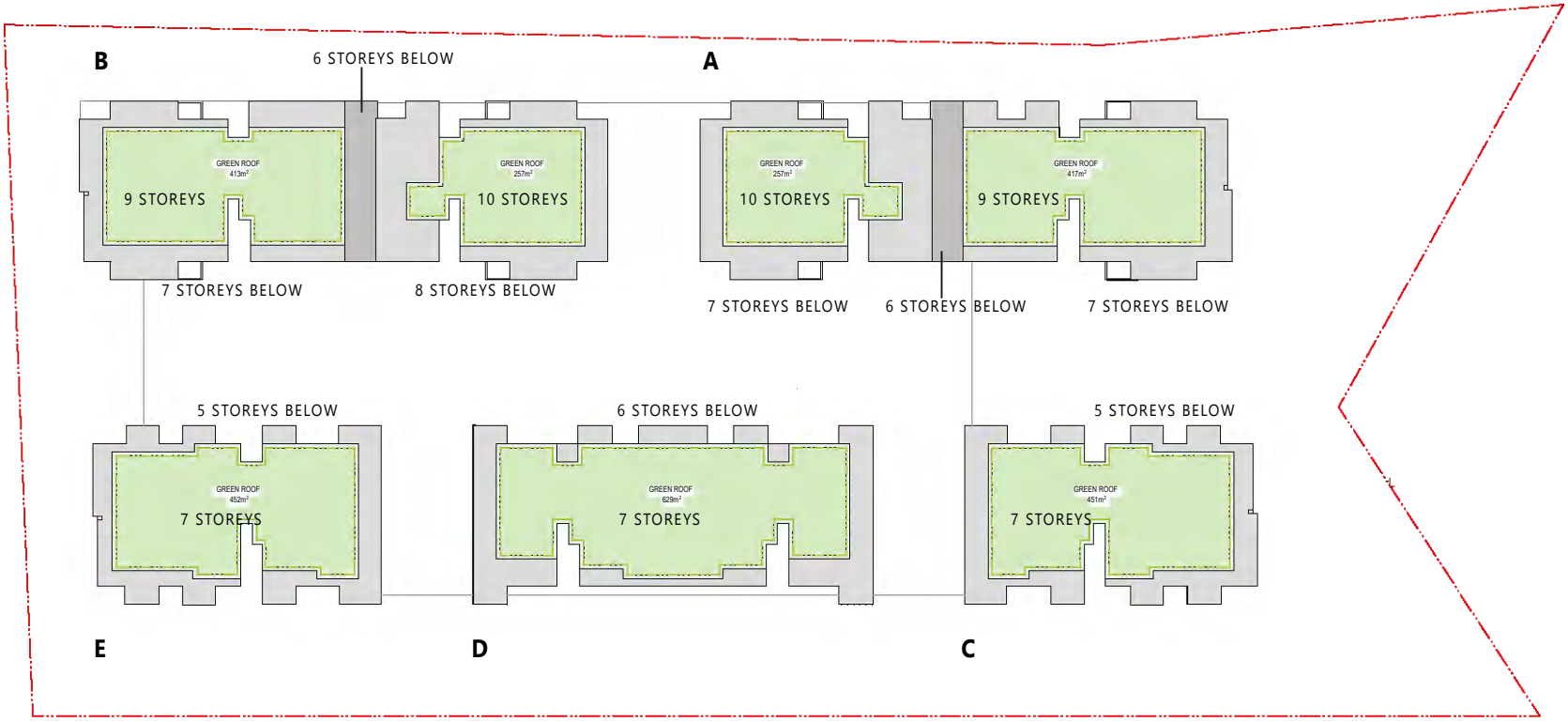
INDICATIVE CONCEPT PLANS

ROOF PLAN



ANTONIADES ARCHITECTS

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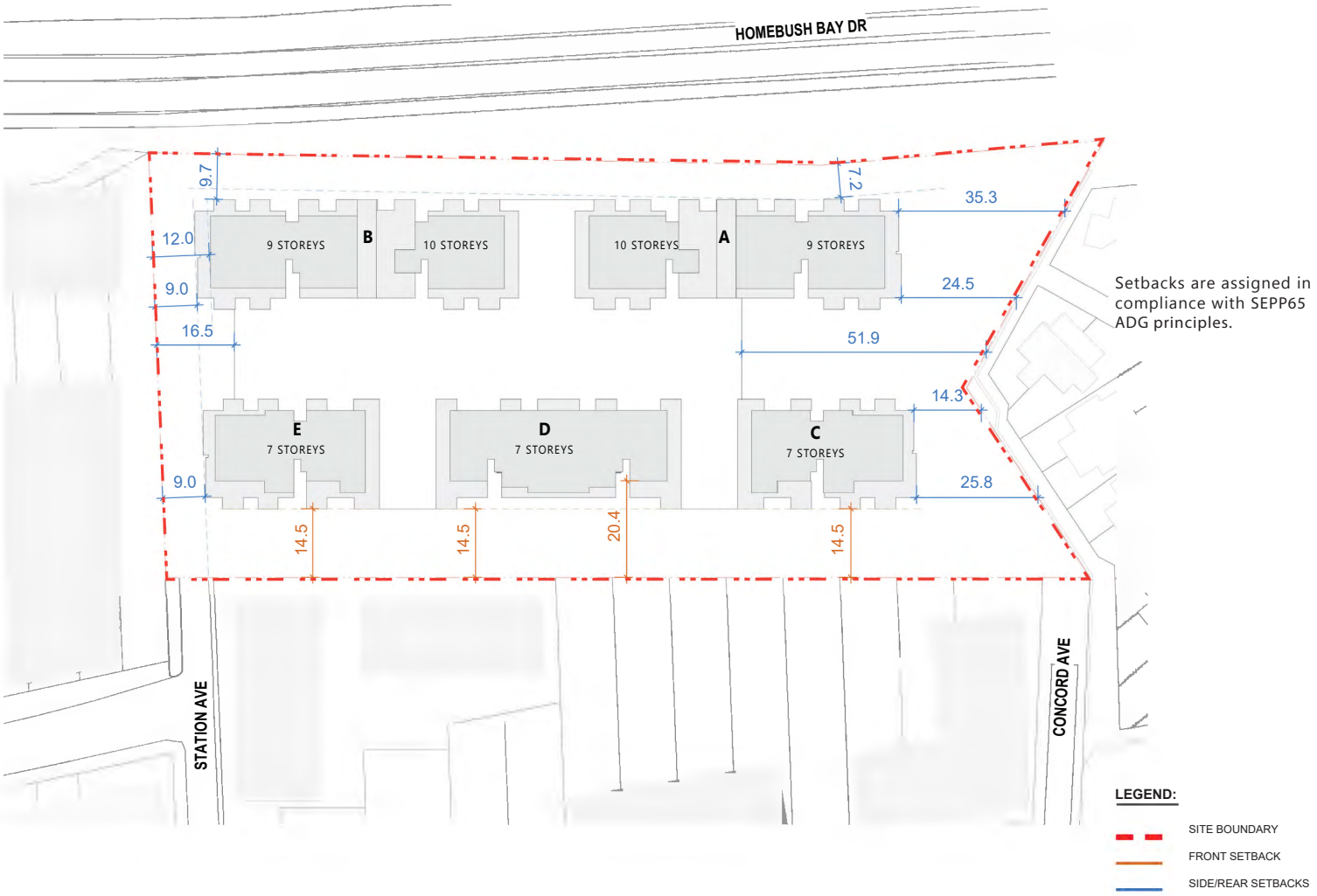
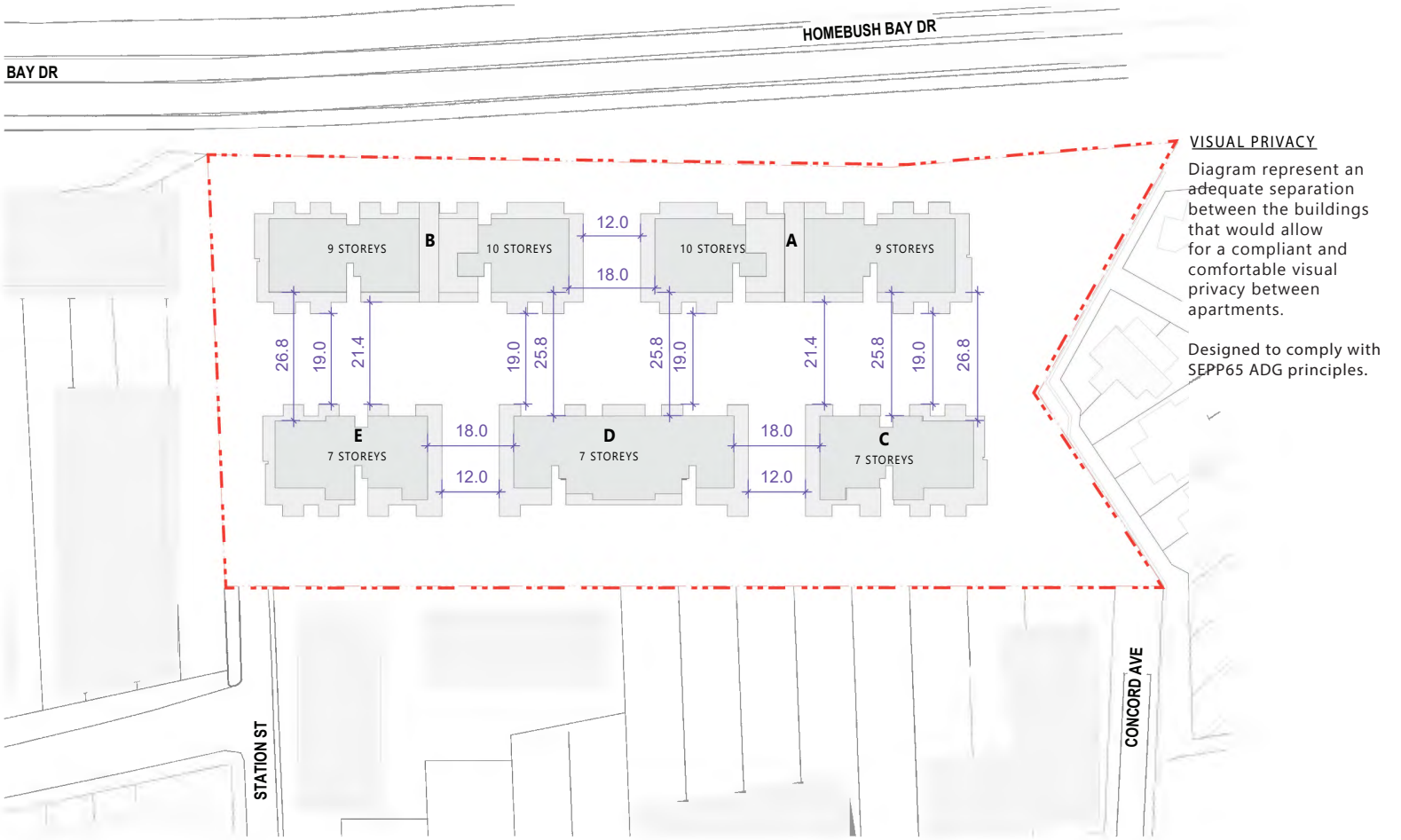
SETBACK DIAGRAMS



ANTONIADES ARCHITECTS

P.23

BUILDING SEPARATIONS



VISUAL PRIVACY

Diagram represent an adequate separation between the buildings that would allow for a compliant and comfortable visual privacy between apartments.

Designed to comply with SEPP65 ADG principles.

LEGEND:

SITE BOUNDARY

BUILDING SEPARATIONS

ANTONIADES ARCHITECTS

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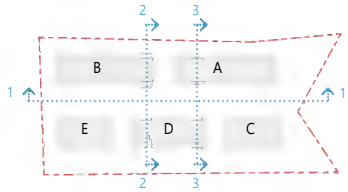
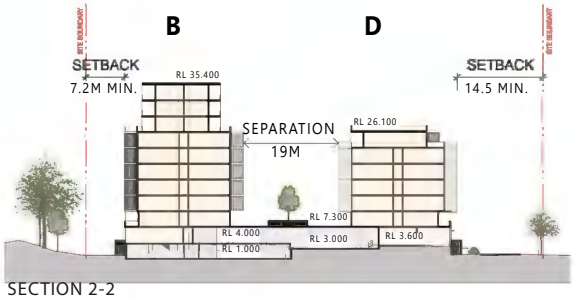
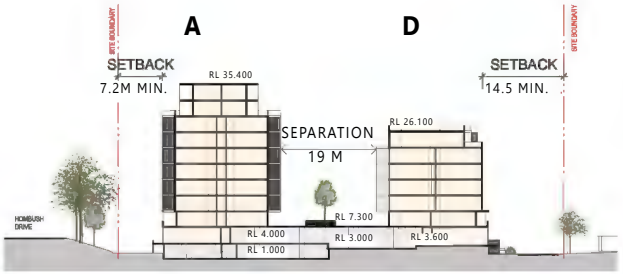
INDICATIVE STREET SECTIONS

KEY MAP





SECTION 2-2

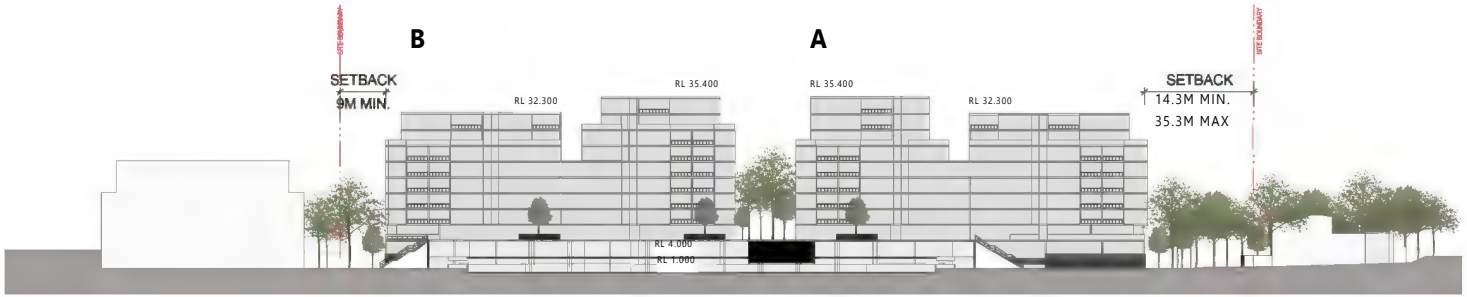


SECTION 3-3

MAX. BUILDING HEIGHT:

A: 35.3 m
B: 35.3 m
C: 29 m
D: 29 m
E: 29 m

A, B - approximately 2m of lift overrun height has been allowed for
C, D, E - approximately 4.3m of roof top access with lift overrun height has been allowed for



SECTION 1-1

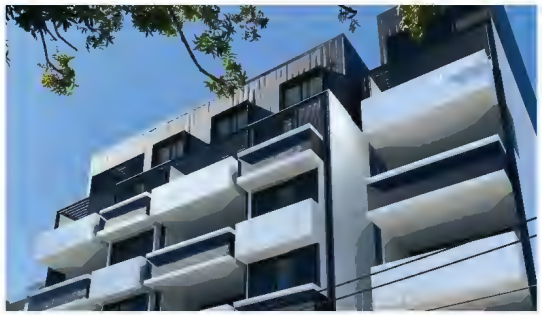
PODIUM & FACADE GRAIN

FACADE GRAIN

Building form in dialog to the grain of the surrounding residential context. By providing modularity to the form and a distinctive break up of bulk, the presence of the development starts to 'talk' to the scale of the surrounding residential forms creating an elegant site's presence.

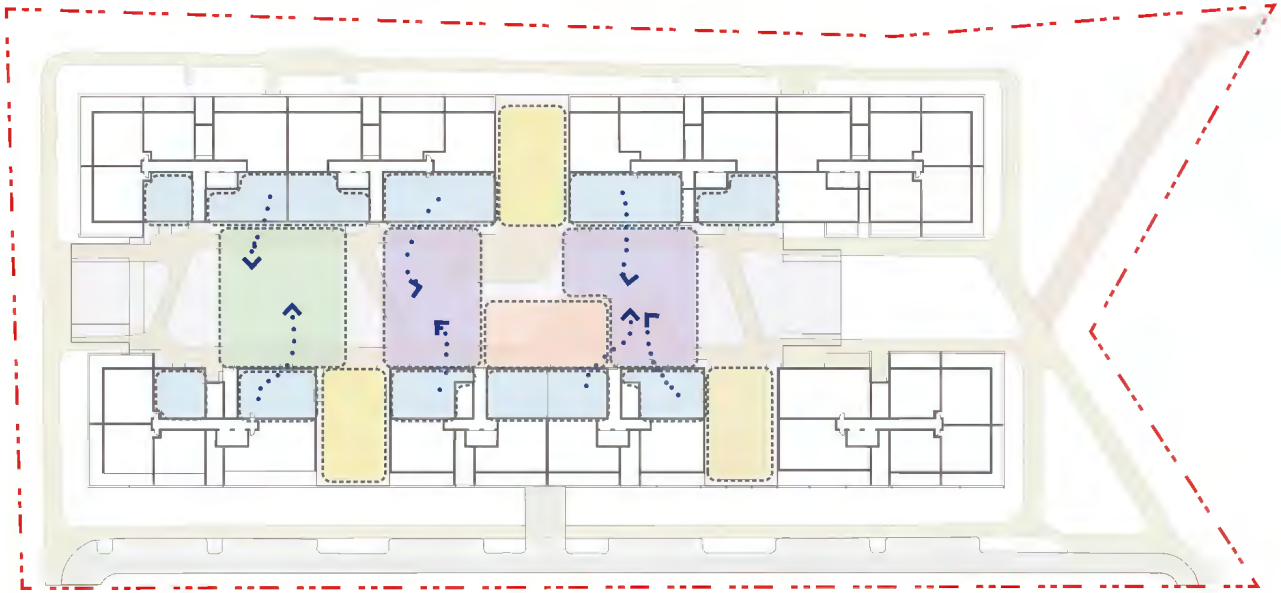
A podium element at ground level with tactile use of materials facilitates for a sympathetic façade articulation that is cohesive and integrated.

BENCHMARK IMAGES



COMMUNAL PROGRAMME

LEVEL 01 DIAGRAM



- INTERNAL COMMUNAL SPACE - KIDS ZONE, CLUB HOUSE, CO-WORKING, MEETING ROOMS, LOUNGE, CINEMA, KITCHEN/DINING
- EXTERNAL SPACE - PLAY AREA
- EXTERNAL SPACE - QUIET OUTDOOR ROOMS
- EXTERNAL SPACE - OUTDOOR GYM
- EXTERNAL SPACE - BBQ AREA

LANDSCAPE CONCEPT

LEVEL 01 PLAN

SOURCE: TURF DESIGN

Key

1. Level change and passive recreation
2. Green central plaza
3. Retained swale
4. Bio retention
5. Entrance ramp to carpark
6. Footpath
7. Raised mesh pathway
8. Passive recreation lawn
9. Verge planting
10. Shared street
11. Outdoor BBQ and dining
12. Outdoor Gym
13. Outdoor play zone
14. Breakout seating
15. Outdoor working space
16. Arbor with climbers above BBQ areas
17. Future through-site link

Internal program

Scale 1:500 @ A3 N

ANTONIADES ARCHITECTS

P.29

LANDSCAPE CONCEPT

ROOF PLAN

SOURCE: TURF DESIGN

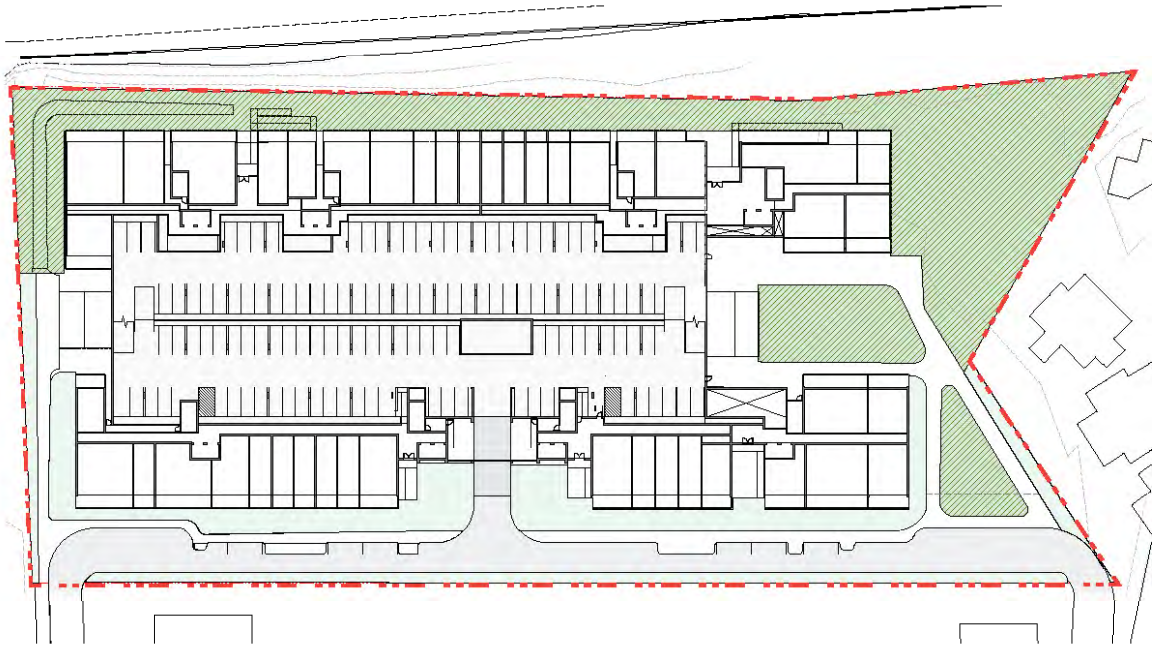
Key

1. Rooftop planting
2. Solar panels and planting

ANTONIADES ARCHITECTS

P.30

DEEP SOIL ZONES



TOTAL SITE AREA:
16520 SQ.M

DEEP SOIL MIN.6M DIMENSION:
3450 SQ.M. (20.9%)

TOTAL DEEP SOIL, INCLUDES LESS THAN 6M DIMENSIONS:
4690 SQ.M (28.4%)

Master plan has been designed in the way, that allows for a good amount of deep soil area, as well as provides connectivity of green aspects within a wider context of the site.

Deep soil amount achieves SEPP65 ADG compliance.

LEGEND:

- SITE BOUNDARY
- DEEP SOIL MIN 6M DIMENSION
- DEEP SOIL, LESS THAN 6M DIMENSION

ANTONIADES ARCHITECTS

P.31

COMMUNAL OPEN SPACE

TOTAL SITE AREA:
16520 SQ.M

COMMUNAL OPEN SPACE
5540 SQ.M (33.5%)

LANDSCAPED AREA
(INCLUDING AREAS OF
GREEN ROOFS)
8950 SQ.M (54%)

LEGEND:

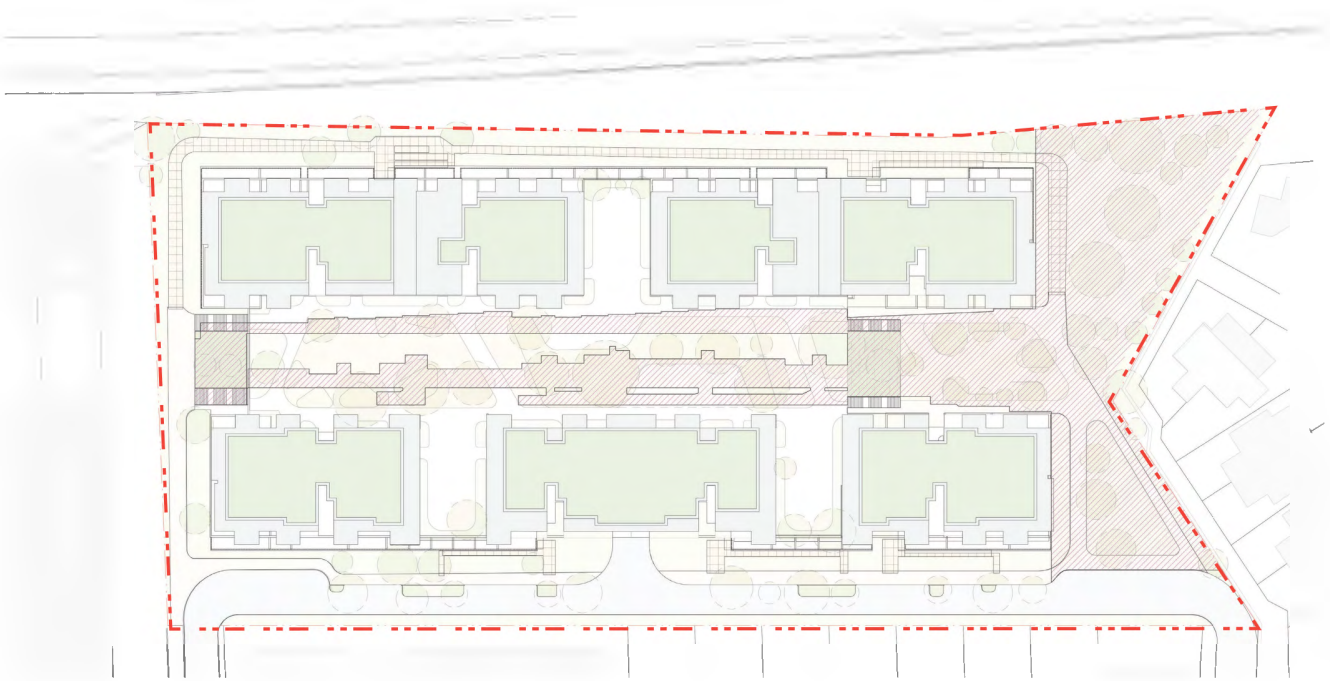
- SITE BOUNDARY
- COMMUNAL OPEN SPACE
- LANDSCAPED AREA

ANTONIADES ARCHITECTS

N

P.32

COMMUNAL OPEN SPACE SOLAR ANALYSIS



AREA OF COMMUNAL OPEN SPACE THAT RECEIVES 2HRS OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

3620 SQ.M
(65.3% OF THE TOTAL AREA OF COMMUNAL OPEN SPACE)

LEGEND:

SITE BOUNDARY

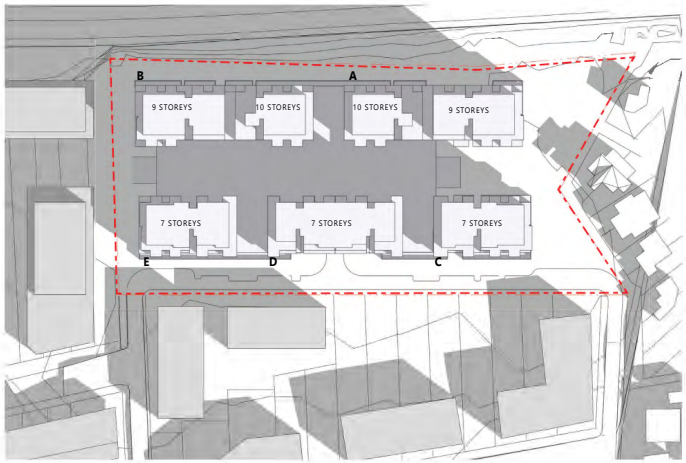
PART OF THE COMMUNAL OPEN SPACE THAT RECEIVES 2 HR OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

ANTONIADES ARCHITECTS

P.33

SHADOW ANALYSIS

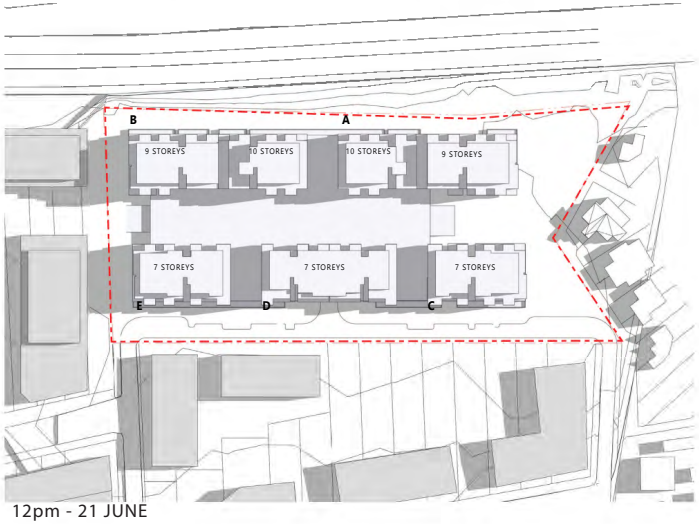
FUTURE CONTEXT



9am - 21 JUNE

11am - 21 JUNE

10am - 21 JUNE



12pm - 21 JUNE

DEVELOPMENT ANALYSIS

Diagrams represent the proposed shadows within the future context at each hour between 9am-3pm at winter solstice - 21st June. The surrounding context represents a likely future context developments.

Communal open space located at the podium and ground levels, would receive 2 hrs of direct sunlight to meet ADG objective.

PROPOSED DEVELOPMENT

LIKELY FUTURE CONTEXT

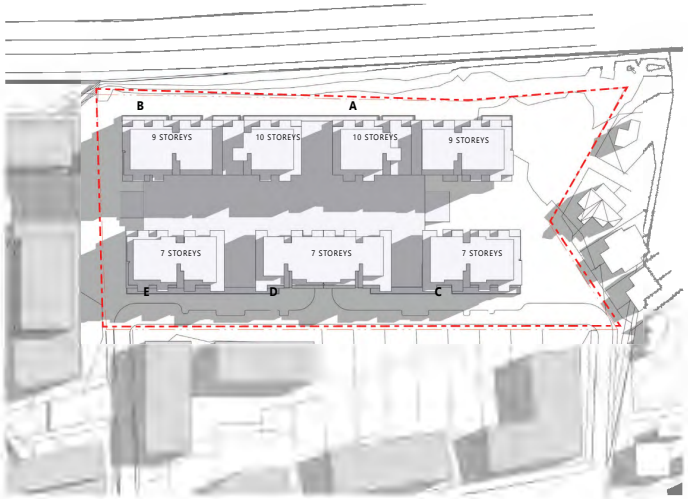
EXISTING CONTEXT

ANTONIADES ARCHITECTS

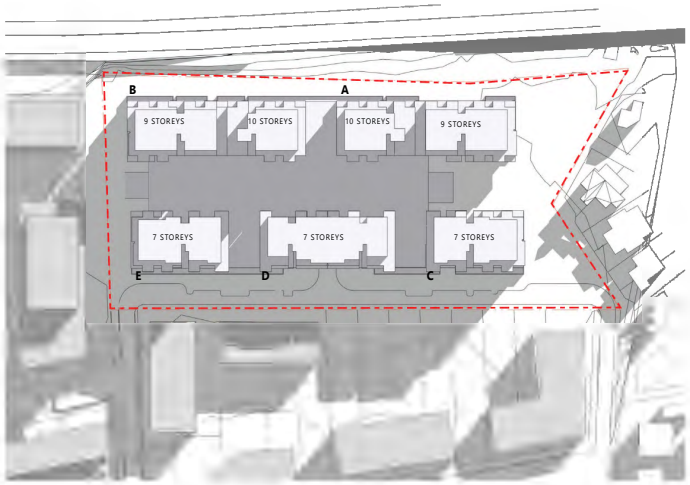
P.34

SHADOW ANALYSIS

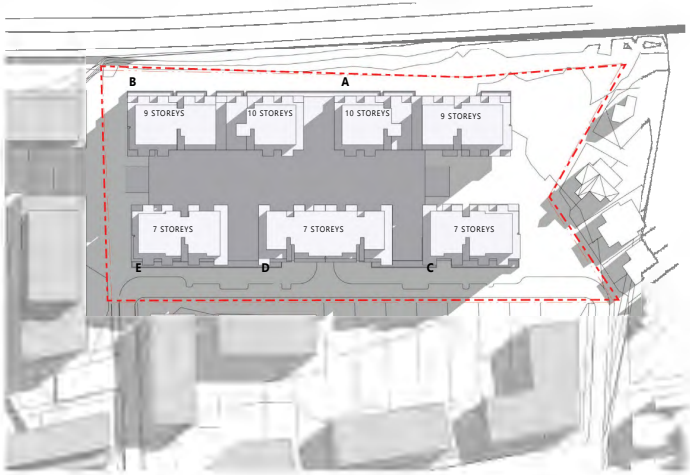
FUTURE CONTEXT



1pm - 21 JUNE



3pm - 21 JUNE



2pm - 21 JUNE

OVERSHADOWING ANALYSIS

Overshadowing onto future neighbouring developments on the south of the site, were accessed visually. The overshadowing from proposed development has been viewed as minimal and would allow the future build forms on the south of the site have the ability to comply with the solar requirements as per SEPP65 ADG.

PROPOSED DEVELOPMENT

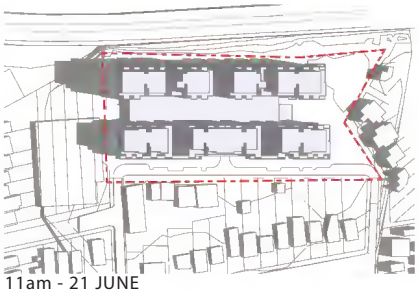
LIKELY FUTURE CONTEXT

EXISTING CONTEXT

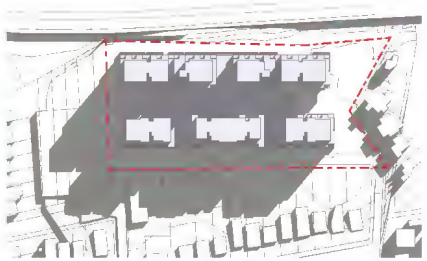
SHADOW ANALYSIS

EXISTING CONTEXT

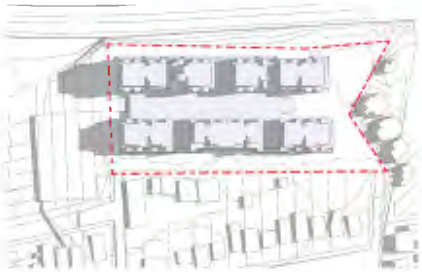
9am - 21 JUNE

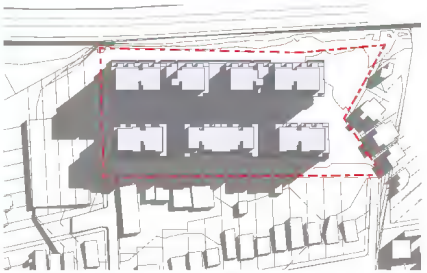

11am - 21 JUNE

1pm - 21 JUNE


3pm - 21 JUNE

10am - 21 JUNE


12pm - 21 JUNE


2pm - 21 JUNE

Diagrams represent the proposed shadows within the future context at each hour between 9am-3pm at winter solstice - 21st June.
The surrounding context represents existing surrounding context.

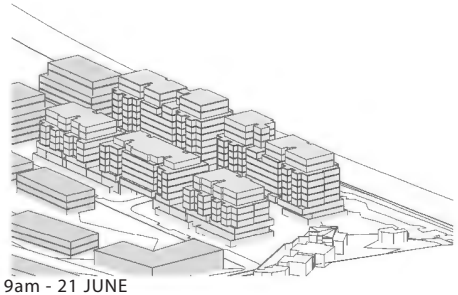
PROPOSED DEVELOPMENT

EXISTING CONTEXT

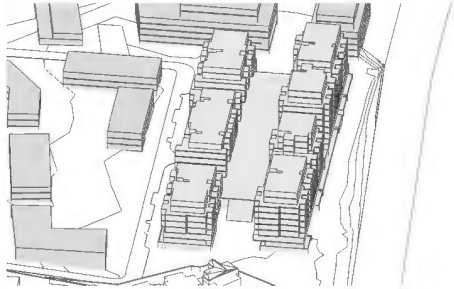
ANTONIADES ARCHITECTS

SUN EYE DIAGRAMS

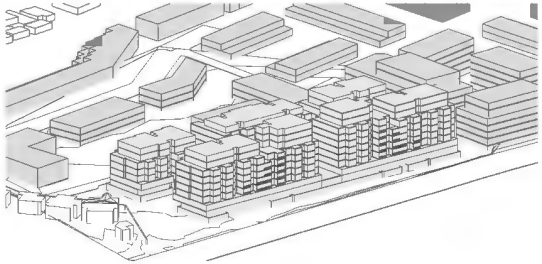
21 JUNE BETWEEN 9AM-3PM



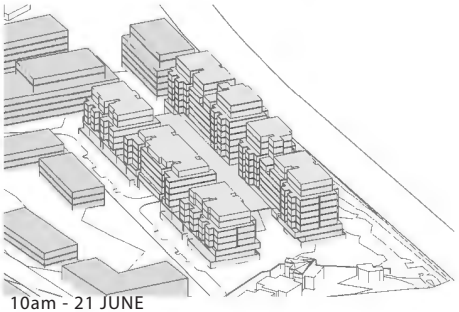
9am - 21 JUNE



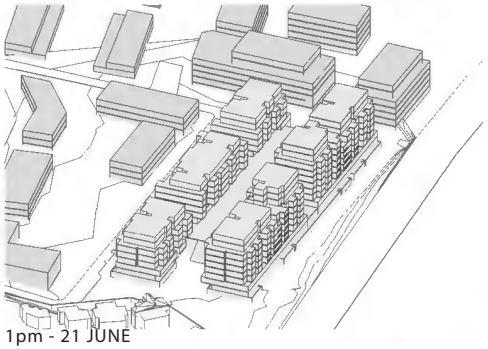
12pm - 21 JUNE



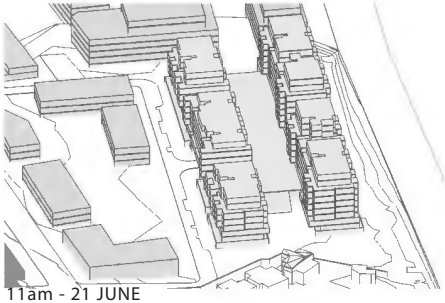
3pm - 21 JUNE



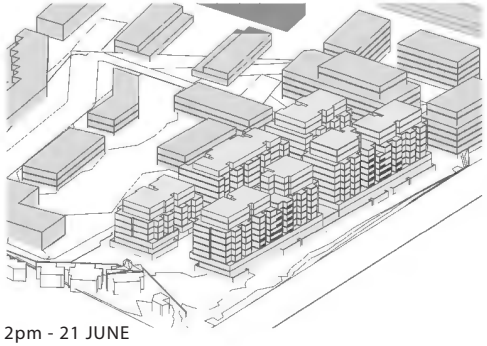
10am - 21 JUNE



1pm - 21 JUNE



11am - 21 JUNE



2pm - 21 JUNE

Diagrams show the views from the sun at each hours between 9am-3pm at Winter Solstice-21st June.
The views have been orientated in such a way where anything that is not visible in view would be in shadow.

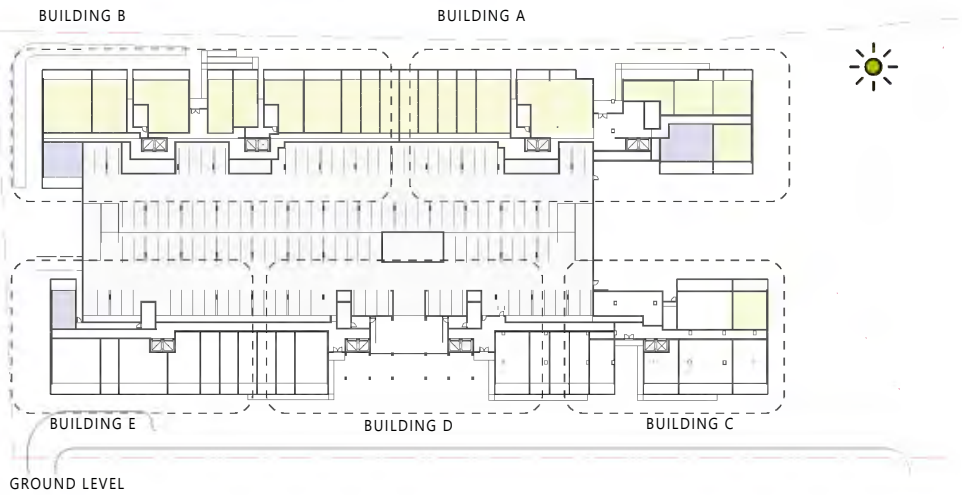
These diagram allow to visually access the impact of the development onto the future neighbouring developments on southern and eastern sides of proposed site.

PROPOSED DEVELOPMENT

LIKELY FUTURE CONTEXT

EXISTING CONTEXT

SOLAR ACCESS ANALYSIS

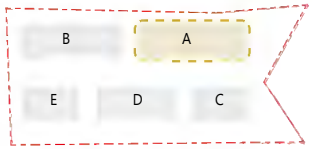


SUMMARY:

65 units receive less that 2hrs of direct sunlight at Winter Solstice between 9am-3pm;

4 of which receive less than 15 min of direct sunlight at Winter Solstice between 9am-3pm

KEY MAP

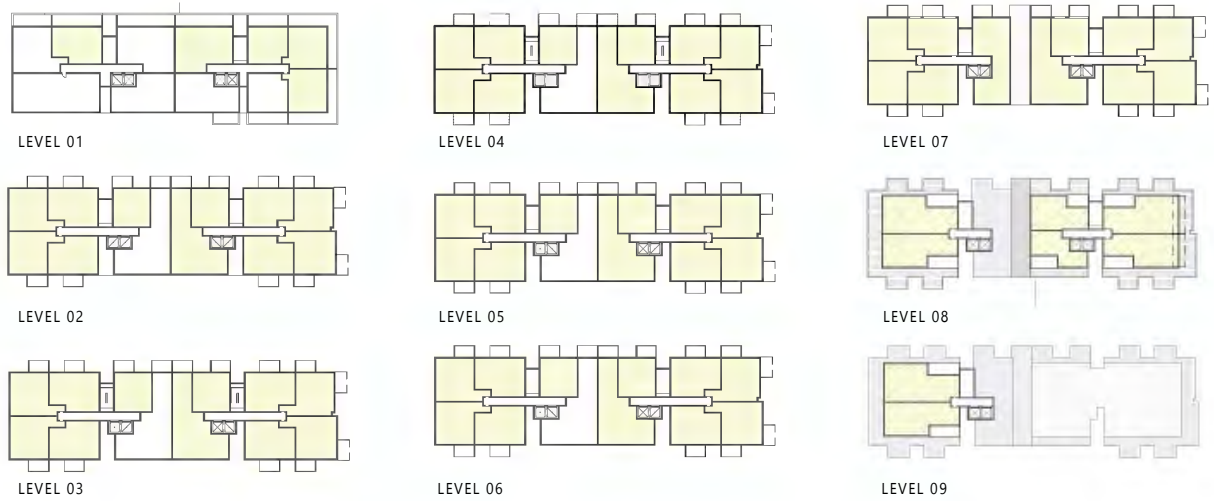


Design maximizes sites solar aspects and provides views onto Sydney Olympic park, with at least 80% of the units receiving minimum of 2 hours direct sunlight in the private open space and living areas between 9 am and 3 pm at Winter Solstice.

Less than 15% of the units receive no direct sun light t in the private open space and living areas between 9 am and 3 pm at Winter Solstice.

Units fully comply with SEPP65 ADG solar access.

BUILDING A



UNITS RECEIVING 2HRS OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

UNITS RECEIVING LESS THAN 15MIN OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

ANTONIADES ARCHITECTS

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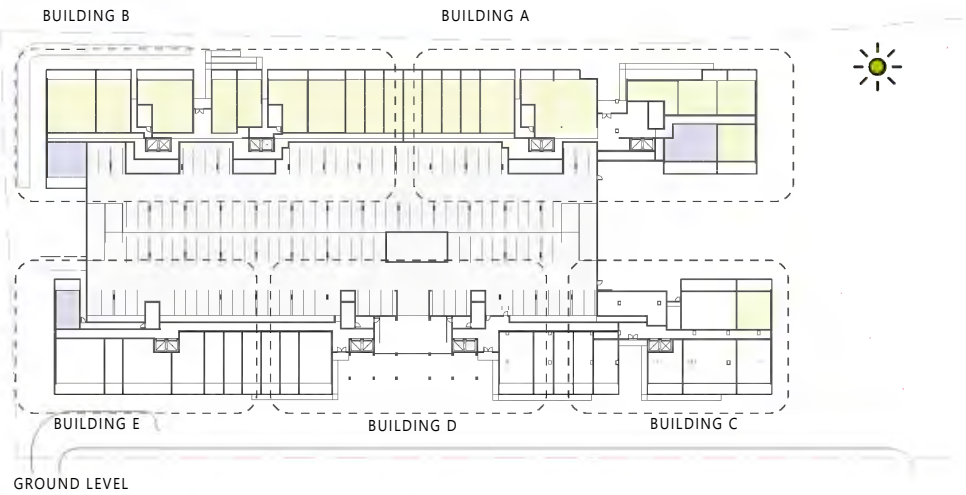
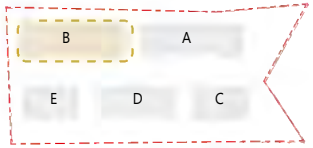
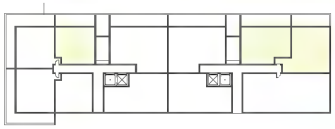
SOLAR ACCESS ANALYSIS



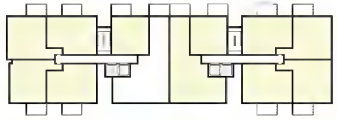
KEY MAP



BUILDING B

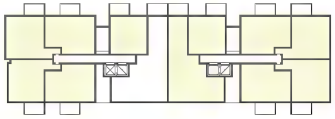


LEVEL 01

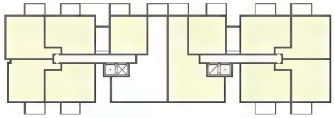


LEVEL 04

LEVEL 07

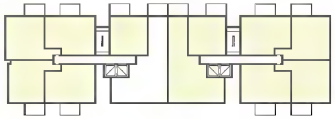


LEVEL 02

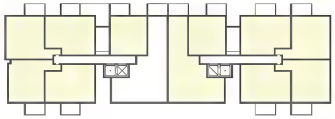


LEVEL 05

LEVEL 08



LEVEL 03



LEVEL 06

LEVEL 09

UNITS RECEIVING 2HRS OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

UNITS RECEIVING LESS THAN 15MIN OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

ANTONIADES ARCHITECTS

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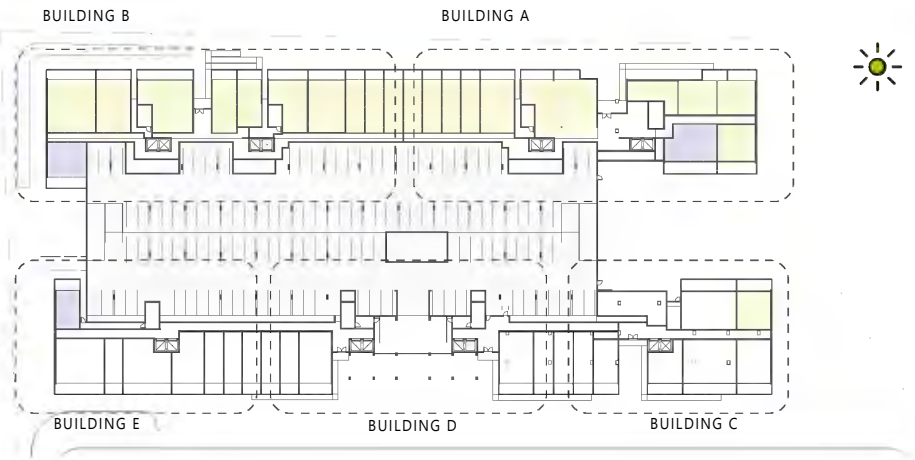
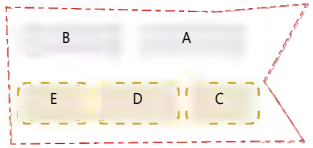
SOLAR ACCESS ANALYSIS



GROUND LEVEL

KEY MAP

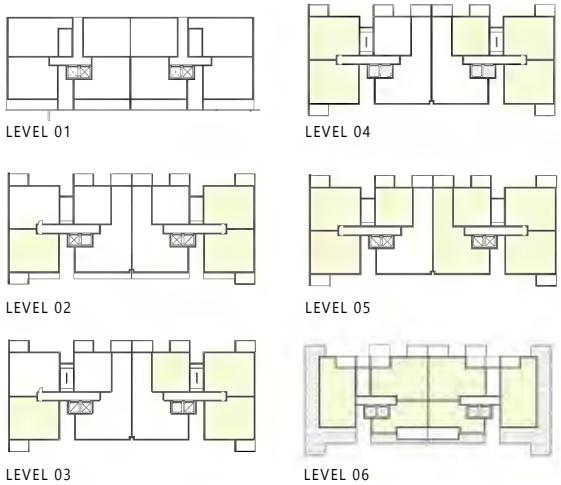


UNITS RECEIVING 2HRS OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

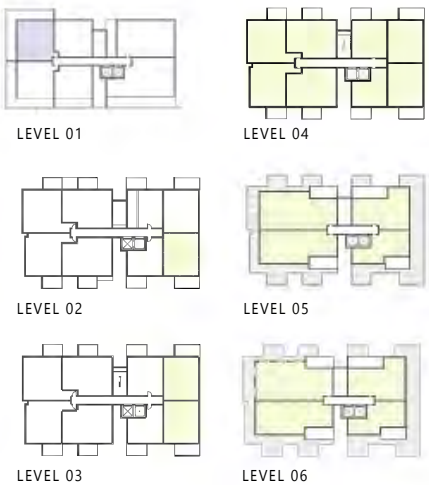
UNITS RECEIVING LESS THAN 15MIN OF DIRECT SUNLIGHT AT WINTER SOLSTICE BETWEEN 9AM-3PM

BUILDING C

BUILDING D



BUILDING E



ANTONIADES ARCHITECTS

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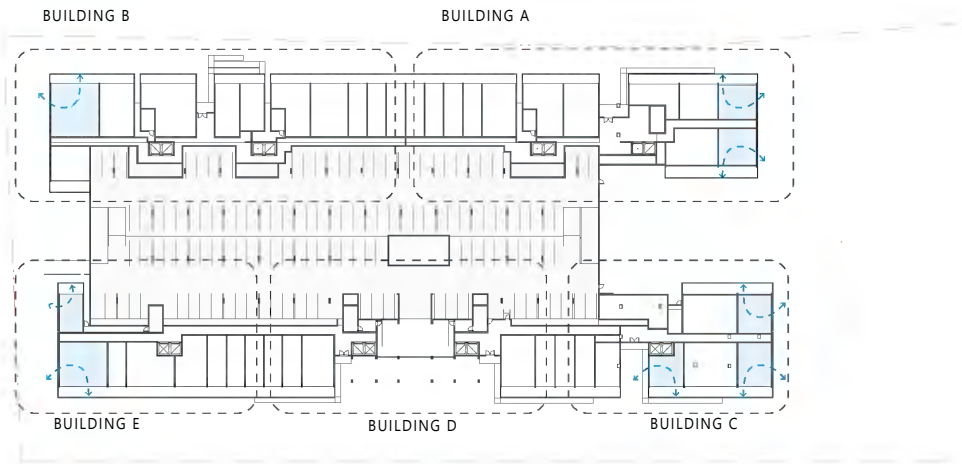
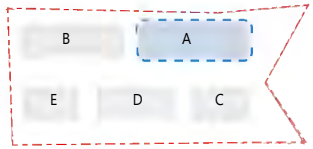
CROSS VENTILATION ANALYSIS



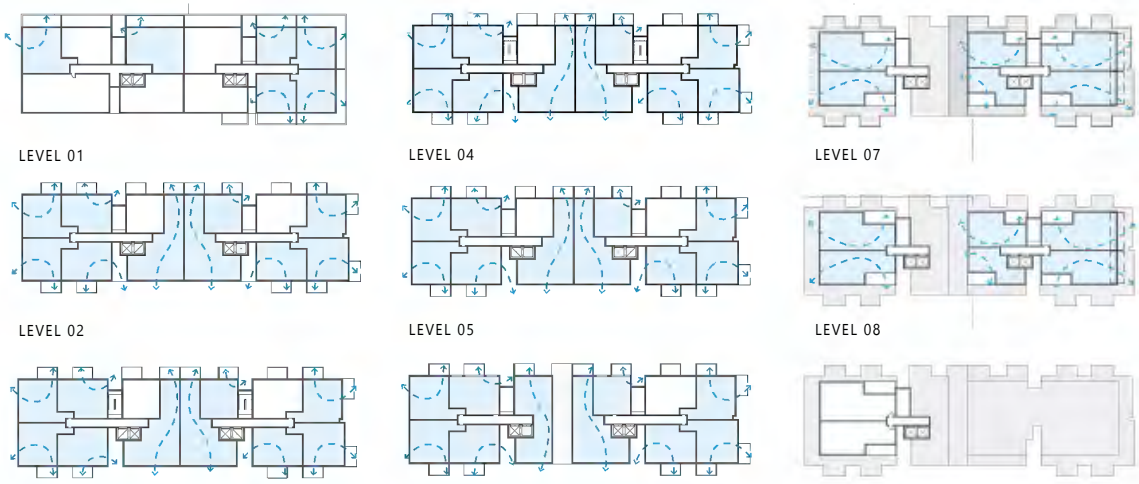
GROUND LEVEL

KEY MAP



UNIT WITH CROSS-VENTILATION ASPECTS

BUILDING A



LEVEL 01 LEVEL 04 LEVEL 07

LEVEL 02 LEVEL 05 LEVEL 08

LEVEL 03 LEVEL 06 LEVEL 09

OVERALL SUMMARY

Overall 241 unit of 320 = 75% of all units are naturally cross ventilated in the first nine storeys of the building. Units at tenth storey are deemed to be cross ventilated. Design meets SEPP65 ADG compliance.

ANTONIADES ARCHITECTS

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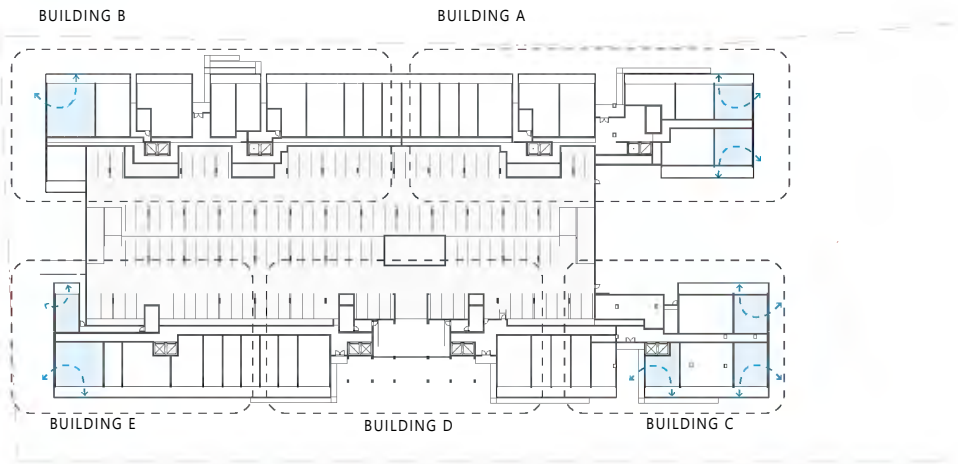
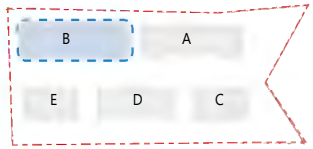
CROSS VENTILATION ANALYSIS



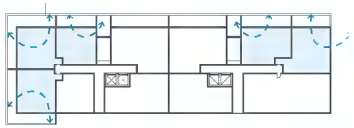
GROUND LEVEL

KEY MAP

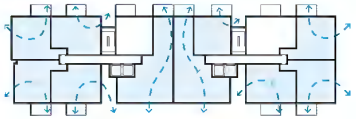


UNIT WITH CROSS-VENTILATION ASPECTS

BUILDING B



LEVEL 01



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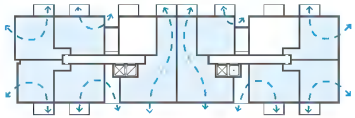

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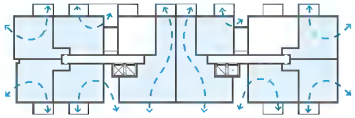

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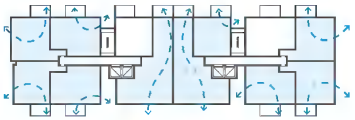

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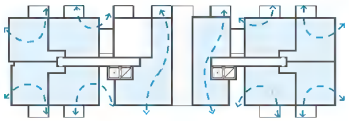

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ANTONIADES ARCHITECTS

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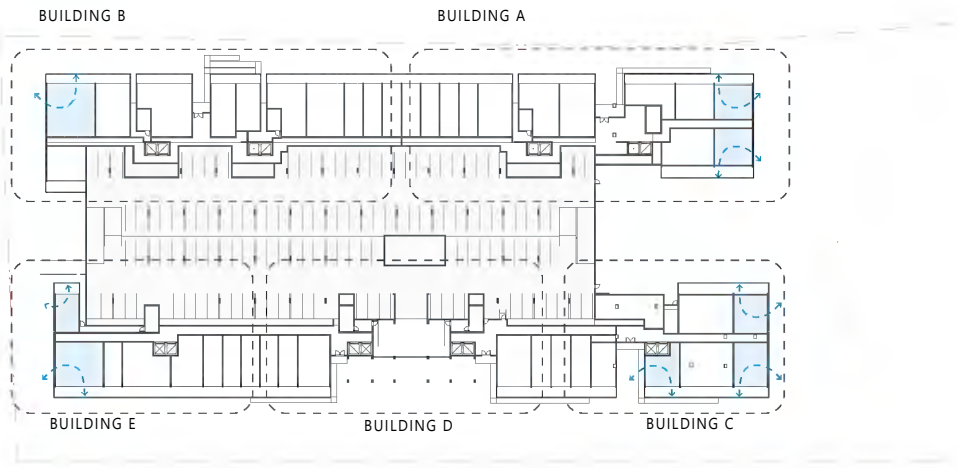
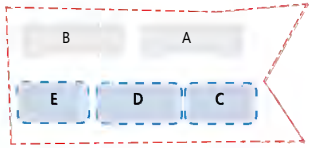
CROSS VENTILATION ANALYSIS



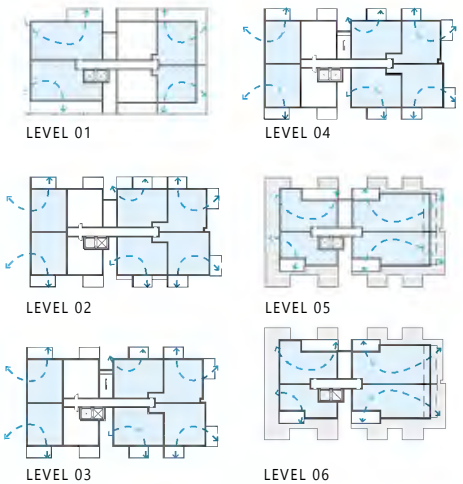
GROUND LEVEL

KEY MAP

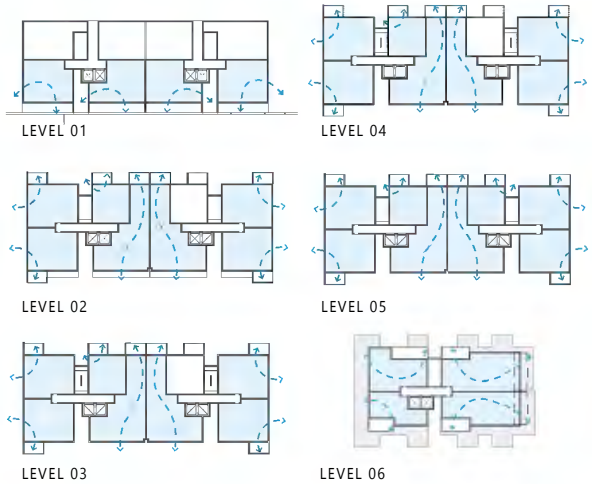


UNIT WITH CROSS-VENTILATION ASPECTS

BUILDING C



BUILDING D



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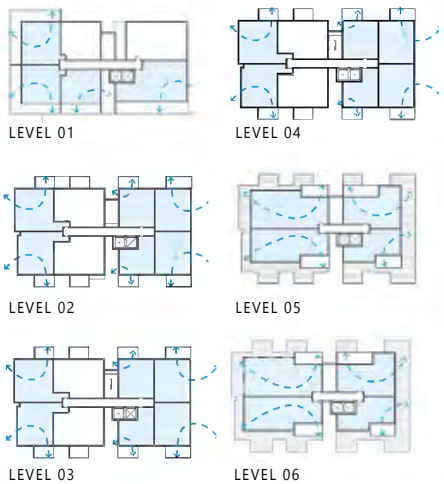

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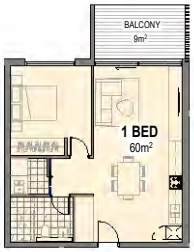
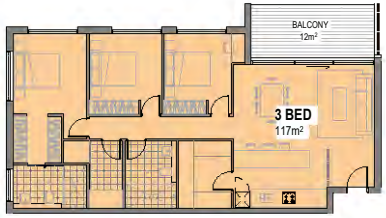
INTERNAL LAYOUTS



TYPICAL 1 BEDROOM

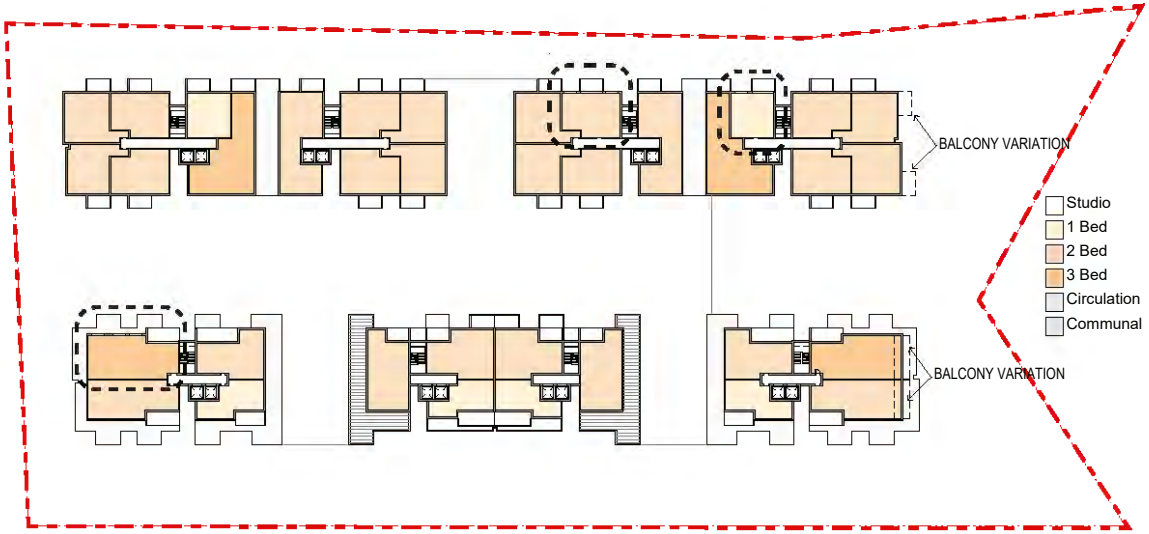
TYPICAL 2 BEDROOM



TYPICAL 3 BEDROOM

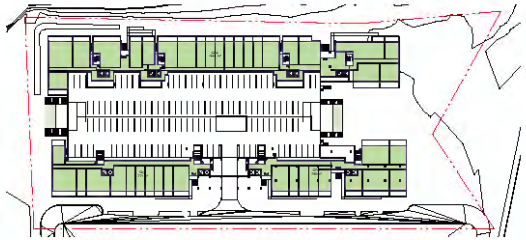
Units have been designed to meet ADG requirements and maximize the number of typical units.

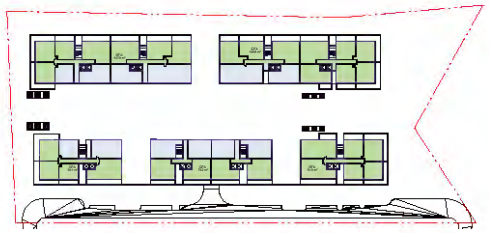
Ground level of the proposed development mainly consistent of studio typology.



LEVEL 6 PLAN

GFA CALCULATIONS


GROUND LEVEL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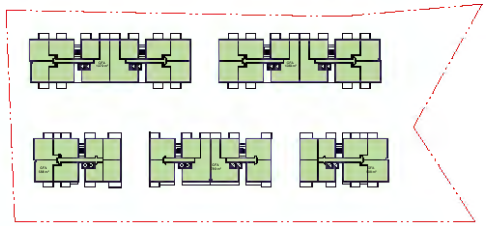
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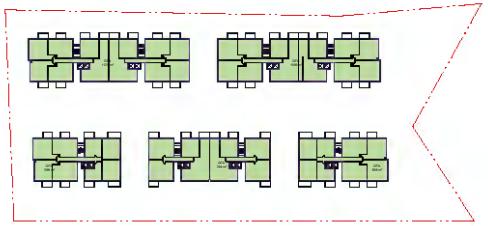
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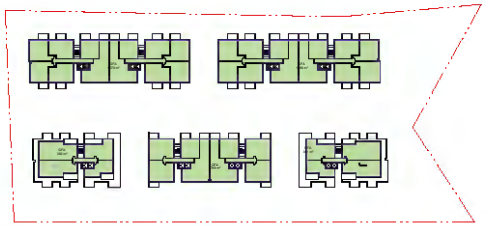
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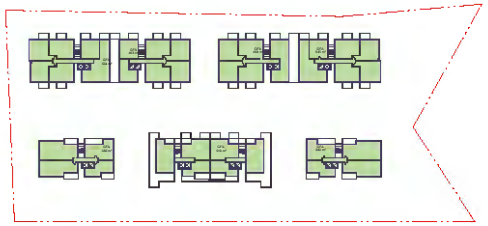
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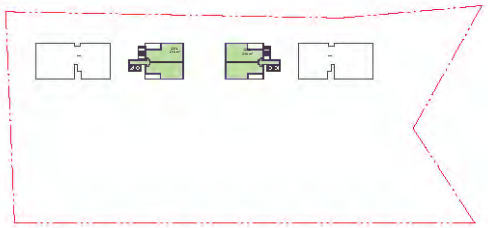
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UNITS GFA

COMMUNAL INTERNAL SPACE GFA

ANTONIADES ARCHITECTS

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DEVELOPMENT OUTCOME

PROJECT 7 CONCORD AVE, CONCORD WEST

AA.MPN.1202

Council CANADA BAY

Lot & DP DP 270137, DP219742

Zoning

Site Area 16520m²

AMENITY

	Solar Access	Cross Ventilation	Building depth	Private Open Space (m2)	Communal open space	Landscaping	Deep Soil
Controls & Guidelines	70%	60%	18m	Studio 4m2, 1Bed 8m2, 2Bed 10m2, 3Bed 12m2 Ground floor 15m2	25%	30% site area	15% site area (2480 sq.m)
Proposed	80%	75%	10.5m-18.5m	Studio > 4m2 1Bed > 8m2 2Bed 10m2 3Bed 12m2	33.5%	54% (incl.green roofs)	28.4% site area (4690 sq.m.)

* In accordance with NSW Apartment Design Guide June 2015

* All figures presented in this chart are preliminary and refer to schematic design prepared by Antoniades Architects Pty. Ltd.

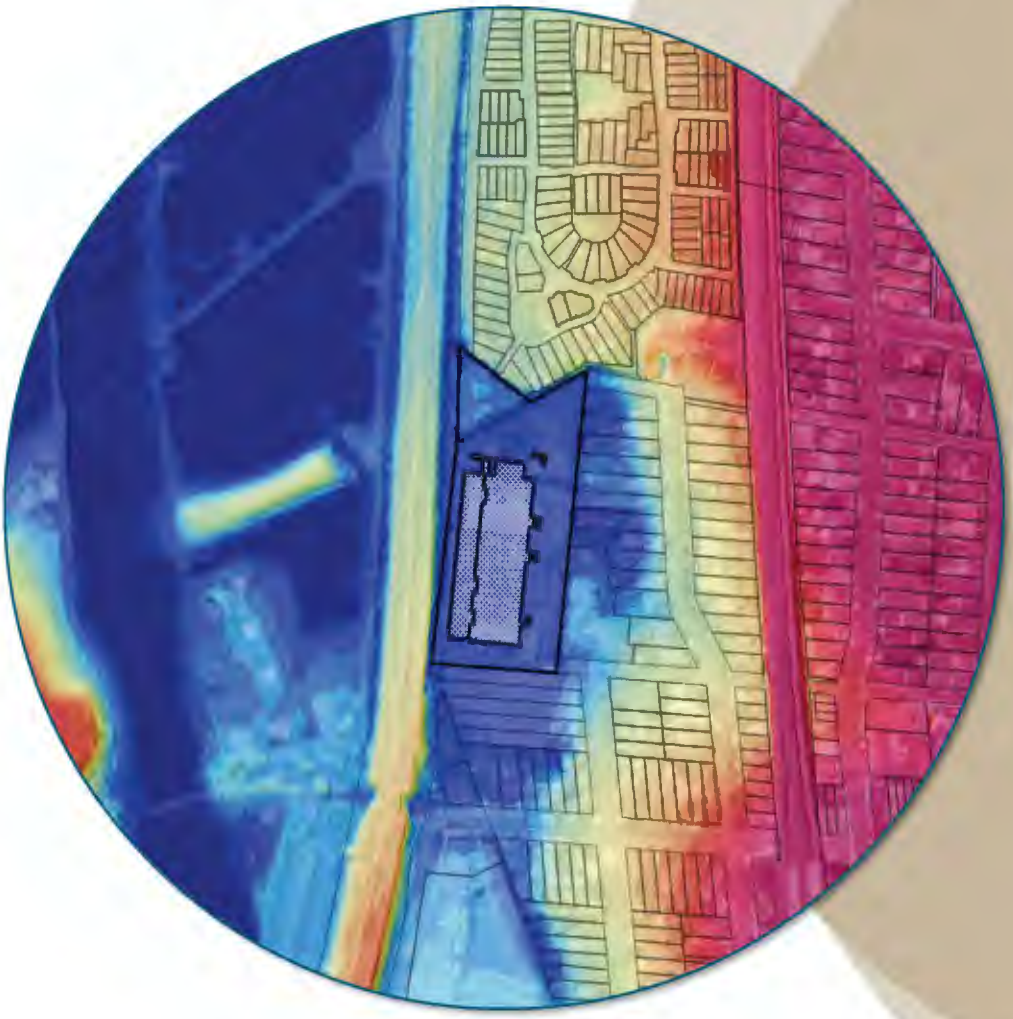
APARTMENT MIX

	Studio Apartment	1 Bed Apartment	2 Bed Apartment	3 Bed Apartment	Total	ComOS	ComIS	Carpark
Basement 02								85
Basement 01								
Ground Level	22	13	7	1	43			121
Level 01		6	21	3	30	5540 m²	1197m²	
Level 02		14	28	6	48			
Level 03		14	28	6	48			
Level 04		14	28	6	48			
Level 05		8	24	8	40			
Level 06		6	25	5	36			
Level 07		2	7	6	15			
Level 08		2	2	8	12			
Level 09				4	4			
Total	**22**	**79**	**170**	**53**	**324**	5540	**1197**	**206**
%	7%	24%	52%	16%	100%			

GFA, GBA CALCULATION

Level	GFA		
	Residential + Corridors	Communal Internal Space	**Total**
Lower Ground Level	0m²		0m²
Ground Level	3501m²		3501m²
Level 01	2706m²	1197m²	3903m²
Level 02	4143m²		4143m²
Level 03	4143m²		4143m²
Level 04	4143m²		4143m²
Level 05	3721m²		3721m²
Level 06	3287m²		3287m²
Level 07	1024m²		1024m²
Level 08	1149m²		1149m²
Level 09	428m²		428m²
Level 10			
Total	28245m²	1197m²	**29442m²**
FSR	1.8:1		

* GFA CALCULATED INTERNAL FACE OF EXTERNAL WALL EXCLUDING VERTICAL CIRCULATION, PLANT ROOMS, GARBAGE AREA, LOADING AREA, AND CAR PARKING



Proposed Redevelopment of 7 Station Avenue, Concord West

Flood Impact and Risk Assessment

FTD Holdings (Concord West) Pty Ltd & Floridana Pty Ltd

February 2024

rp311015-00492lp_lc240223-7 Station Av Concord W FIRA.docx

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Disclaimer

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Company details

Worley Limited
ABN 17 096 090 158

Level 17 141 Walker Street
North Sydney NSW 2060
Australia

T: +61 2 9495 0500
F: +61 2 9810 5777

Project: **Proposed Redevelopment of 7 Station Avenue, Concord West**
Flood Impact & Risk Assessment

Rev	Description	Author	Review	Approval	Date
A	Draft Report	LP L Peralta	LC L Collins		06/12/2023
B	Final Report	LC L Collins	CRT C Thomas	C Thomas	23/02/2024

rp311015-00492lp_lc240223-7 Station Av Concord W FIRA.docx Revision B

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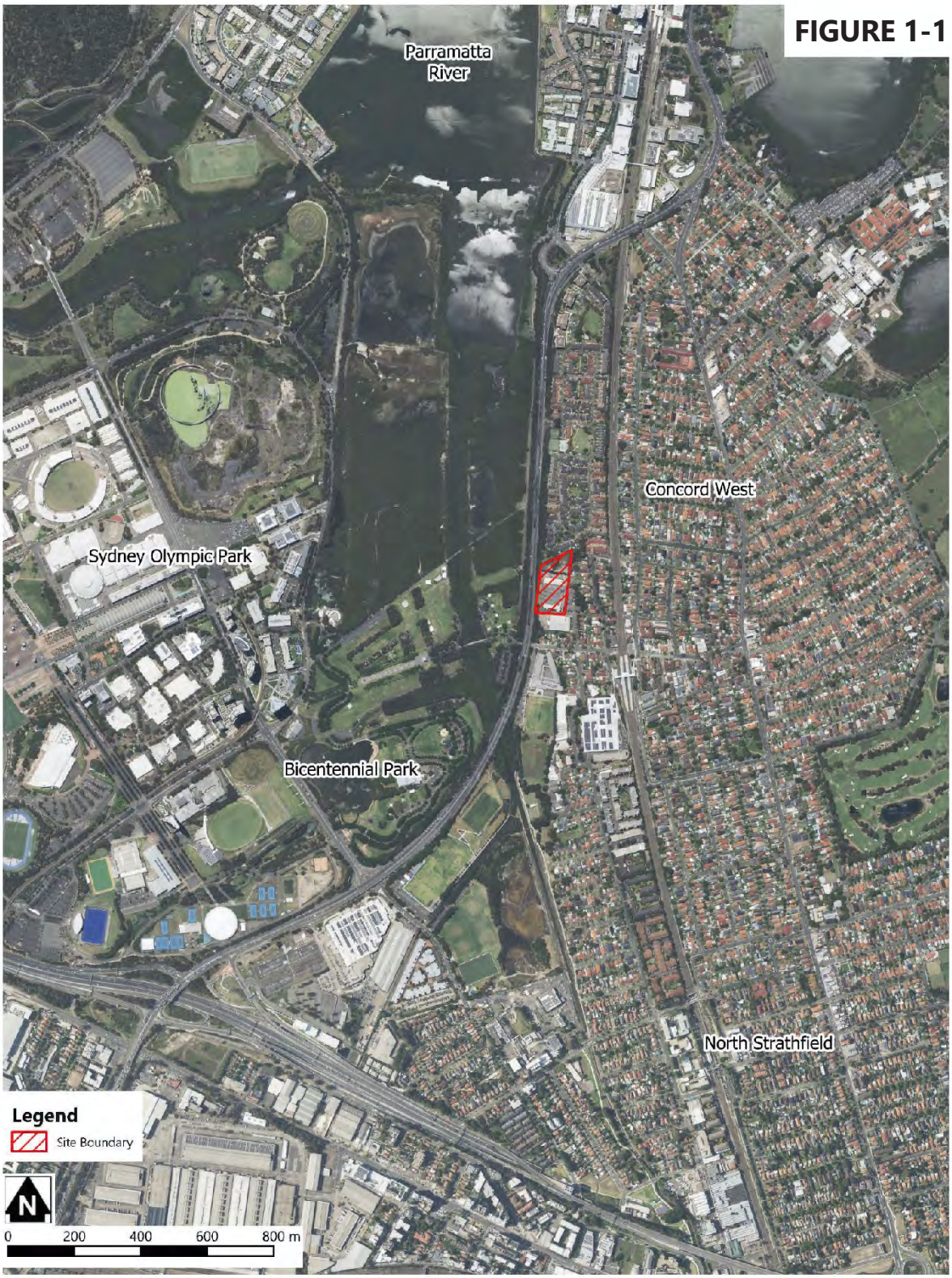
1 Introduction

Concord West Partnership proposes to re-develop land referred to as 7 Station Avenue, Concord West, (the Site) for the purposes of constructing a multi-storey residential development. The Site is located in the Powells Creek catchment along the eastern side of Bicentennial Park as shown in **Figure 1-1**.

Flood modelling and mapping completed as part of the *Powells Creek Flood Study* (WMAwater, 2022) indicates that the Site is flood prone. Accordingly, it is necessary to assess the proposed development in accordance with the provisions detailed in Chapter B8 of City of Canada Bay Development Control Plan 2023 (DCP 2023) and Ministerial Direction 4.3 Flooding.

Worley Consulting Pty Ltd (Worley) was engaged by FTD Holdings (Concord West) Pty Ltd & Floridana Pty Ltd to prepare a Flood Impact and Risk Assessment (FIRA) to accompany the Development Application. This report documents the methodology and findings of the FIRA including analysis of the potential impacts of the proposed redevelopment on existing flood behaviour in the vicinity of the Site, and assessment against the requirements of Chapter B8 of City of Canada Bay DCP 2023 and Ministerial Direction 4.3 Flooding.



Prepared by:

worley

7 STATION AVENUE, CONCORD WEST, STUDY LOCATION

2 Assessment of Existing Flood Behaviour

2.1 Description of the Development Site

The Site at 7 Station Avenue, Concord West, lies in the lower Powells Creek catchment. It is bounded by Homebush Bay Drive to the west, residential areas to the north and east, and an industrial property to the south (*refer* **Figure 1-1)**.

Powells Creek is located about 240 metres west of the SiteSite where it is relatively narrow and flows in a northerly direction. The creek follows a relatively straight alignment from near the M4 Motorway crossing near Homebush to its point of discharge to Homebush Bay approximately 650 metres north of the Site.

A large warehouse shed is currently located on the Site. The shed is surrounded by concrete and gravel hardstand, with an area of open space in the north of the Site (*refer* **Figure 2-1**).

The existing topography of the Site and its immediate surrounds, as determined from Light Detection and Ranging (*LiDAR*) survey data captured in 2019, is shown in **Figure 2-2**. The 2019 LiDAR data was used as the basis for preparation of the *Powells Creek Flood Study* (WMAwater 2022) and the associated TUFLOW hydraulic model. The Flood Study report and the design flood levels documented in it were adopted by City of Canada Bay Council (Council) on 21 April 2022.

The LiDAR defined topography indicates that the Site is located on relatively low-lying land with elevations in the range of 1.3 to 2.0 mAHD. Ground levels in the vicinity of the warehouse building are typically in the range of 1.5 to 1.8 mAHD. The Homebush Bay Drive road embankment is located immediately to the west of the Site and has crest elevations ranging from 4.4 to 5.4 mAHD in this vicinity.

2.2 Previous Flood Related Studies

As noted, the characteristics of flooding in the Powells Creek catchment are documented in the *Powells Creek Flood Study* (WMAwater 2022). The flood study report documents the development and calibration of a detailed flood model and the resulting design flood levels currently adopted by Council. The associated models and definitions of existing flood behaviour have been adopted to represent 'existing conditions' for the purposes of this FIRA.

A number of previous flood impact assessments have been completed as part of previous proposals for redevelopment of the Site. These are listed below.

- Integrated Group Services (2016). Lot 1 DP 219742, Concord West Flood Impact Assessment.
- Integrated Group Services (2017). Lot 1 DP 219742, Concord West Flood Impact Assessment Addendum 1.
- HydroSpatial & Catchment Simulation Solutions (2018). Lot 1 DP219742 Concord West Revised Flood Impact and Flood Risk Assessment.

The flood information forming the basis of these prior studies has been superseded by the release of the *Powells Creek Flood Study* (WMAwater 2022).

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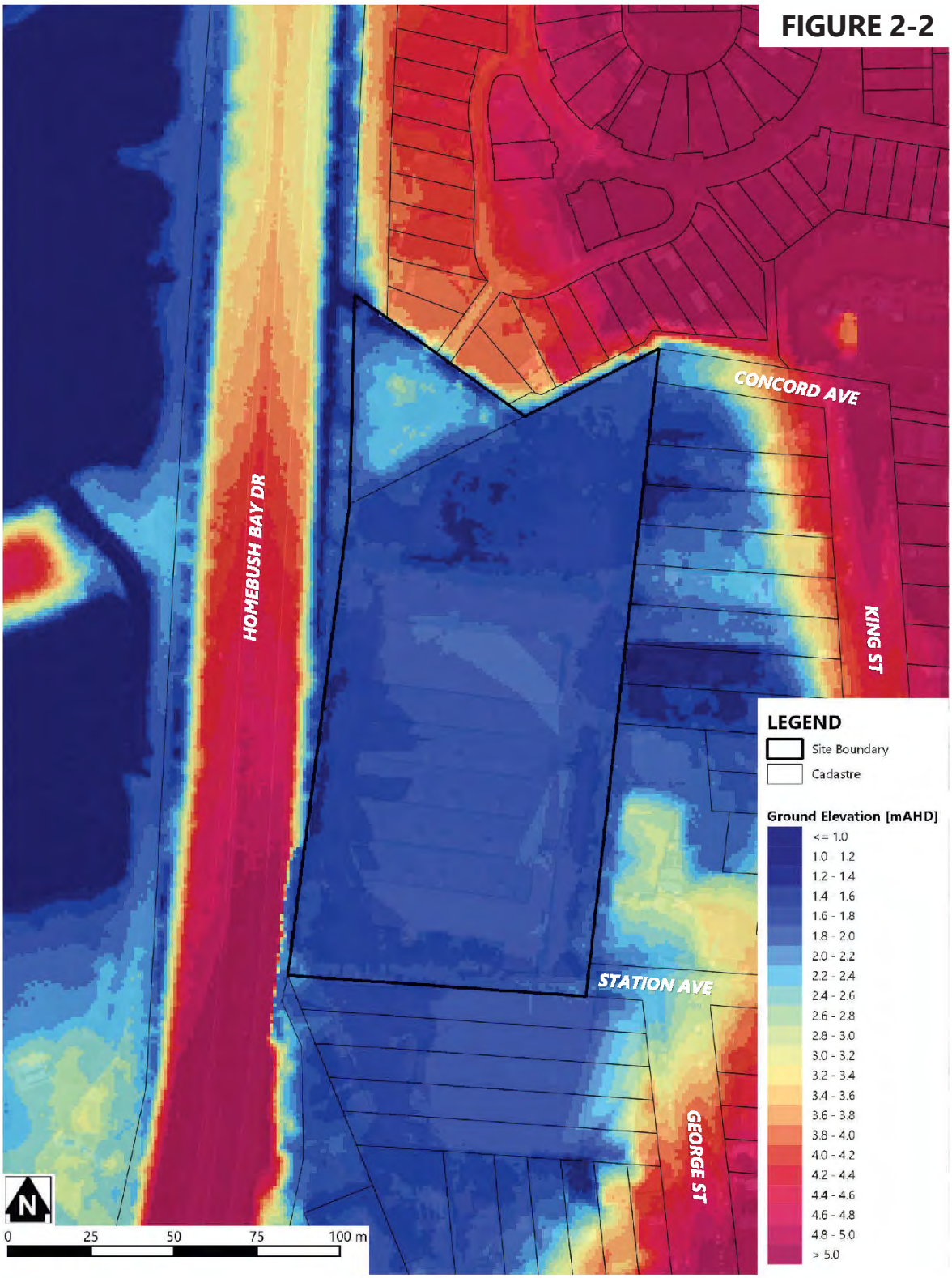
worley

EXISTING SITE FEATURES



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EXISTING TOPOGRAPHY IN THE VICINITY OF THE SITE

2.3 Flood Modelling Approach

2.3.1 Existing TUFLOW model

For the purposes of this FIRA, the two-dimensional TUFLOW hydraulic model that was developed for use in the *Powells Creek Flood Study* (WMAwater 2022) has been adopted.

Details of the adopted TUFLOW model version are as follows:

- Software version: 2020-10-AA-iSP-w64, HPC
- Original TUFLOW Control File: _D_Design.tcf
- Advisian TUFLOW Control File: Adv_ConcordW.tcf
- Grid Size: 1m grid
- Input Hydrographs: DESARR2019\PWC_Catchments_~AEP~, ~DUR~, ~Stormnumb~.ts1

All design flood simulations (*including existing condition and post-development scenarios*) incorporated the 'design blockage' conditions applied in the *Powells Creek Flood Study* (WMAwater 2022).

Some minor modifications were made to the flood study model to better define local flood behaviour under existing conditions, as described in the following.

2.3.2 Localised Changes to Existing Condition / Base Case TUFLOW Model

The existing TUFLOW model represents all building footprints as fully blocked out (i.e., inactive) features. There are various ways that buildings can be represented in a model, with this being the most conservative as flows are fully obstructed and no flood storage is accounted for within buildings.

The building footprints adopted in the *Powells Creek Flood Study* were extracted from aerial photography and, as a result, outdoor or open areas beneath roof structures are represented in the same manner as solid brick buildings – even if they would cause no real-world obstruction to flow.

It was found that a small ground level undercover parking area on the Site and a long driveway beneath an awning on the lot immediately to the south were fully blocked out in the model and were causing an unrealistic obstruction and distribution of flows through the south of the Site.

Accordingly, these two open areas were removed from the building footprints layer to allow more realistic flow behaviour through the south of the Site and the neighbouring lot (*refer* **Figure 2-3**).

FIGURE 2-3

CHANGES MADE TO TUFLOW BUILDING FOOTPRINTS FOR EXISTING CONDITIONS

Prepared by: worley

2.4 Flood Modelling Results for Existing Conditions

TUFLOW flood model results from the *Powells Creek Flood Study* (WMAwater 2022) have been used to prepare a series of maps showing local flood characteristics in the vicinity of the Site under existing conditions; i.e., pre-development. The following flood mapping is included in **Appendix A** for the 20% AEP and 1% AEP design flood events, and for the Probable Maximum Flood (PMF).

- **Figure A-1** to **Figure A-3**: Peak Flood Depths for Existing Conditions
- **Figure A-4** to **Figure A-6**: Peak Flow Velocities for Existing Conditions
- **Figure A-7** to **Figure A-9**: Provisional Flood Hazard for Existing Conditions
- **Figure A-10** and **Figure A-12**: Hydraulic Categories for Existing Conditions
- **Figure A-13**: Flood Risk Precincts for Existing Conditions.

A summary of the results is presented in the following.

2.4.1 Peak Flood Levels and Depths

In the 20% AEP design event the majority of the Site is inundated (*refer* **Figure A-1**). Peak depths are generally less than 0.25 m, with maximum depths of about 0.37 m reached in low-lying areas to the north and west of the existing warehouse building. The peak 20% AEP flood level ranges from 1.74 to 1.87 mAHD.

In the 1% AEP design event peak flood depths are generally in the range of 0.3 to 0.5 m across the Site, reaching maximums of about 0.7 metres locally (*refer* **Figure A-2**). The associated peak 1% AEP flood level within the Site is 2.0 mAHD.

In the PMF event, the entire Site is inundated to depths of between about 1.7 and 2.2 m locally (*refer* **Figure A-3**). The peak PMF level within the Site is 3.55 mAHD.

2.4.2 Peak Flow Velocities

In design events from the 20% AEP to the 1% AEP, simulated peak flow velocities within the Site are low, being generally less than 0.5 m/s (*refer* **Figure A-4** *and* **A-5**). Higher peak velocities of up to about 1 m/s occur locally near the south-eastern and northern boundaries. This is associated with local runoff entering the Site from Station Avenue in the south and then exiting the Site through a drainage channel along the northern boundary.

In the PMF event simulated peak flow velocities are somewhat higher, though they still predominantly remain below 0.5 m/s (*refer* **Figure A-6**). Peak velocities in the range of 0.5 to 1.0 m/s extend along the eastern boundary of the Site from Station Avenue in the south through to the drainage channel in the north. Maximum velocities of about 1.4 m/s are reached locally.

2.4.3 Flood Hazard

Flood hazard provides a measure of the potential risk to life and property posed by a flood. *Australian Rainfall and Runoff 2019* (ARR 2019) presents a set of hazard curves which assess the vulnerability of people, vehicles and buildings to flooding based on the velocity and depth of flood flows. These curves have been adopted to define flood hazard in this study and are reproduced in **Figure 2-4**. Resulting flood hazard mapping for existing conditions is presented in **Figure A-7** to **Figure A-9**.

In the 20% AEP design event, the majority of the Site is classified as H1 hazard (*generally safe for people, vehicles and buildings*), with small patches of H2 hazard (*unsafe for small vehicles*) locally in lower-lying areas (*refer* **Figure A-7**).

In the 1% AEP design event, the majority of the Site is affected by H2 hazard (*unsafe for small vehicles*), with small areas of H1 hazard on higher ground, and H3 hazard (*unsafe for vehicles children and the elderly*) on lower ground (*refer* **Figure A-8**). As peak velocities are low, the hazard is dictated by the depth of inundation.

In the PMF event, the Site is affected by H4 (*unsafe for all vehicles and people*) and H5 (*unsafe for all vehicles and people, buildings vulnerable to structural damage*) hazard (*refer* **Figure A-9**). However, as velocities remain low, structurally sound buildings would not be expected to sustain structural damage.

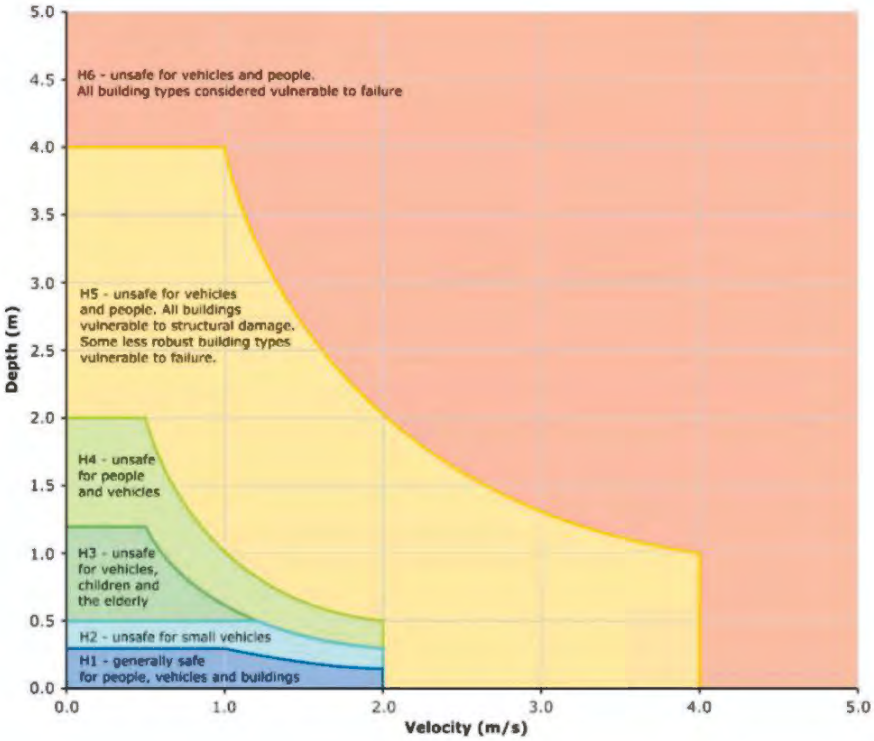

Figure 2-4 ARR 2019 Flood Hazard Categories

2.4.4 Hydraulic Categories / Flood Function

The NSW Government's *Flood Risk Management Manual: the policy and manual for the management of flood liable land* (2023) divides flood prone land into three flood function categories; namely floodway, flood storage areas and flood fringe areas, which are indicative of the potential for development to impact on existing flood behaviour.

The *Powells Creek Flood Study* (WMAwater 2022) delineated the floodplain into hydraulic categories. Worley Consulting has prepared local hydraulic category mapping using this data as presented in **Figure A-10** to **Figure A-12** for the 20% AEP, 1% AEP and PMF events, respectively.

In the 20% AEP event, all inundation on the Site is classified as 'Flood Fringe'.

In the 1% AEP event, most of the Site remains classified as 'Flood Fringe', with some areas of 'Flood Storage' indicated along the western boundary and in the north of the Site. No part of the Site is classified as 'Floodway' in the 1% AEP event.

In the PMF event, the majority of the Site is classified as 'Flood Storage'. Some areas are categorised as 'Floodway', particularly along the southern and western boundaries.

2.4.5 Flood Planning Level and Area

The City of Canada Bay DCP 2023 defines the flood planning area (FPA) as *"The area of land below the flood planning level (FPL) and thus subject to flood related development controls"*. The DCP also presents a series of FPA maps for the LGA. The map that includes the Site location is reproduced in **Figure 2-5**.

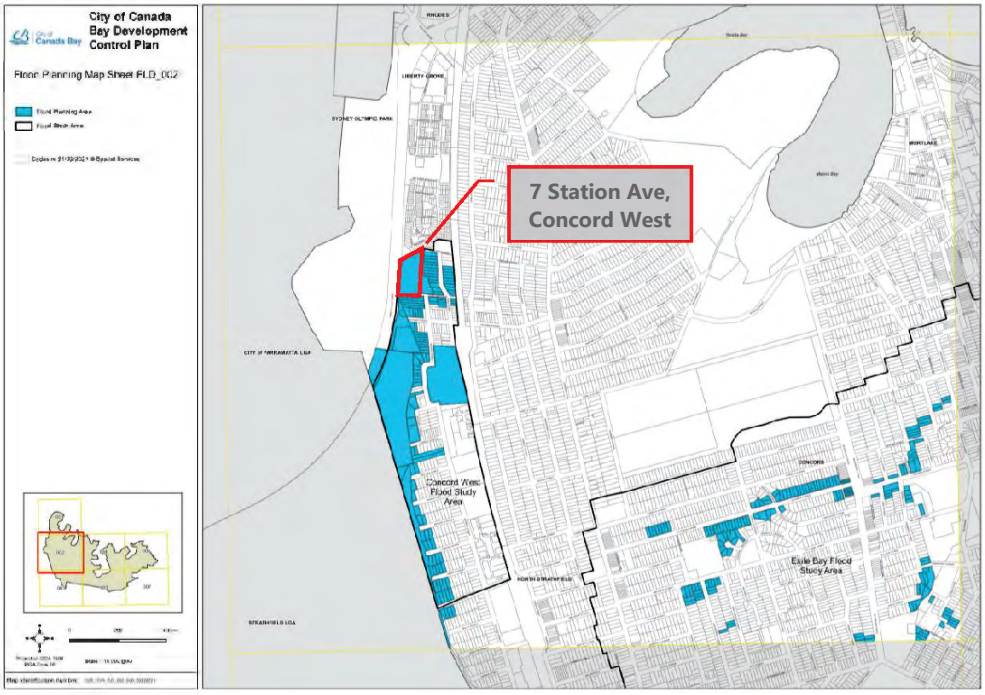

Figure 2-5 Flood Planning Areas for Concord West (*Source: City of Canada Bay DCP 2023*)

The City of Canada Bay DCP 2023 defines the flood planning level (FPL) as *"The combinations of flood levels (derived from significant historical flood events or floods of specific annual exceedance probability (AEP)) and freeboards selected for floodplain risk management purposes, as determined in management studies and incorporated in management plans"*.

The *Powells Creek Flood Study* (WMAwater 2022) indicates that the freeboard across the floodplain is to vary between 'mainstream' and 'overland' flooding but does not explicitly state the relevant freeboard value for either. The Site is mapped as 'overland flooding'. For the purposes of this FIRA it has been conservatively assumed that the FPL is based on the 1% AEP peak flood level plus 0.5 m freeboard.

2.4.6 Flood Risk Precincts

The City of Canada Bay DCP 2023 specifies differing controls for the floodplain based on its classification into Flood Risk Precincts (FRPs) that indicate different levels of potential flood risk. The classification of floodplains into FRPs considers the probabilities and consequences of all floods that could potentially occur including rare flooding (e.g., the 1% AEP) and extreme flooding (e.g., the PMF).

The City of Canada Bay DCP 2023 has adopted a three tier FRP classification as follows.

a) **High Flood Risk Precinct** - An area of land that under 1% AEP conditions is either subject to a high hydraulic hazard or presents significant evacuation difficulties. This has been interpreted by the *Powells Creek Flood Study* (WMAwater 2022) to comprise areas with a flood hazard category of H4 or greater during the 1% AEP flood (*refer* **Figure 2-4**).

b) **Medium Flood Risk Precinct** - An area of land that under 1% AEP conditions is not subject to a high hydraulic hazard and presents less than significant evacuation difficulties.

c) **Low Flood Risk Precinct** - The area above the 1 %AEP flood but below the Probable Maximum Flood (PMF).

FRP mapping at the Site for existing conditions has been prepared per the above criteria using data from the *Powells Creek Flood Study* (WMAwater, 2022) and is presented in **Figure 2-6**. An A3 version of the map is presented in **Figure A-13**.

As shown in **Figure 2-6**, the Site is classified as Medium FRP. The Medium FRP classification is due to the Site being within the 1% AEP flood extent but not being in a H4 or higher flood hazard category.

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worley

FLOOD RISK PRECINCTS [FRPs]
IN THE VICINITY OF THE SITE

3 Potential Impacts of the Development on Flooding

3.1 Description of the Proposed Development

The development proposal involves redevelopment of the Site at 7 Station Avenue, Concord West. The redevelopment is to include construction of a multi-storey residential apartment building with carparking on the ground floor. The proposed ground floor layout is shown in **Figure 3-1**.

As described in **Section 2.4.1** of this report, the peak 1% AEP flood level within the Site is 2.0 mAHD while the PMF event peak flood level is 3.55 mAHD.

The entry to the ground floor carpark is to be constructed at an elevation of 3.0 mAHD which is 1.0 m above the 1% AEP flood level. The carpark will be fitted with floodgates to prevent inundation in flood events up to and including the PMF. All habitable floor levels for residential units will be situated above the PMF level at a minimum elevation of 3.6 mAHD.

The area of the building footprint at ground level will be reduced by incorporating undercroft spaces beneath the apartments around the southern and eastern perimeters of the building. Ground levels within the undercroft spaces will be at similar elevations to existing conditions. This will allow floodwaters to pass through the Site with minimal disturbance to existing flow conveyance and storage behaviour.

A driveway / entry road will be constructed parallel to the eastern Site boundary, providing access to the carpark from Station Avenue and Concord Avenue. It is proposed that the driveway will have a minimum elevation of 1.8 mAHD which is 0.2 metres below the peak 1% AEP flood level. This elevation is based on criteria specified in *DCP 2023 Part B8 Car Parking and Driveway Access* control number C5. Floodwaters would pass beneath the driveway through regularly spaced culverts into a swale which would direct flows around the perimeter of the building to open space located in the north of the Site.

It is proposed that the small 'triangular lot' immediately to the north-west of the Site (*refer* **Figure 3-2**) will be acquired and used to improve flood conveyance and storage via excavation from existing levels of 1.7 to 2.6 mAHD down to a level of about 1.5 mAHD.

The net impact of the proposed cut and fill on available flood storage volume within the Site is presented in **Table 3-1**. The data shows that any filling within the floodplain from the 20% AEP event up to and including the PMF is more than compensated for by volumes of cut such that a net increase in flood storage is provided.

Table 3-1 Impact of cut and fill on flood storage volumes within the Site

Event	Peak Flood Level (mAHD)	Flood Storage (m^3)		
		Existing	Post-Development	Change
20% AEP	1.74 – 1.85	1,713	1,837	+124
1% AEP	2.0	4,277	4,597	+320
PMF	3.55	21,009	21,373	+364

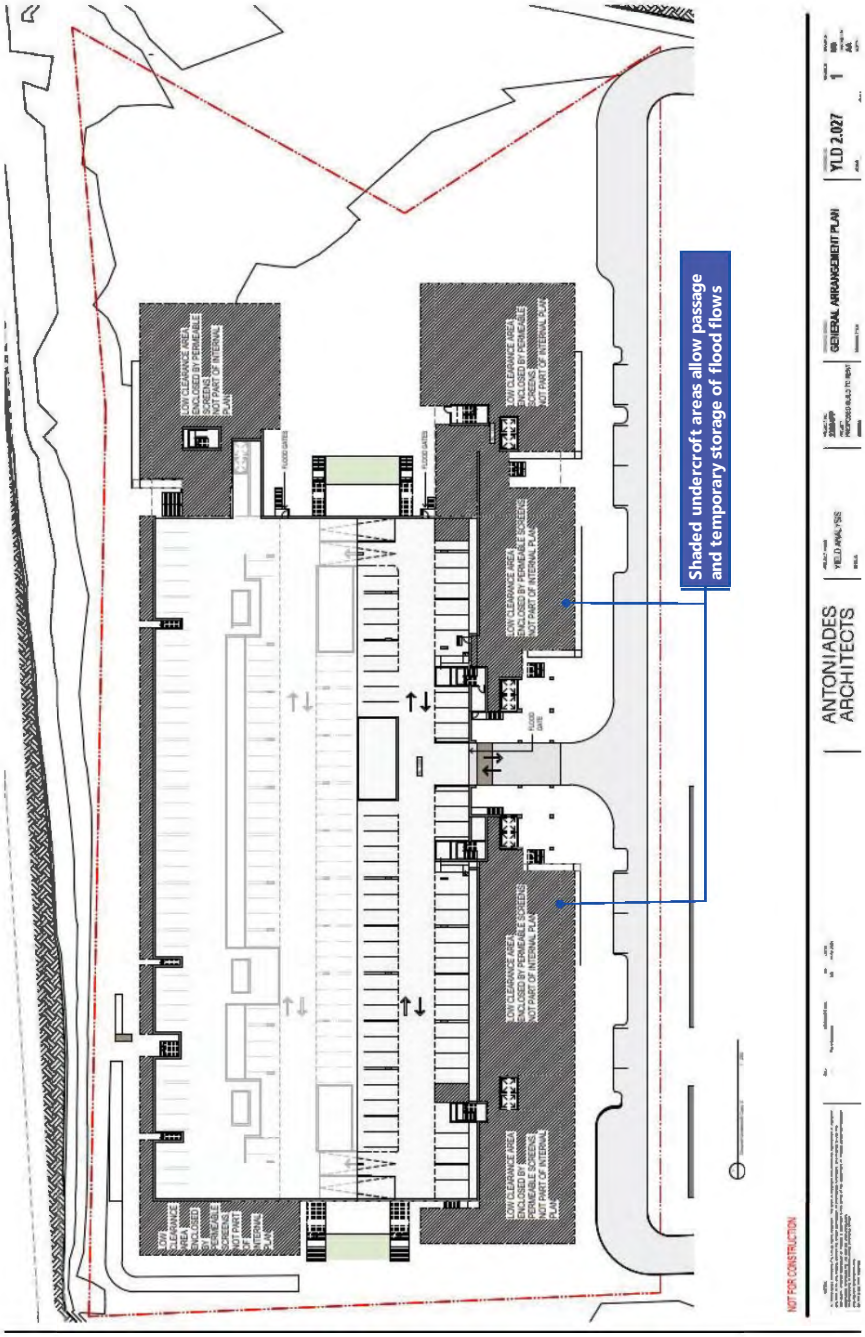
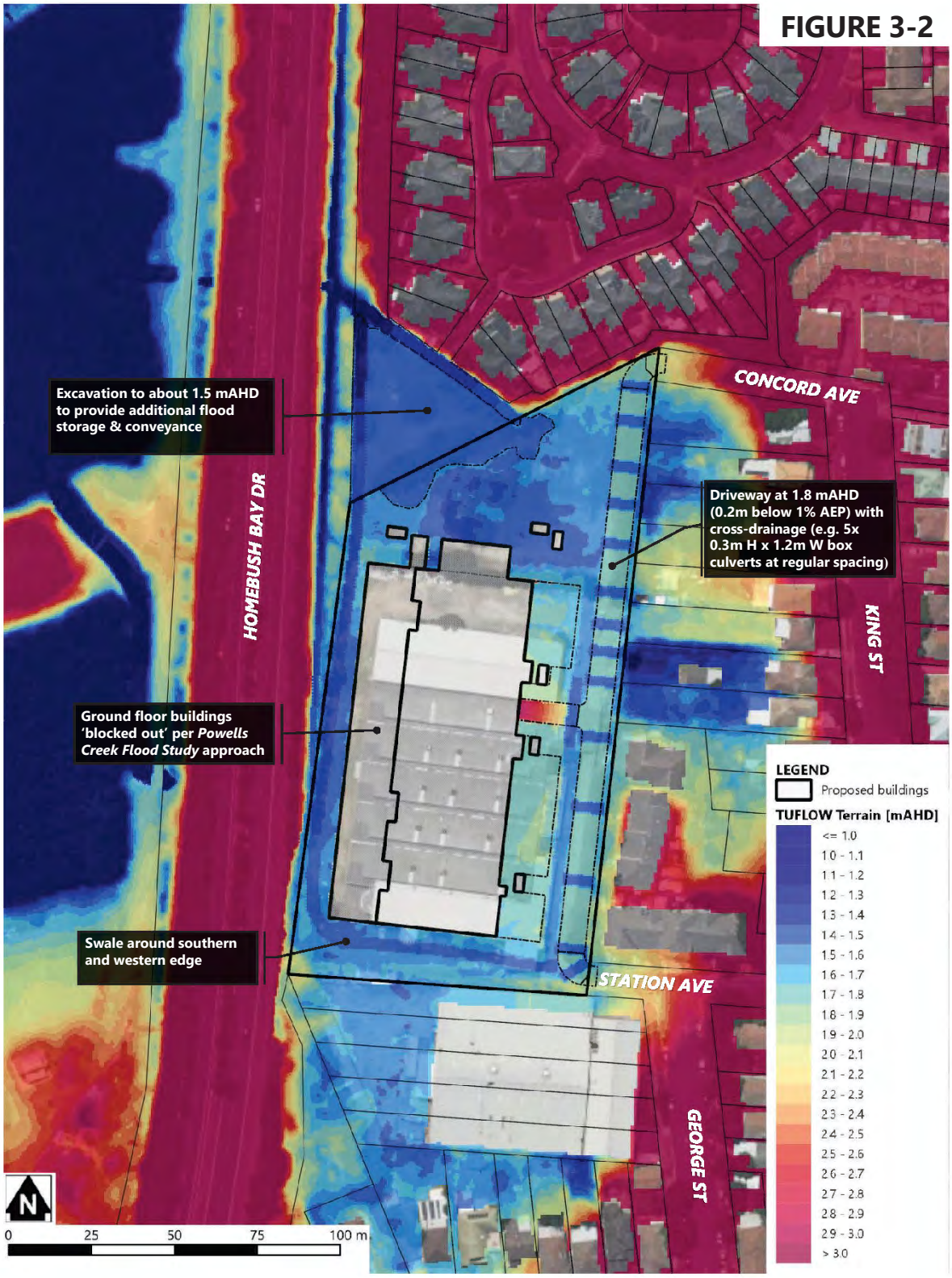


Figure 3-1 Ground level layout plan for the proposed redevelopment



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worley

TUFLOW REPRESENTATION OF PROPOSED CONCEPT DESIGN AND POST-DEVELOPMENT TOPOGRAPHY

3.2 Post-Development Flood Conditions

In order to quantify the potential impacts of the proposed development on existing flood behaviour, the TUFLOW flood model was modified to incorporate the changed landform and building footprints associated with the development proposal (*refer* **Figure 3-2**).

The modified flood model was used to simulate a range of design flood events and assess 'post-development' flood conditions in the vicinity of the Site. The following flood mapping is included in **Appendix B** for the 20% AEP, 1% AEP and PMF events under post-development conditions:

- **Figure B-1** to **Figure B-3**: Peak Flood Depths for Post-Development Conditions
- **Figure B-4** to **Figure B-6**: Peak Flow Velocities for Post-Development Conditions
- **Figure B-7** to **Figure B-9**: Provisional Flood Hazard for Post-Development Conditions.

3.3 Impacts of the Proposed Development on Flooding

Flood affectation control C1 of Section B8.6 of City of Canada Bay DCP 2023 requires that an engineer's report demonstrate that the development will not increase flood affectation elsewhere with regard to:

a) loss of flood storage;

b) changes in flood levels, flows and velocities caused by alterations to flood flows; and,

c) the cumulate impact of multiple potential developments in the vicinity.

Analysis of any changes in flood storage, peak flood levels, extents and velocities is presented in the following sections along with an assessment of the potential for cumulative development impacts. A detailed assessment of the development against additional flood-related development controls is presented in **Chapter 5** of this report.

3.3.1 Flood Storage

As presented in **Table 3-1**, any filling within the floodplain from the 20% AEP event up to and including the PMF is more than compensated for by volumes of cut such that a net increase in flood storage is provided. Accordingly, the proposed development is considered to be in line with the various design principles set out in Section B8 of City of Canada Bay DCP 2023, including that "*filling of land up to the Probable Maximum Flood (PMF) must not adversely impact upon flood behaviour*" nor "*interfere with floodwater storage or the natural function of waterways*".

3.3.2 Flood Level Impacts

Flood level difference mapping was prepared to quantify any off-Site impacts that could be caused by the proposed development and is presented in **Appendix C** (*refer* **Figure C-1** to **Figure C-3**). The difference maps show changes in peak flood level estimates from the results of model simulations undertaken for 'existing' and 'post-development' scenarios.

As indicated by the map legend, <u>increases</u> in peak flood level are represented by different shades of warm colours and <u>decreases</u> in peak flood level are represented by different shades of cool colours. The white shading indicates changes in peak flood level that are between +/- 0.02 metres (*i.e., less than 20 mm*) which is considered to be negligible.

As shown in **Figure C-1** to **Figure C-3**, the proposed development is not predicted to have any adverse impacts on peak flood levels of 20 mm or more in the 1% AEP or PMF events.

In the 20% AEP event a local increase in the peak flood level of up to 28 mm is indicated immediately outside the Site boundary adjacent to Homebush Bay Drive. This increase is fully contained within the drainage channel along the eastern edge of the road easement. It is caused by a slight increase in flow efficiency through the triangular lot where flood storage excavation is proposed. No private property or infrastructure is affected by this minor flood level increase. The Homebush Bay Drive roadway remains about 1.7 m above the 20% AEP peak flood level, and properties on Cole Crescent about 2.0 m above the 20% AEP peak flood level. While not considered significant, it is likely that this minor increase could be negated through the design process.

Accordingly, the proposed development is considered to be in line with the various design principles set out in Section B8 of City of Canada Bay DCP 2023, including that "*development should not adversely increase the potential flood affectation on other development or properties*".

3.3.3 Flow Velocity Impacts

Flow velocity difference mapping was prepared to review the potential changes in velocities and flows that could be caused by the proposed development and is presented in **Appendix C** (*refer* **Figure C-4** to **Figure C-6**).

It is noted that numerous localised changes in simulated peak flow velocities are indicated throughout the Powell Creek catchment in areas that are not hydraulically related to the Site or the proposed development. These are associated with minor differences in the TUFLOW HPC solutions, particularly at 1D elements, believed to be caused by the 'adaptive time-stepping' (*i.e., variable timestep*) approach used by this version of the software and have not been considered in this assessment.

The largest off-site velocity impacts potentially associated with the proposed development are annotated on each figure as follows:

- In the 20% AEP event (*refer* **Figure C-4**) the peak velocity immediately to the east of the site boundary increases from 0.2 m/s to 0.4 m/s. The increase is highly localised, affecting an area of only 2 m^2 within about 2 metres of the Site boundary. There is no increase in flood hazard which remains H3 (*unsafe for vehicles, children and the elderly*). This velocity increase is not considered significant and there is negligible redistribution of low.
- In the 1% AEP event (*refer* **Figure C-5**) the peak velocity immediately to the east of the site boundary increases from 0.3 m/s to 0.4 m/s. The increase is highly localised, affecting an area of only 4 m^2 within about 3 metres of the Site boundary. There is no increase in flood hazard which remains H3 (*unsafe for vehicles, children and the elderly*). This velocity increase is not considered significant and there is negligible redistribution of low.
- In the PMF event (*refer* **Figure C-6**) the peak velocity immediately to the east of the site boundary increases from 0.3 m/s to 0.4 m/s. The increase is highly localised, affecting an area of only 6 m^2 within about 4 metres of the Site boundary. There is no increase in flood hazard which remains H5 (*unsafe for all vehicles and people, buildings vulnerable to structural damage*). This velocity increase is not considered significant and there is negligible redistribution of low.

Accordingly, the proposed development is considered to be in line with the various design principles set out in Section B8 of City of Canada Bay DCP 2023, including that "*development must not divert flood waters*".

3.3.4 Potential for Cumulative Development Impacts

'*Flood Affectation Control C1*' of Section B8.6 of City of Canada Bay DCP 2023 requires that the potential for cumulative development impacts be considered – that is, the cumulative effect on flood levels if similar development is also carried out on other developable sites in the vicinity.

The modelling results and analysis presented in the previous sections demonstrates that the proposed development is unlikely to cause any notable changes in peak flood levels or velocities in the design 20% AEP, 1% AEP and PMF events and that modifications to existing flood storage and flood conveyance behaviour would be negligible. Any filling within the floodplain is offset by compensatory excavation such that there is a net increase in flood storage.

It is expected that if development on other large industrial lots in the vicinity were to each meet these criteria individually that their combined impacts would also be negligible. Accordingly, it is considered that the potential for cumulative impacts to occur due to similar development in the vicinity is low.

4 Flood Emergency Response Strategy

According to '*Management and Design Control C2*' of Section B8.6 of City of Canada Bay DCP 2023, a 'Site Emergency Response Flood Plan' is required where a site is affected by the 100-year ARI (1% AEP) flood. The Site is located in an area found to be impacted by the 1% AEP design flood and a Site Emergency Response Flood Plan is therefore required prior to occupation of the Site.

The following documents the assessment of potential flood emergency response strategies, flood evacuation routes, flood duration and the available warning times that would be afforded. It also documents information, recommendations, and diagrams suitable for subsequent use in a Flood Emergency Response Plan which would be prepared and approved prior to occupation of the Site.

4.1 Evacuation vs Shelter-In-Place

During a flood emergency there are two primary response options available as follows.

1) **Evacuation**: horizontal evacuation of people to an area outside of the effects of flooding that has adequate facilities to maintain their safety. Evacuation must be achieved before the evacuation route is cut by floodwaters.

2) **Shelter-in-place**: the movement of occupants to, or sheltering of occupants in, a building that provides vertical refuge above the PMF level on or near the site.

Evacuation is generally considered the preferred response strategy for flooding. However, in some situations it may not be possible to evacuate, or it may be more hazardous to do so than to shelter-in-place. This is especially the case where 'flash flooding' leaves very little time for evacuation and can result in isolation with very little notice (DPE 2022). Flash flooding typically refers to scenarios where the flood warning time and flood duration are both less than six hours, as is the case at the Site.

The potential to shelter-in-place is referenced in the *Evacuation Control C3* of Section B8.6 of City of Canada Bay DCP 2023 as follows "*reliable access for pedestrians and vehicles is required from the site to an area of refuge above the PMF level, either on site (eg. second storey) or off site*".

The design of the proposed development allows for all habitable floor levels to be constructed above the peak of the PMF. Accordingly, residents could safely shelter-in-place in their homes during floods of all magnitudes. However, if it is safe to do so, evacuation off-site may still be preferred. Both response strategies are assessed in the following.

4.2 Assessment of Flood Evacuation

4.2.1 Potential Evacuation Routes

There are two primary options for flood evacuation of the Site to areas of high ground outside the PMF extent with access to services which may warrant evacuation over shelter-in-place. These routes are shown in **Figure 4-1** and are described as follows.

- Option 1: George Street to Wellbank Street Route
  - This route involves exiting the Site via Station Avenue, taking the first right onto George Street and continuing in a southerly direction for about 1.3 kilometres before turning left onto Pomeroy Street and crossing the railway in an easterly direction. After crossing the bridge

there are a number of options available. A series of restaurants, Fire and Rescue NSW and a supermarket located on Concord Road could be accessed via Wellbank Street.

- The total length of this route is about 1.5 kilometres. Concord Repatriation General Hospital is located at a further 2.9 kilometres.
- There is a low point along this route on George Street located about 300 metres south of the Site. Results from the *Powells Creek Flood Study* (WMAwater, 2022) indicate that this low point would be inundated more frequently and more rapidly than the Site entry road and would experience a higher flood hazard. As such, evacuees leaving the Site before inundation of the entry driveway could still encounter inundation at this location and would need to return to Site or the Concord West Station pedestrian overpass.

- Option 2: Concord West Station Pedestrian Overpass to Victoria Avenue Route
  - This route involves exiting the Site via Station Avenue, taking the first right onto George Street, the first left onto Victoria Avenue, and then the first right onto King Street to arrive at Concord West Station. At this point evacuees would need to access the pedestrian overpass via the stairs or elevator and cross the rail line heading east to the intersection of Queen Street and Victoria Avenue.
  - The total length of this route is approximately 400 metres. Locations on Victoria Avenue where evacuees could wait for flooding to abate include Hotel Concord, a restaurant, a grocery store, a café or Saint Ambrose Church. Concord Repatriation General Hospital is located at a further 1.8 kilometres.
  - The entry driveway to the Site represents the lowest elevation along this route. Accordingly, evacuees leaving Site before inundation of the entry driveway could have confidence that this evacuation route would not be cut at the time.

4.2.2 Evacuation Route Inundation, Warning Times and Duration

Figure 4-1 shows the 'Option 1' and 'Option 2' evacuation routes overlain on flood hazard mapping for the PMF event. The PMF event is typically used to inform emergency response planning as it generally has a higher rate-of-rise than other events and presents a worst-case scenario in terms of flood extent and hazard. This ensures that available flood warning and evacuation times are not overestimated, and that the selected evacuation route extends to a safe location beyond the limits of the floodplain.

Along the majority of the two evacuation routes the flood hazard category is H1. This hazard is classified as '*generally safe*', comprising floodwaters that are less than 0.3 metres deep and flowing at velocities less than 2.0 m/s. While it is generally not advisable to drive a vehicle into floodwaters of any depth, a hazard of H1 in the worst-case scenario PMF event indicates that flood conditions along the majority of the route should not cause a hinderance to evacuation.

There are, however, two locations which exhibit higher hazards in the PMF and would be unsafe for people and vehicles, namely:

- Location A: The Site entry driveway and western end of Station Avenue, and;
- Location B: A low point on George Street about 300 metres south of the Site.

Table 4-1 presents a summary of peak flood hazard, time to inundation from the start of the storm burst, and the duration of inundation at Locations A and B for a range of design flood events. This information is based on critical duration storm results from *Powells Creek Flood Study* (WMAwater, 2022).

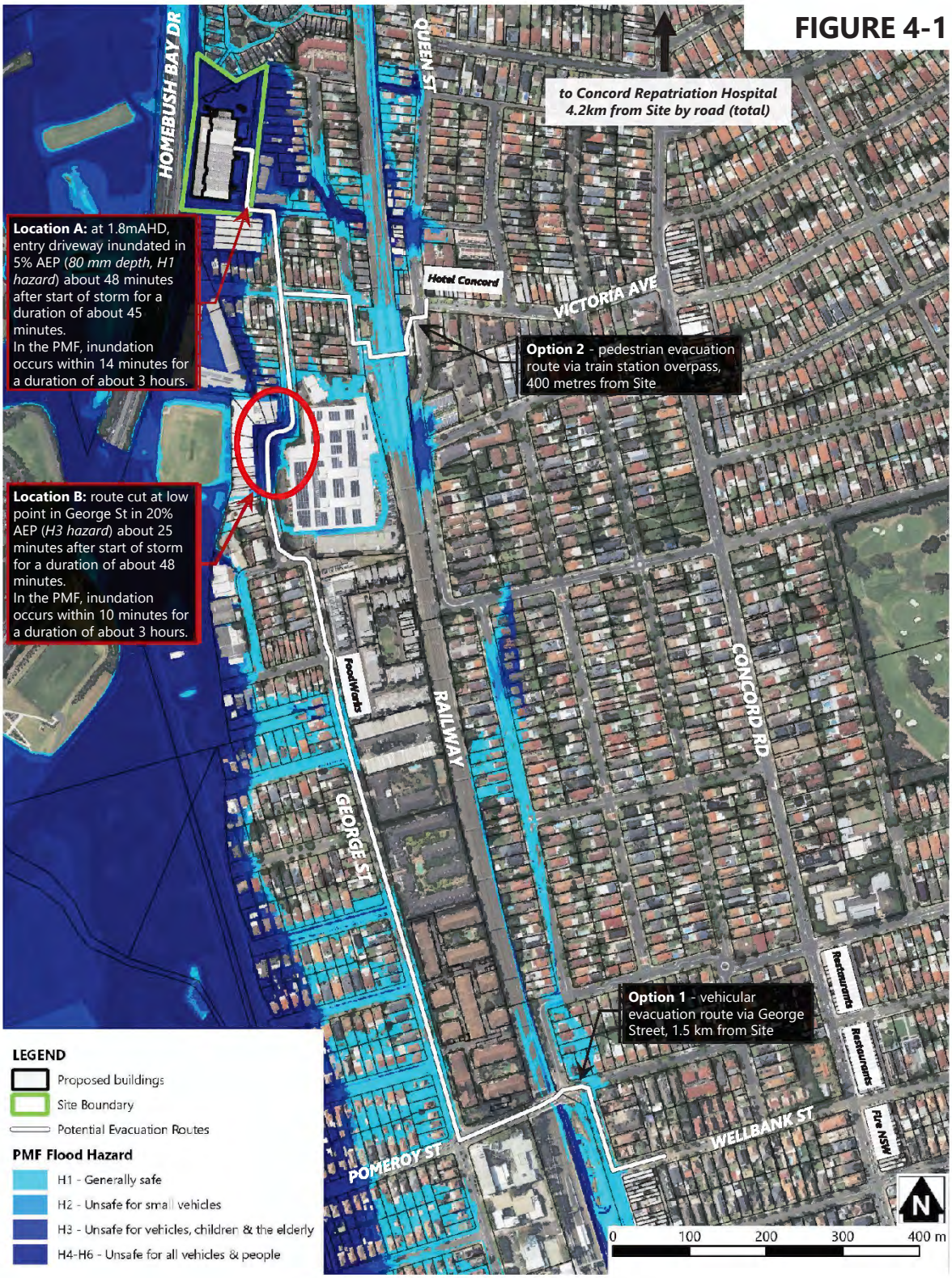
Table 4-1 Summary of hazard, timing and duration of inundation at key locations

Design Event	Parameter	Location A Entry Driveway at 1.8 mAHD	Location B Low Point on George St
20% AEP	Peak Flood Hazard	-	H3
	Time to Inundation	-	26 mins
	Duration of Inundation	-	48 mins
5% AEP	Peak Flood Hazard	H1	H3
	Time to Inundation	48 mins	30 mins
	Duration of Inundation	45 mins	75 mins
1% AEP	Peak Flood Hazard	H1	H5
	Time to Inundation	26 mins	14 mins
	Duration of Inundation	82 mins	96 mins
PMF	Peak Flood Hazard	H4	H5
	Time to Inundation	14 mins	10 mins
	Duration of Inundation	180 mins	180 mins

For the purposes of flood evacuation planning, the PMF event is typically used to inform flood warning times and the duration of any potential isolation. On this basis, from the onset of the PMF storm only 10 minutes would be available to evacuate the Site and pass beyond the low point on George Street located about 300 m south of the Site. In another 4 minutes the site entry driveway would be inundated, and evacuation of the Site would no longer be possible.

This is not sufficient time to initiate and perform an evacuation. Accordingly, it would be safer for occupants to shelter-in-place on site. The results indicate that the Site is unlikely to be isolated for more than about 3 hours.

In reality, the magnitude of a potential flood event is not known at the start of the storm and an order to shelter-in-place cannot be issued each time there is heavy rainfall. Therefore, a water level trigger is needed to determine the point at which occupants would be advised that it is no longer safe to evacuate from the Site and to take refuge in their apartments. The clearest and most fool-proof trigger would be when floodwaters reach the level of the entry driveway. Occupants should be free to leave the Site until floodwaters reach this level.



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worley

POTENTIAL EVACUATION ROUTES FROM SITE TO LAND OUTSIDE THE PMF

4.3 Assessment of Shelter-In-Place

Once finalised, the NSW Government's *Draft Shelter-In-Place Guideline* (DPE 2022) aims to provide clear and consistent guidance to councils, consent authorities and developers about when shelter-in-place (SIP) can be used as an alternative to off-site evacuation for emergency management in flood events.

The guideline proposes several criteria to be considered in determining if shelter-in-place may be an appropriate and successful emergency response to flooding. These considerations are reproduced in **Table 4-2** along with an assessment of the proposed development at 7 Station Avenue, Concord West, against each.

Table 4-2 Assessment of development against Draft SIP Guideline considerations (DPE 2022)

	Considerations for shelter-in-place to be successful (DPE 2022)	Assessment of Proposed Development
1	The duration for flood inundation is less than six hours	Results from the *Powells Creek Flood Study* (WMAwater, 2022) indicate that the duration of isolation at the Site would be no more than about 3 hours for events up to and including the PMF.
2	The development is not located in an area of high-risk (eg, floodways and H5 or H6 flood hazard areas)	In floods up to and including the 1 in 500 AEP event the maximum flood hazard anywhere on the Site is H3 (*unsafe for vehicles, children and the elderly*). In the PMF the Site is primarily affected by H4 hazard (*unsafe for people & vehicles*). The proposed swales and storage areas would be affected by H5 hazard (*unsafe for people & vehicles, potential for structural damage to buildings*). The buildings will have habitable floor levels raised above the peak of the PMF and will be designed to withstand floodwaters. Therefore, occupants who shelter-in-place would not be subject to any direct flood hazard.
3	Access to on-site systems to provide power, water and sewerage services during and beyond the event for the full range of flooding	Power, water and sewerage services to the building can be designed with the aim of maintaining their function in flood events up to and including the PMF.
4	The location of storage of food, water and medical emergency for SIP purposes should be above the PMF level and available during and beyond the event for the full range of flooding	Occupants would take refuge in their apartments. Accordingly, it is expected that they would have access to adequate food and water during the short duration floods expected in the area (i.e. no more than 3 hours). They may also have access to their own medical supplies, however, consideration should be given to providing appropriate emergency medical supplies in common spaces.

	Considerations for shelter-in-place to be successful (DPE 2022)	Assessment of Proposed Development
5	SIP floor level is above PMF	All habitable floor levels are located above the peak PMF level and are appropriate for shelter-in-place.
6	SIP provides a minimum floor space per person	Floor spaces required for SIP are typically relatively small, for example 1 to 2 m^2 per person (e.g. Pittwater DCP 2021). SIP will occur within occupants' apartments, with common spaces above the PMF also available. The smallest studio apartments are proposed to have a floor area of around 40 m^2. Therefore, the available floor space will be well in excess of 10 m^2 per person.
7	SIP must be structurally safe and accessible during floods up to the PMF	Buildings will be designed to withstand the forces of floods up to and including the PMF. Shelter-in-place can occur in the occupants' apartments which are readily accessible from lower levels by stairs and/or elevators.

Based on the assessment provided in **Table 4-2**, and in consideration of the negligible flood warning and evacuation time that may be available during a severe flood, shelter-in-place provides an appropriate, and probably the best flood emergency response mechanism for the proposed development.

The Draft SIP guideline also notes that

> "*education is critical to ensuring that the community is aware of actions to be taken before, during and after SIP and the key triggers that require SIP. If SIP is proposed there needs to be ongoing community education campaigns for the areas where SIP will apply*".

Accordingly, it is important that adequate education on the overall flood emergency response strategy be provided to future occupants of the development.

4.4 Recommended Flood Emergency Response Strategy

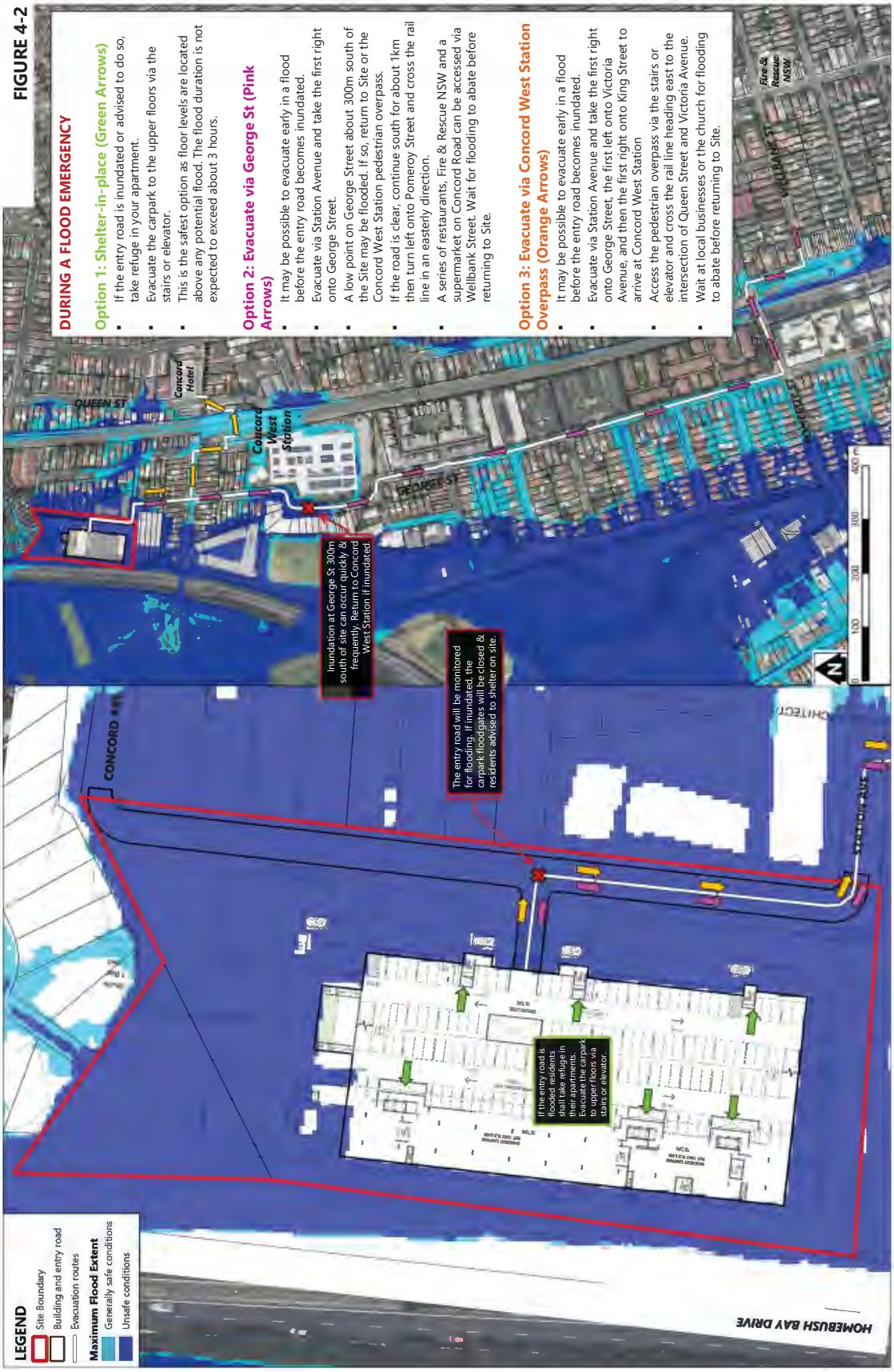
Based on the assessment presented in the previous sections, shelter-in-place is considered to provide the safest flood emergency response strategy for the proposed development, but will require the following to be implemented.

- To maintain awareness and preparedness for a potential flood event, clear and regular communication is required for individuals to understand their level of risk and the triggers for associated actions. This should involve the following:
  - Provide signage in the carpark and in other common property such as lifts and foyers informing residents of the local flood risk and the flood emergency response strategy.
  - Select and train strata committee representatives who reside at the Site in the actions in the case of a flood.

- In response to a significant rainfall event trained site personnel should monitor the entry driveway and the surrounding ground.
  - If rising floodwaters are observed within the Site, the trained site personnel should be prepared to initiate closure of the floodgates at the carpark entrance.
  - If rising floodwaters reach the level of the entry driveway the floodgates should be closed.
- Initially, evacuation of the Site should be allowed (*at the discretion of each resident*) up until the time at which the entry driveway becomes inundated. At this time the floodgates at the entry to the carpark would be closed and residents advised to shelter-in-place.
  - Evacuees may encounter inundation at the low point of George Street, 300 metres south of the Site. In this case the evacuees should return to Concord West Station from where facilities on Queen Street and Victoria Avenue to the east of the railway can be accessed via the pedestrian overpass.
  - Evacuees should not attempt to walk or drive through floodwater. Driving through floodwater is the major cause of death during floods. Floodwater may be deeper or faster flowing than it appears and can contain hidden snags or debris, or the road beneath may be damaged.
  - Evacuees may return to the Site when flooding has subsided from the entry driveway and the carpark floodgates have been re-opened.
- Those sheltering in place should not remain in the carpark area. They should be directed to take shelter on Level 01 or higher, safely above the level of the PMF.
- The floodgates should remain closed until floodwaters have receded from the entry driveway and heavy rainfall has abated.

The above information is summarised in **Figure 4-2**. The extent of the PMF relative to the proposed site layout and evacuation routes is also shown.

FIGURE 4-2



DURING A FLOOD EMERGENCY

Option 1: Shelter-in-place (Green Arrows)

- If the entry road is inundated or advised to do so, take refuge in your apartment.
- Evacuate the carpark to the upper floors via the stairs or elevator.
- This is the safest option as floor levels are located above any potential flood. The flood duration is not expected to exceed about 3 hours.

Option 2: Evacuate via George St (Pink Arrows)

- It may be possible to evacuate early in a flood before the entry road becomes inundated.
- Evacuate via Station Avenue and take the first right onto George Street.
- A low point on George Street about 300m south of the Site may be flooded. If so, return to Site or the Concord West Station pedestrian overpass.
- If the road is clear, continue south for about 1km then turn left onto Pomeroy Street and cross the rail line in an easterly direction.
- A series of restaurants, Fire & Rescue NSW and a supermarket on Concord Road can be accessed via Wellbank Street. Wait for flooding to abate before returning to Site.

Option 3: Evacuate via Concord West Station Overpass (Orange Arrows)

- It may be possible to evacuate early in a flood before the entry road becomes inundated.
- Evacuate via Station Avenue and take the first right onto George Street, the first left onto Victoria Avenue, and then the first right onto King Street to arrive at Concord West Station
- Access the pedestrian overpass via the stairs or elevator and cross the rail line heading east to the intersection of Queen Street and Victoria Avenue.
- Wait at local businesses or the church for flooding to abate before returning to Site.

FLOOD EMERGENCY RESPOSE STRATEGY
7 STATION AVENUE, CONCORD WEST

Prepared by: worley

5 Assessment Criteria

5.1 City of Canada Bay Development Control Plan, 2023

The City of Canada Bay Development Control Plan (DCP) 2023 sets the standards, controls and regulations that apply when carrying out development within the City of Canada Bay LGA. These specific controls in the DCP support the broader conditions of the City of Canada Bay Local Environmental Plan (LEP) 2013 and state-wide policies.

'*Section B8 Flooding Control*' provides Council's requirements for development on flood prone land and land below the flood planning level and has the following objectives.

a) To ensure the proponents of development and the community in general are aware of the potential flood hazard over the whole range of AEP and of the consequent risk and liability associated with the development and use of flood liable land;

b) To manage flood liable land in manner that is economically and environmentally sustainable and socially responsible;

c) To establish whether or not a proposed development or activity is appropriate to be carried out having regard to the economic, property, environmental and human impacts of flooding;

d) To protect community by ensuring that developments with high sensitivity to flood risk (eg. critical public utilities) are sited and designed to provide reliable access, continued operability during emergencies, quick recovery and to generally minimise risk from flooding;

e) To allow development with a lower sensitivity to the flood hazard to be located within the floodplain, subject to appropriate design and siting controls and provided that the potential consequences that could still arise from flooding remain acceptable;

f) To prevent intensification of inappropriate development;

g) To control the use of 'High Hazard' areas and Floodways, and wherever appropriate and feasible, allow for their conversion to natural waterway corridors;

h) To ensure that proposed development does not expose existing development to increased risks associated with flooding;

i) To ensure building design and location address flood hazard;

j) To ensure that development does not result in unreasonable flood impacts upon the amenity or ecology of an area;

k) To incorporate the principles of Ecologically Sustainable Development (ESD);

l) To minimise the risk to life and property arising from flooding;

m) To ensure the provision of appropriate access to and egress from areas affected by flooding including for extreme events;

n) To provide controls to ensure that development is carried out in accordance with this Policy; and

o) To implement the principles of floodplain risk management as defined by the NSW Government's Flood Prone Land Policy and the FDM 2005.

Other information provided in Section B8 includes the following:

- Defines 16 design principles for projects within the floodplain
- Presents Flood Planning Maps which outlines the Flood Planning Areas in the LGA
- Provides details of the Flood Controls applicable for each Flood Risk Precinct, including:
  a) Floor level
  b) Building components and Method
  c) Structural soundness
  d) Flood affectation
  e) Car parking and driveway access
  f) Evacuation
  g) Management and design.

5.1.1 Assessment Against Relevant Criteria and Controls

Section B8 of City of Canada Bay DCP (2023) outlines flood control requirements for developments within the City of Canada Bay LGA. Sections of the DCP relevant to the preparation of this FIRA are as follows:

i) Section 8.4 of Section B8, which presents Flood Planning Maps

ii) Section 8.5 of Section B8, which presents the Flood Planning Matrix for the three classes of Flood Risk Precinct (FRP)

iii) Section 8.6 of Section B8, which addresses the flood controls for several development types.

The relevant clauses and responses to each of these clauses are detailed in **Table 5-1**. Section 8.6 provides differing controls for Low, Medium and High FRPs. According to the *Powells Creek Flood Study* (WMAwater, 2022) the Site is classified as Medium FRP. The applicable controls for the Medium FRP classification and 'residential' land use have been assessed.

Based on the analysis undertaken, the proposed development is considered to satisfy the flood planning objectives, performance criteria and prescriptive standards specified in Section B8 of City of Canada Bay Development Control Plan 2023. This includes the following key outcomes:

- The proposal will allow development with low sensitivity to the flood hazard to be located within the floodplain, while minimising the risk to life and property through appropriate design that limits the potential consequences to acceptable levels.
- The proposed development does not expose existing development to increased risks associated with flooding.

Table 5-1 Relevant City of Canada Bay DCP 2023 flood related clauses and responses

Item	Requirement	Response
	Section B8.6 – Floor Level	
C2	Habitable floor levels to be equal to or greater than the 100-year ARI flood level plus freeboard.	The 1% AEP peak flood level at the Site is 2.0 mAHD, resulting in a minimum habitable floor level of 2.5 mAHD (including 500 mm freeboard). The minimum proposed habitable floor level is 3.6 mAHD, which is above the predicted PMF level.
C5	A restriction is to be placed on the title of the land, pursuant to S.88B of the Conveyancing Act, where the lowest habitable floor area is elevated more than 1.5m above finished ground level, confirming that the subfloor space is not to be enclosed.	The areas below the habitable floors will serve as carparking and 'undercoft' spaces which aid the temporary storage and discharge of floodwaters. No changes will be made to these uses.
	Section B8.6 – Building Components and Method	
C1	All structures to have flood compatible building components below the 100-year ARI flood level plus freeboard.	Flood compatible building components will be used below the 1% AEP flood level where relevant.
	Section 8.6 – Structural Soundness	
C1	An Engineer's report is required to certify that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a 100-year ARI flood level plus freeboard.	Buildings will be designed to withstand the forces of floods up to and including the PMF.

Item	Requirement	Response
	Section 8.6 – Flood Affectation	
C1	An Engineer's report is required to demonstrate how and certify that the development will not increase flood affectation elsewhere, having regard to: a) loss of flood storage; b) changes in flood levels, flows and velocities caused by alterations to flood flows; and c) the cumulate impact of multiple potential developments in the vicinity.	**a)** As presented in **Table 3-1**, any filling within the floodplain from the 20% AEP event up to and including the PMF is more than compensated for by volumes of cut such that a net increase in flood storage is provided. **b)** Flood levels: As shown in **Figure C-2** and **Figure C-3**, the proposed development is not predicted to have any adverse impacts on peak flood levels of 20 mm or more in the 1% AEP or PMF events. In the 20% AEP event a local increase in the peak flood level of less than 30 mm is predicted across a small area immediately outside the Site boundary which is contained within a drainage channel located along the eastern edge of the Homebush Bay Drive easement. No private property or infrastructure is affected by this minor flood level increase. Velocities and flows: Velocity differences mapping is presented in **Figure C-4** to **Figure C-6**. Small increased in peak velocity are indicated in various locations, however the changes are highly localised and do not result in any change in flood hazard. Accordingly, any velocity increases are considered insignificant and there is negligible redistribution of low. **c)** It has been demonstrated that the proposed development would not cause any notable changes in peak flood levels or velocities in the 20% AEP, 1% AEP and PMF design flood events and that modifications to the existing flood storage and flood conveyance behaviour would be negligible. Any filling within the floodplain is offset by compensatory excavation such that there is a net increase in flood storage. It is expected that if development on other large industrial lots in the vicinity were to each meet these criteria individually that their combined impacts would also be negligible. Accordingly, the potential for cumulative impacts to occur due to similar development in the vicinity is low.
	Section 8.6 – Car Parking and Driveway Access	

Item	Requirement	Response
C1	The minimum surface level of open parking spaces or carports shall be as high as practical, but no lower than 0.1m below the 100-year ARI flood level. In the case of garages, the minimum surface level shall be as high as practical, but no lower than the 100-year ARI flood level.	N/A
C3	Garages capable of accommodating more than 3 motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods equal to or greater than the 100-year ARI flood. Ramp levels to be no lower than 0.5m above the 100 year ARI flood level.	The entry to the proposed enclosed carpark is at an RL of 3.0 mAHD which is 1.0 m above the 1% AEP peak flood level. Additionally, floodgates will be constructed to protect the carpark from inundation by the PMF.
C5	The level of the driveway providing access between the road and parking spaces shall be no lower than 0.2m below the 100-year ARI flood level.	The driveway access to the development is proposed to have a surface elevation of 1.8 mAHD, which is 0.2 m below the peak 1% AEP flood level.
C6	Enclosed car parking and car parking areas accommodating more than 3 vehicles, with a floor below the 100-year ARI flood level, shall have adequate warning systems, signage, exits and evacuation routes.	The 'lower ground' carpark is the only area below the 1% AEP flood level. However, it will not have a direct connection to 1% AEP floodwaters and will not become inundated in the 1% AEP event. Nonetheless, appropriate signage will be provided in the carpark informing occupants of the flood emergency response strategy, exits and evacuation routes.
C7	Restraints or vehicle barriers to be provided to prevent floating vehicles leaving a site during a 100-year ARI flood	N/A – carpark areas will not be affected by the 1% AEP flood.
C8	Enclosed underground car parks shall have all potential water entry points protected from the PMF. The intent of this requirement is to mitigate the creation of life-threatening circumstances and very high economic loss such as may occur with the complete inundation of an underground car park. Council may consider relaxation of this requirement if it can be shown by modelling that the catchment characteristics are such that the maximum depth of inundation is less than 300mm. Because of the particular catchment characteristics of the Concord West Precinct, an additional requirement within that precinct is for habitable flood levels to be at a minimum of RL 3.0m AHD. Refer to sections 9.3.3, 9.3.6, and 10.2.3 of the CWFS.	The only entry point to the enclosed carpark will be the ramp from the driveway (at 1.8 mAHD) to the ground level carpark (at 3 mAHD). The PMF level at the ground level carpark entrance is 3.55 mAHD. Floodgates will be installed at the carpark entrance which will prevent the floodwaters from entering that area. While the Site lies just outside of the Concord West Precinct, the recommendation from the cited sections of the CWFS is as follows: "*In recognition of the potential impacts of sea level rise, it is considered prudent to consider additional freeboard to set the access level to basement car park and the habitable floor level at or above RL 3 m AHD*". All habitable floor levels and access to the lower ground carpark are located at or above the 3 mAHD level.

Item	Requirement	Response
	Section 8.6 – Evacuation	
C3	Reliable access for pedestrians and vehicles is required from the site to an area of refuge above the PMF level, either on site (eg. Second storey) or of site.	The proposed development comprises a multi-storey building with all habitable areas situated above the peak PMF level and providing appropriate refuge. While inundation of the carpark areas will be prevented using floodgates, occupants would be directed to evacuate the carpark to higher floors using the stairwell and/or elevators. Assessment of the shelter-in-place strategy is provided in **Section 4.3** of this report.
C4	Applicant is to demonstrate the development is consistent with any relevant flood evacuation strategy or similar plan.	The Bay Local Flood Plan (SES 2021), sets out the multi-agency arrangements for the emergency management of flooding in the Burwood, Canada Bay and Strathfield LGAs. The primary strategy is to evacuate people pre-emptively from dangerous or potentially dangerous places including evacuation of people who are unsuited to living in isolated circumstances, and evacuation where essential energy and/or utility services are likely to fail or where buildings have been or may be made uninhabitable. There are no special circumstances at the Site that would prevent adherence to the Local Flood Plan and directions of the SES. Given the availability of large spaces above the PMF, the short duration of flooding and the low hazard posed to occupants, evacuation of the Site would not be a priority for the SES.
C6	Adequate flood warning is available to allow safe and orderly evacuation without increased reliance upon SES or other authorised emergency services personnel.	Assessment of potential flood warning times and routes is presented in **Section 4.2** of this report. Early evacuation may be possible prior to inundation of the entry driveway. During infrequent flooding with intense rainfall the entry driveway may become rapidly inundated. In this scenario floodgates at the entry to the carpark would be closed to prevent the entry of floodwaters and the carpark would be evacuated via the stairwells and/or elevators to the floors above to allow shelter-in-place.

Item	Requirement	Response
	Section 8.6 – Management and Design	
C2	Site Emergency Response Flood Plan required where the site is affected by the 100-year ARI flood level (except for single dwelling-houses).	A preferred flood emergency response strategy for the Site has been investigated and is presented in **Chapter 4** of this report. This strategy can form the basis of a Site Flood Emergency Response Plan which would be prepared and adopted prior to occupation of the Site.
C3	Applicant is to demonstrate that area is available to store goods above the 100-year flood level plus freeboard.	All habitable areas of the Site as well as the ground level carpark that could be used to store goods are raised above the 1% AEP plus 500 mm level.
C4	No storage of materials below the 100-year ARI flood level.	No materials should be stored in the outdoor areas of the Site which are below the 1% AEP peak flood level.

5.2 Assessment Against Ministerial Direction 4.3 Flooding

Assessment of the development against the requirements of Ministerial Direction 4.3 Flooding is documented in **Table 5-2**.

Table 5-2 Assessment of the Planning Proposal against Ministerial Direction 4.3 Flooding

Ministerial Direction 4.3 Flooding Requirement	Assessment / Comments
(4) A planning proposal must include provisions that give effect to and are consistent with: (a) the NSW Flood Prone Land Policy, (b) the principles of the Floodplain Development Manual 2005, (c) the *Considering Flooding in Land Use Planning guideline 2021*, and (d) any adopted flood study and/or floodplain risk management plan prepared in accordance with the principles of the Floodplain Development Manual 2005 and adopted by the relevant council.	The *Powells Creek Flood Study* (WMAwater, 2022) has been prepared in accordance with the principles of the Flood Risk Management Manual 2023 (including the NSW Flood Prone Land Policy) and is adopted by the City of Canada Bay Council. The proposed development at 7 Station Avenue, Concord West, has been assessed using the flood modelling and mapping developed as part of the *Powells Creek Flood Study*. It has also considered local flood risk management issues, such as potential post-development flood impacts and flood emergency response management. It is therefore considered consistent with the NSW Flood Prone Land Policy, and the principles of the Flood Risk Management Manual 2023. The *Considering Flooding in Land Use Planning Guideline 2021* requires consideration of the full range of flooding up to and including the PMF in strategic land use planning, including in the preparation of planning proposals. It requires councils to include the mandatory flood planning provisions (for areas within the Flood Planning Area) and to consider adoption of the Special Flood Considerations for areas between the FPA and the PMF extent. The proposed development at 7 Station Avenue, Concord West, has considered the FPA and flood conditions up to the PMF.
(5) A planning proposal must not rezone land within the flood planning area from Recreation, Rural, Special Purpose or Environmental Protection Zones to a Residential, Business, Industrial or Special Purpose Zones.	The proposed development involves rezoning IN1 General Industrial to R3 Medium Density Residential and therefore complies with this clause.
(6) A planning proposal must not contain provisions that apply to the flood planning area which:	
(a) permit development in floodway areas,	According to the *Powells Creek Flood Study* (2022), no part of the Site is classified as 'floodway' for floods up to and including the 1 in 500 AEP event. In the PMF event some areas along the southern and western boundaries of the Site are classified as floodway. The proposed design incorporates swales near the southern and western boundaries to aid flood conveyance. These swales maintain the function of the PMF floodway, as evidenced by **Figure C-3** which

Ministerial Direction 4.3 Flooding Requirement	Assessment / Comments
	shows no flood level impacts resulting from the proposed development in the PMF. Accordingly, the planning proposal complies with this clause.
(b) permit development that will result in significant flood impacts to other properties,	As outlined in **Section 3.3**, it has been demonstrated that the proposed development would not cause any notable changes in peak flood levels or velocities in the 20% AEP, 1% AEP and PMF events that would adversely impact other private properties.
(c) permit development for the purposes of residential accommodation in high hazard areas,	In flood events up to and including the 1 in 500 AEP flood the maximum flood hazard anywhere on the Site is H3 (*unsafe for vehicles, children and the elderly*). In the PMF outdoor areas of the Site are primarily affected by H4 hazard (*unsafe for people & vehicles*). The proposed swales and storage areas would be affected by H5 hazard (*unsafe for people & vehicles, potential for structural damage to buildings*). The buildings will have habitable floor levels raised above the peak of the PMF and will be designed to withstand floodwaters. Therefore, occupants who shelter-in-place would not be subject to any direct flood hazard.
(d) permit a significant increase in the development and/or dwelling density of that land,	The planning proposal will result in an increase in development density at the Site, specifically residential development. However, the proposed design which incorporates all habitable areas above the level of the PMF, together with the flood emergency response recommendations outlined in **Chapter 4** of this report, are expected to be effective in managing the flood risk to future residents and visitors to the Site such that the risk to life associated with flooding is negligible. Accordingly, the increase in development density is considered to be of minor significance.
(e) permit development for the purpose of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals, residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate	The proposed development involves Medium Density Residential development and therefore complies with this clause.
(f) permit development to be carried out without development consent except for the purposes of exempt development or agriculture. Dams, drainage canals, levees, still require development consent,	The planning proposal will not permit development to be carried out without development consent.

Ministerial Direction 4.3 Flooding Requirement	Assessment / Comments
(g) are likely to result in a significantly increased requirement for government spending on emergency management services, flood mitigation and emergency response measures, which can include but are not limited to the provision of road infrastructure, flood mitigation infrastructure and utilities, or	The proposed design together with the flood emergency response recommendations outlined in **Chapter 4** of this report are expected to be effective in managing the flood risk to future residents and visitors while avoiding any additional burden on emergency management services or any requirement for flood mitigation works.
(h) permit hazardous industries or hazardous storage establishments where hazardous materials cannot be effectively contained during the occurrence of a flood event.	The proposed development involves Medium Density Residential development and, therefore, no hazardous industries or storage establishments will be found on Site. Therefore, the development complies with this clause.
(7) A planning proposal must not contain provisions that apply to areas between the flood planning area and probable maximum flood to which Special Flood Considerations apply which: (a) permit development in floodway areas, (b) permit development that will result in significant flood impacts to other properties, (c) permit a significant increase in the dwelling density of that land, (d) permit the development of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals, residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate, (e) are likely to affect the safe occupation of and efficient evacuation of the lot, or (f) are likely to result in a significantly increased requirement for government spending on emergency management services, and flood mitigation and	The assessment of the proposed development has considered flood risk and potential impacts up to and including the PMF. Accordingly, the requirements of this clause have been addressed.

Ministerial Direction 4.3 Flooding Requirement	Assessment / Comments
emergency response measures, which can include but not limited to road infrastructure, flood mitigation infrastructure and utilities	
(8) For the purposes of preparing a planning proposal, the flood planning area must be consistent with the principles of the Floodplain Development Manual 2005 or as otherwise determined by a Floodplain Risk Management Study or Plan adopted by the relevant council.	The Flood Planning Area map contained in **Figure 2-5** was prepared as part of the *Powells Creek Flood Study* (WMAwater, 2022), which has been adopted by City of Canada Bay Council and was prepared in accordance with the principles of the Floodplain Development Manual 2005.
Consistency	
(9) A planning proposal may be inconsistent with the terms of this direction only if the planning proposal authority can satisfy the Secretary of the Department of Planning, Industry and Environment (or their nominee) that:	
(a) the planning proposal is in accordance with a floodplain risk management study or plan adopted by the relevant Council in accordance with the principles and guidelines of the Floodplain Development Manual 2005, or	It is understood that Council has not yet adopted a floodplain risk management study & plan for the area. Therefore, this clause does not apply.
(b) where there is no council adopted floodplain risk management study or plan, the planning proposal is consistent with the flood study adopted by the council prepared in accordance with the principles of the Floodplain Development Manual 2005 or	The flood model and results produced as part of the *Powells Creek Flood Study* (2022) were adopted for use in this FIRA. A 'post-development' version of the associated TUFLOW model was created to assess the potential impacts of the development on existing flood behaviour, which were found to be negligible.
(c) the planning proposal is supported by a flood and risk impact assessment accepted by the relevant planning authority and is prepared in accordance with the principles of the Floodplain Development Manual 2005 and consistent with the relevant planning authorities' requirements, or	This Flood Impact and Risk Assessment report has been prepared in support of the planning proposal and has been prepared in accordance with the principles of the NSW Government's Flood Risk Management Manual 2023 and the City of Canada Bay DCP 2023.

Ministerial Direction 4.3 Flooding Requirement	Assessment / Comments
(d) the provisions of the planning proposal that are inconsistent are of minor significance as determined by the relevant planning authority.	Based on the findings of this FIRA it is considered that the planning proposal is consistent with the provisions of the Flood Risk Management Manual 2023, the City of Canada Bay DCP 2023 and Ministerial Direction 4.3 Flooding. With regard to Clause 6(d) of Ministerial Direction 4.3 Flooding, the planning proposal would result in an increase in residential development density at the Site. However, the proposed design incorporates all habitable areas above the level of the PMF and therefore occupants would not be subject to any direct flood risk. This, together with the flood emergency response recommendations outlined in **Chapter 4** of this report, are expected to be effective in managing the flood risk to future residents and visitors to the Site such that the risk to life associated with flooding is negligible. Accordingly, this inconsistency is considered to be of minor significance.

6 Conclusions

Flood modelling and mapping completed as part of the *Powells Creek Flood Study* (WMAwater, 2022) indicates that the Site is flood prone. Accordingly, it is necessary to assess the flood risk posed to the proposed development along with its potential impacts on flood behaviour in accordance with the provisions detailed in Chapter B8 of City of Canada Bay Development Control Plan 2023 (DCP 2023) and the Ministerial Direction 4.3 Flooding.

An assessment of the potential flood impacts has been undertaken using the TUFLOW flood model that was developed as part of the *Powells Creek Flood Study*. The TUFLOW model was modified to create a version representing post-development conditions by including the proposed design surface and building footprints. The 20% AEP, 1% AEP and PMF events were then simulated and the results were compared to those for existing conditions to establish whether any changes in peak flood level can be expected as a result of the proposed development (*refer* **Appendix C**).

Section B8 '*Flooding Control*' of City of the Canada Bay DCP (2023) outlines flood planning requirements for development on flood prone land in the City of the Canada Bay LGA. Clauses relevant to the proposed development and responses to each of these clauses are detailed in **Table** 5-1. Assessment of the proposed development against the provisions of Ministerial Direction 4.3 Flooding was also undertaken and is documented in **Table 5-2**.

The following conclusions can be drawn from the assessment.

(i) Under existing conditions, the Site would be inundated in events from the 20% AEP to the PMF.

(ii) The peak 1% AEP flood level at the Site is estimated to be 2.0 mAHD, and the peak PMF level is estimated to be 3.55 mAHD.

(iii) Peak flow velocities within the Site are low, being generally less than 0.5 m/s. Higher velocities occur locally near the south-eastern and northern boundaries, reaching as much as 1 m/s in the 1% AEP and PMF events.

(iv) Hydraulic category mapping from the *Powells Creek Flood Study* (WMAwater, 2022) indicates that flooding within and surrounding the Site would be classified as Flood Fringe and Flood Storage for events up to and including the 1 in 500 AEP flood.

(v) The proposed redevelopment is not expected to result in any off-site flood level increases in the 1% AEP or PMF events. A minor increase of 20 to 30 mm is predicted in the 20% AEP flood but is contained to within a drainage easement adjacent to Homebush Bay Drive and does not affect any private property (*refer* **Appendix C**). While not considered significant, it is likely that this impact could be negated through the design process.

(vi) All proposed habitable floor levels are located above the PMF peak flood level, are readily accessible from the carpark / lower floors and are appropriate for shelter-in-place. The only entry to the carpark is at a level of 3.0 mAHD (*i.e., 1 metre above the peak 1% AEP flood level*). Floodgates would be installed to prevent floodwaters from entering the carpark in events up to and including the PMF.

(vii) As presented in **Chapter 5**, the proposed development is considered to satisfy the design principles and development controls specified in Section B8 of the City of Canada Bay Development Control Plan 2023, and the provisions of Ministerial Direction 4.3 Flooding.

7 References

Ball J, Babister M, Nathan R, Weeks W, Weinmann E, Retallick M, Testoni I, (Editors) (2019), '*Australian Rainfall and Runoff: A Guide to Flood Estimation*', © Commonwealth of Australia (Geoscience Australia), (ARR 2019).

City of Canada Bay (2023), '*City of Canada Bay Development Control Plan*', (City of Canada Bay DCP 2023).

Department of Planning and Environment (2022), '*Draft Shelter-In-Place Guideline*' (DPE 2022)

New South Wales Government (2023), '*Flood risk management manual: the policy and manual for the management of flood liable land'*, ISBN 978-1-923076-17-4

Northern Beaches Council (2021), '*Pittwater 21 Development Control Plan*', (Pittwater DCP 2021).

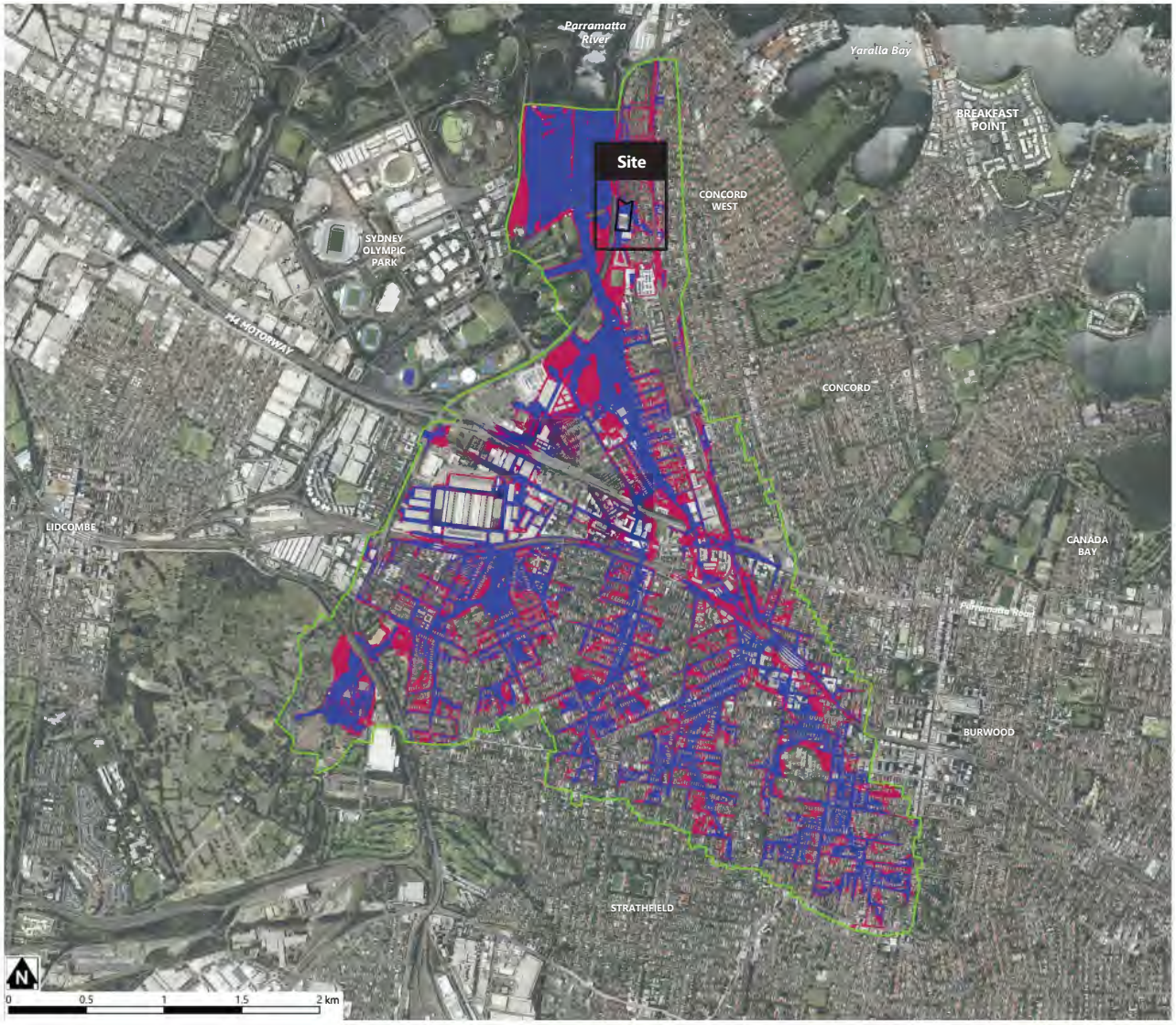
NSW Department of Planning, Industry and Environment (2021), '*Considering flooding in land use planning guideline*'

NSW State Emergency Services (2021), *'The Bay Flood Emergency Sub Plan; a Sub Plan of the Local Emergency Management Plan (EMPLAN)*'.

WMAwater (2022*)*, '*Powells Creek Flood Study'*, prepared for City of Canada Bay.

Appendix A
Design Flood Mapping for Existing Conditions

FIGURE A-0



LEGEND

Powells Creek Catchment

Flood Extents

1% AEP Event

Probable Maximum Flood

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

FLOOD MAPPING EXTENT IN THE CONTEXT OF THE POWELLS CREEK CATCHMENT

FIGURE A-1

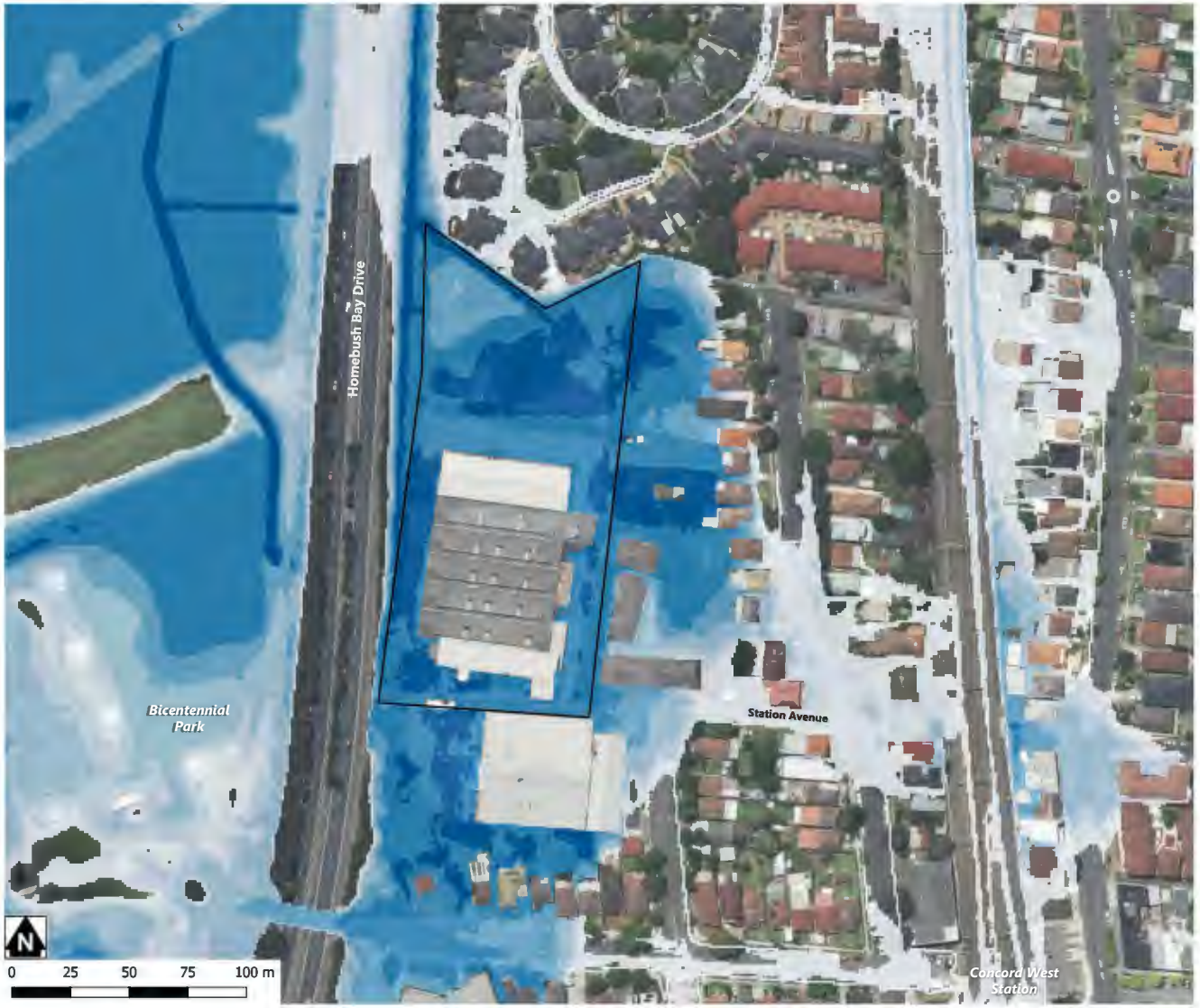
20% AEP EVENT PEAK FLOOD DEPTHS
EXISTING CONDITIONS

FIGURE A-2

1% AEP EVENT PEAK FLOOD DEPTHS
EXISTING CONDITIONS

FIGURE A-3

Location:



LEGEND

- Site Boundary

Peak Flood Depth (m)

- 0 - 0.15
- 0.15 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 4.00
- > 4.00

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

PROBABLE MAXIMUM FLOOD EVENT
PEAK FLOOD DEPTHS
EXISTING CONDITIONS

FIGURE A-4

Location:

LEGEND

Site Boundary

Peak Flow Velocity (m/s)

- <= 0.25
- 0.25 - 0.50
- 0.50 - 1.00
- 1.00 - 2.00
- > 2.00

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

20% AEP EVENT PEAK FLOW VELOCITIES
EXISTING CONDITIONS

FIGURE A-5

1% AEP EVENT PEAK FLOW VELOCITIES
EXISTING CONDITIONS

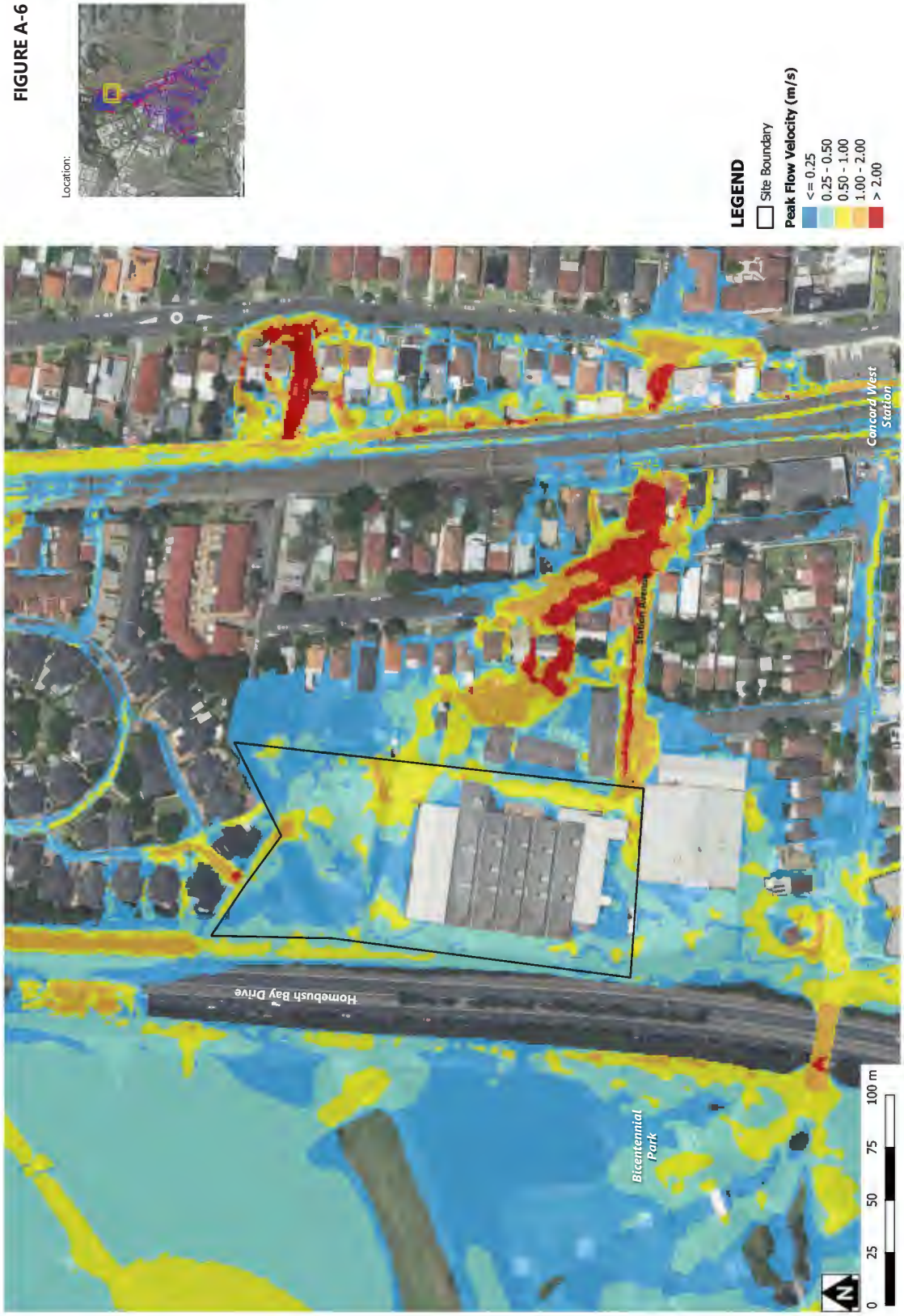


FIGURE A-6
Location:
LEGEND
Site Boundary
Peak Flow Velocity (m/s)
<= 0.25
0.25 - 0.50
0.50 - 1.00
1.00 - 2.00
> 2.00
PROBABLE MAXIMUM FLOOD EVENT
PEAK FLOW VELOCITIES
EXISTING CONDITIONS
Concord West Station
Station Avenue
Homebush Bay Drive
Bicentennial Park
0 25 50 75 100 m
N
Prepared by:
worley
Date:
Data Source:
12/12/2023
Powells Creek Flood Study (WMAwater 2022)

FIGURE A-7

Location:

LEGEND

- Site Boundary

Provisional Flood Hazard

- H1 - Generally safe
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children & the elderly
- H4 - Unsafe for all vehicles & people
- H5 - Unsafe, buildings vulnerable to structural damage or failure
- H6 - Unsafe, all buildings vulnerable to failure

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

20% AEP EVENT PROVISIONAL FLOOD HAZARD EXISTING CONDITIONS

City of Canada Bay

FIGURE A-8

Location:

LEGEND

- Site Boundary

Provisional Flood Hazard

- H1 - Generally safe
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children & the elderly
- H4 - Unsafe for all vehicles & people
- H5 - Unsafe, buildings vulnerable to structural damage or failure
- H6 - Unsafe, all buildings vulnerable to failure

Prepared by:

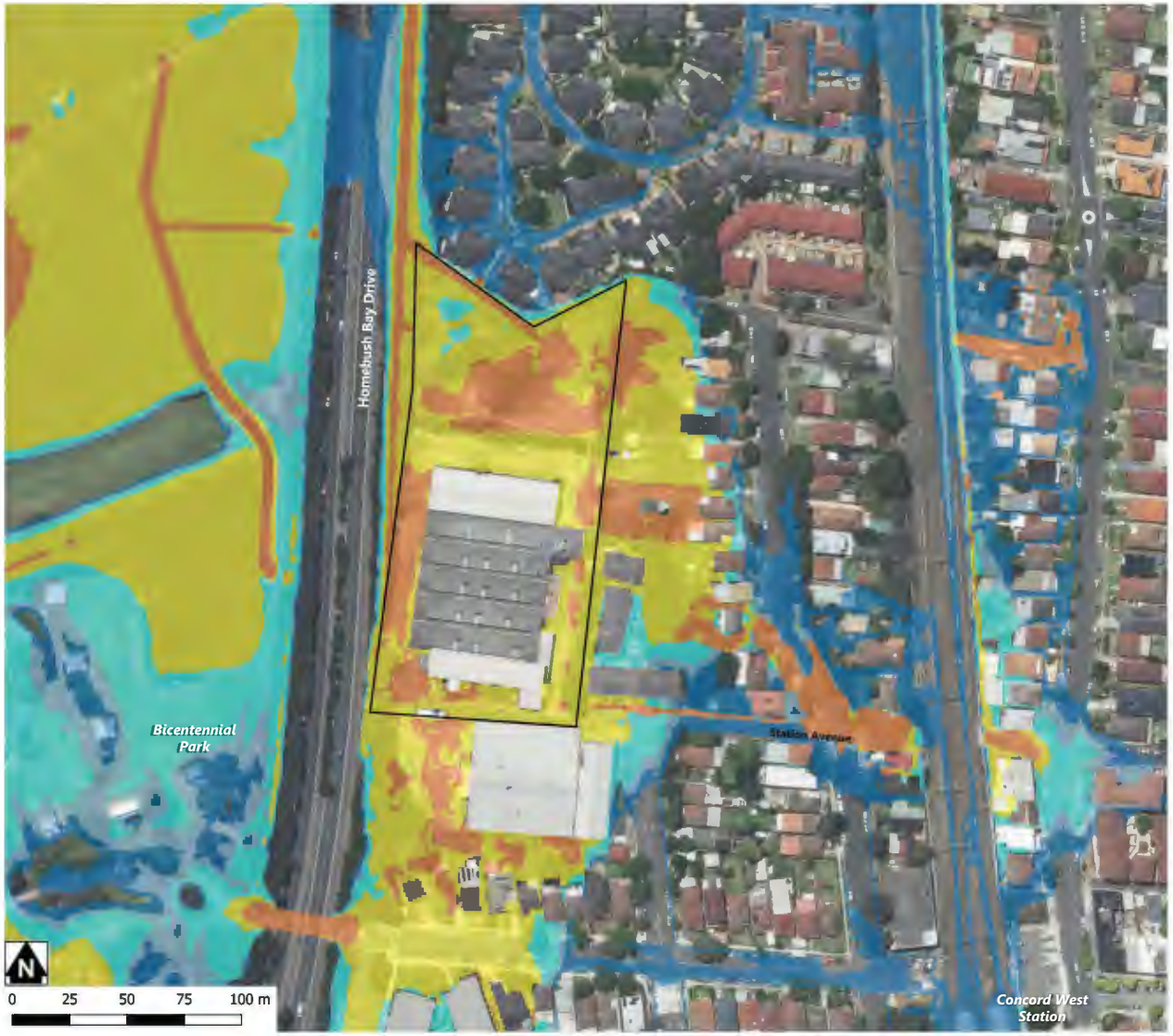
worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

1% AEP EVENT PROVISIONAL FLOOD HAZARD EXISTING CONDITIONS

FIGURE A-9

Location:



LEGEND

- Site Boundary

Provisional Flood Hazard

- H1 - Generally safe
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children & the elderly
- H4 - Unsafe for all vehicles & people
- H5 - Unsafe, buildings vulnerable to structural damage or failure
- H6 - Unsafe, all buildings vulnerable to failure

Prepared by:

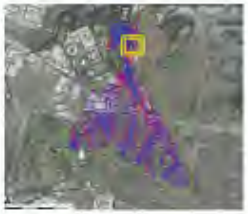
worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

PROBABLE MAXIMUM FLOOD EVENT
PROVISIONAL FLOOD HAZARD
EXISTING CONDITIONS

FIGURE A-10

Location:



LEGEND

- Site Boundary

Flood Function

- Floodway
- Flood Storage
- Flood Fringe

Prepared by:

worley

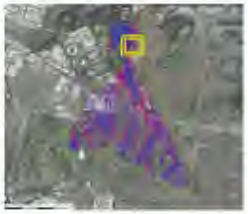
Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

20% AEP EVENT HYDRAULIC CATEGORIES
EXISTING CONDITIONS

City of Canada Bay

FIGURE A-11

Location:



LEGEND

- Site Boundary

Flood Function

- Floodway
- Flood Storage
- Flood Fringe

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

1% AEP EVENT HYDRAULIC CATEGORIES
EXISTING CONDITIONS

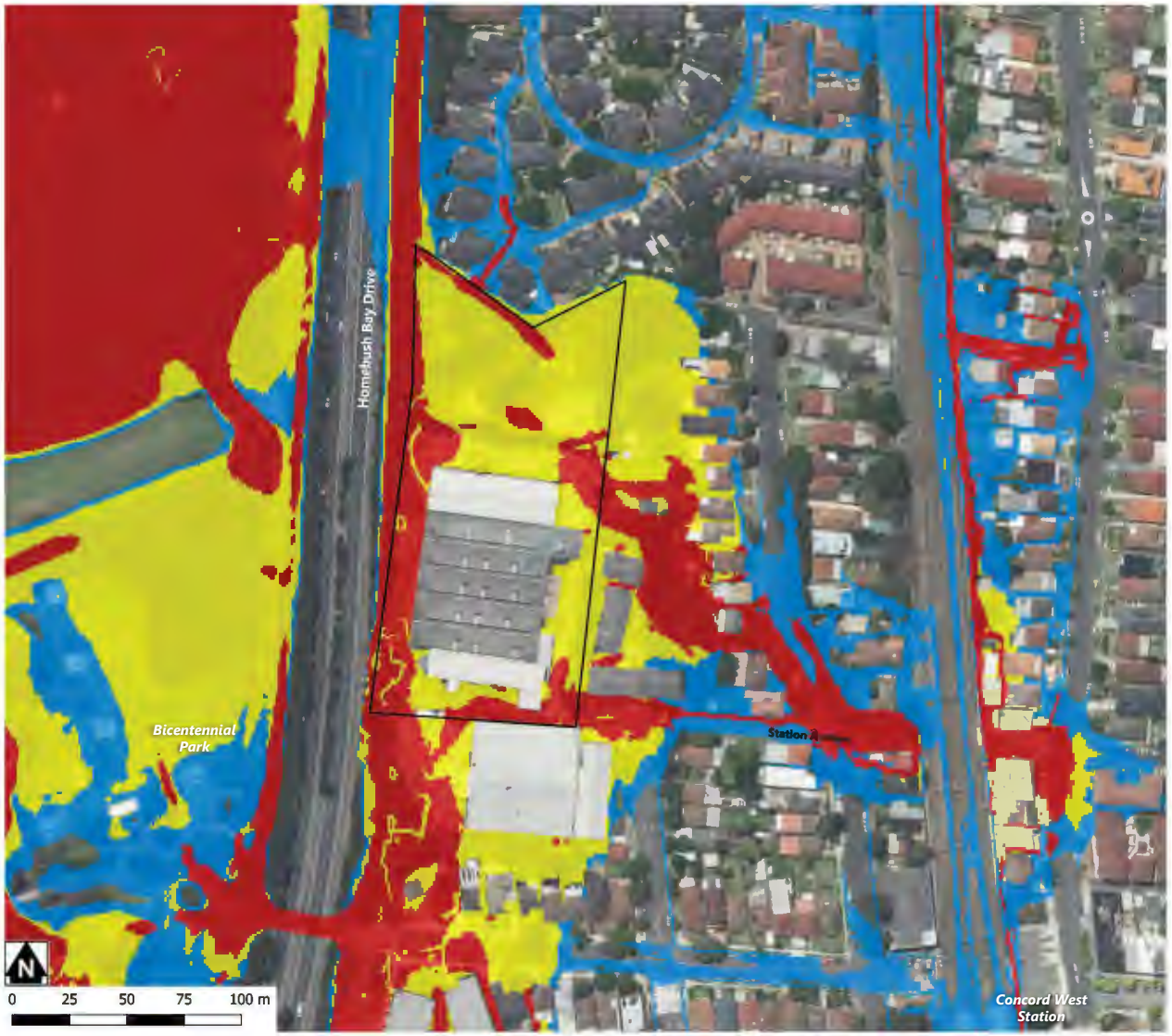


FIGURE A-12

Location:

LEGEND

- Site Boundary

Flood Function

- Floodway
- Flood Storage
- Flood Fringe

Prepared by:

worley

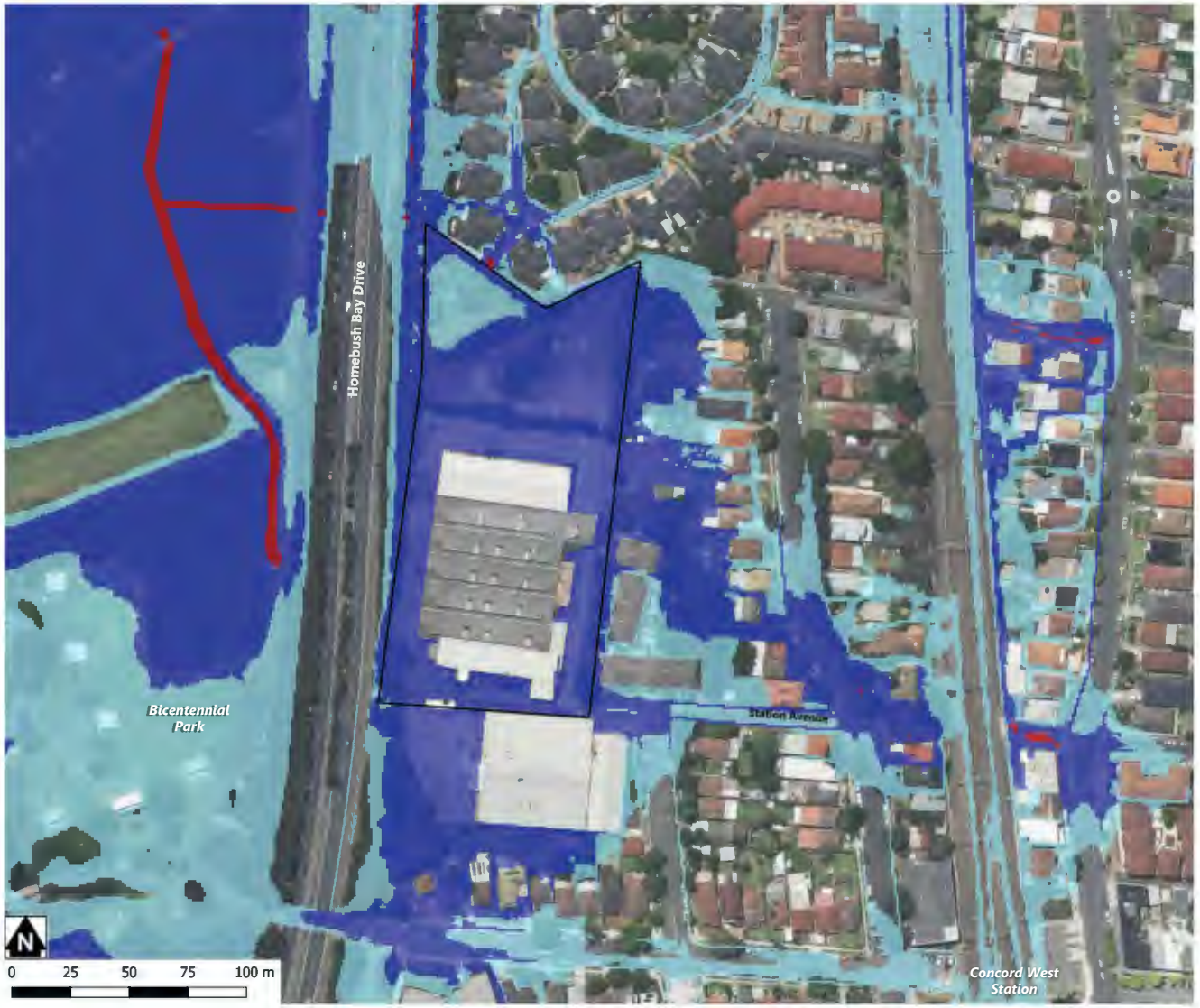
Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

PROBABLE MAXIMUM FLOOD EVENT
HYDRAULIC CATEGORIES
EXISTING CONDITIONS

City of Canada Bay

FIGURE A-13

Location:



LEGEND

- Site Boundary

Flood Risk Precincts

- High FRP
- Medium FRP
- Low FRP

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)

FLOOD RISK PRECINCTS
EXISTING CONDITIONS

Appendix B
Design Flood Mapping for Post-Development Conditions

20% AEP EVENT PEAK FLOOD DEPTHS
POST-DEVELOPMENT CONDITIONS

FIGURE B-2

Location:

LEGEND

- Site Boundary

Peak Flood Depths (m)

- 0 - 0.15
- 0.15 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 4.00
- > 4.00

1% AEP EVENT PEAK FLOOD DEPTHS POST-DEVELOPMENT CONDITIONS

Prepared by: worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post Development 231124C

FIGURE B-3

PROBABLE MAXIMUM FLOOD EVENT
PEAK FLOOD DEPTHS
POST-DEVELOPMENT CONDITIONS

FIGURE B-4

20% AEP EVENT PEAK FLOW VELOCITIES POST-DEVELOPMENT CONDITIONS

1% AEP EVENT PEAK FLOW VELOCITIES
POST-DEVELOPMENT CONDITIONS

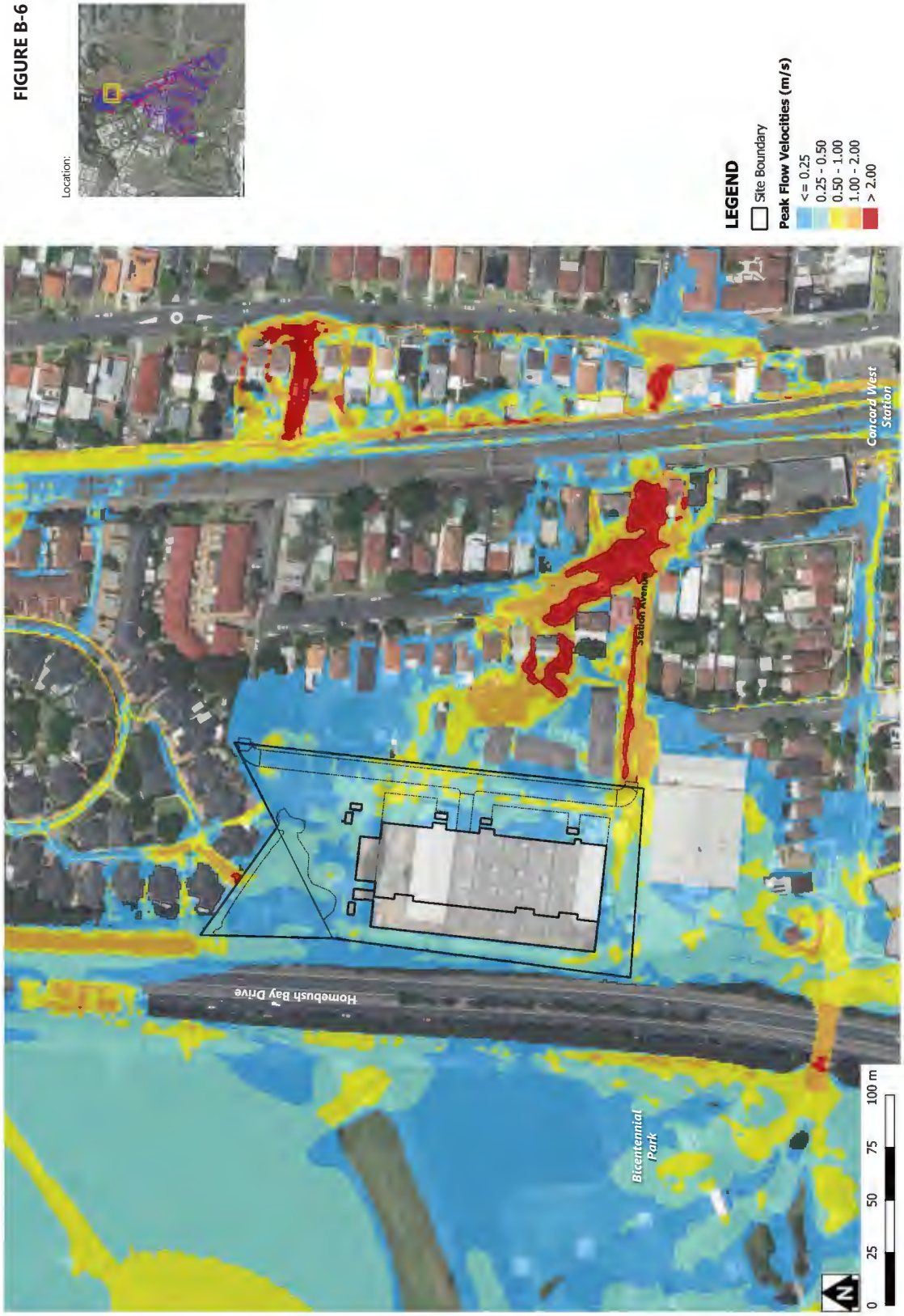


FIGURE B-6

PROBABLE MAXIMUM FLOOD EVENT
PEAK FLOW VELOCITIES
POST-DEVELOPMENT CONDITIONS

FIGURE B-7

Location:

LEGEND

- Site Boundary

Provisional Flood Hazard

- H1 - Generally safe
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children & the elderly
- H4 - Unsafe for all vehicles & people
- H5 - Unsafe, buildings vulnerable to structural damage or failure
- H6 - Unsafe, all buildings vulnerable to failure

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

20% AEP EVENT PROVISIONAL FLOOD HAZARD POST-DEVELOPMENT CONDITIONS

City of Canada Bay

FIGURE B-8

Location:

LEGEND

- Site Boundary

Provisional Flood Hazard

- H1 - Generally safe
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children & the elderly
- H4 - Unsafe for all vehicles & people
- H5 - Unsafe, buildings vulnerable to structural damage or failure
- H6 - Unsafe, all buildings vulnerable to failure

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

1% AEP EVENT PROVISIONAL FLOOD HAZARD POST-DEVELOPMENT CONDITIONS

FIGURE B-9

Location:

LEGEND

- Site Boundary

Provisional Flood Hazard

- H1 - Generally safe
- H2 - Unsafe for small vehicles
- H3 - Unsafe for vehicles, children & the elderly
- H4 - Unsafe for all vehicles & people
- H5 - Unsafe, buildings vulnerable to structural damage or failure
- H6 - Unsafe, all buildings vulnerable to failure

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

PROBABLE MAXIMUM FLOOD EVENT
PROVISIONAL FLOOD HAZARD
POST-DEVELOPMENT CONDITIONS

Appendix C
Flood Impact Mapping for Post-Development Conditions

FIGURE C-1

Location:

LEGEND

- Site Boundary

Water Level Difference (m)

- <= -0.20
- -0.20 - -0.10
- -0.10 - -0.05
- -0.05 - -0.03
- -0.03 - -0.02
- -0.02 - 0.02
- 0.02 - 0.03
- 0.03 - 0.05
- 0.05 - 0.10
- 0.10 - 0.20
- > 0.20

Change in Flood Extents

- Previously wet now dry
- Previously dry now wet

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

DIFFERENCE IN 20% AEP EVENT PEAK FLOOD LEVELS
[POST-DEVELOPMENT CONDITIONS LESS EXISTING CONDITIONS]

FIGURE C-2

Location:

LEGEND

- Site Boundary

Water Level Difference (m)

- <= -0.20
- -0.20 - -0.10
- -0.10 - -0.05
- -0.05 - -0.03
- -0.03 - -0.02
- -0.02 - 0.02
- 0.02 - 0.03
- 0.03 - 0.05
- 0.05 - 0.10
- 0.10 - 0.20
- > 0.20

Change in Flood Extents

- Previously wet now dry
- Previously dry now wet

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

DIFFERENCE IN 1% AEP EVENT PEAK FLOOD LEVELS
[POST-DEVELOPMENT CONDITIONS LESS EXISTING CONDITIONS]

City of Canada Bay

FIGURE C-3

Location:

LEGEND

- Site Boundary

Water Level Difference (m)

- <= -0.20
- -0.20 - -0.10
- -0.10 - -0.05
- -0.05 - -0.03
- -0.03 - -0.02
- -0.02 - 0.02
- 0.02 - 0.03
- 0.03 - 0.05
- 0.05 - 0.10
- 0.10 - 0.20
- > 0.20

Change in Flood Extents

- Previously wet now dry
- Previously dry now wet

Prepared by:

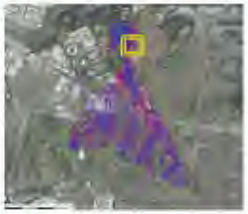
worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

DIFFERENCE IN PMF PEAK FLOOD LEVELS
[POST-DEVELOPMENT CONDITIONS LESS EXISTING CONDITIONS]

FIGURE C-4

Location:



LEGEND

- Site Boundary

Change in Peak Flow Velocity [m/s]

- <= -1.00
- -1.00 - -0.50
- -0.50 - -0.30
- -0.30 - -0.20
- -0.20 - -0.10
- -0.10 - 0.10
- 0.10 - 0.20
- 0.20 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

Change in flood Extent

- Previously wet now dry
- Previously dry now wet

Prepared by:

worley

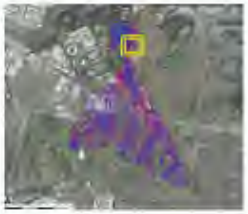
Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

DIFFERENCE IN 20% AEP EVENT PEAK FLOW VELOCITIES [POST-DEVELOPMENT CONDITIONS LESS EXISTING CONDITIONS]

City of Canada Bay

FIGURE C-5

Location:



LEGEND

- Site Boundary

Change in Peak Flow Velocity [m/s]

- <= -1.00
- -1.00 - -0.50
- -0.50 - -0.30
- -0.30 - -0.20
- -0.20 - -0.10
- -0.10 - 0.10
- 0.10 - 0.20
- 0.20 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

Change in flood Extent

- Previously wet now dry
- Previously dry now wet

Prepared by: worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

DIFFERENCE IN 1% AEP EVENT PEAK FLOW VELOCITIES [POST-DEVELOPMENT CONDITIONS LESS EXISTING CONDITIONS]

City of Canada Bay

FIGURE C-6

Location:

LEGEND

- Site Boundary

Change in Peak Flow Velocity [m/s]

- <= -1.00
- -1.00 - -0.50
- -0.50 - -0.30
- -0.30 - -0.20
- -0.20 - -0.10
- -0.10 - 0.10
- 0.10 - 0.20
- 0.20 - 0.30
- 0.30 - 0.50
- 0.50 - 1.00
- > 1.00

Change in flood Extent

- Previously wet now dry
- Previously dry now wet

Prepared by:

worley

Date: 12/12/2023
Data Source: Powells Creek Flood Study (WMAwater 2022)
Scenario: Post-Development 231124C

DIFFERENCE IN PMF PEAK FLOW VELOCITIES
[POST-DEVELOPMENT CONDITIONS LESS EXISTING CONDITIONS]

Environmental Works: Interim Report

7 Concord Avenue, Concord West, NSW, 2138

February 2024

Document Control

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Rev0	Dr Gunnar Haid	Fenn Hinchcliffe	20/02/2024

The undersigned, on behalf of Canopy Enterprises Pty Ltd, confirm that this Report and all images, references and attached appendices have been checked and reviewed for errors, omissions and inaccuracies.

	Signature	Date
Author	***Dr Gunnar Haid*** MSc; PhD (Petroleum Engineering) MUL CEnvP Seal 1527 SC Seal SC41179 Certified Environmental Practitioner Certified Environmental Practitioner Site Contamination Specialist	19/02/2024
Reviewer	***Fenn Hinchcliffe*** MBEnv, CEnvP, MEIANZ CEnvP Seal 468 Certified Environmental Practitioner	20/02/2024

Contact
Fenn Hinchcliffe: 0412 987 456
fenn@canopyenterprises.com

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Acknowledgements and References

The following imagery and documentation is attributed to and gratefully acknowledged:

Location Maps:	MetroMap, Whereis
Aerial Photography:	NSW Department of Land Property Information Google Earth Pro NearMap

All other sources are referenced as footnotes within the document.

1 Executive Summary

Background

Canopy Enterprises Pty Ltd (Canopy) was engaged by Algorry Zappia and Associates on behalf of The Concord West Partnership (the Client) to undertake an Environmental Works-Interim Report (EW) (inclusive of review of past reports) for the property (excluding the operational warehouses and associated buildings) located at 7 Concord Avenue, Concord West, NSW, 2138 (the Site). Canopy understands that the EW is required to for inclusion in DA documentation for a proposed re-development on the Site.

A Detailed Site Investigation (DSI) had been previously undertaken at the Site by Douglas Partners Pty Ltd Ref: Project 84964.01 dated 23 November 2015 (DP DSI) along with an Acid Sulfate Soils Management Plan(ASSMP) Ref: Project 84964.02 dated 08 September 2016 prepared by Douglas Partners (DP ASSMP) and a Remediation Action Plan (RAP) Ref: Project 84964.02 dated 08 September 2016 also prepared by Douglas Partners (DP RAP).

Following a review of the previous Douglas Partners reports, a Site Inspection was conducted by Canopy on 07 December 2022 by a suitably qualified person, in this instance a Site Contamination Specialist (CEnvP-SC). The main purpose was to specifically address the asbestos impact to site soils that had been identified by Douglas Partners. Particular emphasis was placed on the proposed re-developments and potential change of land use (to a more sensitive land use). Details of the project are provided in the Summary of Site Details as contained in Table 1 in Section 3.1.

This led into an environmental Investigation by Canopy (EI) dated June 2023 which specifically addressed the asbestos profile (delineation) across the Site.

The Scope of Works outlined in Section 2.2 lists the environmental works undertaken as part of the Report herein.

This investigation has been undertaken in deference to the relevant guidelines and regulatory documents as presented in Section 8 (*among other* sources), with crucial consideration being given to the site-specific circumstances and limitations**.** Particular attention has been given to the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM 2013) (NEPM), the State Environmental Planning Policy (Resilience and Hazards) 2021 (RH SEPP), Chapter 4 Remediation of land, specifically sub-sections 4.6 (1) (a-c) and 4.6 (3).

Findings and Conclusions

Based on the results of the investigation and subject to the limitations in Section 10 the following conclusions are made:

1. The Site is located in a predominantly industrial and commercial area, with a size of approximately 15,000 m^2.

2. The Site history can reasonably be summarised as a block of land that has been used mainly for commercial/industrial uses since the mid of the 20th century.
3. Previous investigation at the Site discovered the presence of at least one Underground Storage Tank (UST) and one Aboveground Storage Tank (AST) with associated pipe infrastructure at in southern portion of the Site south of the current building. This petroleum storage infrastructure was removed, the walls and base of the tank pit were validated, excavated material was appropriately treated for Acid Sulfate Soil and the excavation was backfilled.
4. A small underground void was identified by Ground Penetrating Radar near the area that had previously been marked as potentially containing an Underground Storage Tank (DP (2017)). The area could not be investigated as part of this investigation due to the presence of live high voltage lines in the area.
5. Four additional monitor wells were installed as part of this investigation and sampled together with the two remaining historical monitoring wells.
6. The elevated levels of dissolved heavy metals in groundwater are stable over time when compared to historical data from the Site. The encountered levels are typical for disturbed ecosystems in a metropolitan area and in and of themselves do not warrant any remedial action.
7. BTEX concentration in groundwater were well below the adopted assessment criteria.
8. Trace levels of TRH were encountered in groundwater but are not considered to be of concern at such low levels (here are no guideline levels for TRH in groundwater in Australia).
9. Soil vapour concentrations below the current building and in an area potentially containing another UST have been found to be orders of magnitude below the adopted assessment criteria.
10. The Site is located in an Acid Sulfate prone area and the presence of potential acid sulfate soils in the subsurface has been established. An Acid Sulfate Soil Management Plan (ASSMP) has previously been developed. This Management Plan will require to be adjusted to any changes in development details since the ASSMO had been issued in 2016.
11. Previous investigations (DP (2015) and Canopy (2023)) identified areas that are impacted with bonded asbestos. Asbestos impact may also be present underneath the current on-site structures and hardstand. While asbestos impact has been delineated in all accessible areas, a delineation of the possible asbestos impact in currently inaccessible areas may be required once the areas have become accessible post demolishment and once plans for the future development have been determined.
12. Based on the content and data presented in this Report, which includes review of past environmental assessments, it is Canopy's opinion in alignment with Clause 4.6 (1) (b-c) of the RH SEPP, that contamination at the Site is not present at levels that would preclude the Site from being made suitable, to the satisfaction of Council, for the proposed commercial/industrial land use (or residential land use if preferred), subject to the implementations of the recommendations below.

Recommendations

Based on the above information, Canopy recommends that:

1. A small underground void was identified by Ground Penetrating Radar near the area that had previously been marked as potentially containing an Underground Storage Tank (DP (2017)). The area cannot be investigated due to the presence of live high voltage lines; however, the area should be investigated once electricity has been cut/isolated to the Site and the nearby awning has been removed. (See Section 6.6 Remaining Data Gaps)
2. Groundwater at the Site was found to have elevated heavy metals concentrations typical to disturbed urban ecosystems and do not require immediate remedial action. Concentrations of hydrocarbons were found to be below the adopted assessment criteria for commercial/industrial land use. An additional round of ground water sampling should be undertaken in approximately 6 months (July of 2024). This will assist in preparing a 'fit for purpose' RAP in conjunction with future re-development proposal/s once determined. (See Section 6.6 Remaining Data Gaps)
3. A RAP needs to be developed once an additional Groundwater Monitoring Round has been completed (in approximately 6 months) and the preferred development options have been further explored and/or determined.

The full suite of findings and conclusions are outlined in Section 7 and section 7.1 respectively, and should be read together in conjunction with the full Report and the Limitations in Section 10.

2 Project Introduction

Canopy Enterprises Pty Ltd (Canopy) was engaged by Algorry Zappia and Associates on behalf of The Concord West Partnership (the Client) to undertake an Environmental Works-Interim Report (EW) (inclusive of review of past reports) for the property (excluding the operational warehouses and associated buildings) located at 7 Concord Avenue, Concord West, NSW, 2138 (the Site). Canopy understands that the EW is required to for inclusion in DA documentation for a proposed re-development on the Site.

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Following a review of the previous Douglas Partners reports, a Site Inspection was conducted by Canopy on 07 December 2022 by a suitably qualified person, in this instance a Site Contamination Specialist (CEnvP-SC). The main purpose was to specifically address the asbestos impact to site soils that had been identified by Douglas Partners. Particular emphasis was placed on the proposed re-development and potential change of land use (to a more sensitive land use). Details of the project are provided in the Summary of Site Details as contained in Table 1 in Section 3.1.

This led into an environmental Investigation by Canopy (EI) dated June 2023 which specifically addressed the asbestos profile (delineation) across the Site.

The Scope of Works outlined in Section 2.2 lists the environmental works undertaken a spart of the Report herein.

This investigation has been undertaken in deference to the relevant guidelines and regulatory documents as presented in Section 8 (*among other* sources), with crucial consideration being given to the site-specific circumstances and limitations**.** Particular attention has been given to the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM 2013) (NEPM), the State Environmental Planning Policy (Resilience and Hazards) 2021 (RH SEPP), Chapter 4 Remediation of land, specifically sub-sections 4.6 (1) (a-c) and 4.6 (3).

2.1 Aims and Objectives

Details of the project are provided in the Summary of Site Details as contained in Table 1 in Section 3.1.

The core aim of the Report herein was to bring information and data from past assessments and the Environmental Works themselves to enable preparation of a 'fit for purpose' Remedial Action Plan (RAP), once the re-development details have been satisfactorily progressed.

The objectives of the environmental works themselves, were to remove the abandoned petroleum storage tanks and to undertake a range of tasks, with consideration to the physical limitations of the Site, to complement the suite of environmental information and data that is already available. The Scope of Works below in Section 2.2 lists the specific objectives of the EW (See Scope of Works),

2.2 Scope of Work

The scope of works for this assessment includes:
Review of all previous investigations Install four additional groundwater monitor wells across the Site to complement existing wells and replace lost wells that had previously been installed in 2007 by Douglas Partners.
Sampling of all groundwater wells for contaminants of concern and laboratory analysis of samples.
Install four soil vapour sampling probes in the area that had been identified as being of concern in past investigations. These areas included: - a go-cart maintenance shed and associated downstream area. - an area where a previous investigation had identified that an underground storage tank could possibly be present.
Remove the Underground Storage Tank (UST) and Aboveground Storage Tank previously identified to be present near the southern site boundary.
Validate the tank pits walls and base and the area underneath the AST.
Treat excavated material for Acid Sulfate Soil and validate the treatment efficacy prior to backfilling of soils into the excavated tank pit.
Develop and implement a sampling analysis plan and submit all samples to a NATA registered laboratory.
Compare laboratory results to site assessment criteria
Develop recommendations Preparation of this Report

2.3 Proposed Development

A proposed industrial redevelopment of the Site by FTD Holdings (Concord West) Pty Ltd and Floridana Pty Ltd, t/as The Concord West Partnership comprises demolition of the current Site structures followed by re-development and construction of either or a mix of the following:

- Residential precinct and associated townhouses and associated carparking.
- Multiple industrial units with mezzanine office levels and associated carparking for 112 vehicles and access via Concord Avenue.
- Limited retail to complement the development.

2.4 Previous Investigations

Canopy has reviewed the following previous reports associated with the Site:

2.4.1 Douglas Partners Detailed Site Investigation 2015

Douglas Partners Pty Ltd (DP) conducted a Detailed Site Investigation (DSI) at the Site and submitted its findings in a report titled 'Detailed Site Investigation 7 Concord Avenue Concord West.' with Reference Project 84964.01 dated 23 November 2015 [DP (2015)]. The DSI was commissioned by F.T.D Holdings (Concord West) Pty Ltd & Floridana Pty Ltd to support a rezoning (planning) proposal. The Report covered the same area which the Site of this Report concerns (as noted in Figure 1 below).

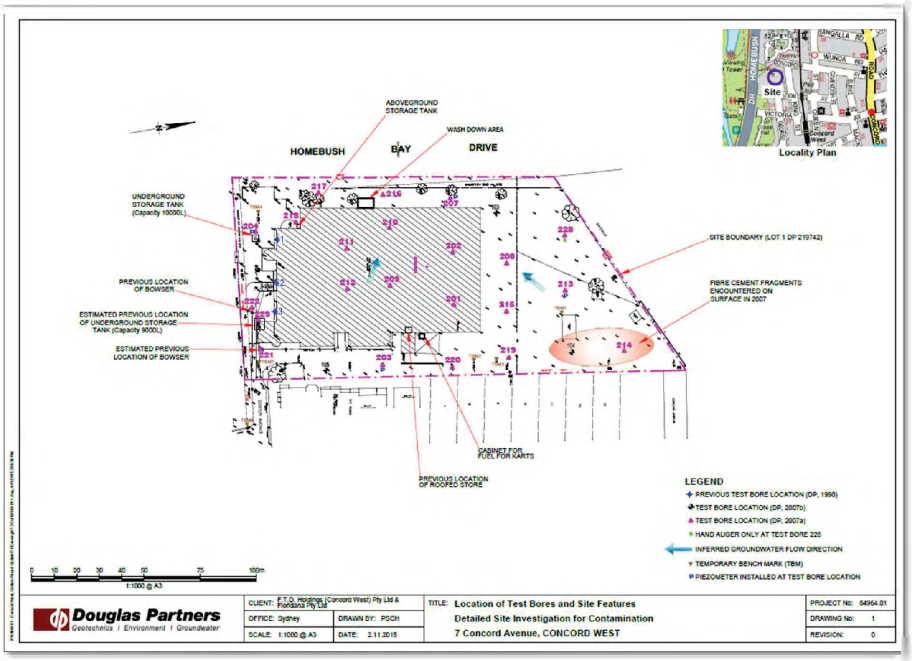

Figure 1 Site Map including previous testing locations.
(Image source DP Project 84964.01)

The conclusion presented in the DP DSI Report, was as follows:

> *'Investigations have revealed that there is soil contamination associated with fuel storage and filling at the site. The identified contamination can be remediated using common remediation technologies and, as a basement excavation and off-site soil disposal is proposed, the soil contamination can be removed from the site through off-site disposal. Some further investigation and assessment has been recommended to assess the extent of remediation. Acid sulphate soils have also been identified.*

A Remediation Action Plan and Acid Sulphate Soil Management Plan will be required for the proposed development. A hazardous building materials survey of the building should be undertaken prior to its demolition.

Based on the results of the investigation it is considered that the site can be made suitable for the proposed residential development (subject to the recommendations provided in Section 11.6).'

DP's DSI recommend a further investigation which should include:

- *'Investigate the soil conditions at the north-west part of the site which was previously inaccessible to a drilling rig;*
- *Excavation of test pits in the vicinity of Test Bores 104 and 214 to assess whether ACM*
- *(previously observed on the surface) is present in filling below the surface;*
- *Excavation of test pits in the vicinity of Test Bore 216 to assess the extent of ACM in filling at this location;*
- *Further investigation and assessment of soils which are likely to remain (i.e. near the perimeter of the site) including obtaining site specific soil parameters for further ecological assessment;*
- *Inspection of surface soils once the building is demolished and floor slabs, hard stands and the AST are removed…'*

It is noted that the DP DSI's conclusions and recommendations were based on a proposed residential development of the Site. Plans for the Site have since changed and the newly proposed development is of a commercial/industrial land use scenario as detailed in Section 2.3

2.4.2 Douglas Partners Acid Sulfate Soils Management Plan September 2016

F.T.D Holdings (Concord West) Pty Ltd & Floridana Pty Ltd further commissioned Douglas Partners Pty Ltd (DP) to prepare an Acid Sulfate Soils Management Plan at 7 Concord Avenue, Concord West, NSW,2138. The report DP issued titled *'Acid Sulphate Soil Management Plan Proposed Residential Development 7 Concord West, Concord West', with Report* Reference Project 84964.02 dated 08 September 2016 [DP (2016a)], with the following conclusion reported:

'This ASSMP details the requirements to manage ASS during the proposed development works. If ASS is not detected in soils to be disturbed by the proposed development (from pre-treatment testing), no further ASS management will be required.

It is considered that implementation of this ASSMP will enable appropriate management of the potential risks associated with ASS to structures and surrounding water bodies, including the local groundwater and Powells Creek.

At the time of preparing this report, the RAP was being prepared and should be referenced for (additional) requirements for the management of excavated soils.'

2.4.3 Douglas Partners Remedial Action Plan September 2016

As noted in the conclusion of the ASSMP report, DP was preparing a Remedial Action Plan for the Site, as commissioned by F.T.D Holdings (Concord West) Pty Ltd & Floridana Pty Ltd, the RAP was also issued in September 2016 and was titled *'Remediation Action Plan, Proposed Residential Development, 7 Concord Avenue, Concord West*' with Report Reference Project 84964.02 dated 08 September 2016 [DP (2016b)].

The Conclusions, as reported in the DP RAP is as follows.

> *'It is considered that the site can be rendered suitable for the proposed development subject to appropriate remediation and management in accordance with this RAP.'*
>
> *The success of the remediation will need to be validated as detailed herein.*
>
> *At the time of preparing this report, the ASSMP was being prepared and should be referenced for (additional) requirements for the management of ASS.'*

2.4.4 Canopy Enterprises Environmental Investigation June 2023

Canopy was engaged by Algorry Zappia and Associates in June 2023 on behalf of The Concord West Partnership to undertake an Environmental Investigation (EI) (inclusive of review of past reports) at the Site. The investigation further investigated and delineated asbestos impact previously encountered in certain areas of the Site and undertook sampling of previously installed groundwater monitor wells. Canopy submitted its findings in a report titled Environmental Investigation 7 Concord Avenue, Concord West, NSW, 2138 with Report Reference Concord-CO_Rev1 and dated 5 June 2023 [Canopy (2023)].

Key findings of the investigation were as follows.

- *'Contamination levels, other than asbestos in soils during this and previous investigations were found to be mostly acceptable when seen in the light of the now proposed commercial/industrial land use.*
- *This investigation focussed on sampling of soils in previously inaccessible areas and on the investigation of potential asbestos impact that had been identified during previous investigations.*
- *During this investigation, 38 test pits were excavated and screened for asbestos in soil using the methodology outlines in the NEPM with 500 mL soil samples submitted and selectively analysed for asbestos in soil.*
- *The dense grid of test pits and associated asbestos assessment showed that the presence of fragments of bonded asbestos is widespread across the Site. Concentration of asbestos in soils were however mostly found to be below the adopted site assessment criterion but some discreet areas were identified that require remedial action.*
- *Concentrations of chemical contaminants were found to be acceptable for the proposed commercial/industrial land use.'*

The following recommendations were made:

- *'Following demolition of the existing building structures, the footprint should at a later stage be assessed by a suitably qualified environmental consultant, to confirm that the soil/fill material is suitable for the proposed land use, in accordance with NEPM (2013).*
- *A UST and an AST are present. The tanks and associated pipework need to be removed and associated contamination assessed and remediated, to be undertaken by contractors specialised in the removal of underground petroleum storage tanks.*
- *Areas that have been identified due to the presence of asbestos in the shallow subsurface will need to be remediated.*
- *Asbestos in soils has been assessed to the west and the north of the existing building. Hardstand areas to the south and east of the building may also contain asbestos in the fill layer. The combined area of the buildings and hardstand will require further assessment following demolishment.*
- *Groundwater impact at the Site is at this stage unlikely but a confirmatory round of groundwater sampling including the installation of additional monitor wells is recommended.'*

3 Site Information, Surroundings and History

3.1 Site Identification

The Site details are summarised in Table 1 below:

Table 1: Summary of Site Details

Subject	Description
Site Description (The Site)	1/-/DP219742 7 Concord Avenue, Concord West, NSW, 2138
Approximate Site Area	Approx. 15,180 m^2
The Client	FTD Holdings (Concord West) Pty Ltd and Floridana Pty Ltd, t/as The Concord West Partnership C/o Algorry Zappia and Associates Suite 4, Level 1, 84 Bathurst Street, Liverpool, NSW, 2170
Council and LEP	City of Canada Bay Council Canada Bay LEP 2013 (updated March 2023)
Present and Proposed Zoning	IN1 - General Industrial
Approximate AHD	3 -5 m AHD
Acid Sulfate Soil Class and Risk Profile	Council's LEP 6.1 Map ASS Maps_002, 004 and 010 Works are generally considered to be high risk for disturbance of potential or actual acid sulfate soils. If works below natural ground surface are proposed an ASS Assessment is required to determine if P/ASS are present inclusive of ASS field tests and confirmatory Chromium Suite (Scr) analysis.
Requirement as per Table 2.1 of the Acid Sulfate Soils Assessment Guidelines (1998) for this Class and the LEP Clause 6.1 (2)	ASS Class 2: *'Works below natural ground surface. Works by which the water table is likely to be lowered.'* If these types of works are proposed further investigation is required to determine if Acid Sulfate Soils are actually present.
Supporting relevant information provided to Canopy	Detailed Site Investigation (DSI) prepared by Douglas Partners Pty Ltd Ref: Project 84964.01 dated 23 November 2015. Acid Sulfate Soils Management Plan(ASSMP) prepared by Douglas Partners Pty Ltd Ref: Project 84964.02 dated 08 September 2016. Remediation Action Plan (RAP) prepared by Douglas Partners Pty Ltd Ref: Project 84964.02 dated 08 September 2016. Architecturals as prepared by Algorry Zappia & Associates Ref: P6214 Issue B and C dated Oct 2022. Environmental Investigation as prepared by Canopy Enterprises Pty Ltd Ref: Concord-CO_Rev1 and dated June 2023

Figure 2 Location Map

7 Concord Avenue, Concord West, NSW, 2138

(Source: MetroMap and Whereis)

3.2 Regional Setting

The regional setting of the Site and surrounding area are summarised below in Table 2 below.

Table 2: Site Description Land Use

Subject	Description
Site Description & Land Use	The Site consists of a trapezoidal shaped parcel of land, situated south-west of Concord Avenue in Concord West. The southern portion of the Site is currently occupied by a large warehouse. Surrounding this structure are sealed accesses, loading areas and parking facilities with a vacant grassed area to the North. The Site currently has a large access point situated on Station Avenue (southernmost corner of the Site). Site photographs are provided in Appendix A.
Surrounding Land Use	North: Medium to low density residential precinct South: Mixed medium to low density residential properties, schools and associated sports fields along with occasional commercial/industrial properties East: Mixed commercial and medium to low density residential precinct adjacent to train line and Concord West station to the south-east with various warehouses and businesses including a café West: Immediately west is Homebush Bay Drive (4 lanes) adjacent to Badu Mangroves (parkland)

3.3 Topography, Geology and Hydrogeology

The DP DSI report summarises the local Topography, Geology and Hydrogeology as follows:

'The site is relatively level (at approximately 4.5 m AHD), however, the land to the east slopes up from the site. Powells Creek is approximately 200 m to the west of the site. The inferred groundwater flow at the site is thus is to the west, towards Powells Creek. Rainfall, on the impermeable surfaces (asphalt and concrete) at the site, is likely to enter stormwater drains. Some of the rainfall at permeable surfaces (garden areas and at the north of the site) is expected to infiltrate soils.

Reference to the Sydney 1:100 000 Geological Sheet indicates that the site lies on the boundary of areas indicated as underlain by man-made fill over alluvial and estuarine sediment including silty to peaty quartz sand, silt, and clay (western side); and Ashfield Shale comprising black to dark-grey shale and laminite (eastern side).

According to the Canada Bay Local Environmental Plan 2013 Acid Sulfate Soils Map (Sheet ASS_002), the site is in a "Class 2" area, where an acid sulphate soils assessment is required if works are undertaken below the natural ground surface or works are likely to lower the groundwater table.

According to NSW Acid Sulfate Soil Risk mapping (1994-1998), the site is in an area of "Disturbed Terrain" which may include filled areas, which often occur during reclamation of low-lying swamps for urban development. Investigations are required to assess these areas for acid sulphate soils.

According to NSW Office of Water's website, there are three registered groundwater bores within 500m of the site, however all three groundwater bores are on the opposite side of Powells Creek to the west. The three bores were used for monitoring purposes, but no soil or groundwater data was provided…'

3.4 Summary of Historical Research

Canopy reported on the site history in the Canopy Report dated June 2023, in Section 4 which included a review of pertinent site history sections by Douglas Partners undertaken in 2015. A historical time gap assessment was also undertaken by Canopy (Canopy (2023) which concluded that there was no evidence of any material changes in the intervening period since 2015 to the date of the Report (June 2023) had been no material for the period 2015 to 2023.

Likewise, no discernible changes were identified at the Site in post inspections or works through to January 2024 other than the environmental works themselves undertaken as part of the Report herein.

It is not considered necessary to repeat the historic details or associated aerials or title history, etc. herein as the relevance of the site's history is limited with respect to the present works and the interim report herein. If required however the details can be sourced and reviewed in the Report dated June 2023.

4 Conceptual Site Model

A Conceptual Site Model (CSM) is a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. Based on the information presented above, the following Conceptual Site Model is presented:

4.1 Potential Contamination Sources, Areas and Contaminants of Concern

Based on the review information provided in previous investigations (Section 2.4), potential Areas of Environmental Concern (AECs) associated with Contaminants of Potential Concern (CoPCs) that have been identified to potentially be present on-site are summarised in the below table:

Table 3: Summary of AEC

Potential AECs / Activity	Contaminants of Potential Concern
A number of AEC were identified in past investigations. The AEC mainly related to a fill layer identified to be present at the Site during previous investigations. The fill layer was identified to contain hydrocarbon and heavy metals impact. Impact with one exception appeared to be associated with underground and aboveground petroleum infrastructure located along the southern site boundary. Asbestos impact at the Site was assessed and delineated in Canopy (2023).	Total Recoverable Hydrocarbons (TRH), Polycyclic Aromatic Hydrocarbons (PAH), heavy metals, asbestos.

4.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The following table summarises the mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC as presented above.

Table 4: Conceptual Site Model Summary

Item	Description
Potential mechanism for contamination .	Fill material – importation of impacted material, 'top-down' impacts (e.g. placement of fill, leaching from surficial material etc), or sub-surface release (e.g. impacts from buried material. Presence of underground and aboveground petroleum storage infrastructure along the southern property boundary. Hydrocarbon impact may be present in the tank pit (most likely the base), associated pipework and surrounding soils.

Item	Description
Affected Media	Soil/soil vapour have been identified as potentially affected media. DP states in their DSI that significant groundwater contamination had not been identified and that groundwater was hence not considered to be concern. Limited groundwater sampling of the two remaining wells as per Canopy (2023) indicated similar results to Douglas (2017). Further groundwater sampling was however recommended in Canopy (2023). Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH). The potential for exposure would typically be associated with the construction and excavation works, and future use of the Site. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of vapours within enclosed spaces such as buildings. Exposure to groundwater would be limited to construction workers during any re-development. Groundwater in the area is not used and use of groundwater for irrigation or drinking water are considered unlikely.
Receptor identification	Human receptors include site occupants/users (adults and children), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users (residential and commercial land use scenario). Ecological on-site receptors include terrestrial organisms and plants within unpaved areas. They are overall considered of secondary importance given the proposed future land use. Off-site ecological receptors would mainly be of concern if groundwater is found to carry on-site contamination to off-site regions. There is currently no indication that this is the case.
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH, naphthalene). The potential for exposure would typically be associated with the construction and excavation works, and future use of the Site. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance. Given the encountered hydrocarbon impact at the Site, inhalation of vapours within enclosed spaces such as buildings is considered a potential exposure pathway.
Potential Exposure Mechanism	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the existing and proposed buildings. • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas.

Item	Description
Presence of preferential pathways for contaminant movement	Sewers and other utility lines and the associated sewer trench/trench backfill is a potential preferential pathway for contaminant migrations. This could occur via groundwater/seepage if present, or via soil/vapour migration through the sewer and/or trench backfill.

5 Assessment Criteria

Soils

Assessment criteria were selected from Schedule B1 Guidelines on Investigation Levels for Soil and Groundwater (National Environment Protection (Assessment of Site Contamination) Measure 1999, amended 2013). NEPM states the definition for a commercial/industrial land use scenario as:

The land use scenario considered for the HIL D values is commercial/industrial, which assumes typical commercial or light industrial properties, consisting of single or multistorey buildings where work areas are on the ground floor (constructed on a ground level slab) or above subsurface structures (such as basement car parks or storage areas).

Considering the Sites proposed development of a commercial storage unit HIL/HSL D for commercial/industrial land is most applicable for the Site.

The guidelines selected as relevant screening criteria for soil include were as follows:

- Health Investigation levels (HILs) for soil contaminants – Commercial/Industrial (HIL-D).
- Soil Health Screening Levels (HSLs) for vapour intrusion – Commercial/Industrial (HSL D); 0m - <1m in Sand.
- Soil Health Screening Levels for Direct Contact (CRC Care 2011).
- Ecological Investigation Levels (EILs) for soil contaminants – Commercial/Industrial.

Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) are not considered relevant at the Site as discussed in Section 4. Nevertheless, for completeness EILs for selected metals were calculated based on the conservative added contaminant limit (ACL) values for soils with a pH of 5.5 or more (neutral to slightly acidic soils) presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values (50th percentile for background levels in old suburbs with high traffic).

Groundwater

Laboratory results for groundwater were compared to guideline levels published in the following guidelines:

The NEPM (2013) Groundwater Investigation Levels (GILs) for freshwater and marine aquatic ecosystems were adopted as one component of the groundwater investigation criteria.

It is noted that the NEPM (2013) GILs apply to typical slightly to moderately disturbed ecosystems and have been adopted from the Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) (2000), National Water Quality Management Strategy, Australian Water Quality Guidelines for the Protection of Aquatic Ecosystems (ANZECC/ARMCANZ, 2000). ANZECC/ARMCANZ (2000) has been superseded by ANZG (2018).

Given the urban nature of the area where the Site is located, the presence of a reticulated water supply and absence of water bodies within 250 m of the Site with the potential to support recreation, it is unlikely that groundwater in the area would be extracted for drinking water, stock, recreation and irrigation purposes. In addition, no domestic, stock, irrigation or recreation bores have been identified within 500 m of the Site.

Soil Vapour

To evaluate the potential risk posed from vapour intrusion (VI) from groundwater, analytical results have been compared to the NEPM (2013) Health Screening Levels (HSLs) for VI from groundwater. The NEPM (2013) HSLs have generally adopted the CRC CARE (2011) HSLs for evaluation of VI risk posed from groundwater with some minor deviations. Based on the intended land use of the Site, the analytical results will be compared to the HSL-D criteria for VI which were selected for the appropriate soil type encountered in the subsurface. Groundwater during this investigation was identified at a depth shallower than 2 m bgl, however, the shallowest depth in the NEPM (2013) Health Screening Levels (HSLs) is 2 to <4 m. This depth range has been adopted for initial screening purposes.

Acid Sulfate Soils

Action Criteria outlined in the following two documents were adopted for 'medium' soil types (sandy loam, light clays) for soil volumes of less than 1,000 tonnes.

- 2018 National Acid Sulfate Soils Guidance: National acid sulfate soils sampling and identification methods manual; and
- Acid Sulfate Soil Management Advisory Committee's Acid Sulfate Soils Manual 1998

6 Environmental Works

Dr Haid, Canopy's Principal Environmental Engineer, attended the Site on 7, 8 and 9 November 2023 to supervise the locating and removal of the UST and AST infrastructure and for the installation of additional monitor wells and soil vapour (passive) probes. Retrieval of the soil vapour (passive) probes was performed on 29 November 2023. Groundwater samples from all monitor wells were obtained on 10 January 2024.

6.1 Removal of Underground and Aboveground Storage Tanks

The Site covers an area approximately 15,000 m^2. A rectangular, two-storey, mainly brick building is located on the southern two-thirds of the Site. The building is now used by Spitfire Paintball for indoor paintball skirmish and indoor go-karting. Office spaces are located in the southern portion end of the main building.

There is a car parking area along the southern and eastern boundaries; and a grassed area sits between the building and the western boundary along Homebush Bay Drive. At the southern part of the Site, between the building and the southern property fence, there is a disused underground storage tank (UST). During previous investigations the area was inspected and the fill point to the UST was opened. Liquid was clearly visible inside the fill pipe of the tank. The liquid displayed a distinct hydrocarbon odour. No fuel bowser or associated infrastructure were noticed. DP (2015) mentions that remnants of a bowser were present approximately 40 m east of the UST, but this could not be confirmed during any of Canopy's site visits, inspections or works.

An Aboveground Storage Tank (AST) is present in the south-western corner of the building. DP report to have been informed that the AST had been used for the storage of heating oil. The AST is positioned on a cracked asphalt surface near the building wall, lacking any containment structure (bund). Adjacent to the building's southern side, a small electrical substation is located. The locations of both tanks are shown in the Site Map in Appendix A.

A professional line locating service provider (SmartScan Locators) was engaged to assist with locating underground services near the known location of the UST prior to commencement of any excavation work. ANC Foster Pty Ltd (ANC), an appropriately qualified UST removalist, was engaged to undertake the removal of the underground and aboveground tanks located on the Site.

The UST and the AST had a nominal volume of approximately 5,000 litres each. Both tanks were a single skin (steel) construction. There was no bowser at this Site. See also Section 6.3.

The scope of work completed to decommission the UST included:

- The removal of residual fluid from within the tank and disposal of this liquid by a licensed liquid waste contractor. A total of 3.3 tonnes of liquid was removed by Cleanaway Liquid & Technical Services (see Appendix B).

- Removal of concrete and bitumen pavement from above the UST, excavation of backfill from above and around the UST and removal of the UST.
- Excavation and removal of backfill from the tank pit.
- Removal and disposal of the UST.
- Backfilling of the excavation with excavated validated backfill and imported roadbase material.

Disposal certificates are provided in Appendix B, site photographs taken during the tank removal are provided in Appendix A.

The natural soils encountered in the tank pit consisted of a fill layer of approximately 0.8 m thickness consisting of orange brown silty candy clay with some gravel. A layer of moist to wet dark grey to black clayey sand (approximate thickness of 1 m to 1.3 m was below the fill layer, followed by weathered shale transitioning into shale. The dimensions of the excavated tank pit after the removal of the UST were approximately 3.0 m long, 2.3 m wide and 3.2 m deep.

The sand that used to surround the former UST was excavated and spread in an area along the western site boundary as indicated in the Site Map in Appendix A. The material displayed only mild hydrocarbon odours. The black clayey sand layer had in previous investigations been identified to contain Potential Acid Sulfate Soils (PASS). See Section 6.2 for details.

The investigation included an inspection of the excavation and backfill from above and around the UST, the collection of soils samples from the base and sides of the UST excavation (Samples TP1 to TP5) and the collection of samples of the excavated backfill and imported fill (Samples P1 to P3). Additional samples were obtained from the below the AST after its removal (TP7) and from fill material surrounding pipework that led to the AST from valve that was discovered near the AST (TP6). See Site photographs in Appendix A.

Soil samples from the excavation were recovered using the excavator. Soil samples were collected directly from the excavator bucket sample depths nominated by the Canopy Representative. Care was taken whilst sampling to avoid cross contamination. Samples were collected by hand directly into laboratory prepared sample jars wearing a new pair of disposable gloves to collect each sample.

Samples were placed into laboratory supplied sample jars with Teflon-lined lids. Soil sample jars were fully filled in an attempt to minimise head space, labelled and immediately placed in an electrically (battery and/or mains) powered portable refrigeration unit for storage during field work and for transport to the laboratory.

A chain of custody (CoC) form was filled in with the sample names, project ID, sampling date and required analyses. This documentation and the samples were then delivered to a NATA accredited laboratory by a Canopy representative without the use of couriers or third parties. CoC documentation is presented in Appendix C.

Despite the groundwater table being measured as shallow in all monitor wells (see Section 6.4), groundwater was not accumulating in the tank pit and the pit stayed dry while left open during the period while laboratory analysis were being prepared. The sample locations are shown in Appendix A.

6.1.1 Tank Pit Validation Results

All Samples obtained from the tank pit walls, the base and from the AST area as described above showed concentrations for Benzene, Ethylbenzene, Toluene and Xylene (BTEX), Total Recoverable Hydrocarbons (TRH), Polyaromatic Hydrocarbons (PAH) and lead below the adopted assessment criteria.

A summary of laboratory results, including the reports provided by the laboratory, are provided in Appendix C.

6.2 Acid Sulfate Soil Treatment

Although only incidental amounts of the PASS layer (see 6.1) were excavated as part of the UST removal, all excavated soils were thoroughly mixed with ag-lime to counteract any acid produced by the oxidisation of the PASS material.

A sample was obtained from PASS material from one of the tank pit walls (Sample TP-ASS) and analysed for a Chromium Suite. This assisted in determining the necessary liming rate for acidity neutralisation. The sample showed a Net Acidity of 1.6 % weight Sulfur which according to the laboratory reports requires in a liming rate of 74 kg of lime per tonne to be neutralised.

The excavated material (estimated to be approximately 17 m^3 to 20 m^3) was spread in a bitumen covered area (shown on the site map in Appendix A) and mixed with approximately 500 kg of ag-lime. Given that only a small incidental portion of the excavated material contained PASS, the amount of lime was considered more than adequate for the required neutralisation requirements. The results of the Chromium Suite Analyses are provided in the following table:

Table 5: Laboratory results compared to Action Criteria

Sample ID	Action Criterion Net Acidity *[%w/w S]*	Analytical Results Net Acidity (excluding ANC*) *[%w/w S]*	Liming Rate *[kg/tonne]*
TP-ASS	0.06	**1.6**	**74**

Note: *Acid Neutralising Capacity

Samples ASS1 and ASS2 were obtained from the treated material and also analysed for Chromium Suite results. It is important to mention that as per the 2018 National Asid Sulfate Soil Guidance, the net acidity calculation for samples after treatment with lime can be include the Acid Neutralising Capacity (ANC). Furthermore, Canopy requested that the Retained Acidity (S_{NAS}) was calculated by the laboratory on both treatment validation samples despite pH_{KCl} levels being above 4 (due to the addition of lime). S_{NAS} is usually only calculated when pHKCL is below 4 which would indicate the potential for Actual Acid Sulfate Soil (Acid Sulfate Soil that has undergone oxidisation resulting in low pH values) to be present.

Table 6: Laboratory Analytical compared to Action Criteria Results (2018 National Guidance)

Sample ID	Action Criterion Net Acidity *[%w/w S]*	Analytical Results Net Acidity (including ANC*) *[%w/w S]*	Liming Rate *[kg/tonne]*
ASS1	0.06	**<0.005**	**<0.75**
ASS2	0.06	**<0.005**	**<0.75**

Note: *Acid Neutralising Capacity

The results show that the excavated material was successfully treated. The material was subsequently used to backfill the excavation. Laboratory reports are provided in Appendix C.

6.3 Non-Intrusive Subsurface Investigation

Smartscan Locators were asked to provide further information regarding the alleged presence of an additional UST approximately 50 m east of the known UST, near the current site entrance as shown in the Site Map in Appendix A. Subsurface scans were undertaken with line locating devices and also with Ground Penetrating Radar (GPR). The scans indicated the presence of high voltage lines running underneath the access road along the southern property boundary from a small electrical substation located near the site entrance of the building.

The GPR scan of the area that in DP (2015) had been earmarked as potentially containing a second UST did not indicate the presence of a UST, but showed the presence of a small subsurface void in the area. Due to the closeness of the high voltage underground lines, it was decided that excavation of the area of the void to investigate the presence of a UST was too dangerous.

Whilst it is considered unlikely, there still remains a remote possibility, that a former UST is present in the immediate vicinity of the heavy voltage power lines. Further exploration cannot be undertaken safely in this area until the demolition works are underway and the power to the site is cut/isolated.

6.4 Monitor Well installation and Groundwater Sampling

6.4.1 Field work and Methodology

Canopy installed four additional Monitor Wells (MW1 to MW4) at the Site on 8 November 2023 and undertook a round of groundwater sampling on all wells (DP and Canopy wells) in January 2024. The locations of all wells are shown in Appendix A. The locations of MW3 and MW4 were specifically chosen to coincide with the locations Wells GW-213 and GW-207, respectively. These wells had been installed by Douglas Partners as part of their previous investigation in 2007 (summarised in DP(2015)), they were however unable to be located during Canopy's later investigations and were hence replaced.

Subsurface conditions encountered during the well installation using a 105 mm solid flight auger truck mounted rig were a topsoil/fill layer (silty clay, brown to orange brown, fine to medium grained, moist and sandy silt, grey-brown to orange grey, fine to medium grained, moist) to a depth of approximately 1.0 to 1.3 m, followed by natural silty clay (grey, orange grey to dark grey, medium to high plasticity, moist) and then weathered shale. All Wells were terminated at a depth of 3.5 m. Bore Logs providing more details are provided in Appendix D.

The top section of the well consisted of non-slotted 50 mm PVC material from the surface to a depth of 0.5 m. 50 mm PVC material was used for the bottom section of the wells. The annulus between the borehole walls and the slotted PVC pipe was filled with 5 mm sand. Bentonite plugs were installed above the slotted portion of the PVC pipe and the surface, the very top section was sealed with concrete. The PVC pipes were cut approximately 1.0 m above the ground surface and capped with a plastic cover.

All wells, with the exception of MW4 which remained dry, were developed on the day of installation by agitating the water columns using fresh disposable bailers. A bailer was lowered into each of the wells, allowed to fill with water and then vigorously moved up and down. The wells were then bailed dry several times until the colour of the groundwater stabilised.

Water sampling was undertaken on 10 January 2024. Prior to sampling, the depth to the standing water level was measured and the presence of Liquid Non-Aqueous Phase Liquids (LNAPL) was investigated using an interphase probe and a hydrasleeve was lowered into each well to a depth of at least 2 m below the water table and left in place to allow for equilibration of the (slightly) disturbed water column. No LNAPL was encountered in any of the wells.

Once all water levels in the wells had been measured, the hyrdasleeve samplers were retrieved from the wells. The hydrasleeves were pulled up one motion and the contents emptied into the laboratory supplied and prepared sample containers. Samples for dissolved heavy metals were field filtered using 0.4-micron filters. All samples were immediately placed into a battery powered 12V refrigeration unit and submitted to the laboratories (Envirolab Services) under Chain of Custody documentation.

The standing water levels below the top of the PVC pipes prior to sampling were measured and are provided in Table 7 together with other field parameters.

Table 7: Results of Groundwater Field Parameters

Well ID	SWL (from top of casing) [m]	pH	Conductivity [mS]	TDS [ppm]	Salinity [ppm]
GW-203	0.76	6.8	12.2	8,400	6,510
GW-204	0.62	7.0	11.3	7,200	5,800
MW1	1.68 (1)	7.2	3.9	2,800	2,100
MW2	1.67 (1)	6.7	9.8	6,700	5,200
MW3	1.55 (1)	6.7	9.7	7,200	5,700

Well ID	SWL (from top of casing) [m]	pH	Conductivity [mS]	TDS [ppm]	Salinity [ppm]
MW4	1.89 (1)	6.4	15.2	OR (2)	OR (2)

(1) Value includes stick-up of approximately 1.0 m.
(2) Out of range of field instrument.

The direction of groundwater flow had been determined in DP (2015) to be in a westerly direction. Wells have not been surveyed as part of this investigation.

6.4.2 Analytical Results for Groundwater Testing

The results of the groundwater analysis are presented in Table 8. For completeness, analysis results provided in DP (2015) and Canopy (2023) were also included in this table.

Heavy metals concentration of copper, arsenic, lead and zinc are commonly encountered in groundwater in urban environments and are associated with factors such as surface water infiltration and leaking water infra-structure. When looking at historical data compared to more recent results in Table 8, no significant trend is clear and heavy metals concentrations across the site appear stable without any noticeable increases or decreases. The elevated concentrations are most likely associated with regional groundwater conditions in the immediate vicinity of the Site and are not a reason for concern at this Site.

Concentrations for BTEX and naphthalene were all well below the adopted assessment criteria for the Site.

There are no threshold levels for TRH fractions for groundwater provided in the relevant guidelines in Australia. This however does not mean that the risk of TRH fractions in groundwater has not been considered but that consideration by the authors of the guidelines led to threshold levels for individual TRH fractions in groundwater to not be specified.

Considering the low concentrations of TRH fraction that were detected in some wells in combination with the low permeability soil conditions, Canopy is of the opinion that the detected TRH concentrations are of no concern. Future groundwater sampling will provide additional information.

Table 8: Groundwater Results Summary

Groundwater Results [µg/L]																		
Analyte	**As**	**Cd**	**Cr(6+)[1]**	**Cu**	**Pb**	**Hg**	**Ni**	**Zn**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**Naphthalene**	**F1[(2)]**	**F2[(3)]**	**F3 (C16-C34)**	**F4 (C34-C40)**	**Total Phenolics**
Unit of measurement	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
NEPM Sch B1 GIL Fresh Water 95%	24 (3+) 13 (5+)	0.2	1.0	1.4	3.4	0.06	11	8	950	-	-	200	16	-	-	-	-	320
NEPM Sch B1 GIL Marine Water 95%	-	0.7	27 (3+) 4.4 (6+)	1.3	4.4	0.1	7	15	500	-	-	-	50	-	-	-	-	400
ANZG (2018) Fresh water 95%	24 (3+)	0.2	3.3 (3+) 1.0 (6+)	1.4	3.4	0.6	11	8	950	180	80	75 (m) / 350 (o)	16	-	-	-	-	-
ANZG (2018) Marine water 95%	-	5.5	27 (3+) 4.4 (6+)	1.3	4.4	0.4	70	15	700	180	80	75 (m)	70	-	-	-	-	-
Well ID / sample date																		
GW-203 / Oct 2007 from DP (2015)	3.2	0.7	<1	7.4	12	<0.05	32	85	<1	<1	<1	<2	<1	-	-	-	-	<50
GW-203 / June 2023	4	<0.1	1	<0.1	<0.1	<0.05	4	37	-	-	-	-	<2	-	-	-	-	-
GW-203 / Jan 2024	7	<0.2	3	5	<2	<0.05	2	15	<1	<1	<1	<2	<1	<10	110	330	<100	-
GW-204 / Oct 2007 from DP (2015)	1.9	0.3	<1	1.8	1.3	<0.05	4.1	21	<1	<1	<1	<2	<1	-	-	-	-	62
GW-204 / June 2023	3	<0.1	1	<0.1	<0.1	<0.05	<1	22	<1	<1	<1	<2	<2	-	-	-	-	<50
GW-204 / Jan 2024	2	<0.2	<2	<2	<2	<0.05	<2	<2	<1	1	<1	<2	<1	<10	66	220	<100	-
MW1 / Jan 2024	8	<0.1	<1	<1	<1	<0.05	<1	7	3	1	<1	3	<1	520	110	100	<100	-
MW2 / Jan 2024	38	<0.2	4	<2	<2	<0.05	3	20	<1	<1	<1	<2	<1	<10	62	120	<100	-
GW-213 / Oct 2007 from DP (2015)	1.9	0.5	<1	2.8	4.2	<0.05	10	20	<1	<1	<1	<2	<1	-	-	-	-	<50
MW3 / Jan 2024	3	0.5	<2	7	3	<0.05	79	96	<1	<1	<1	<2	<1	<10	71	140	<100	-
GW-207 / Oct 2007 from DP (2015)	14	0.5	<1	2.5	8.5	<0.05	140	150	<1	<1	<1	<2	<1	-	-	-	-	60
MW4 / Jan 2024	3	0.4	<2	9	3	<0.05	81	94	<1	<1	<1	<2	<1	<10	<50	120	<100	-
Water QC Samples duplicate pair																		
MW3	3	0.5	<2	7	3	<0.05	79	96	<1	<1	<1	<2	<1	<10	71	140	<100	-
D1	3	0.5	<2	9	2	<0.05	78	92	-	-	-	-	-	-	-	-	-	-
RPD (%) rounded [(4)]	0	0	NA	25	40	NA	1	4	-	-	-	-	-	-	-	-	-	-
Key	**Red Cells** indicate values that exceed a threshold level BDL – Below Detection Limit (refer to laboratory reports for details) '-' - indicates not tested / no guideline level available																	
Footnotes	1- For metals Cr6+, the assessment criteria are based on Chromium hexavalent (Cr6+) and results are based on total Chromium (Cr) 2- F1 is the subtraction of the sum of BTEX concentrations from C6-C10 3- F2 is the subtraction of naphthalene from >C10-C16 4- Relative Percentage Difference. Calculated when both values of the duplicate pair are >BDL																	

6.5 Soil Vapour Assessment

Four passive Waterloo Membrane Samplers (WMS) (type LU-WMS, low uptake) obtained from Eurofins Environment Testing Australia (Eurofins) were installed at the Site on 9 November 2024 in accordance with the manufacturer's instructions[1]. Locations were chosen to target the sub-slab areas near the workshop area currently used to maintain go-carts by one of the tenants and also the area that DP (2015) had earmarked as the location for a possible second UST and where GPR had indicated the presence of a small subsurface void.

Holes of 20 mm diameter were drilled at locations shown on the attached Site Map in Appendix A. The WMS were suspended in a void below the slab created by drilling through the concrete and deeper into the soil.

After deployment of the WMS, the holes in the concrete were sealed at ground level using a plug and the sampler left in place for a period that matched the recommended deployment times calculated using the manufacturer's Sample Duration Calculator[2] for the required Levels of Reporting (LOR).

A summary of laboratory results from the soil vapour investigation is provided below (the laboratory reports are included in Appendix C).

Table 9: Assessment Criteria and Soil Vapour Results Summary

Analyte	LOR[1] [mg/m³]	Assessment Criteria[2] [mg/m³]	V1 [mg/m³]	V2 [mg/m³]	V3 [mg/m³]	V2 [mg/m³]
1.1-Dichloroethane	<9.5	-	BDL	BDL	BDL	BDL
1.1-Dichloroethene	<43	-	BDL	BDL	BDL	BDL
1.1.1-Trichloroethane	<9.9	230,000	BDL	BDL	BDL	BDL
1.1.2-Trichloroethane	<5.7	-	BDL	BDL	BDL	BDL
1.1.2.2-Tetrachloroethane	<3.3	-	BDL	BDL	BDL	BDL
1.2-Dichlorobenzene	<1.8	-	BDL	BDL	BDL	BDL
1.2-Dichloroethane	<6.6	-	BDL	BDL	BDL	BDL
1.2.4-Trimethylbenzene	<2.2	-	BDL	BDL	BDL	BDL
1.3-Dichlorobenzene	<2.1	-	BDL	BDL	BDL	BDL
1.3.5-Trimethylbenzene	<2.4	-	BDL	BDL	BDL	BDL
1.4-Dichlorobenzene	<2	-	BDL	BDL	BDL	BDL
Benzene	<27	4,000	BDL	BDL	BDL	BDL
Carbon Tetrachloride	<8.4	-	BDL	BDL	BDL	BDL
Chlorobenzene	<4.1	-	BDL	BDL	BDL	BDL

[1] Written guides and instructional videos are provided by the manufacturer at https://www.siremlab.com/waterloo-membrane-sampler-wms/#sops

[2] Ibid

Analyte	LOR[1] [mg/m³]	Assessment Criteria[2] [mg/m³]	V1 [mg/m³]	V2 [mg/m³]	V3 [mg/m³]	V2 [mg/m³]
Chloroform	<7.6	-	BDL	BDL	BDL	BDL
Chloromethane	<50	-	BDL	BDL	BDL	BDL
cis-1.2-Dichloroethene	<7.8	300	BDL	BDL	BDL	BDL
Ethylbenzene	<3.5	1,300,000	BDL	BDL	BDL	BDL
Isopropyl benzene	<2.6	-	BDL	BDL	BDL	BDL
m.p-Xylene	<3.5	840,000	BDL	**3.9**	BDL	**10**
o-Xylene	<3.3		BDL	BDL	BDL	**4.5**
Naphthalene	<3.3	3,000	BDL	BDL	BDL	BDL
Propyl benzene	<2.6	-	BDL	BDL	BDL	BDL
Styrene	<3.3	-	BDL	BDL	BDL	BDL
Tetrachloroethene (PCE, PERC)	<3.8	8,000	BDL	BDL	BDL	BDL
Toluene	<5	4,800,000	BDL	**11**	BDL	**25**
trans-1.2-Dichloroethene	<18	-	BDL	BDL	BDL	BDL
Trichloroethene	<5.6	80	BDL	BDL	BDL	BDL
Vinyl Chloride	<48	100	BDL	BDL	BDL	BDL

BDL – Below Detection Limit (below the smallest level of reporting by the laboratory (LOR))

Footnotes:

[1] Level of reporting (lowest detectable concentration).

[2] Human health-based Investigation Level Commercial/Industrial land use from NEPM Schedule B1 Table 1A(2) & 1A(5).

The results of the analysis show that all measured soil vapours in the subsurface fall well below the adopted site assessment criteria.

Soil vapour investigations are generally carried out over a prolonged period of time and involve a number of sampling events to ensure that samples have been obtained in a variety of environmental and atmospheric conditions. CRC Care (2013)[3] outlines a model for the determination of data adequacy for making Petroleum Vapour Investigations from soil gas data based on the Margin of Safety (MOS).

The most relevant definition of the MOS for this investigation is the ratio of the assessment criteria to the measured soil gas concentration. Box 5.8 in CRC CARE provides the number of required sampling rounds or other actions required for a variety of MOS levels. If the MOS is greater than 10, in other words when the assessment criteria are more than ten times higher than the detected soil gas concentrations, a single sampling event is adequate.

[3] CRC CARE 2013, Petroleum hydrocarbon vapour intrusion assessment: Australian guidance, CRC CARE Technical Report no. 23, CRC for Contamination Assessment and Remediation of the Environment, Adelaide, Australia

It is further noted that the US based Interstate Technology and Regulatory Council (ITRC) in a 2007 publication[4] come to a similar conclusion regarding temporal variations in soil gas concentrations. In Section D.4.10 the paper states:

> *'In summary, temporal variations in soil gas concentrations, even for northern climates, are minor compared with the conservative nature of the risk-based screening levels. If soil gas values are a factor of 5–10 times below the risk-based screening levels, there likely is no need to do repeated sampling unless a major change in conditions occurs at the site (e.g., elevated water table, significant seasonal change in rainfall).'*

All MOS are orders of magnitude higher than the recommended value of 10. In accordance with CRC CARE (2013) and ITRC (2007) as referenced above, the single sampling event carried out at the Site is considered adequate.

6.6 Remaining Data Gaps

The following data gaps remain which will require addressing at a future stage.

Table 10: Remaining Data Gaps

Data Gap	Description
Soils underneath the onsite structures and hardstand remain inadequately assessed	Soils underneath current onsite structures were sampled during the 2015 DSI but sampling densities were low due to access restrictions. Assessment of soil in that area, however, is at this stage not necessary since it has now been established that neither groundwater nor soil vapours show impact. Should soil impact be present underneath the building slab, the 'Source – Receptor – Pathway' link is broken. As such any known risk originating from potential soil impact in the area (if any) is considered to be minimal. This is however based in the current physical scenario and further assessment of the sub-slab soils may be required depending on future site demolishment and re-development plans.
Uncertainty to the presence of a second UST near the south-eastern building corner.	A UST and AST have successfully been removed from the Site and the areas have been validated. Nevertheless, Ground Penetrating Radar (GPR) has identified a small void in the area previously identified by Douglas Partners as containing an additional UST. Due to the presence of live high voltage lines this could not be emphatically confirmed/dismissed hence the area should be investigated further once electricity has been cut/isolated to the Site and the nearby awning has been removed.

[4] ITRC 2007, Vapor Intrusion Pathway: A Practical Guideline, The Interstate Technology & Regulatory Council, Vapor Intrusion Team

Data Gap	Description
Further GMRs at the Site are required to provide confidence of the reliability of initial groundwater monitoring in January 2024 (including past testing).	Additional wells have been installed to provide adequate site coverage. The first round of sampling undertaken in this investigation should be complemented with another confirmatory round in 6 months.
Potential asbestos impact to soils underneath the current hardstand areas to the south and east of the building.	Asbestos in soils has been assessed to the west and the north of the existing building (Canopy (2023). Hardstand areas to the south and east of the building may also contain asbestos in the fill layer as well as under the main buildings themselves. Whether the areas will require assessment is dependent on the finalisation of the demolishment and re-development proposals.

7 Findings and Conclusions

Based on the results of the investigation and subject to the limitations in Section 10 (noting the investigation is concerned with soils only) the following findings and conclusions are made:

1. The Site is located in a predominantly industrial and commercial area, with a size of approximately 15,000 m^2.
2. The Site history can reasonably be summarised as a block of land that has been used mainly for commercial/industrial uses since the mid of the 20th century.
3. Previous investigation at the Site discovered the presence of at least one Underground Storage Tank (UST) and one Aboveground Storage Tank (AST) with associated pipe infrastructure at in southern portion of the Site south of the current building. This petroleum storage infrastructure was removed, the walls and base of the tank pit were validated, excavated material was appropriately treated for Acid Sulfate Soil and the excavation was backfilled.
4. A small underground void was identified by Ground Penetrating Radar near the area that had previously been marked as potentially containing an Underground Storage Tank (DP (2017)). The area could not be investigated as part of this investigation due to the presence of live high voltage lines in the area.
5. Four additional monitor wells were installed as part of this investigation and sampled together with the two remaining historical monitoring wells.
6. The elevated levels of dissolved heavy metals in groundwater are stable over time when compared to historical data from the Site. The encountered levels are typical for disturbed ecosystems in a metropolitan area and in and of themselves do not warrant any remedial action.
7. BTEX concentration in groundwater were well below the adopted assessment criteria.
8. Trace levels of TRH were encountered in groundwater but are not considered to be of concern at such low levels (here are no guideline levels for TRH in groundwater in Australia).
9. Soil vapour concentrations below the current building and in an area potentially containing another UST have been found to be orders of magnitude below the adopted assessment criteria.
10. The Site is located in an Acid Sulfate prone area and the presence of potential acid sulfate soils in the subsurface has been established. An Acid Sulfate Soil Management Plan (ASSMP) has previously been developed. This Management Plan will require to be adjusted to any changes in development details since the ASSMO had been issued in 2016.
11. Previous investigations (DP (2015) and Canopy (2023)) identified areas that are impacted with bonded asbestos. Asbestos impact may also be present underneath the current on-site structures and hardstand. While asbestos impact has been delineated in all accessible areas, a delineation of the possible asbestos impact in currently inaccessible areas may be required once the areas have become accessible

post demolishment and once plans for the future development have been determined.

12. Based on the content and data presented in this Report, which includes review of past environmental assessments, it is Canopy's opinion in alignment with Clause 4.6 (1) (b-c) of the RH SEPP, that contamination at the Site is not present at levels that would preclude the Site from being made suitable, to the satisfaction of Council, for the proposed commercial/industrial land use (or residential land use if preferred), subject to the implementations of the recommendations below.

7.1 Recommendations

Based on the above information, Canopy recommends that:

1. A small underground void was identified by Ground Penetrating Radar near the area that had previously been marked as potentially containing an Underground Storage Tank (DP (2017)). The area cannot be investigated due to the presence of live high voltage lines; however, the area should be investigated once electricity has been cut/isolated to the Site and the nearby awning has been removed. (See Section 6.6 Remaining Data Gaps)
2. Groundwater at the Site was found to have elevated heavy metals concentrations typical to disturbed urban ecosystems and do not require immediate remedial action. Concentrations of hydrocarbons were found to be below the adopted assessment criteria for commercial/industrial land use. An additional round of ground water sampling should be undertaken in approximately 6 months (July of 2024). This will assist in preparing a 'fit for purpose' RAP in conjunction with future re-development proposal/s once determined. (See Section 6.6 Remaining Data Gaps)
3. A RAP needs to be developed once an additional Groundwater Monitoring Round has been completed (in approximately 6 months) and the preferred development options have been further explored and/or determined.

The conclusions and recommendations should be read together in conjunction with the full Report and the Limitations at Section 10.

8 List of Key Guidelines and Regulations

- National Environment Protection Council (NEPC). National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended. [Amendment Measure. 2013 (No 1)] [NEPM (2013)]
- State Environmental Planning Policy (Resilience and Hazards) 2021 (RH SEPP).
- NSW EPA Contaminated Sites, Guidelines for Consultants Reporting on Contaminated Sites, April 2020.
- NSW EPA Contaminated Land Guidelines, *Sampling Design Part 1 – Application*, August 2022.
- NSW EPA Contaminated Land Guidelines, *Sampling Design Part 2 – Interpretation*, August 2022.
- NSW EPA, Waste Guidelines Part 1: Classifying Waste, 2014.
- WA DoH 2009, *Guidelines for the assessment, remediation and management of asbestos contaminated sites in Western Australia*, Western Australian Department of Health and Western Australian Department of Environment and Conservation, Perth, Australia
- NSW EPA Contaminated Land Guidelines, Assessment and management of hazardous ground gases, December 2019 (amended May 2020).
- Ahern C R, Stone, Y, and Blunden B (1998). Acid Sulfate Soils Assessment Guidelines Published by the Acid Sulfate Soil Management Advisory Committee, Wollongbar, NSW, Australia (Acid Sulfate Soils Guidelines).
- Sullivan, L, Ward, N, Toppler, N and Lancaster G 2018, National Acid Sulfate Soils Guidance: National acid sulfate soils sampling and identification methods manual, Department of Agriculture and Water Resources, Canberra ACT. CC BY 4.0.
- Sullivan, L, Ward, N, Toppler, N and Lancaster, G 2018, National Acid Sulfate Soils Guidance: National acid sulfate soils identification and laboratory methods manual, Department of Agriculture and Water Resources, Canberra, ACT. CC BY 4.0.
- Naylor, S.D., Chapman, G.A., Atkinson, G., Murphy, C.L., Tulau, M.J., Flewin, T.C., Milford, H.B., Morand, D.T. 1998, Guidelines for the Use of Acid Sulfate Soil Risk Maps, 2nd ed., Department of Land and Water Conservation, Sydney.

9 List of Abbreviations

A list of the common abbreviations that may be used throughout this Report is provided below.

ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AHD	Australian Height Datum
ANC	Acid Neutralising Capacity
As	Arsenic
ASS	Acid Sulfate Soils
AST	Aboveground Storage Tank
B(a)P	Benzo(a)pyrene
bgl	Below Ground Level
BTEX	Benzene, toluene, ethylbenzene and xylenes
Cd	Cadmium
Cr	Chromium
CoPC	Contaminates of Potential Concern
CoC	Chain of Custody
CSM	Conceptual Site Model
Cu	Copper
DA	Development Application
DQOs	Data Quality Objectives
DSI	Detailed Site Investigation
EMP	Environmental Management Plan
EPA	NSW Environment Protection Authority
ha	Hectare
Hg	Mercury
HIL	Health based investigation level
HSL	Health screening levels
LOR	Limit of Reporting
LNAPL	Liquid Non-Aqueous Phase Liquids
NEPM	National Environment Protection Measures
Ni	Nickel
OC	Organochlorine Pesticides
PAHs	Polycyclic Aromatic Hydrocarbons
Pb	Lead
PFAS	Per and Poly-Fluoroalkyl Substances
PCB	Polychlorinated Biphenyl
PQL	Practical Quantification Limit
RAP	Remedial Action Plan
RPD	Relative Percentage Difference
S_{NAS}	Retained Acidity
TCLP	Toxic Characteristic Leaching Procedure
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
WMS	Waterloo Membrane Samplers
TRH	Total Recoverable Hydrocarbons
Zn	Zinc

10 Limitations

The findings of this Report are based on the Scope of Work as defined herein noting the investigation is limited to the site soils (notwithstanding limited observations of structures if relevant due to the potential for the presence of ACMs). Canopy Enterprises Pty Ltd (Canopy) performed services in a manner consistent with industry standards for the undertaking similar works. The assessment was undertaken with regard to the proposed development and land use.

It is not possible to identify all hazardous or toxic materials which may be present on the Site and this assessment should not be interpreted as a guarantee that hazardous or toxic materials (including any hazardous or toxic materials not referred to) do not exist across the Site or between sampling points of the identified Areas of Environmental Concern (AEC). The DSI Report reflects the conditions of the Site in the context of the scope of works at the date of the field works and Canopy assumes no responsibility or liability for subsequent events which may alter the contamination profile at the Site.

All conclusions and considerations regarding this property represent the professional opinions of Canopy's personnel involved with the project and should not be considered a strictly legal interpretation of existing environmental guidelines or regulations.

Canopy accepts no liability for use by any person or entity other than the Client, its representatives and directly relevant stakeholders noting a requirement for applicability as per the Scope and reasonableness in interpreting the Report and the limitations herein. Any other third party may not use or rely on any of the content of the Report.

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SPECIALISTS IN CONTAMINATED LAND MANAGEMENT
Mob: 0412 987 456 | Eml: fenn@canopyenterprises.com
ACN: 093830409 ABN: 53 093830409

APPENDIX A
SITE MAPS &
SITE PHOTOGRAPHS

Concord Avenue
Homebush Bay Drive
Station Avenue
MW3
MW4
MW2
MW1
V1
V2
V3
V4
GW-205
GW-204
Job Name: Concord-CO
Aerial Image Source:NearMap
Date: 16 January 2024
Title:
Site Map including Test Locations
Location:
7 Concord Avenue, Concord West, NSW,2138
Report Ref:
Concord-EWIR_Rev0
Scale:
0
20
40 m
This plan should be read in conjunction with the Canopy Enterprises Report.
All sampling locations are an approximation of ground truth data.
Legend:
Site Boundary
Soil Vapour Sample Points
Monitor Well (Canopy)
Monitor Well (Douglas Partners)
AS Soil Treatment Area
UST (Underground storage tank)
Substation
AST (Above ground storage tank)
High Voltage Underground Cables
Underground void indicated by Ground Penetrating radar (GPR)
canopy

TP7
TP6
TP1
TP2
TP5
TP3
TP4
N
Job Name: Concord-CO
Aerial Image Source:NearMap
Date: 16 January 2024
Legend:
Site Boundary
UST (Underground storage tank)
Tank Pit Locations
Underground Pipe
Title:
Site Map including Tank Pit Locations
Location:
7 Concord Avenue, Concord West, NSW,2138
Report Ref:
Concord-EWIR_Rev0
Scale:
0 2.5 5 7.5 10 12.5 m
canopy
ENTERPRISES

c

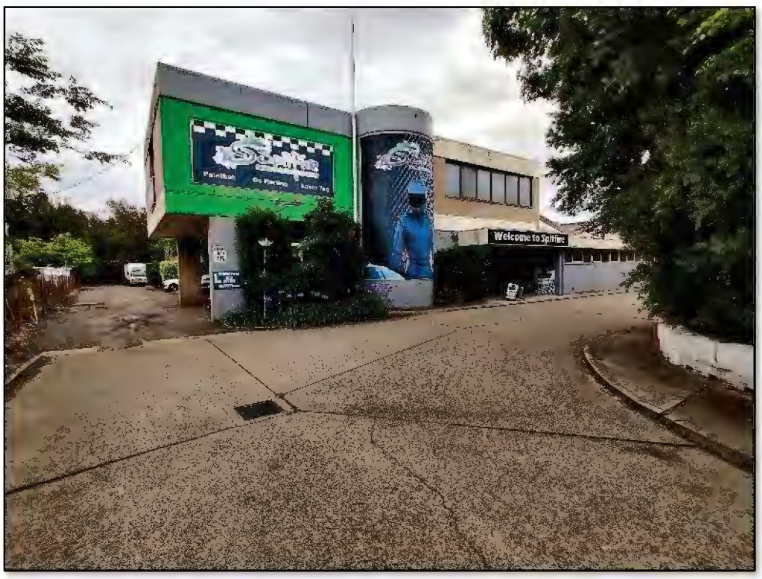

Photo 1:
View of the Site from the Station Ave Entry

Photo 2
The southern property boundary. A small substation, an aboveground and an underground storage tank are located in that section of the Site

Photo 3

Location of the Underground Storage Tank.

Photo 4

Aboveground storage tank in the south-western corner of the Site

Photo 5

Washdown area on the western side of the building.

Photo 6

Area north of the building.

Photo 7

Chain wire fence separating the triangular shaped northern portion of the Site from the southern section PACM fragments were noticed on the surface in that area.

Photo 8

View of the triangular shaped northern portion of the Site.

Photo 9

View of the very north-western section of the Site.

Photo 10

View of the eastern side of the Site. Monitor Well BW-204 is located near the white car on the very left edge of the frame

Photo 11

Test Pit TP10 where one of the Asbestos hotspots was discovered

Photo 12

Some of the PACM fragments retrieved from TP10

Photo 13

Test Pit TP26. Building rubble and a large number of PACM fragments were present in that area

Photo 14

Fill point of the UST

APPENDIX B
TANK DISPOSAL CERTIFICATE

ANC Foster Pty. Ltd.
ABN: 48 079 145 529

ANC FOSTER

Address: 64 Barry Avenue, Mortdale, NSW, 2223 Telephone: 02 9533 1011 Facsimile: 02 9533 2372 Email: info@ancfoster.com.au www.ancfoster.com.au

15th November 2023

Mr F. Hinchcliffe
Canopy Enterprises Pty. Limited
11 Tintaldra Court
DUDERIM QLD 4556

A.N.C. FOSTER PTY. LTD., 64 BARRY AVE. MORTDALE 2223 ABN 48 079 145 529 (the company) acknowledges and agrees to **Canopy Enterprises Pty. Limited** that all risk and title in the 1 x 5,000 litre capacity former underground fuel storage tank and 1 x 5,000 litre aboveground fuel storage tank removed from premises 7 Station Avenue Concord West passes to (the company)

The tanks were transported by ANC Foster Pty. Limited to 64 Barry Ave Mortdale for preparation for a safe and legal disposal.

We hereby certify that the nominated tanks were removed in accordance with Section 4 of AS 4976 – 2008 the removal, disposal and abandonment of underground petroleum storage tanks

The tanks will not be sold for any Purpose.

ANC FOSTER PTY. LIMITED A.C.N. 079 145 529
Common Seal

The company seal of
A.N.C. FOSTER PTY. LTD
was hereunto affixed by
C.T. FOSTER
in the presence of
M.N. FOSTER
on the 15th November 2023

C.T. Foster

M.N. Foster

Environmental Contractor • Specialists in Petroleum Installations and Remediations

CLEANAWAY
Making a sustainable future possible

4 July 2023

Cleanaway Liquid & Technical Services – Windsor
Cleanaway Co Pty Ltd
ABN: 31 127 853 561

Corner Fairey Rd & Blackman Cr
Windsor 2756
Australia
P +61 02 8558 5100

ANC Foster Pty Limited (Customer # 2285399)
64 Barry Avenue
Mortdale NSW 2223
Email: info@ancfoster.com.au

Waste and Resource Management Proposal – QMW1378

Thank you for providing Cleanaway with the opportunity to submit a waste management solution proposal for your consideration.

In line with your specification, we are pleased to provide the following proposal.

Item	UOM	Frequency	NEPM & DG CODE	Unit Price ex GST $
Treatment – Oily water <10% sludge (min 1 tonne charge)	Tonne	Ad hoc	J120	
Treatment – Oily water >10% - <40% sludge (min 1 tonne charge)	Tonne	Ad hoc	J120	
Treatment – sludge >40%	Tonne	Ad hoc	J120	$833.00 per tonne
Treatment – ULP & ULP / water mixtures (min 1 tone charge)	Tonne	Ad hoc	G110	$1,456.00 per tonne
Treatment – Groundwater	Tonne	Ad hoc	Z140	$157.00 per tonne
Transport – rigid vacuum tanker, normal time, depot to depot, (min 3-hour charge)	Hour	Ad hoc		$202.00 per hour
Transport rigid vacuum tanker, overtime	Hour	Ad hoc		$236.00 per hour
Transport – semi-trailer vacuum tanker, normal time, depot to depot, (min 3-hour charge)	Hour	Ad hoc		$236.00 per hour
Transport – semi-trailer vacuum tanker, overtime	Hour	Ad hoc		$275.00 per hour
NSW EPA Liquid Waste Levy (FY24)	Tonne			$87.40 per tonne
Environmental Management Fee 4.45% (min charge $10.00 – max $300.00 per invoice)				

TAX INVOICE - Page 2 of 2

13 13 39
cleanaway.com.au
Cleanaway Co Pty Ltd ABN 31 127 853 561

Invoice Date	09 NOV 23
Invoice Number	2915412
Customer Number	2285399
Payment Terms	30 Days from Invoice Date
PO Number	tba

Date	Service Details	Reference	Unit Price	Amount	GST	Total
	Invoice to: accounts@ancfoster.com.au					
	Order No: 18618509 Location: J120 Oily Water					
08/11/2023	3.300 T DISPOSAL J120 OILY SLUDGE		833.0000	$2,748.90	$274.89	$3,023.79
08/11/2023	3.300 T LIQUID WASTE LEVY		87.4000	$288.42	$28.84	$317.26
08/11/2023	7.750 HR Transport Rigid NT DTD		202.0000	$1,565.50	$156.55	$1,722.05
			Total	$4,602.82	$460.28	$5,063.10

Unless you are being serviced under a separate contract or arrangement with Cleanaway, this invoice is subject to Cleanaway's standard terms and conditions which can be found at www.cleanaway.com.au/about-us/our-customers/fees-and-charges

Cleanaway, with the support of our customers and communities, is committed to resource recovery and we'd like to share some of the highlights we've achieved over the past 12 months

45_09112023/E-8/S-8/I-16

>380,000t	>15,500t	>25,000t	~6,250t	>115ML
Paper/Cardboard	Plastic	Steel and Aluminium	E-waste	Used oil

APPENDIX C
RESULTS SUMMARY &
LABORATORY REPORTS

Summary Heavy Metals and Organics Results (HIL/HSL and EIL/ESL)

	METALS								BTEXN					PAHs			TRHs			
Analyte	**As**	**Cd**	**Cr(6+)[1]**	**Cu**	**Pb**	**Hg**	**Ni**	**Zn**	**Benzene**	**Toluene**	**Ethyl-benzene**	**Total Xylenes**	**Naphtha-lene**	**Total PAHs**	**Carcinogenic (as BaP TEQ[2] (half LOR))**	**B(a)P**	**F1[(3)]**	**F2[(4)]**	**F3 (C16-C34)**	**F4 (C34-C40)**
Unit of measurement	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Assessment criteria																				
NEPM Sch B1 (2013) HIL-D Table 1A(1)	3,000	900	3,600	240,000	1,500	730	6,000	400,000	NA	NA	NA	NA	NA	4000	40	NA	NA	NA	NA	NA
NEPM Sch B1 (2013) HSL-D (Table 1A(3))	NA	NA	NA	NA	NA	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	250	NA	NA	NA
Laboratory Analysis																				
Limit of reporting (LOR)	4	0.4	1	1	1	0.1	1	1	0.2	0.5	1	3	1	0.05	0.5	0.05	25	50	100	100
SAMPLE ID																				
TP1	-	-	-	-	22	-	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TP1	-	-	-	-	19	-	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TP2	-	-	-	-	16	-	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TP3	-	-	-	-	16	-	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TP4	-	-	-	-	27	-	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TP5	-	-	-	-	16	-	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Backfill soils																				
P1	BDL	BDL	2	230	15	BDL	4	38	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P2	BDL	BDL	2	270	10	BDL	4	37	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P3	BDL	BDL	3	190	8	BDL	4	35	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Soil QC Samples																				
D1	-	-	-	-	-	-	-	-	BDL	BDL	BDL	BDL	BDL	-	-	BDL	BDL	BDL	BDL	BDL
TP2	-	-	-	-	16	-	-	-	BDL	BDL	BDL	BDL	BDL	-	-	BDL	BDL	BDL	BDL	BDL
RPD [%]	-	-	-	-	NA	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TB (trip blank)	-	-	-	-	-	-	-	-	BDL	BDL	BDL	BDL	BDL	-	-	-	BDL	BDL	BDL	BDL
TS (trip spike)	-	-	-	-	-	-	-	-	102%	102%	101%	101%	-	-	-	-	-	-	-	-

Key

Red Cells indicate values that exceed relevant Human Health Threshold Level
Green shaded cells indicate an exceedance of an environmental or ecological threshold level
BDL – Below Detection Limit (refer to laboratory reports for details)
NA – Not applicable
'-' - indicates not tested

Footnote

1- For metal Cr6+, the assessment criteria are based on Chromium hexavalent (Cr6+) and results are based on total Chromium (Cr)
2- HIL is based on the toxicity equivalent quotient (TEQ) of 8 carcinogenic PAHs and their potency relative to B(a)P) adopted by CCME 2008 (see Schedule B 1 Guidelines on Investigation Levels for Soil and Groundwater (NEPM 2013)
3- F1 is the subtraction of the sum of BTEX concentrations from C6-C10
4- F2 is the subtraction of naphthalene from >C10-C16

Organochlorine and Organophosphorus Pesticides, Polychlorinated Biphenols Results (HIL/HSL and EIL/ESL)

	OCPs								OPPs	PCBs
Analyte	**DDD+DDE+DDT**	**Aldrin +Dieldrin[1]**	**Total Chlordane[2]**	**Total Endosulfans[3]**	**Endrin**	**Heptachlor**	**Hexachlorobenzene (HCB)**	**Methoxychlor**	**Chlorpyrifos**	**Total PCBs[4]**
Unit of measurement	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Assessment criteria										
NEPM Sch B1 (2013) HIL-D	400	10	70	340	20	10	10	400	250	1
NEPM Sch B1 (2013) EIL (Table 1B(5))	180 (DDT only)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Limit of reporting (LOR)	0.1	<0.2	<0.2	<0.3	0.1	0.1	0.1	0.1	0.1	0.1
SAMPLE ID	**Laboratory results**									
P1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
P3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Key	Yellow cells indicate values that exceed relevant levels. BDL – Below Detection Limit (refer to laboratory reports for details) NA – Not applicable '-' - indicates not tested									
Footnotes	1- Laboratory does not analyse Aldrin + Dieldrin, but Aldrin and Dieldrin separately. 2- Laboratory does not analyse Total Chlordane, but gamma-Chlordane and alpha-Chlordane separately. 3- Laboratory does not analyse Total Endosulfans, but Endosulfan I, Endosulfan II, and Endosulfan Sulphate separately. 4- Positive values shown only.									

CHAIN OF CUSTODY

Canopy Enterprises - 0412 987 456

canopy ENTERPRISES

Client: Canopy Enterprises

Canopy Reference: CONCORD-CD

Sampler / Contact number: Gunnar Haid / 0402 411 177

Date results required:

Please Email
Reports to results@canopyenterprises.com and admin@canopyenterprises.com
Invoices to: admin@canopyenterprises.com and accounts@canopyenterprises.com
Statements to: accounts@canopyenterprises.com

Or choose: standard / same day / 1 day / 2 day / 3 day 9.11.23 Please

Sample Information					Tests Required																
Laboratory Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Metals (8)	BTEX/TRH	PAH	OC/OP	Comb 1	Comb 6	Comb 6a	Cr Suite	PFAS (short)	SC002	BTEX					Hold	Additional Information
1	TP1	/	8.11.23	soil										✓							By 9.11.23
2	TP2	/												✓							"
3	TP3	/												✓							"
4	TP4	/												✓							"
5	TP5	/												✓							"
6	D1	/	✓	✓		✓															Standard TAT
7/8	TS/TB	/	/	✓											✓						"

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

ENVIROLAB

Job No: 337301

Date Received: 08/11/23
Time Received: 1620
Received By: CP SP
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Relinquished by (Company): Canopy Enterprises	Received by (Company): ELS SYD	Lab use only: 337301
Print Name:	Print Name: Sarah P	Samples Received Cool/Ambient (circle one) SP
Date & Time:	Date & Time: 08/11/23, 1620	Temperature Received at: 10°C (if applicable)
Signature:	Signature: Sarah	Transported by: Hand delivered / courier

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid

Sample Login Details	
Your reference	Concord - CO
Envirolab Reference	337301
Date Sample Received	08/11/2023
Date Instructions Received	08/11/2023
Date Results Expected to be Reported	09/11/2023

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	8 Soil
Turnaround Time Requested	1 day
Temperature on Receipt (°C)	10
Cooling Method	None
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Acid Extractable metalsin soil
TP1	✓	✓	✓	✓
TP2	✓	✓	✓	✓
TP3	✓	✓	✓	✓
TP4	✓	✓	✓	✓
TP5	✓	✓	✓	✓
D1	✓	✓		
TS	✓			
TB	✓			

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 337301

Client Details

Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid
Address	11 Tintaldra Court, BUDERIM, QLD, 4556

Sample Details

Your Reference	**Concord - CO**
Number of Samples	8 Soil
Date samples received	08/11/2023
Date completed instructions received	08/11/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	09/11/2023
Date of Issue	09/11/2023

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Liam Timmins, Organics Supervisor
Loren Bardwell, Development Chemist
Steven Luong, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

Client Reference: Concord - CO

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		337301-1	337301-2	337301-3	337301-4	337301-5
Your Reference	UNITS	TP1	TP2	TP3	TP4	TP5
Date Sampled		08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Date analysed	-	09/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023
TRH C_6 - C_9	mg/kg	<75	<25	<25	<75	<75
TRH C_6 - C_{10}	mg/kg	<75	<25	<25	<75	<75
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<75	<25	<25	<75	<75
Benzene	mg/kg	<0.6	<0.2	<0.2	<0.6	<0.6
Toluene	mg/kg	<2	<0.5	<0.5	<2	<2
Ethylbenzene	mg/kg	<3	<1	<1	<3	<3
m+p-xylene	mg/kg	<6	<2	<2	<6	<6
o-Xylene	mg/kg	<3	<1	<1	<3	<3
Naphthalene	mg/kg	<3	<1	<1	<3	<3
Total +ve Xylenes	mg/kg	<3	<1	<1	<3	<3
Surrogate aaa-Trifluorotoluene	%	61	94	80	76	62

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		337301-6	337301-7	337301-8
Your Reference	UNITS	D1	TS	TB
Date Sampled		08/11/2023	08/11/2023	08/11/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	08/11/2023	08/11/2023	08/11/2023
Date analysed	-	09/11/2023	09/11/2023	09/11/2023
TRH C_6 - C_9	mg/kg	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	[NA]	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	[NA]	<25
Benzene	mg/kg	<0.2	102%	<0.2
Toluene	mg/kg	<0.5	102%	<0.5
Ethylbenzene	mg/kg	<1	101%	<1
m+p-xylene	mg/kg	<2	101%	<2
o-Xylene	mg/kg	<1	101%	<1
Naphthalene	mg/kg	<1	[NA]	<1
Total +ve Xylenes	mg/kg	<1	[NA]	<1
Surrogate aaa-Trifluorotoluene	%	91	100	103

Client Reference: Concord - CO

svTRH (C10-C40) in Soil						
Our Reference		337301-1	337301-2	337301-3	337301-4	337301-5
Your Reference	UNITS	TP1	TP2	TP3	TP4	TP5
Date Sampled		08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Date analysed	-	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
TRH C_{10} - C_{14}	mg/kg	<150	<50	<50	<150	<150
TRH C_{15} - C_{28}	mg/kg	<300	<100	<100	<300	<300
TRH C_{29} - C_{36}	mg/kg	<300	<100	<100	<300	<300
Total +ve TRH (C10-C36)	mg/kg	<150	<50	<50	<50	<150
TRH >C_{10} -C_{16}	mg/kg	<150	<50	<50	<150	<150
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<150	<50	<50	<150	<150
TRH >C_{16} -C_{34}	mg/kg	<300	<100	<100	<300	<300
TRH >C_{34} -C_{40}	mg/kg	<300	<100	<100	<300	<300
Total +ve TRH (>C10-C40)	mg/kg	<150	<50	<50	<150	<150
Surrogate o-Terphenyl	%	94	79	82	88	91

svTRH (C10-C40) in Soil		
Our Reference		337301-6
Your Reference	UNITS	D1
Date Sampled		08/11/2023
Type of sample		Soil
Date extracted	-	08/11/2023
Date analysed	-	08/11/2023
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	80

Client Reference: Concord - CO

PAHs in Soil						
Our Reference		337301-1	337301-2	337301-3	337301-4	337301-5
Your Reference	UNITS	TP1	TP2	TP3	TP4	TP5
Date Sampled		08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Date analysed	-	09/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023
Naphthalene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Acenaphthylene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Acenaphthene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Fluorene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Phenanthrene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Anthracene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Fluoranthene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Pyrene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Benzo(a)anthracene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Chrysene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Benzo(b,j+k)fluoranthene	mg/kg	<0.6	<0.2	<0.2	<0.6	<0.6
Benzo(a)pyrene	mg/kg	<0.2	<0.05	<0.05	<0.2	<0.2
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Dibenzo(a,h)anthracene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Benzo(g,h,i)perylene	mg/kg	<0.3	<0.1	<0.1	<0.3	<0.3
Total +ve PAH's	mg/kg	<0.15	<0.05	<0.05	<0.3	<0.15
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<1.5	<0.5	<0.5	<3	<1.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<1.5	<0.5	<0.5	<3	<1.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<1.5	<0.5	<0.5	<3	<1.5
Surrogate p-Terphenyl-d14	%	113	103	107	115	117

Client Reference: Concord - CO

Acid Extractable metals in soil						
Our Reference		337301-1	337301-2	337301-3	337301-4	337301-5
Your Reference	UNITS	TP1	TP2	TP3	TP4	TP5
Date Sampled		08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	09/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023
Date analysed	-	09/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023
Lead	mg/kg	22	16	16	27	16

Client Reference: Concord - CO

Moisture						
Our Reference		337301-1	337301-2	337301-3	337301-4	337301-5
Your Reference	UNITS	TP1	TP2	TP3	TP4	TP5
Date Sampled		08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/11/2023	08/11/2023	08/11/2023	08/11/2023	08/11/2023
Date analysed	-	09/11/2023	09/11/2023	09/11/2023	09/11/2023	09/11/2023
Moisture	%	74	15	45	69	76

Moisture		
Our Reference		337301-6
Your Reference	UNITS	D1
Date Sampled		08/11/2023
Type of sample		Soil
Date prepared	-	08/11/2023
Date analysed	-	09/11/2023
Moisture	%	16

Client Reference: Concord - CO

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Client Reference: Concord - CO

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	337301-2
Date extracted	-			08/11/2023	1	08/11/2023	08/11/2023		08/11/2023	08/11/2023
Date analysed	-			09/11/2023	1	09/11/2023	09/11/2023		09/11/2023	09/11/2023
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<75	<75	0	92	102
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<75	<75	0	92	102
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.6	<0.6	0	92	100
Toluene	mg/kg	0.5	Org-023	<0.5	1	<2	<2	0	91	96
Ethylbenzene	mg/kg	1	Org-023	<1	1	<3	<3	0	87	98
m+p-xylene	mg/kg	2	Org-023	<2	1	<6	<6	0	95	108
o-Xylene	mg/kg	1	Org-023	<1	1	<3	<3	0	94	107
Naphthalene	mg/kg	1	Org-023	<1	1	<3	<3	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	101	1	61	61	0	94	88

Client Reference: Concord - CO

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	337301-2
Date extracted	-			08/11/2023	1	08/11/2023	08/11/2023		08/11/2023	08/11/2023
Date analysed	-			08/11/2023	1	08/11/2023	08/11/2023		08/11/2023	08/11/2023
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<150	<150	0	112	108
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<300	<300	0	111	111
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<300	<300	0	100	101
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<150	<150	0	112	108
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<300	<300	0	111	111
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<300	<300	0	100	101
Surrogate o-Terphenyl	%		Org-020	83	1	94	94	0	91	86

Client Reference: Concord - CO

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-17	337301-2
Date extracted	-			08/11/2023	1	08/11/2023	08/11/2023		08/11/2023	08/11/2023
Date analysed	-			09/11/2023	1	09/11/2023	09/11/2023		09/11/2023	09/11/2023
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	107	93
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	109	95
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	101	86
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	108	94
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	108	96
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	111	99
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	81	73
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.6	<0.6	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.2	<0.2	0	98	88
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.3	<0.3	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	102	1	113	118	4	105	95

Client Reference: Concord - CO

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-16	337301-2
Date prepared	-			09/11/2023	1	09/11/2023	09/11/2023		09/11/2023	09/11/2023
Date analysed	-			09/11/2023	1	09/11/2023	09/11/2023		09/11/2023	09/11/2023
Lead	mg/kg	1	Metals-020	<1	1	22	19	15	101	91

Client Reference: Concord - CO

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Client Reference: Concord - CO

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Client Reference: Concord - CO

Report Comments

vTRH & BTEXN in Soil NEPM - The PQL has been raised due to the high moisture content in sample 337301-1,4 and 5 resulting in a high dilution factor.

TRH Soil C10-C40 NEPM - The PQL has been raised due to the high moisture content in sample 337301-1,4 and 5 resulting in a high dilution factor.

PAHs in Soil - The PQL has been raised due to the high moisture content in sample 337301-1,4 and 5 resulting in a high dilution factor.

CHAIN OF CUSTODY

Canopy Enterprises - 0412 987 456

canopy ENTERPRISES

Client: Canopy Enterprises
Canopy Reference: CONCORD-CO
Sampler / Contact number: Gunnar Haid / 0402 411 177
Date results required:

Please Email
Reports to results@canopyenterprises.com and admin@canopyenterprises.com
Invoices to: admin@canopyenterprises.com and accounts@canopyenterprises.com
Statements to: accounts@canopyenterprises.com

Or choose: standard / same day / 1 day / 2 day / 3 day

Sample Information					Tests Required																	
Laboratory Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Metals (8)	BTEX/TRH	PAH	OC/OP	Comb 1	Comb 6	Comb 6a	Cr Suite	PFAS (short)	SCO02							Hold	Additional Information
1	TP6	/	9.11.23	ice x 1										✓								
2	TP7	/	"	"										✓								
3	ASS1	/	"	bag x 1								✓										
4	ASS2	/	"	"								✓										
5	TP-ASS	/	"	"								✓										
6	Asphalt	/	"	Bag,																	✓	

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 337429
Date Received: 9/11/23
Time Received: 1730
Received By: AU
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Relinquished by (Company): Canopy Enterprises
Print Name: G. HAID
Date & Time: 9.11.23 / 17:40
Signature:

Received by (Company): ELS
Print Name: ADRIAN YU
Date & Time: 9/11/23 1730
Signature:

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: (if applicable)
Transported by: Hand delivered / courier

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid

Sample Login Details	
Your reference	Concord - CO
Envirolab Reference	337429
Date Sample Received	09/11/2023
Date Instructions Received	09/11/2023
Date Results Expected to be Reported	17/11/2023

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	5 Soil, 1 Asphalt
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Acid Extractable metalsin soil	Chromium Suite	On Hold
TP6	✓	✓	✓	✓		
TP7	✓	✓	✓	✓		
ASS1					✓	
ASS2					✓	
TP-ASS					✓	
Asphalt						✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 337429

Client Details

Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid
Address	11 Tintaldra Court, BUDERIM, QLD, 4556

Sample Details

Your Reference	**Concord - CO**
Number of Samples	5 Soil, 1 Asphalt
Date samples received	09/11/2023
Date completed instructions received	09/11/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	17/11/2023
Date of Issue	16/11/2023

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Diana Korniewicz, Chemist
Dragana Tomas, Senior Chemist
Liam Timmins, Organics Supervisor
Priya Samarawickrama, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

Client Reference: Concord - CO

vTRH(C6-C10)/BTEXN in Soil			
Our Reference		337429-1	337429-2
Your Reference	UNITS	TP6	TP7
Date Sampled		9/11/2023	9/11/2023
Type of sample		Soil	Soil
Date extracted	-	10/11/2023	10/11/2023
Date analysed	-	13/11/2023	13/11/2023
TRH C_6 - C_9	mg/kg	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
Total +ve Xylenes	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	99

Client Reference: Concord - CO

svTRH (C10-C40) in Soil			
Our Reference		337429-1	337429-2
Your Reference	UNITS	TP6	TP7
Date Sampled		9/11/2023	9/11/2023
Type of sample		Soil	Soil
Date extracted	-	10/11/2023	10/11/2023
Date analysed	-	13/11/2023	13/11/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	105	102

Client Reference: Concord - CO

PAHs in Soil			
Our Reference		337429-1	337429-2
Your Reference	UNITS	TP6	TP7
Date Sampled		9/11/2023	9/11/2023
Type of sample		Soil	Soil
Date extracted	-	10/11/2023	10/11/2023
Date analysed	-	13/11/2023	13/11/2023
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	119	122

Client Reference: Concord - CO

Acid Extractable metals in soil			
Our Reference		337429-1	337429-2
Your Reference	UNITS	TP6	TP7
Date Sampled		9/11/2023	9/11/2023
Type of sample		Soil	Soil
Date prepared	-	10/11/2023	10/11/2023
Date analysed	-	10/11/2023	10/11/2023
Lead	mg/kg	17	6

Client Reference: Concord - CO

Moisture			
Our Reference		337429-1	337429-2
Your Reference	UNITS	TP6	TP7
Date Sampled		9/11/2023	9/11/2023
Type of sample		Soil	Soil
Date prepared	-	10/11/2023	10/11/2023
Date analysed	-	13/11/2023	13/11/2023
Moisture	%	21	6.7

Client Reference: Concord - CO

Chromium Suite				
Our Reference		337429-3	337429-4	337429-5
Your Reference	UNITS	ASS1	ASS2	TP-ASS
Date Sampled		9/11/2023	9/11/2023	9/11/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	09/11/2023	09/11/2023	09/11/2023
Date analysed	-	13/11/2023	13/11/2023	13/11/2023
pH $_{kcl}$	pH units	9.5	9.5	6.8
s-TAA pH 6.5	%w/w S	<0.01	<0.01	<0.01
TAA pH 6.5	moles H^+ /t	<5	<5	<5
Chromium Reducible Sulfur	%w/w	0.06	0.05	2.1
a-Chromium Reducible Sulfur	moles H^+ /t	37	30	1,300
S_{HCl}	%w/w S	[NT]	[NT]	[NT]
S_{KCl}	%w/w S	[NT]	[NT]	[NT]
S_{NAS}	%w/w S	[NT]	[NT]	[NT]
ANC_{BT}	% $CaCO_3$	7.0	5.2	2.4
s-ANC_{BT}	%w/w S	2.2	1.7	0.78
s-Net Acidity	%w/w S	<0.005	<0.005	1.6
a-Net Acidity	moles H^+ /t	<5	<5	980
Liming rate	kg $CaCO_3$ /t	<0.75	<0.75	74
a-Net Acidity without ANCE	moles H^+ /t	37	30	1,300
Liming rate without ANCE	kg $CaCO_3$ /t	2.8	2.3	98
s-Net Acidity without ANCE	%w/w S	0.059	0.048	2.1

Client Reference: Concord - CO

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-068	Chromium Reducible Sulfur - Hydrogen Sulfide is quantified by iodometric titration after distillation to determine potential acidity. Net acidity including ANC has a safety factor of 1.5 applied. Neutralising value (NV) of 100% is assumed for liming rate. The recommendation that the SHCL concentration be multiplied by a factor of 2 to ensure retained acidity is not underestimated, has not been applied in the SHCL result. However, it has been applied in the SNAS calculation: SNAS % = (SHCL-SKCL)x2
Metals-020	Determination of various metals by ICP-AES.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).

Client Reference: Concord - CO

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Client Reference: Concord - CO

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			10/11/2023	[NT]	[NT]	[NT]	[NT]	10/11/2023	[NT]
Date analysed	-			13/11/2023	[NT]	[NT]	[NT]	[NT]	13/11/2023	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	115	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	115	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	108	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	120	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	117	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	116	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	74	[NT]	[NT]	[NT]	[NT]	100	[NT]

Client Reference: Concord - CO

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			10/11/2023	[NT]	[NT]	[NT]	[NT]	10/11/2023	[NT]
Date analysed	-			13/11/2023	[NT]	[NT]	[NT]	[NT]	13/11/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	124	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	113	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	124	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	113	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	107	[NT]	[NT]	[NT]	[NT]	104	[NT]

Client Reference: Concord - CO

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			10/11/2023	[NT]	[NT]	[NT]	[NT]	10/11/2023	[NT]
Date analysed	-			13/11/2023	[NT]	[NT]	[NT]	[NT]	13/11/2023	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	134	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	120	[NT]	[NT]	[NT]	[NT]	112	[NT]

Client Reference: Concord - CO

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			10/11/2023	[NT]	[NT]	[NT]	[NT]	10/11/2023	[NT]
Date analysed	-			10/11/2023	[NT]	[NT]	[NT]	[NT]	10/11/2023	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]

Client Reference: Concord - CO

QUALITY CONTROL: Chromium Suite						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date prepared	-			09/11/2023	[NT]	[NT]	[NT]	[NT]	09/11/2023	[NT]
Date analysed	-			13/11/2023	[NT]	[NT]	[NT]	[NT]	13/11/2023	[NT]
pH $_{kcl}$	pH units		Inorg-068	[NT]	[NT]	[NT]	[NT]	[NT]	96	[NT]
s-TAA pH 6.5	%w/w S	0.01	Inorg-068	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
TAA pH 6.5	moles H^+/t	5	Inorg-068	<5	[NT]	[NT]	[NT]	[NT]	99	[NT]
Chromium Reducible Sulfur	%w/w	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	98	[NT]
a-Chromium Reducible Sulfur	moles H^+/t	3	Inorg-068	<3	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
S_{HCl}	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
S_{KCl}	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
S_{NAS}	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
ANC_{BT}	% $CaCO_3$	0.05	Inorg-068	<0.05	[NT]	[NT]	[NT]	[NT]	100	[NT]
s-ANC_{BT}	%w/w S	0.05	Inorg-068	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
s-Net Acidity	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
a-Net Acidity	moles H^+/t	5	Inorg-068	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Liming rate	kg $CaCO_3$/t	0.75	Inorg-068	<0.75	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
a-Net Acidity without ANCE	moles H^+/t	5	Inorg-068	<5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Liming rate without ANCE	kg $CaCO_3$/t	0.75	Inorg-068	<0.75	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
s-Net Acidity without ANCE	%w/w S	0.005	Inorg-068	<0.005	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

Client Reference: Concord - CO

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Client Reference: Concord - CO

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

ver COC.

337879

CHAIN OF CUSTODY

Canopy Enterprises - 0412 987 456

canopy ENTERPRISES

Client: Canopy Enterprises

Canopy Reference: CONCORD - CO

Sampler / Contact number: Gunnar Haid / 0402 411 177

Date results required:

Please Email
Reports to results@canopyenterprises.com and admin@canopyenterprises.com
Invoices to: admin@canopyenterprises.com and accounts@canopyenterprises.com
Statements to: accounts@canopyenterprises.com

Or choose: standard / same day / 1 day / 2 day / 3 day

Sample information | Tests Required

Laboratory Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Metals (8)	BTEX/TRH	PAH	OC/OP	Comb 1	Comb 6	Comb 6a	Cr Suite	PFAS (short)								Hold	Additional Information
1	P1	/	15.11.22	soil x 1						✓												
2	P2	/	"	"						✓												
3	P3	/	"	"						✓												

Relinquished by (Company): Canopy Enterprises	Received by (Company): EAS Arleen	Lab use only:
Print Name: G. HAID	Print Name:	Samples Received: Cool or Ambient (circle one)
Date & Time: 15.11.23	Date & Time: 15/11/23 samples.	Temperature Received at: (if applicable)
Signature:	Signature:	Transported by: Hand delivered / courier

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid

Sample Login Details	
Your reference	CONCORD-CO
Envirolab Reference	337879
Date Sample Received	15/11/2023
Date Instructions Received	15/11/2023
Date Results Expected to be Reported	22/11/2023

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	3 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	9
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil
P1	✓	✓	✓	✓	✓	✓	✓
P2	✓	✓	✓	✓	✓	✓	✓
P3	✓	✓	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 337879

Client Details

Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid
Address	11 Tintaldra Court, BUDERIM, QLD, 4556

Sample Details

Your Reference	**CONCORD-CO**
Number of Samples	3 Soil
Date samples received	15/11/2023
Date completed instructions received	15/11/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	22/11/2023
Date of Issue	22/11/2023

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Liam Timmins, Organics Supervisor
Loren Bardwell, Development Chemist

Authorised By
Nancy Zhang, Laboratory Manager

Client Reference: CONCORD-CO

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	16/11/2023	16/11/2023	16/11/2023
TRH C_6 - C_9	mg/kg	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	86	87	82

Client Reference: CONCORD-CO

svTRH (C10-C40) in Soil				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	16/11/2023	16/11/2023	16/11/2023
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50
Surrogate o-Terphenyl	%	89	84	87

Client Reference: CONCORD-CO

PAHs in Soil				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	20/11/2023	20/11/2023	20/11/2023
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.2	0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.2	0.1
Pyrene	mg/kg	<0.1	0.2	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.1	<0.1
Chrysene	mg/kg	<0.1	0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.1	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	0.86	0.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	106	109	105

Client Reference: CONCORD-CO

Organochlorine Pesticides in soil				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	20/11/2023	20/11/2023	20/11/2023
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	107	110	110

Client Reference: CONCORD-CO

Organophosphorus Pesticides in Soil				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	20/11/2023	20/11/2023	20/11/2023
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	107	110	110

Client Reference: CONCORD-CO

PCBs in Soil				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date extracted	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	20/11/2023	20/11/2023	20/11/2023
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1
Surrogate TCMX	%	107	110	110

Client Reference: CONCORD-CO

Acid Extractable metals in soil				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	17/11/2023	17/11/2023	17/11/2023
Arsenic	mg/kg	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	2	2	3
Copper	mg/kg	230	270	190
Lead	mg/kg	15	10	8
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	4	4	4
Zinc	mg/kg	38	37	35

Client Reference: CONCORD-CO

Moisture				
Our Reference		337879-1	337879-2	337879-3
Your Reference	UNITS	P1	P2	P3
Date Sampled		15/11/2023	15/11/2023	15/11/2023
Type of sample		Soil	Soil	Soil
Date prepared	-	16/11/2023	16/11/2023	16/11/2023
Date analysed	-	17/11/2023	17/11/2023	17/11/2023
Moisture	%	6.3	5.4	5.7

Client Reference: CONCORD-CO

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS.
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Client Reference: CONCORD-CO

Method ID	Methodology Summary
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

Client Reference: CONCORD-CO

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
Date analysed	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	85	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	85	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	87	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	83	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	82	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	86	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	89	[NT]	[NT]	[NT]	[NT]	96	[NT]

Client Reference: CONCORD-CO

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
Date analysed	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	127	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	127	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	109	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-020	89	[NT]	[NT]	[NT]	[NT]	98	[NT]

Client Reference: CONCORD-CO

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
Date analysed	-			20/11/2023	[NT]	[NT]	[NT]	[NT]	20/11/2023	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	109	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	133	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	117	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	116	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	108	[NT]	[NT]	[NT]	[NT]	106	[NT]

Client Reference: CONCORD-CO

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
Date analysed	-			20/11/2023	[NT]	[NT]	[NT]	[NT]	20/11/2023	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	61	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	121	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	135	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	70	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	72	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	120	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	115	[NT]	[NT]	[NT]	[NT]	112	[NT]

Client Reference: CONCORD-CO

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
Date analysed	-			20/11/2023	[NT]	[NT]	[NT]	[NT]	20/11/2023	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	125	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	77	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
Fenthion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	96	[NT]
Phosalone	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-022/025	115	[NT]	[NT]	[NT]	[NT]	112	[NT]

Client Reference: CONCORD-CO

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date extracted	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
Date analysed	-			20/11/2023	[NT]	[NT]	[NT]	[NT]	20/11/2023	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	125	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-021/022/025	115	[NT]	[NT]	[NT]	[NT]	112	[NT]

Client Reference: CONCORD-CO

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date prepared	-			16/11/2023	[NT]	[NT]	[NT]	[NT]	16/11/2023	[NT]
Date analysed	-			17/11/2023	[NT]	[NT]	[NT]	[NT]	17/11/2023	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	107	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	101	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	112	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]

Client Reference: CONCORD-CO

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Client Reference: CONCORD-CO

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

CHAIN OF CUSTODY

Canopy Enterprises - 0412 987 456

canopy ENTERPRISES

Client: Canopy Enterprises	Canopy Reference: CONCORD-CO
Sampler / Contact number: Gunnar Haid / 0402 411 177	Date results required:
Please Email Reports to results@canopyenterprises.com and admin@canopyenterprises.com Invoices to: admin@canopyenterprises.com and accounts@canopyenterprises.com Statements to: accounts@canopyenterprises.com	Or choose: standard / same day / 1 day / 2 day / 3 day

Sample information					Tests Required															
Laboratory Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Metals (8)	BTEX/TRH	PAH	OC/OP	Comb 1	Comb 6	Comb 6a	Cr Suite	PFAS (short)	VOC						Hold	Additional Information
	V1	/	30.11.23	Waterbody										/							Please adjust
	V2	/	"	Bottles										/							LOR to extended
	V3	/	"											/							exposure times as
	V4	/	"											/							on sample bags

Relinquished by (Company): Canopy Enterprises	Received by (Company): Eurofins	*Lab use only:*
Print Name: G. HAID	Print Name: Elizabeth	Samples Received: Cool or Ambient (circle one)
Date & Time: 23.11.23 12:45	Date & Time: 30/11 5:00pm	Temperature Received at: (if applicable)
Signature:	Signature: EB	Transported by: Hand delivered / courier

1049564

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www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	NSW 2304
+61 3 8564 5000	+61 3 8564 5000	+61 2 9900 8400	+61 2 6113 8091	T: +61 7 3902 4600	+61 2 4968 8448
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794	Site# 25079 & 25289

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool
WA 6106
+61 8 6253 4444
NATA# 2377
Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Auckland (Asb)	Christchurch	Tauranga
35 O'Rorke Road	Unit C1/4 Pacific Rise,	43 Detroit Drive	1277 Cameron Road,
Penrose,	Mount Wellington,	Rolleston,	Gate Pa,
Auckland 1061	Auckland 1061	Christchurch 7675	Tauranga 3112
+64 9 526 4551	+64 9 525 0568	+64 3 343 5201	+64 9 525 0568
IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name:	Canopy Enterprises Pty Ltd
Contact name:	Gunnar Haid
Project name:	CONCORD - CO
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Nov 30, 2023 5:00 PM
Eurofins reference	1049564

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- N/A Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Bonnie Pu on phone : or by email: BonniePu@eurofins.com

Results will be delivered electronically via email to Gunnar Haid - gunnar@canopyenterprises.com.

Note: A copy of these results will also be delivered to the general Canopy Enterprises Pty Ltd email address.

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

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ABN: 50 005 085 521

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Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: Canopy Enterprises Pty Ltd
Address: 11 Tintaldra Court
Buderim
QLD 4556

Project Name: CONCORD - CO

Order No.:
Report #: 1049564
Phone: 02 87658697
Fax: 92850528

Received: Nov 30, 2023 5:00 PM
Due: To Be Advised
Priority: 5 Day
Contact Name: Gunnar Haid

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						VOCs in Ambient Air (WMS Sampler)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	V1	Nov 30, 2023		Air	S23-De0000214	X
2	V2	Nov 30, 2023		Air	S23-De0000215	X
3	V3	Nov 30, 2023		Air	S23-De0000216	X
4	V4	Nov 30, 2023		Air	S23-De0000217	X
Test Counts						4

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Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261
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IANZ# 1327	IANZ# 1308	IANZ# 1290	IANZ# 1402

Sample Receipt Advice

Company name:	Canopy Enterprises Pty Ltd
Contact name:	Gunnar Haid
Project name:	CONCORD - CO
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Nov 30, 2023 5:00 PM
Eurofins reference	1049564

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- N/A Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
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- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Bonnie Pu on phone : or by email: BonniePu@eurofins.com

Results will be delivered electronically via email to Gunnar Haid - gunnar@canopyenterprises.com.

Note: A copy of these results will also be delivered to the general Canopy Enterprises Pty Ltd email address.

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Tauranga 1277 Cameron Road, Gate Pa, Tauranga 3112 +64 9 525 0568 IANZ# 1402

Company Name: Canopy Enterprises Pty Ltd
Address: 11 Tintaldra Court
Buderim
QLD 4556

Project Name: CONCORD - CO

Order No.:
Report #: 1049564
Phone: 02 87658697
Fax: 92850528

Received: Nov 30, 2023 5:00 PM
Due: Dec 7, 2023
Priority: 5 Day
Contact Name: Gunnar Haid

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						VOCs in Ambient Air (WMS Sampler)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	V1	Nov 30, 2023		Air	S23-De0000214	X
2	V2	Nov 30, 2023		Air	S23-De0000215	X
3	V3	Nov 30, 2023		Air	S23-De0000216	X
4	V4	Nov 30, 2023		Air	S23-De0000217	X
Test Counts						4

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Certificate of Analysis

Canopy Enterprises Pty Ltd
11 Tintaldra Court
Buderim
QLD 4556

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Gunnar Haid**

Report **1049564-A**
Project name CONCORD - CO
Received Date Nov 30, 2023

Client Sample ID			**V1**	**V2**	**V3**	**V4**
Sample Matrix			**Air**	**Air**	**Air**	**Air**
Eurofins Sample No.			**S23-De0000214**	**S23-De0000215**	**S23-De0000216**	**S23-De0000217**
Date Sampled			**Nov 30, 2023**	**Nov 30, 2023**	**Nov 30, 2023**	**Nov 30, 2023**
Test/Reference	LOR	Unit				
VOCs in Ambient Air (WMS Sampler)						
1.1-Dichloroethane	9.5	ug/m3	< 9.5	< 9.5	< 9.5	< 9.5
1.1-Dichloroethene	43	ug/m3	< 43	< 43	< 43	< 43
1.1.1-Trichloroethane	9.9	ug/m3	< 9.9	< 9.9	< 9.9	< 9.9
1.1.2-Trichloroethane	5.7	ug/m3	< 5.7	< 5.7	< 5.7	< 5.7
1.1.2.2-Tetrachloroethane	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
1.2-Dichlorobenzene	1.8	ug/m3	< 1.8	< 1.8	< 1.8	< 1.8
1.2-Dichloroethane	6.6	ug/m3	< 6.6	< 6.6	< 6.6	< 6.6
1.2.4-Trimethylbenzene	2.2	ug/m3	< 2.2	< 2.2	< 2.2	< 2.2
1.3-Dichlorobenzene	2.1	ug/m3	< 2.1	< 2.1	< 2.1	< 2.1
1.3.5-Trimethylbenzene	2.4	ug/m3	< 2.4	< 2.4	< 2.4	< 2.4
1.4-Dichlorobenzene	2	ug/m3	< 2	< 2	< 2	< 2
Benzene	27	ug/m3	< 27	< 27	< 27	< 27
Carbon Tetrachloride	8.4	ug/m3	< 8.4	< 8.4	< 8.4	< 8.4
Chlorobenzene	4.1	ug/m3	< 4.1	< 4.1	< 4.1	< 4.1
Chloroform	7.6	ug/m3	< 7.6	< 7.6	< 7.6	< 7.6
Chloromethane	50	ug/m3	< 50	< 50	< 50	< 50
cis-1.2-Dichloroethene	7.8	ug/m3	< 7.8	< 7.8	< 7.8	< 7.8
Ethylbenzene	3.5	ug/m3	< 3.5	< 3.5	< 3.5	< 3.5
Isopropyl benzene (Cumene)	2.6	ug/m3	< 2.6	< 2.6	< 2.6	< 2.6
m.p-Xylene	3.5	ug/m3	< 3.5	3.9	< 3.5	10
Naphthalene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
o-Xylene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	4.5
Propylbenzene	2.6	ug/m3	< 2.6	< 2.6	< 2.6	< 2.6
Styrene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
Tetrachloroethene	3.8	ug/m3	< 3.8	< 3.8	< 3.8	< 3.8
Toluene	5	ug/m3	< 5	11	< 5	25
trans-1.2-Dichloroethene	18	ug/m3	< 18	< 18	< 18	< 18
Trichloroethene	5.6	ug/m3	< 5.6	< 5.6	< 5.6	< 5.6
Vinyl Chloride	48	ug/m3	< 48	< 48	< 48	< 48

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Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
VOCs in Ambient Air (WMS Sampler)	Melbourne	Dec 01, 2023	30 Days

- Method: SOP #100 Rev 10 June 22 2017 Eurofins Air Toxics Analysis of VOCs

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web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 T: +61 7 3902 4600 NATA# 1261 Site# 20794	1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289

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Company Name:	Canopy Enterprises Pty Ltd	**Order No.:**		**Received:**	Nov 30, 2023 5:00 PM
Address:	11 Tintaldra Court Buderim QLD 4556	**Report #:**	1049564	**Due:**	Dec 7, 2023
		Phone:	02 87658697	**Priority:**	5 Day
		Fax:	92850528	**Contact Name:**	Gunnar Haid
Project Name:	CONCORD - CO				

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						VOCs in Ambient Air (WMS Sampler)
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
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3	V3	Nov 30, 2023		Air	S23-De0000216	X
4	V4	Nov 30, 2023		Air	S23-De0000217	X
Test Counts						4

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Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry weight basis unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion unless otherwise stated.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with blue colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is 7 days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
ppm: parts per million
µg/L: micrograms per litre
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit
Colour: Pt-Co Units

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 70 – 130%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 5.4, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

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Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
VOCs in Ambient Air (WMS Sampler)							
1.1-Dichloroethane	ug/m3	< 9.5			9.5	Pass	
1.1-Dichloroethene	ug/m3	< 43			43	Pass	
1.1.1-Trichloroethane	ug/m3	< 9.9			9.9	Pass	
1.1.2-Trichloroethane	ug/m3	< 5.7			5.7	Pass	
1.1.2.2-Tetrachloroethane	ug/m3	< 3.3			3.3	Pass	
1.2-Dichlorobenzene	ug/m3	< 1.8			1.8	Pass	
1.2-Dichloroethane	ug/m3	< 6.6			6.6	Pass	
1.2.4-Trimethylbenzene	ug/m3	< 2.2			2.2	Pass	
1.3-Dichlorobenzene	ug/m3	< 2.1			2.1	Pass	
1.3.5-Trimethylbenzene	ug/m3	< 2.4			2.4	Pass	
1.4-Dichlorobenzene	ug/m3	< 2			2	Pass	
Benzene	ug/m3	< 27			27	Pass	
Carbon Tetrachloride	ug/m3	< 8.4			8.4	Pass	
Chlorobenzene	ug/m3	< 4.1			4.1	Pass	
Chloroform	ug/m3	< 7.6			7.6	Pass	
Chloromethane	ug/m3	< 50			50	Pass	
cis-1.2-Dichloroethene	ug/m3	< 7.8			7.8	Pass	
Ethylbenzene	ug/m3	< 3.5			3.5	Pass	
Isopropyl benzene (Cumene)	ug/m3	< 2.6			2.6	Pass	
m.p-Xylene	ug/m3	< 3.5			3.5	Pass	
Naphthalene	ug/m3	< 3.3			3.3	Pass	
o-Xylene	ug/m3	< 3.3			3.3	Pass	
Propylbenzene	ug/m3	< 2.6			2.6	Pass	
Styrene	ug/m3	< 3.3			3.3	Pass	
Tetrachloroethene	ug/m3	< 3.8			3.8	Pass	
Toluene	ug/m3	< 5			5	Pass	
trans-1.2-Dichloroethene	ug/m3	< 18			18	Pass	
Trichloroethene	ug/m3	< 5.6			5.6	Pass	
Vinyl Chloride	ug/m3	< 48			48	Pass	
LCS - % Recovery							
VOCs in Ambient Air (WMS Sampler)							
1.1-Dichloroethane	%	103			70-130	Pass	
1.1-Dichloroethene	%	86			70-130	Pass	
1.1.1-Trichloroethane	%	80			70-130	Pass	
1.1.2-Trichloroethane	%	106			70-130	Pass	
1.1.2.2-Tetrachloroethane	%	89			70-130	Pass	
1.2-Dichlorobenzene	%	124			70-130	Pass	
1.2-Dichloroethane	%	105			70-130	Pass	
1.2.4-Trimethylbenzene	%	105			70-130	Pass	
1.3-Dichlorobenzene	%	86			70-130	Pass	
1.3.5-Trimethylbenzene	%	88			70-130	Pass	
1.4-Dichlorobenzene	%	85			70-130	Pass	
Benzene	%	80			70-130	Pass	
Carbon Tetrachloride	%	122			70-130	Pass	
Chlorobenzene	%	96			70-130	Pass	
Chloroform	%	93			70-130	Pass	
Chloromethane	%	82			70-130	Pass	
cis-1.2-Dichloroethene	%	96			70-130	Pass	
Ethylbenzene	%	91			70-130	Pass	
Isopropyl benzene (Cumene)	%	114			70-130	Pass	

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Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
m.p-Xylene	%	99			70-130	Pass	
Naphthalene	%	110			70-130	Pass	
o-Xylene	%	90			70-130	Pass	
Propylbenzene	%	90			70-130	Pass	
Styrene	%	88			70-130	Pass	
Tetrachloroethene	%	105			70-130	Pass	
Toluene	%	88			70-130	Pass	
trans-1.2-Dichloroethene	%	82			70-130	Pass	
Trichloroethene	%	93			70-130	Pass	
Vinyl Chloride	%	87			70-130	Pass	

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Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Bonnie Pu	Analytical Services Manager
Joseph Edouard	Senior Analyst-Organic

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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CHAIN OF CUSTODY

Canopy Enterprises - 0412 987 456

canopy ENTERPRISES

Client: **Canopy Enterprises**

Canopy Reference: CONCORD-CO

Sampler / Contact number: **Gunnar Haid / 0402 411 177**

Date results required:

Please Email
Reports to results@canopyenterprises.com and admin@canopyenterprises.com
Invoices to: admin@canopyenterprises.com and accounts@canopyenterprises.com
Statements to: accounts@canopyenterprises.com

Or choose: standard / same day / 1 day / 2 day / 3 day

Sample information					Tests Required																
Laboratory Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample	Metals (8)	BTEX/TRH	PAH	OC/OP	Comb 1	Comb 6	Comb 6a	Cr Suite	PFAS (short)	GW001_H						Hold	Additional Information
1	MW1	~~[illegible]~~	10.1.24	Wx4										✓							
2	MW2	"	"	"										✓							
3	MW3	"	"	"										✓							
4	MW4	"	"	"										✓							
5	GW203	"	"	"										✓							
6	GW204	"	"	"										✓							
7	DW1	"	–	Wx1	✓																

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 341278

Date Received: 10/1/24
Time Received: 1545
Received by: [illegible]
Temp: Cool/Ambient
Cooling: Ice/Ice pack
Security: Intact/Broken/None

Relinquished by (Company): Canopy Enterprises	Received by (Company): ELS	*Lab use only:*
Print Name: G. HAID	Print Name: [illegible]	Samples Received: Cool or Ambient (circle one)
Date & Time: 10.1.24 15:50	Date & Time: 10/1/24 1545	Temperature Received at: 10 (if applicable)
Signature: [illegible]	Signature: [illegible]	Transported by: Hand delivered / courier

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid

Sample Login Details	
Your reference	Concord-CO
Envirolab Reference	341278
Date Sample Received	10/01/2024
Date Instructions Received	10/01/2024
Date Results Expected to be Reported	17/01/2024

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	7 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	20
Cooling Method	None
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	HM in water - dissolved
MW1	✓	✓	✓
MW2	✓	✓	✓
MW3	✓	✓	✓
MW4	✓	✓	✓
GW203	✓	✓	✓
GW204	✓	✓	✓
DW1			✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 341278

Client Details

Client	Canopy Enterprises Pty Ltd
Attention	Gunnar Haid
Address	11 Tintaldra Court, BUDERIM, QLD, 4556

Sample Details

Your Reference	**Concord-CO**
Number of Samples	7 Water
Date samples received	10/01/2024
Date completed instructions received	10/01/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	17/01/2024
Date of Issue	17/01/2024

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Liam Timmins, Organics Supervisor
Loren Bardwell, Development Chemist

Authorised By
Nancy Zhang, Laboratory Manager

Client Reference: Concord-CO

vTRH(C6-C10)/BTEXN in Water						
Our Reference		341278-1	341278-2	341278-3	341278-4	341278-5
Your Reference	UNITS	MW1	MW2	MW3	MW4	GW203
Date Sampled		10/01/2024	10/01/2024	10/01/2024	10/01/2024	10/01/2024
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
Date analysed	-	12/01/2024	12/01/2024	12/01/2024	12/01/2024	12/01/2024
TRH C_6 - C_9	µg/L	480	<10	<10	<10	<10
TRH C_6 - C_{10}	µg/L	520	<10	<10	<10	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	520	<10	<10	<10	<10
Benzene	µg/L	3	<1	<1	<1	<1
Toluene	µg/L	1	<1	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1	<1	<1
m+p-xylene	µg/L	3	<2	<2	<2	<2
o-xylene	µg/L	1	<1	<1	<1	<1
Naphthalene	µg/L	<1	<1	<1	<1	<1
Surrogate Dibromofluoromethane	%	107	110	111	106	96
Surrogate Toluene-d8	%	100	102	86	98	69
Surrogate 4-Bromofluorobenzene	%	101	102	103	87	115

vTRH(C6-C10)/BTEXN in Water		
Our Reference		341278-6
Your Reference	UNITS	GW204
Date Sampled		10/01/2024
Type of sample		Water
Date extracted	-	12/01/2024
Date analysed	-	12/01/2024
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	104
Surrogate Toluene-d8	%	98
Surrogate 4-Bromofluorobenzene	%	90

Client Reference: Concord-CO

svTRH (C10-C40) in Water						
Our Reference		341278-1	341278-2	341278-3	341278-4	341278-5
Your Reference	UNITS	MW1	MW2	MW3	MW4	GW203
Date Sampled		10/01/2024	10/01/2024	10/01/2024	10/01/2024	10/01/2024
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	17/01/2024	17/01/2024	17/01/2024	17/01/2024	17/01/2024
Date analysed	-	17/01/2024	17/01/2024	17/01/2024	17/01/2024	17/01/2024
TRH C_{10} - C_{14}	µg/L	99	<50	<50	<50	75
TRH C_{15} - C_{28}	µg/L	110	130	150	120	330
TRH C_{29} - C_{36}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	210	130	150	120	400
TRH >C_{10} - C_{16}	µg/L	110	62	71	<50	110
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	110	62	71	<50	110
TRH >C_{16} - C_{34}	µg/L	100	120	140	120	330
TRH >C_{34} - C_{40}	µg/L	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	210	190	210	120	440
Surrogate o-Terphenyl	%	75	69	83	76	113

svTRH (C10-C40) in Water		
Our Reference		341278-6
Your Reference	UNITS	GW204
Date Sampled		10/01/2024
Type of sample		Water
Date extracted	-	17/01/2024
Date analysed	-	17/01/2024
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	190
TRH C_{29} - C_{36}	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	190
TRH >C_{10} - C_{16}	µg/L	66
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	66
TRH >C_{16} - C_{34}	µg/L	220
TRH >C_{34} - C_{40}	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	280
Surrogate o-Terphenyl	%	84

Client Reference: Concord-CO

HM in water - dissolved						
Our Reference		341278-1	341278-2	341278-3	341278-4	341278-5
Your Reference	UNITS	MW1	MW2	MW3	MW4	GW203
Date Sampled		10/01/2024	10/01/2024	10/01/2024	10/01/2024	10/01/2024
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
Date analysed	-	11/01/2024	11/01/2024	11/01/2024	11/01/2024	11/01/2024
Arsenic-Dissolved	µg/L	8	38	3	3	7
Cadmium-Dissolved	µg/L	<0.1	<0.2	0.5	0.4	<0.2
Chromium-Dissolved	µg/L	<1	4	<2	<2	3
Copper-Dissolved	µg/L	<1	<2	7	9	5
Lead-Dissolved	µg/L	<1	<2	3	3	<2
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	<1	3	79	81	2
Zinc-Dissolved	µg/L	7	20	96	94	15

HM in water - dissolved			
Our Reference		341278-6	341278-7
Your Reference	UNITS	GW204	DW1
Date Sampled		10/01/2024	10/01/2024
Type of sample		Water	Water
Date prepared	-	11/01/2024	11/01/2024
Date analysed	-	11/01/2024	11/01/2024
Arsenic-Dissolved	µg/L	2	3
Cadmium-Dissolved	µg/L	<0.2	0.5
Chromium-Dissolved	µg/L	<2	<2
Copper-Dissolved	µg/L	<2	9
Lead-Dissolved	µg/L	<2	2
Mercury-Dissolved	µg/L	<0.05	<0.05
Nickel-Dissolved	µg/L	<2	78
Zinc-Dissolved	µg/L	<2	92

Client Reference: Concord-CO

Method ID	Methodology Summary
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Salt forms (e.g. FeO, PbO, ZnO) are determinined stoichiometrically from the base metal concentration.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

Client Reference: Concord-CO

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			11/01/2024	1	11/01/2024	11/01/2024		11/01/2024	[NT]
Date analysed	-			12/01/2024	1	12/01/2024	12/01/2024		12/01/2024	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	1	480	480	0	112	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	1	520	480	8	112	[NT]
Benzene	µg/L	1	Org-023	<1	1	3	2	40	111	[NT]
Toluene	µg/L	1	Org-023	<1	1	1	<1	0	111	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	111	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	3	2	40	114	[NT]
o-xylene	µg/L	1	Org-023	<1	1	1	<1	0	114	[NT]
Naphthalene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	105	1	107	107	0	103	[NT]
Surrogate Toluene-d8	%		Org-023	103	1	100	104	4	98	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	80	1	101	90	12	108	[NT]

Client Reference: Concord-CO

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date extracted	-			17/01/2024	[NT]	[NT]	[NT]	[NT]	17/01/2024	[NT]
Date analysed	-			17/01/2024	[NT]	[NT]	[NT]	[NT]	17/01/2024	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	80	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	80	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	114	[NT]
Surrogate o-Terphenyl	%		Org-020	97	[NT]	[NT]	[NT]	[NT]	103	[NT]

Client Reference: Concord-CO

QUALITY CONTROL: HM in water - dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	341278-2
Date prepared	-			11/01/2024	1	11/01/2024	11/01/2024		11/01/2024	11/01/2024
Date analysed	-			11/01/2024	1	11/01/2024	11/01/2024		11/01/2024	11/01/2024
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	8	[NT]		94	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	[NT]		97	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	[NT]		93	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	<1	[NT]		92	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	[NT]		100	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	109	71
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	<1	[NT]		92	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	7	[NT]		100	[NT]

Client Reference: Concord-CO

Result Definitions	
NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Client Reference: Concord-CO

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Client Reference: Concord-CO

Report Comments

8 HM in water - Dissolved - The PQL has been raised 2 times for #2-7 due to suppression of the internal standard, which required the samples to be diluted. This is likely due to the high level of salts in the sample.

APPENDIX D

BORE LOGS

canopy ENTERPRISES

Borehole LOG MW1

PROJECT NUMBER Concord-RAPI
ADDRESS 7 Concord Avenue
ADDRESS Concord West, NSW, 2138

DRILLING DATE 9 Nov 2023
DIAMETER 105 mm
Method Solid Flight Auger

Casing PVC 50 mm
Screen PVC Factory Slotted

COMMENTS

LOGGED BY D Hart

Depth (m)	Graphic Log	Moisture	Water	Material Description	Well Diagram	Additional Observations
0.2, 0.4, 0.6, 0.8, 1		M	▽	FILL: Gravelly silt, fine to medium grained, brown/grey to grey	Stickup ~1m; cement / bentonite plug	Medium hydrocarbon odours
1.2, 1.4, 1.6, 1.8, 2, 2.2		M		FILL: Silty Clay with ironstone gravel, fine to medium grained, light grey/red to orange red, medium plasticity	5 mm sand	
2.4, 2.6, 2.8, 3, 3.2, 3.4		D		Extremely weathered siltstone (shale), med grained, grey/orange to grey		
3.6, 3.8				Termination Depth at 3.5 m, target depth		

Note This bore log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 17 Feb 2024

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canopy ENTERPRISES

Borehole LOG MW2

PROJECT NUMBER Concord-RAPI
ADDRESS 7 Concord Avenue
ADDRESS Concord West, NSW, 2138

DRILLING DATE 9 Nov 2023
DIAMETER 105 mm
Method Solid Flight Auger

Casing PVC 50 mm
Screen PVC Factory Slotted

COMMENTS

LOGGED BY D Hart

Depth (m)	Graphic Log	Moisture	Water	Material Description	Well Diagram	Additional Observations
0.2, 0.4, 0.6, 0.8		M		FILL: Silty sand, fine to medium grained, orange-red to grey-red	Stickup ~1m; cement / bentonite plug	
1, 1.2		M	▽	FILL: Sandy silt, medium grained, grey/orange grey		slight hydrocarbon odour
1.4, 1.6		M		Silt, med grained, grey to dark grey		
1.8, 2, 2.2, 2.4, 2.6, 2.8		M		Silty clay, fine to med grained, medium to high plasticity, orange grey to red grey	5 mm sand	
3, 3.2, 3.4		D		Extremely weathered siltstone (shale), medium grained, grey to orange grey, low strength		
3.6, 3.8				Termination Depth at 3.5 m, target depth		

Note This bore log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 17 Feb 2024

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canopy ENTERPRISES

Borehole LOG MW3

PROJECT NUMBER Concord-RAPI
ADDRESS 7 Concord Avenue
ADDRESS Concord West, NSW, 2138

DRILLING DATE 9 Nov 2023
DIAMETER 105 mm
Method Solid Flight Auger

Casing PVC 50 mm
Screen PVC Factory Slotted

COMMENTS

LOGGED BY D Hart

Depth (m)	Graphic Log	Moisture	Water	Material Description	Well Diagram	Additional Observations
0.2, 0.4, 0.6, 0.8		M		FILL: Silty clay, fine to medium grained, orange-red to grey	Stickup ~1m; cement / bentonite plug	
1, 1.2		M		FILL: Sandy silt, medium grained, grey/orange grey		slight hydrocarbon odour
1.4, 1.6, 1.8, 2, 2.2, 2.4, 2.6, 2.8, 3, 3.2		M		Silty clay with ironstone gravel, fine to medium grained, medium to high plasticity, organge grey to red-grey	5 mm sand	
3.4		D		Extremely weathered siltstone (shale), medium grained, grey to orange grey, low strength		
3.6, 3.8				Termination Depth at 3.5 m, target depth		

Note This bore log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 17 Feb 2024

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canopy ENTERPRISES

Borehole LOG MW4

PROJECT NUMBER Concord-RAPI
ADDRESS 7 Concord Avenue
ADDRESS Concord West, NSW, 2138

DRILLING DATE 9 Nov 2023
DIAMETER 105 mm
Method Solid Flight Auger

Casing PVC 50 mm
Screen PVC Factory Slotted

COMMENTS

LOGGED BY D Hart

Depth (m)	Graphic Log	Moisture	Water	Material Description	Well Diagram	Additional Observations
0.2		M		FILL: Silty clay, fine to medium grained, trace of gravel, firm to 1.0 m, very soft from 1.0 to 3.5 m, grey-brown to orange red	Stickup ~1m; cement / bentonite plug	Medium hydrocarbon odours
0.4						
0.6						
0.8						
1						
1.2						
1.4						
1.6						
1.8						
2					5 mm sand	
2.2						
2.4						
2.6						
2.8						
3						
3.2						
3.4						
3.6				Termination Depth at 3.5 m, target depth		
3.8						

Note This bore log is intended for environmental not geotechnical purposes.
produced by ESlog.ESdat.net on 17 Feb 2024

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APPENDIX E
QUALITY CONTROL
ANALYSIS

Data Quality Assurance

The Data Quality Objective (DQO) process is a seven-step planning approach used to define the type, quantity and quality of data need to inform decisions relating to the environmental condition of a site. The DQO process is carried out prior to the commencement of an investigation. The seven steps are presented below.

Step 1: State the problem

Hydrocarbon and heavy metals impact to soils and possibly water have been identified in previous investigations. Some monitor wells have been lost and require re-installation. Underground and aboveground petroleum infrastructure is present at the Site and requires decommissioning.

Step 2: Identify the decision/goal of the study.

An investigation of groundwater and soil vapours at the Site needs to be undertaken with the goal of determining whether the encountered impact to soils in the area had caused impact to groundwater.

The specific objective of the investigation was to

- determine whether concentrations of Contaminants of Potential Concern in groundwater and soil vapour exceeded the assessment criteria and whether further assessment work is required.
- Validate the tank pit walls and base after excavation of the underground and aboveground petroleum infrastructure against assessment criteria.

Step 3: Identify the information inputs.

Information sources assisting in addressing the decisions outlines above include the following:

- Review existing information for the Site, including previous investigations.
- Information gathered regarding the Site.
- Sampling of groundwater of all existing and newly installed wells.
- Observations made during the site visit.
- Laboratory analysis of samples for the CoPC stated.
- The CSM.
- The results of the QA/QC process.
- Adopted site assessment criteria.

Step 4: Define the boundaries of the study.

The boundary of the assessment is defined by the site boundaries.

Step 5: Develop a Decision Rule

The analytical results of samples will be assessed against the assessment criteria. If analytical results show exceedances of the assessment criteria, further assessment and monitoring post remediation may be required. If no exceedances of the assessment criteria are encountered, no further action regarding groundwater will be required.

Step 6: Specify performance or acceptance criteria (DQI)

To ensure confidence in the assessment and collected data, quality assurance parameters to be implemented are as follows:

Precision

To ensure precision in the samples, the identical sample collection and analysis procedures were implemented for all samples. Laboratory methods to ensure precision in their analyses were implemented by the laboratories and the laboratory reports reviewed as appropriate.

Intra-laboratory field duplicate (blind or field duplicates) samples are used to determine the precision associated with all or part of the sample collection and measurement process. They also provide an indication heterogeneity of the sample matrix or heterogeneity of contaminant distribution within an obtained sample. They are two independent samples collected as nearly as possible, from the same point in space and time. The two samples are collected from the same source using the same type of sampling equipment. Each field duplicate is collected and stored in separate sample containers and transported in the same shipping container[1].

Inter-laboratory duplicate samples are identical to intra-laboratory samples in their nature, but the samples are submitted to two separate independent laboratories.

Duplicate analyses are used to determine the precision or reproducibility of results, which is appropriate for the analysis implemented for analytes other than asbestos. Precision is commonly measured as the relative percentage difference (RPD) between samples. The RPD should generally be within the recommended range outlined in NEPM 2013 for field duplicates and within the levels outlined in the laboratory reports for laboratory duplicates. Field duplicate samples should be obtained and analysed at an approximate ratio of 1:20.

The proposed RDPs for the implementation of the groundwater sampling round are:

RPD values are considered acceptable if they are less than:

- 50% for organics for results greater than ten times the laboratory Practical Quantitation Limit (PQL).
- 70% for organics for results between five and ten times the PQL.

[1] Lee, C C.. Environmental Engineering Dictionary. 4th ed., Government Institutes, 2005

- 100% for results less than five times the laboratory PQL.

It must be mentioned that that from a strictly scientific point of view and without taking the status of NEPM (2013) as a legislative instrument into account, the suitability of field duplicates as a data quality control mechanism in environmental investigations is of questionable value.

The submission of intra-laboratory duplicate samples is designed to be a scientific single blinded controlled experiment. Such an experimental setup requires that one single input parameter is investigated by controlling for (keeping constant) all other input parameters.

The main input parameters affecting the outcome of an intra-laboratory duplicate analysis can be grouped into the following areas:

- Quality of laboratory procedures and analytical methodologies.
- Quality of sampling and field procedures to obtain identical (and representative) samples.
- Heterogeneity of the sample matrix.

Even during groundwater investigation where sample heterogeneity is generally considered to be low (but not zero), it is close to impossible to create a controllable environment in the field and during the sample transportation process. It can be argued that checking on laboratory procedures that are carried out in a highly controllable and controlled environment with samples (field duplicate samples) that were obtained in an uncontrollable environment under uncontrollable conditions is not a scientifically defensible practice.

We urge the reader to apply caution to any interpretation of intra and inter-laboratory duplicate samples as a means of data quality control based on RPD data.

We note that the laboratories chosen for the analysis of all samples are NATA registered and have a rigorous internal quality program in place (see laboratory reports). The laboratories are regularly audited as part of the NATA registration.

Considering the nature of the proposed sampling program and in particular in light of the above paragraphs, it is Canopy's opinion that the rigorous quality controls implemented by the laboratory itself are adequate for this type of investigation. Inter-laboratory duplicate samples (which add a fourth uncontrollable input parameter to the supposedly controlled experiment), do not add to the quality control of this investigation in a meaningful way.

Despite their questionable usefulness in contributing to the quality control of this project, one intra-laboratory duplicate soil sample pair (Samples TP3/D1) and one water intra-laboratory duplicate sample (MW3/DW) were collected.

The RPD results for the soil and water duplicate pairs all fell within acceptable limits. RPD data for the pairs are shown in the relevant summary tables in the main report body and Appendix.

Accuracy

Accuracy is the level of agreement between an experimental determination and the true value of the parameter being measured and is determined by the use of reference samples (e.g. field spikes, trip spikes, and surrogates). These type of control samples are almost exclusively used during investigations where highly volatile substances (mostly in water) are a primary contaminant of concern. Samples were submitted to the laboratory within 24 hrs of sampling, reducing the risk of analyte loss during transport.

A soil trip blank (TB) and a soil trip spike were used during the soil analysis program. Spike recoveries were within accepted criteria. The trip blank showed no detectable concentrations for all analytes.

Matrix spikes and surrogate spikes were used by the laboratories to determine the accuracy of the analytical technique, which is appropriate for the chemical analyses implemented. The percentage recovery for spiked samples, calculated by the laboratory, are required to be within the acceptance limits for the methods used. The detailed recovery acceptance levels vary between laboratories and methodologies. Laboratory reports were checked for adherence to acceptance criteria outlined in the reports and found to be in compliance.

Holding times for chemical analyses were adhered to and samples were placed directly into battery powered refrigeration units.

Representativeness

Representativeness can be considered an indication of how accurately and precisely the collected data represent the characteristics of a population and is highly dependent on the design and implementation of the sampling program. Representativeness of the samples was achieved by the selection of adequate placement of monitor wells to capture potential impact, avoiding cross-contamination via the use of disposable sampling equipment, by implementing and following identical sampling procedures with each sample at every location by experienced field staff, as well as by following suitable CoC and documentation procedures.

Comparability

Comparability is the evaluation of the similarity of conditions (e.g., sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability was achieved by:

- Maintaining consistency in sampling techniques.
- Use sampling techniques in accordance with relevant guidelines.
- Use of appropriate preservation, storage and transport methods; and
- Use of consistent analysis techniques and reporting standards by the laboratories.

Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information was assessed for completeness:

- Chain of Custody forms for laboratory samples.
- Sample receipt forms.
- All sample results will be reported.
- All laboratory duplicates reported and RPDs calculated.
- The matrix spike and matrix spike duplicates data reported and RPDs calculated.
- Spike and surrogate recovery acceptable limits reported.
- NATA stamp on reports.
- Copies of field notes, sampling records, logs, soil and sample descriptions.

Sensitivity

The practical quantitation limit (PQL) is a measure of how sensitively the analytical technique/instrument can quantify the concentration of a compound present in a sample. For the chemical assessment, the PQLs achieved by the laboratories was within the criteria for each compound analysed for sufficient confidence to be placed in the results obtained.

Step 7: Develop the plan for obtaining data.

The purpose of this step is to identify the most resource-effective sampling and analysis design for generating the data required to achieve the project objectives.

Field investigation procedures were optimised and adjusted to varying field conditions as appropriate with the aim of determining the most efficient methods, sample collection/analysis.

Soil Vapour Quality Control

The National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) (NEPM (2013) state that contaminated site practitioners should undertake an assessment of the reliability of field procedures and analytical results using the data quality indicators (DQI) of precision, accuracy, representativeness, completeness and comparability.

Sampling was undertaken by an experienced environmental consultant following standard sampling and transport procedures as outlined by the manufacturer and in line with current industry practice. Chain of Custody documentation accompanied the sample, and the sample was received by the laboratory in the appropriate container with the seal intact and it was analysed within the recommended holding time of 30 days.

Eurofins, the laboratory chosen for the analysis of the sample, is NATA registered and has a rigorous quality program in place (see laboratory reports in the Appendix 2). It is regularly audited as part of the NATA registration. Due to the nature of this investigation and type of sampling conducted (including the number of samples being a single sample and the fact that Eurofins is the only laboratory carrying out the required analysis of WMS), no inter-laboratory, intra-laboratory duplicates, were analysed during this soil vapour investigation.

Eurofins carried out an internal QA/QC program which included analysis of laboratory control spikes and method blanks. The results of those control samples are contained in the laboratory reports attached to this report. The data was checked by Canopy and all results were found to be within the laboratory's acceptance criteria.

Overall QC Statement

The quality of the data obtained during this investigation was reviewed and is considered to meet the required standards and is accepted.

Haxton - HO 30.11.22
(MW)
B1 ? Top soil Fill: cl - si, brown? to
grey orange, med. grained, moist.
0.3 No odours
Fill: si - cl, grey br. to orange grey
fine to med. gr., med. plast. moist
0.8
si - cl, grey to or. grey, fine 2 med
D 2.6m grained, med 2 high plast., moist

4.9
weathered shale, grey to grey or.,
med. grained. ~~so~~ saturated

5.75m Refusal. No odours

4.5m from bottom screen (1.25 from top)
above casing, 1.0 m stick-up.
Sand = surface to 11m
0.5 m bentonite
concrete sealed.

Horton-HO- 16.1.23

		Sw	pH	ppt TDS	ppt salt	mS EC
WD1	BH2 M	1.18	6.2	660 ppm	449 ppm	835 mS
WD2	BH11 M	2.18	5.5	5.36 ppt	4.17 ppt	7.59 mS
	BH21 M	1.52	6.3	~~[illegible]~~ ppm OL	~~[illegible]~~ ppm OL	~~[illegible]~~ 17.7 mS
	MW 1	2.07	6.4	9.4 ppt	7.5 ppt	13.3 mS
	MW 2	2.28	6.1	OL	OL	17.01 mS
	MW3*	2.79	6.3	OL	8.7 ppt	14.8 mS
	Creek	–	9.85	1.23 ppt	885 ppm	1752 µS

BH2 M
~~MW2~~ → extra weight on top
* MW 3 → Hydroslave could not be lowered deep enough → sample from 1st metre

Drawdown
BH11 M → Drawn down to ~~[illegible]~~ 5.4 m

t	
0	~~[illegible]~~ 5.4
60	~~[illegible]~~ 5.3
120	5.22

5.23
2.18
3.05

$\frac{5.23}{0.37} = 0.37$

$\frac{x}{5.23} = 0.37 = 19$

Return:

t	[m]
0	5.23
2:30	5.10
4:33	5.00
7:35	4.96
10:15	4.87
15:30	~~[illegible]~~ 4.7
43:25	4.10 m
1:05:45	3.65 m

17:00 11:00 on Stop Watch

Final reading

1:58:45 3.05 m

Report

Concord West Precinct Planning Proposal

7 Concord Avenue, Concord West

ISSUE DATE
Thursday 29 February 2024

BY
TURF
Landscape Architecture
and Urban Design
35 Wellington Street
Chippendale New South Wales
Gadi Country

turfdesign.com

Acknowledgments

We acknowledge Eora Country and the Wangal people, the Cultural Landscape that we are working upon. We acknowledge the custodianship of its people and the privilege and responsibility to Connect with Country.

Landscape Setting

The Concord West Precinct is located to the west of Concord West station and village centre, directly south of Liberty Grove Community and to the east of Sydney Olympic Park. A number of underpasses and an overstation pedestrian bridge provide links to Concord West village centre, whilst Victoria Avenue Gates provide access to Bicentennial Park and beyond. A concealed pedestrian link onto Concord Avenue also provides access to Liberty Grove Community. The site is in close proximity to community infrastructure such as Victoria Avenue Primary School, a Montessori preschool and a foodworks supermarket. Bicentennial Park and Mason provide adequate open space for surrounding communities and are considered as regional and district open space assets. Powells Creek, the Mason Park Wetlands and Badu Wetlands provide communities with opportunities to be immersed in nature and are within walking distance.

Landscape Setting

Victoria Avenue Public School

Liberty Grove

Bicentennial Park and Badu Mangroves

Concord West Station

Victoria Avenue Gates

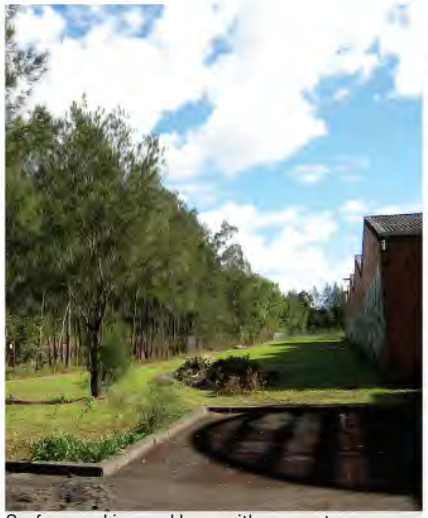
Recently Renaturalised Powells Creek

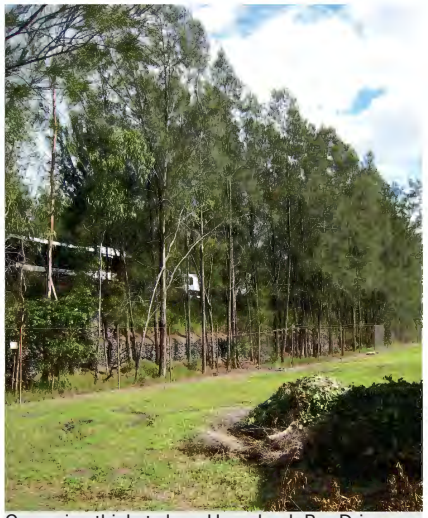
Site Context

The rundown saw toothed roof warehouse is the current predominant feature of the site. The warehouse is currently used for paintball and go karting. A number of smaller additions to the building appear to have been added at a later date, including an area used as a foyer and for staff offices. An additional warehouse also appears to have been added to the north of the saw toothed warehouse. A large portion of the site appears to be used for informal surface carparking and stockpiling. The northern portion of the site contains some vegetation (predominantly Casuarinas and grass understorey) and a mound which appears to be fill from the site. A concrete swale drain runs between the mound and retaining wall to Liberty Grove. The swale drain appears to connect to a culvert that runs under Homebush Bay Drive and into Badu Mangroves. Another culvert located centrally along the western boundary also appears to run under Homebush Bay Drive and into the Badu Mangroves.

Site Character

Building entry and stair tower


Surface parking and lawn with sparse trees


Casuarina thicket along Homebush Bay Drive

Weeds growing through broken concrete slab

Weeds growing in localised low point

Concord Avenue termination

Analysis — Canopy Coverage

Casuarinas form a thicket along the Homebush Bay Drive Boundary and provide a solid buffer to the road. A number of rows of mixed species trees have been planted in the northern portion of the site. Canopy coverage for the site is currently 9.1%

Legend

Existing trees

Scale 1:750 @ A3 N

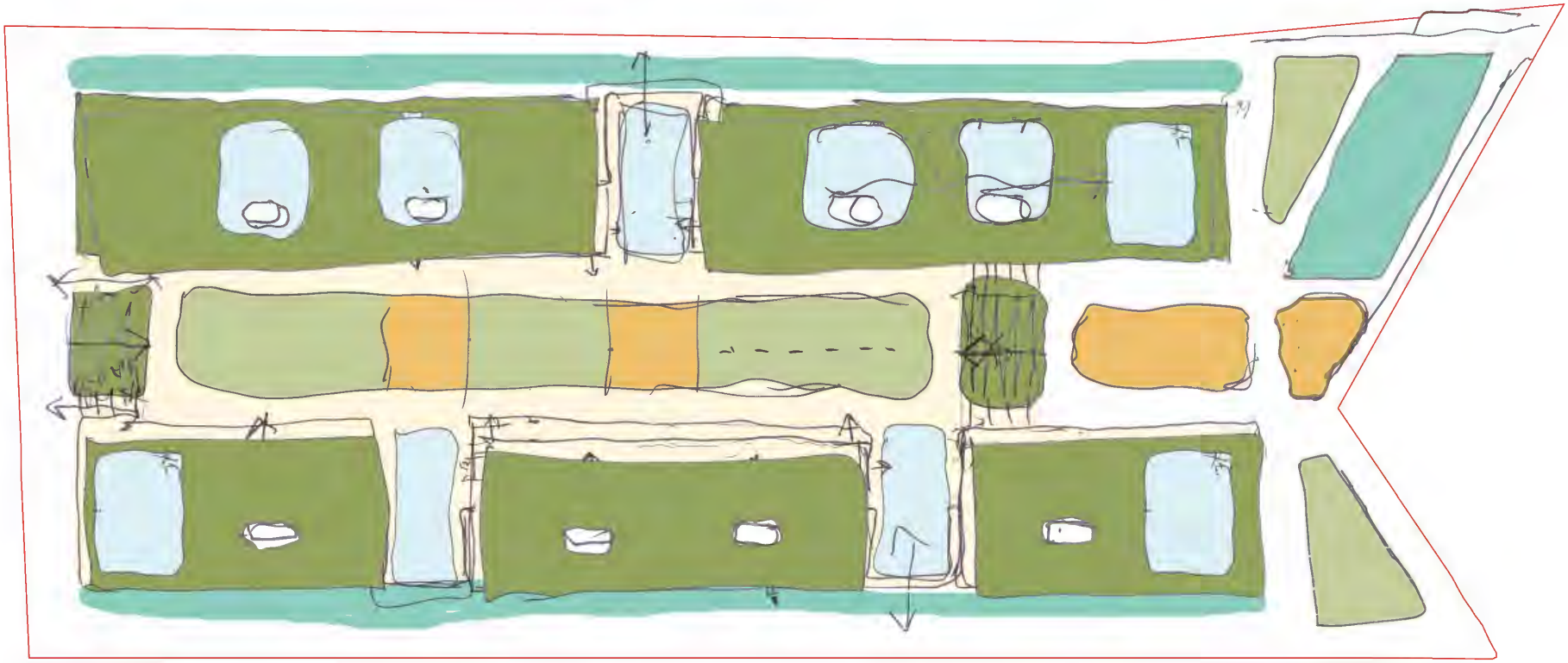
Site Vision Statement

The teams proposed vision demonstrates a strong consideration of site conditions and the surrounding landscape conditions.

The landscape approach to the ground floor is simple; provide lots of canopy, treat stormwater low flows before they enter Sydney Olympic Park and provide passive open space for tenants and community to activate and enjoy. The landscape design for the podium provides green rooms that respond to adjacent built form uses and breakout spaces for people to workout, play, gather and dwell. A series of green roofs (some of which have integrated solar) provide passive cooling, reduce runoff and capturing solar energy.

Artist Impression by Antoniades Architects

Concept Diagram



	Bioretention
	Soft Open Space
	Planting
	Podium
	Outdoor Rooms

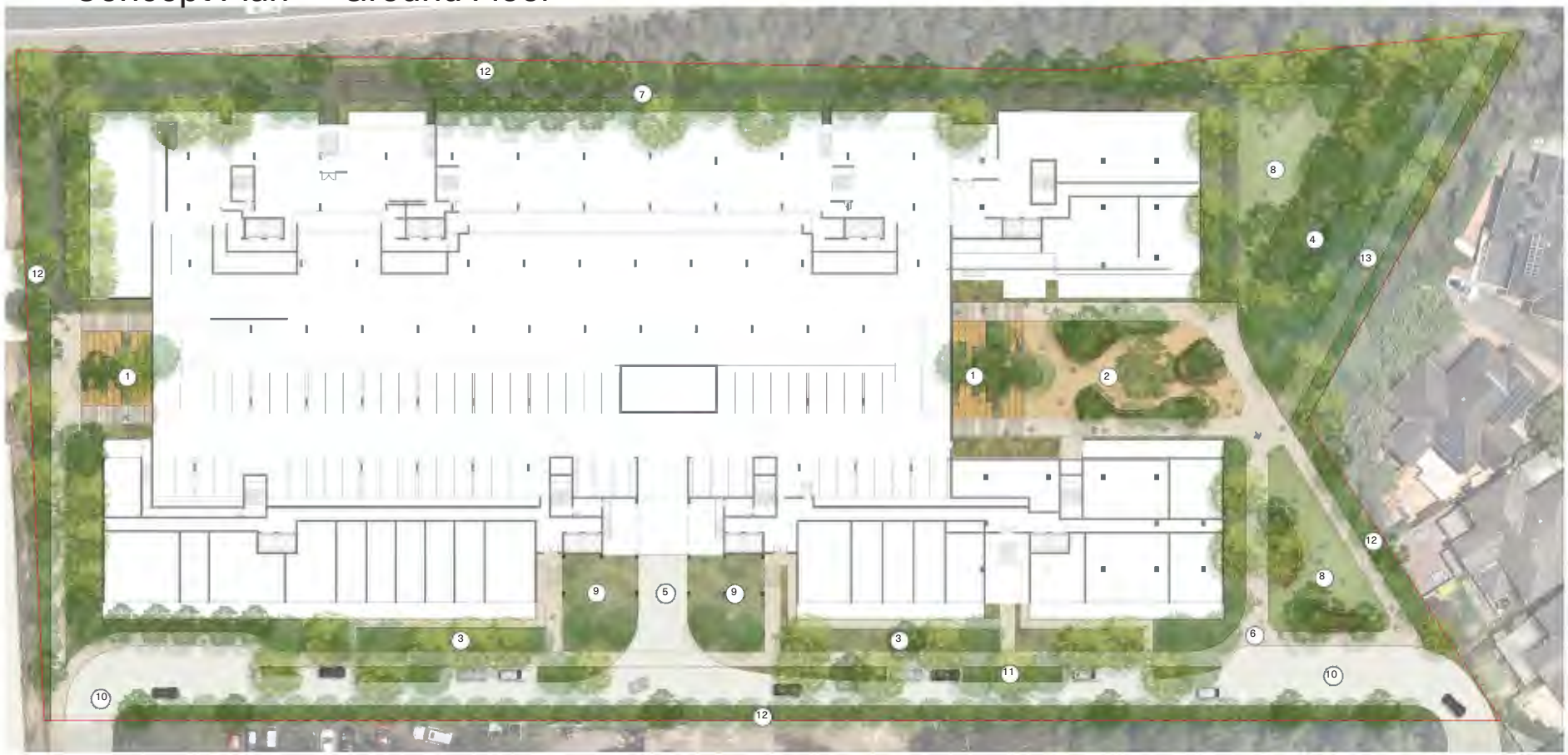
Site Program

Key

1. Outdoor play
2. Outdoor BBQ and dining
3. Seating and dwelling
4. Outdoor gym
5. Level change with seating
6. Ground floor breakout space
7. Outdoor dining/co-worker breakout
8. Bio retention
9. Lounge
10. Kids zone
11. Club-house
12. Co-working
13. Meeting room
14. Cinema
15. Kitchen dining
16. Gym
17. Open lawn
18. Future through-site link

Scale 1:500 @ A3 N

Concept Plan — Ground Floor



Key

1. Level change and passive recreation
2. Green central plaza
3. Retained swale
4. Bio retention
5. Entrance ramp to carpark
6. Footpath
7. Raised mesh pathway
8. Passive recreation lawn
9. Undercroft Planting
10. Shared Street
11. Verge planting
12. Boundary screening planting
13. Future through-site link

Scale 1:500 @ A3 N

Concept Plan — Ground Floor and Podium

Key

1. Level change and passive recreation
2. Green central plaza
3. Retained swale
4. Bio retention
5. Entrance ramp to carpark
6. Footpath
7. Raised mesh pathway
8. Passive recreation lawn
9. Verge planting
10. Shared street
11. Outdoor BBQ and dining
12. Outdoor Gym
13. Outdoor play zone
14. Breakout seating
15. Outdoor working space
16. Arbor with climbers above BBQ areas
17. Future through-site link

Internal program

Scale 1:500 @ A3 N

Concept Plan — Roof

Key

1. Rooftop planting
2. Solar panels and planting

Scale 1:500 @ A3 N

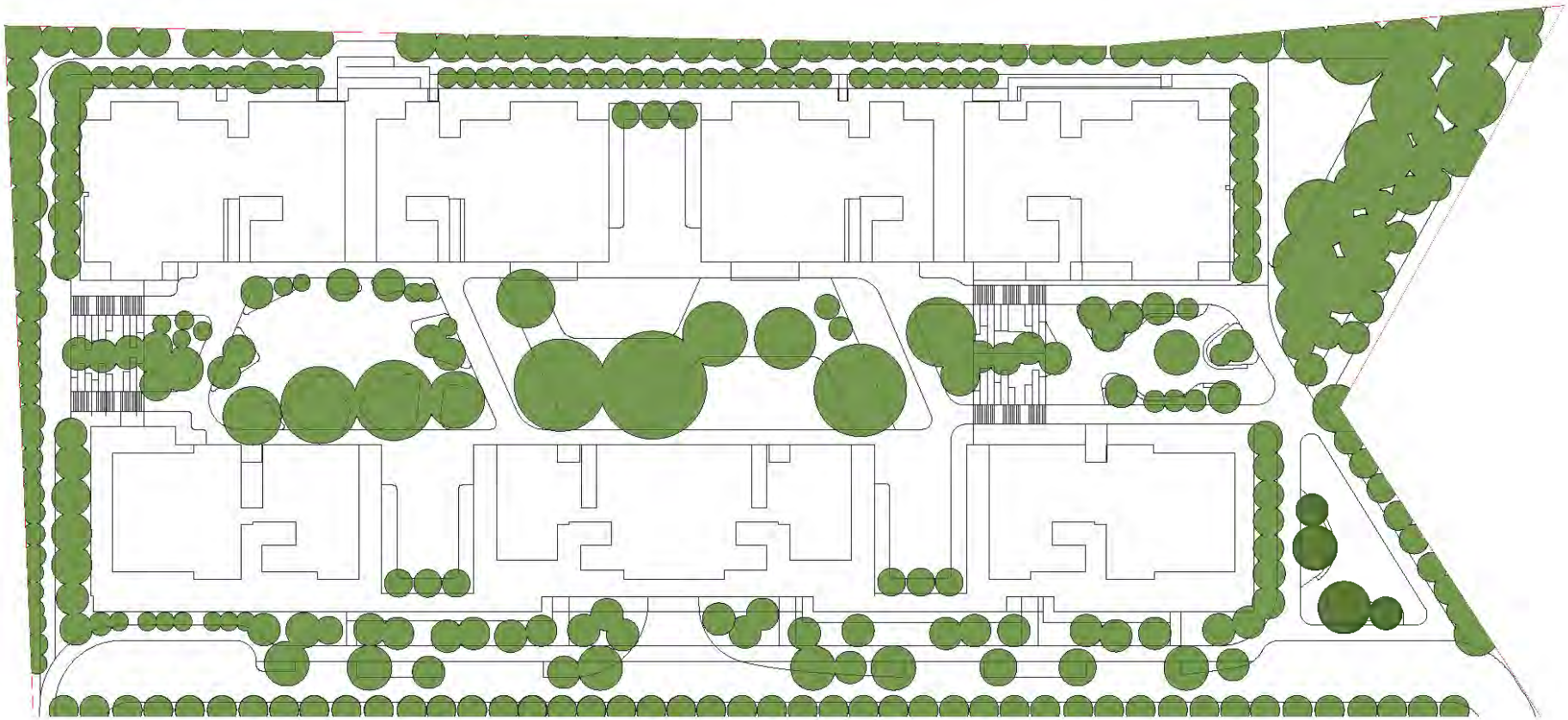
Concept Plan — Site Plan

Key

1. Level change and passive recreation
2. Green central plaza
3. Retained swale
4. Bio retention
5. Entrance ramp to carpark
6. Footpath
7. Raised mesh pathway
8. Passive recreation lawn
9. Verge planting
10. Shared street
11. Outdoor BBQ and dining
12. Outdoor Gym
13. Outdoor play zone
14. Breakout space
15. Outdoor working space
16. Rooftop planting
17. Arbor with climbers above BBQ areas
18. Future through-site link

Scale 1:500 @ A3 N

Canopy Cover Plan



Key

Canopy Coverage - 28.5%

*City of Canada Bay PRCUTS
- Sustainable Precinct Strategy -
25% Canopy Cover Target

Scale 1:500 @ A3 N

Typical Section — Building and Street Interface

Source: Antoniades Architects

Typical Section — Building and Street Interface

Source: Antoniades Architects

Typical Section — Building and Street Interface

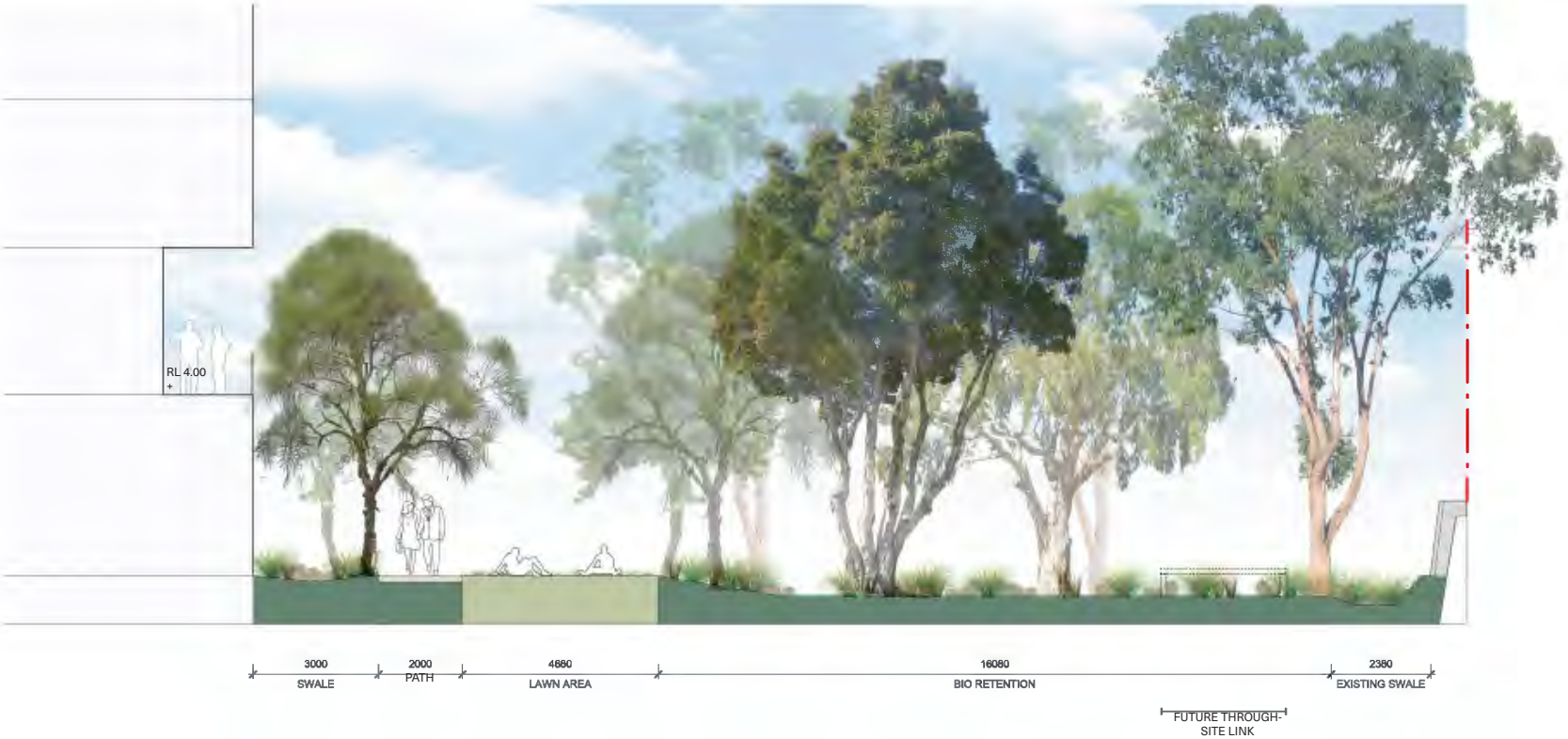
Source: Antoniades Architects

Typical Section — Building and Street Interface

Source: Antoniades Architects

Typical Section — Building and Street Interface

Source: Antoniades Architects

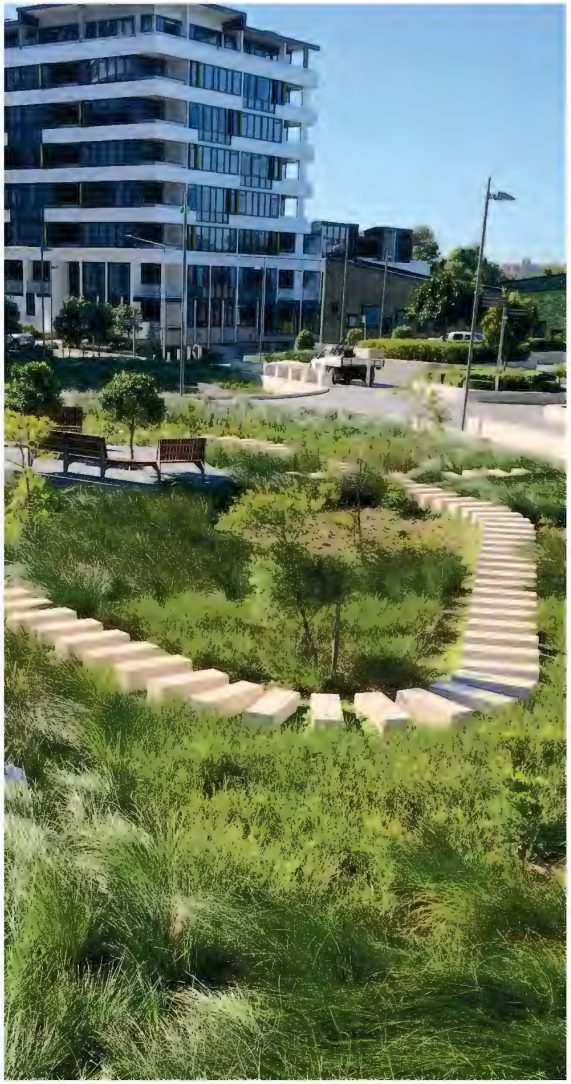


Benchmarking

Site 68 - Sydney Olympic Park

Site 68 is a lively development on what was a former sediment pond. The site plays a key role within its catchment harvesting and treating stormwater through a number of bio retention basins.

As apart of the development a number of pedestrian and active transport connections were developed to connect the site to Sydney Olympic Park Urban Centre and Bicentennial Park



Benchmarking

Harold Park - Glebe

Harold Park is a low lying site with significant flood risk. The precinct responds through a series of Bio retention basins that hug the built form. The Bio retention reduces the amount of sediment and nutrients that enters the surrounding creek systems and eventually entering Rozelle Bay.

The site has expansive programmable open space and significant publicly accessible built form activation.

Benchmarking

International House - Barangaroo

Tower rooftops integrate solar alongside planting to maximise sustainable energy sources and passive cooling. In turn increasing energy efficiency for the cells and building.

Green roofs greatly reduce surface temperatures and lower the impact of urban heat island effect and increase habitat for insects, bees and birds.

Raised mesh walkways cater for maintenance and operation needs whilst allowing ground cover to grow underneath.

Character Palette

Transport Assessment

Proposal Planning, Concord West Partnership

7 Concord Avenue, Concord West NSW 2138
20/02/2024
P2439

asongroup
info@asongroup.com.au
+61 2 9083 6601
Suite 17.02, Level 17,
1 Castlereagh Street,
Sydney, NSW 2000

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APPENDICES

Appendix A. SIDRA Modelling Results

Glossary

Acronym	Description
AGRD	Austroads Guide to Road Design
AGTM	Austroads Guide to Traffic Management
CC	Construction Certificate
Council	Canada Bay Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
FSR	Floor space ratio
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
TfNSW Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)

1 Introduction

1.1 Overview

Ason Group has been engaged by the Concord West Partnership to prepare a Transport Assessment (TA) report to support a Pre-Gateway Planning Proposal at 7 Concord Avenue, Concord West (the Site). The Planning Proposal (PP) seeks to amend the existing planning controls to facilitate a residential development on the Site for largely Build to Rent accommodation.

The Site is located within the Canada Bay Council (Council) LGA and therefore subject to its controls, It is currently occupied by a warehouse development as well as vacant land.

1.2 Transport Assessment Objectives

The broad objective of this Study is to carry out preliminary investigations into the traffic and transport impacts of the PP. More precisely, the investigations undertaken include:

- Review of relevant background studies and assessments;
- A review of the existing traffic conditions, public transport and pedestrian accessibility surrounding the Site;
- An assessment of the proposed car parking provision against State and Council planning controls and proposed measures to reduce car parking to manage traffic demand.
- An assessment of the traffic generation and distribution characteristics of the Proposal.
- A network performance assessment with consideration to the future impacts of the Proposal.
- Confirming that the proposal can provide a design compliant with the relevant Australian Standards (subject to further assessment at Development Application stage).

1.3 Reference Documents

In preparing this TA, Ason Group has referenced the following key planning documents:

- Canada Bay Development Control Plan (DCP) 2023,
- Canada Bay Local Environmental Plan (LEP) 2013, and
- State Environmental Planning Policy (Housing) 2021.

Ason Group has also referenced the following policies and guidelines relevant to the assessment:

- Australian Standard 2890.1:2004 Parking Facilities – Off-Street Car Parking (AS2890.1:2004);
- Australian Standard 2890.2:2018 Parking Facilities – Off-Street Commercial Vehicle Facilities (AS2890.2:2018);
- Australian Standard 2890.3:2015 Parking Facilities – Bicycle Parking (AS2890.3:2015);
- Australian Standard 2890.6:2022 Parking Facilities – Off-Street Parking for People with a Disability (AS 2890.6:2022);

- Transport for New South Wales Guide to Traffic Generating Developments Updated Traffic Surveys, August 2013 (TfNSW Guide Update);
- TfNSW (formerly Roads and Traffic Authority) Guide to Traffic Generating Developments, October 2002 (RTA Guide); and
- Disability (Access to Premises – Buildings) Standards 2010 (Access to Premises Standards).
- Parramatta Road Corridor Urban Transformation Strategy, November 2016 (PRCUTS)
- Parramatta Road Corridor Urban Transformation – Planning and Design Guidelines, November 2016 (Parramatta – PDG)
- Parramatta Road Corridor Urban Transformation Strategy – Precinct Transformation Report, November 2016 (the Parramatta Precinct Transportation Report).

2 The Proposal

2.1 Overview

The PP seeks to amend the controls under Council's LEP to facilitate Built-to-Rent accommodation on the Site. To assess the associated impacts arising from the proposed LEP amendments, Antoniades Architects have prepared a Reference Design to identify indicative yields, which has informed this Transport Assessment.

The Reference Design envisages a Build-to-Rent development comprising five buildings (up to 10 stories tall) and can accommodate the following:

- 324 Build-to-Rent residential dwellings, consisting of:
  - 22 x studio apartments (7%)
  - 79 x 1 bedroom apartments (24%)
  - 170 x 2 bedroom apartments (52%)
  - 53 x 3 bedroom apartments (16%)
- 8,270m^2 of Communal Open Space and 1,197m^2 of Internal Open Space
- A laneway along the eastern frontage of the Site providing vehicular and pedestrian access to the broader area.
- 206 parking spaces.

In total, the development provides for 29,442m^2 of GFA.

Reduced copies of the proposed plans, prepared by Antoniades Architects are provided below.

It is also noted, the proposed laneway has been designed in accordance with a Shared Zone to provide benefit to the general public.

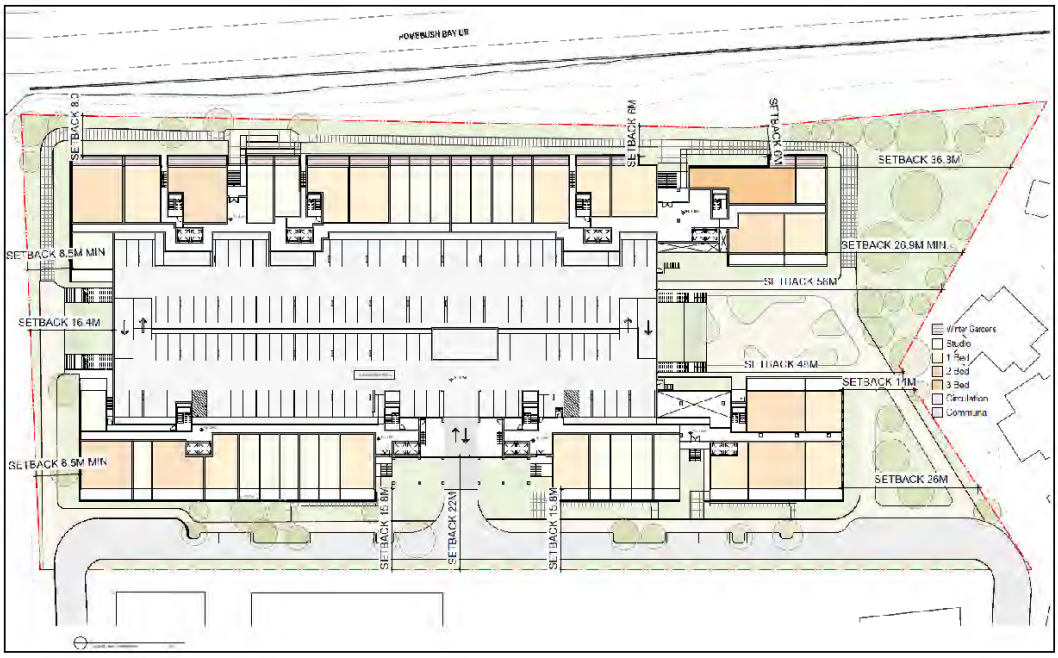


Figure 1: Ground Floor Plan

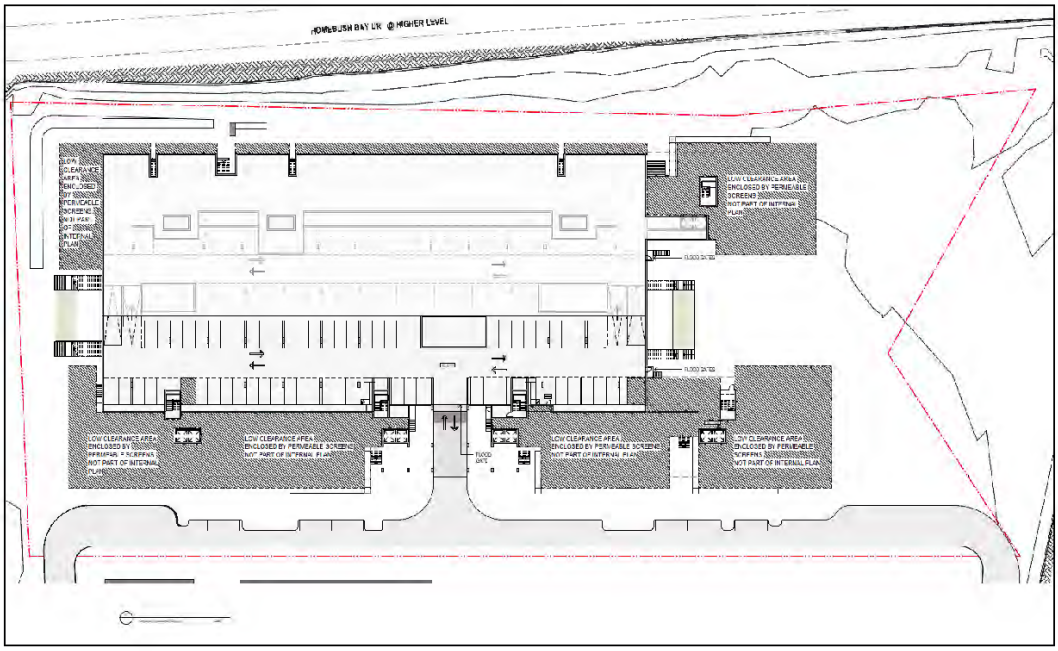


Figure 2: Ground Level Undercroft

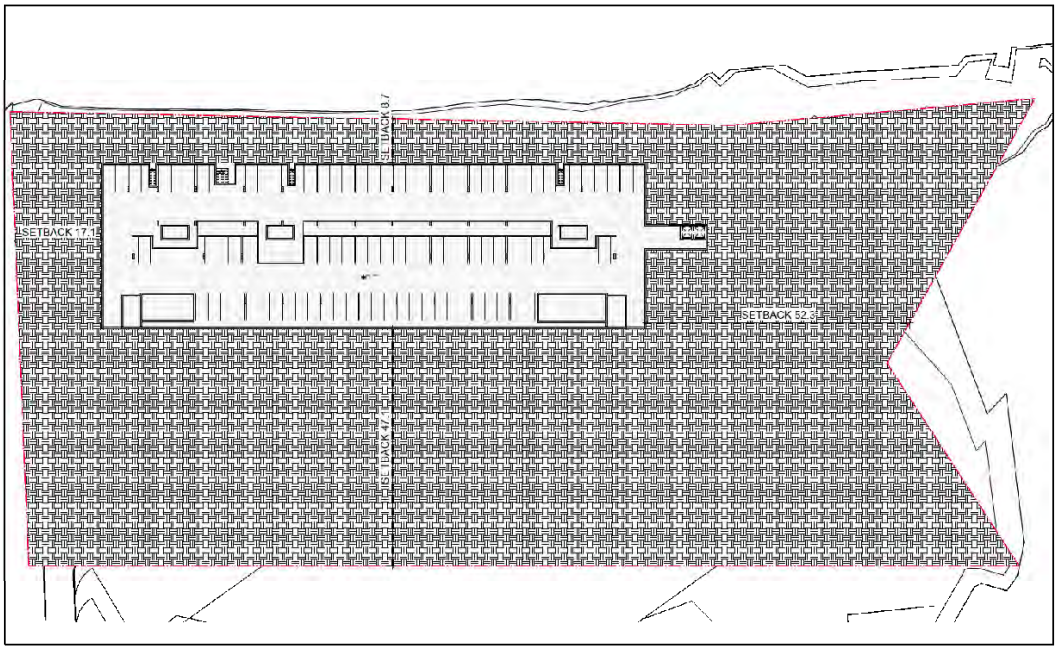


Figure 3: Lower Ground

3 Existing Conditions

3.1 Site Context

The Site is located at 7 Concord Avenue, Concord West. It has a site area of 16,520m^2 and is legally comprised of Lot 1 DP219742 (zoned E4 - *General Industrial*) and Lot 1 DP270137 and (zoned R3 – *Medium Density Residential*) under Council's LEP.

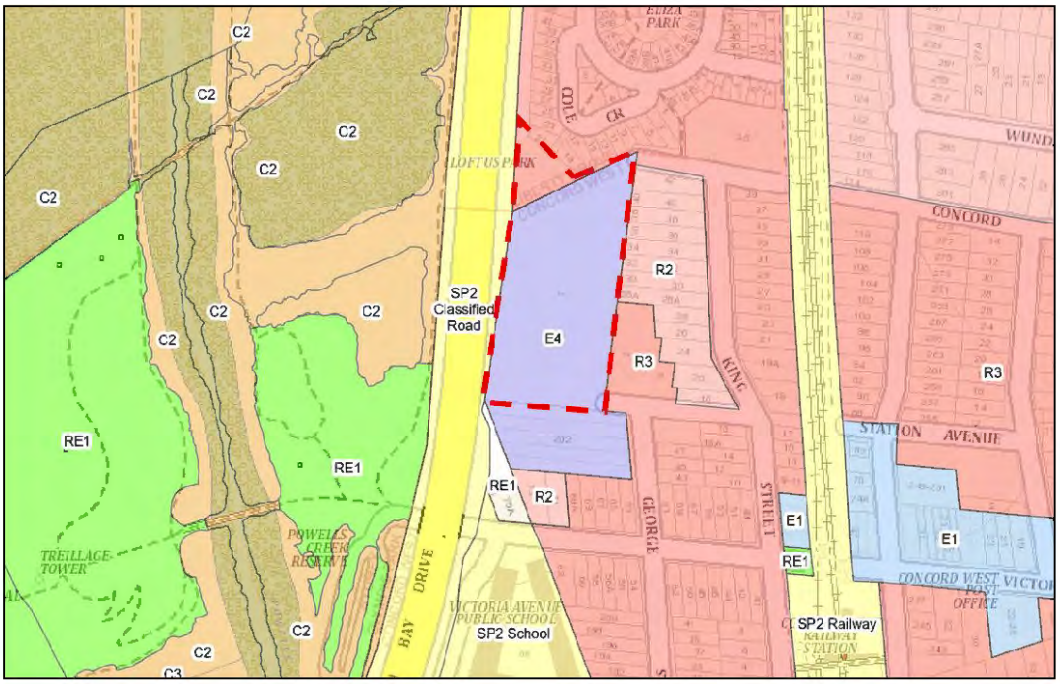


Figure 4: Existing Site Zoning

The Site has minor frontages to Station Avenue along the south-east boundary and Concord Avenue to the north east boundary, with both of these streets terminating at the subject site. Immediately surrounding the Site are low to medium density developments to the north and east, industrial development to the south, and the corridor for the Homebush Bay Drive to the west.

The existing development on-site is a recreation facility occupying a warehouse building, which provides activities including go-karting, paintball and laser-tag. The development is provided with access from Station Street only.

An appreciation of the existing Site is shown in **Figure 5**.

Figure 5: Site Context

In a broader context, the site is in proximity to several facilities and retail areas. These include Concord West Station (300m south-east), Victoria Avenue Public School (120m south), Montessori Academy preschool (800m south), Concord West Retail Precinct (300m east) and Bicentennial Park (300m southwest). More regional facilities include Concord Repatriation General Hospital (1.2km north-east), Rhodes Waterside Shopping Centre (1.6km north) and the Bakehouse Quarter Entertainment Precinct (2.0km south) and Out Lady of Assumption Catholic Primary School (1.4km).

3.2 Road Network

The key roads surrounding the Site are described below in **Table 1**,with the road hierarchy around the Site are shown by **Figure 6**.

TABLE 1: ROAD HIERARCHY

Road	Description	Typical Road Characteristics
Homebush Bay Drive	An arterial road generally running in a north-south direction to the west of the Site. The road services traffic between Lane Cove Road in the north and Roberts Road/Hume Highway in the south. It provides for 2 lanes in each direction for two-way flow in the vicinity of the Site; has full time No Stopping restrictions on either side of the road, and has a posted speed limit of 80 km/h.	
M4 Western Motorway	A motorway with an 8 lane dual carriageway motorway running from Haberfield in the east, and Glenbrook in west, where it continues as the Great Western Highway. The M4 Motorway generally runs in an east-west direction and has full time No Stopping restrictions on either side of the road.	
Parramatta Road	Parramatta Road generally runs in an east-west direction. It consists of three lanes in each direction, and connects with Underwood Road and George Street via signalised intersection.	
Underwood Road	Underwood Road has two-lanes in each direction and unrestricted on-street parking on both sides of the carriageway. It forms a priority controlled intersection with Pomeroy Street to the west of the Site.	

Pomeroy Street	Pomeroy Street has one lane in each direction and unrestricted on-street parking on both sides of the carriageway. It connects with George Street and Underwood Road via a signalised intersection and Queen Street via a roundabout intersection.	
George Street	George Street has one lane in each direction and unrestricted on-street parking on both sides of the carriageway. It connects with Pomeroy Street and Parramatta Road via a signalised intersection.	

Figure 6: Road Hierarchy

3.3 Existing Road Network Operation

3.3.1 Existing Traffic Volumes

Traffic surveys were undertaken on Tuesday 14 November 2023 in conjunction with a site visit, to establish the baseline conditions on the surrounding road network for the following key intersections:

- Pomeroy Street / George Street – Signalised Intersection.
- Pomeroy Street / Underwood Road – Signalised Intersection.
- Parramatta Road / George Street – Signalised Intersection.
- Parramatta Road / M4 Motorway Ramp

The traffic survey data indicated the following:

- The morning peak hour period was between 8:00 – 9:00.
- The evening peak hour period was between 16:45 – 17:45.

The existing traffic volumes of the peak periods on the study road network – derived from the traffic surveys – are presented in **Figure 7** and **Figure 8**.

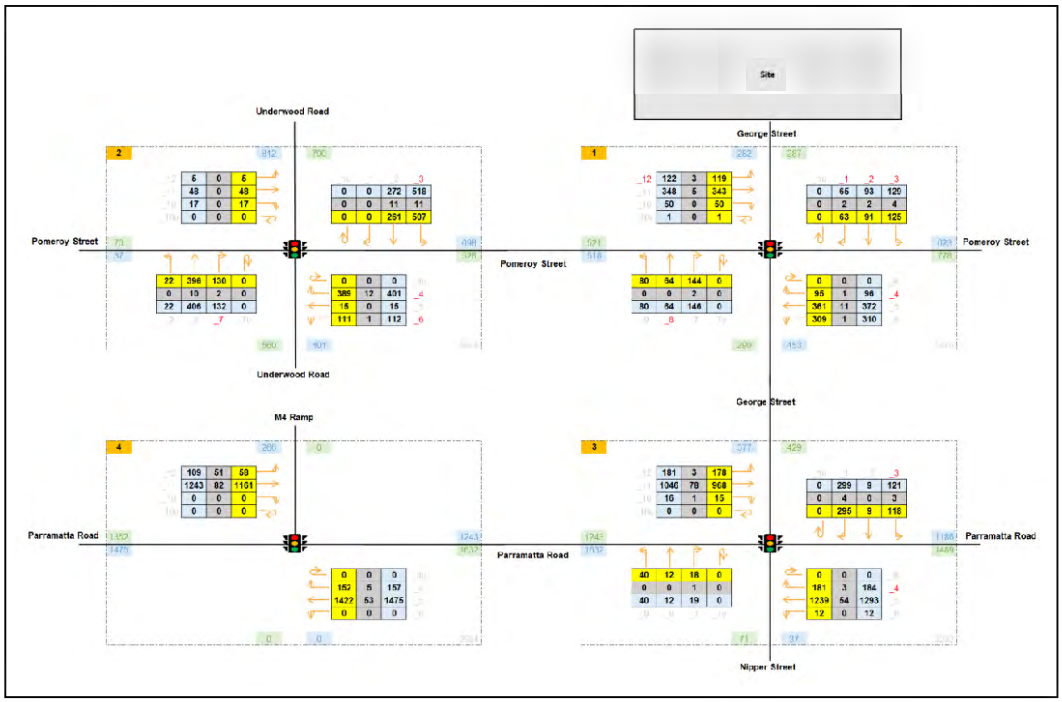


Figure 7: Baseline Traffic Volume - AM Peak

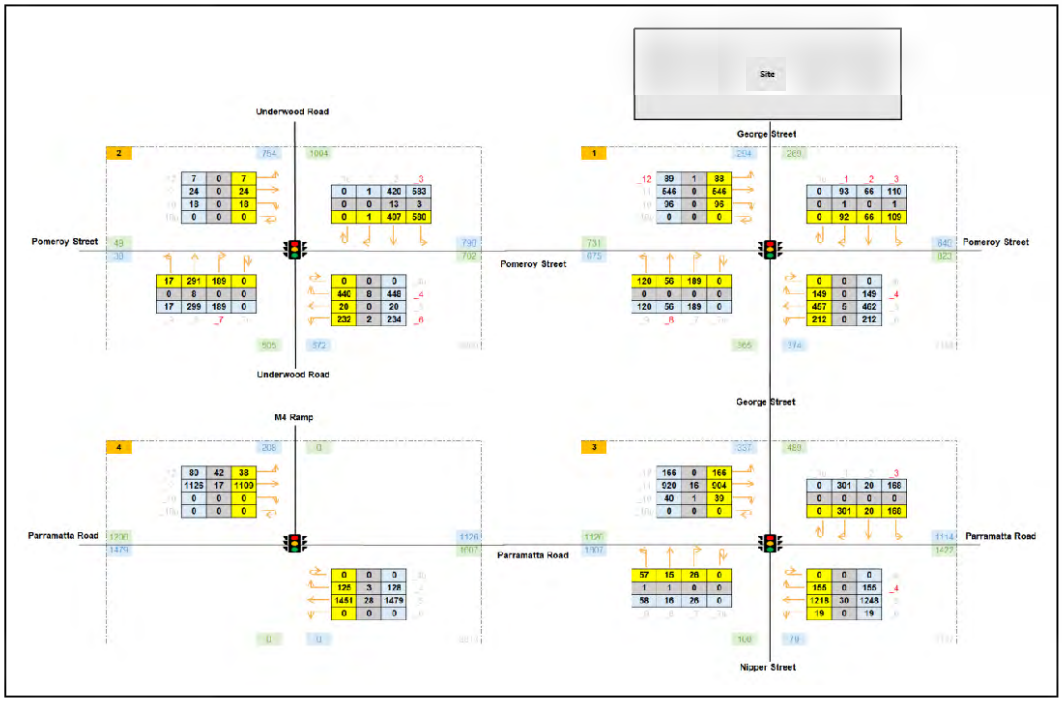


Figure 8: Baseline Traffic Volume - PM Peak

3.3.2 Intersection Performance

SIDRA intersection modelling has been undertaken to establish the baseline performance of the key intersections. In this regard, SIDRA modelling outputs a range of performance measures relevant to this assessment, including:

- *Degree of Saturation (DOS)* – The DOS is used to measure the performance of intersections where a value of 1.0 represents an intersection at theoretical capacity. As the performance of and intersection approaches DOS of 1.0, queue lengths and delays increase rapidly. It is recommended that DOS to be less than 0.9, with satisfactory intersection operation generally achieved with a DOS below 0.8.
- *Average Vehicle Delay (AVD)* – The AVD (or average delay per vehicle in seconds) for intersections also provides a measure of the operational performance and is used to determine an intersection's Level of Service (see below). For signalised intersections, the AVD reported relates to the average of all vehicle movements through the intersection. For priority (Give Way, Stop & Roundabout controlled) intersections, the AVD reported is that for the movement with the highest AVD.
- *Level of Service (LOS)* – This is a comparative measure that provides an indication of the operating performance, based on AVD.

The table below provides a recommended baseline for assessment as per the RMS Guide.

TABLE 2: LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS

Level of Service	Average Delay per Vehicle (sec/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	Less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	More than 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode or major treatment.

3.3.3 Existing Intersection Performance

The results of the SIDRA analysis for the 3 intersections in the study area is shown below and detailed intersection performance outputs are attached in **Appendix A**.

TABLE 3: BASELINE INTERSECTION PERFORMANCE

Intersection	Period	DOS	AVD	95% Queue	LOS
Pomeroy Street / George Street	AM	0.58	18.9	60.7 (W)	B
	PM	0.80	28.7	106.3 (E)	C
Pomeroy Street / Underwood Road	AM	0.87	30.6	128.7 (E)	C
	PM	0.91	40.2	227.2 (E)	C
Parramatta Road / George Street	AM	0.96	59.1	364.5 (W)	E
	PM	0.89	42.9	240.5 (E)	D
Parramatta Road / M4 Ramp	AM	0.94	12.5	178.0 (W)	A
	PM	0.78	5.2	96.5 (W)	A

With reference all of the intersections are operating to a “satisfactory” level with reference to the SIDRA modelling guidelines except for the Parramatta Road / George Street intersection, which is operating at “capacity” during the AM Peak and “near capacity” during the PM peak.

3.4 Crash Statistics

A review of the Transport for New South Wales (TfNSW) Centre for Road Safety has been undertaken to analyse the crash history around the Site. The locations where crashes were recorded (between 2018 to 2022) are shown in **Figure 9** and **Table 4.**

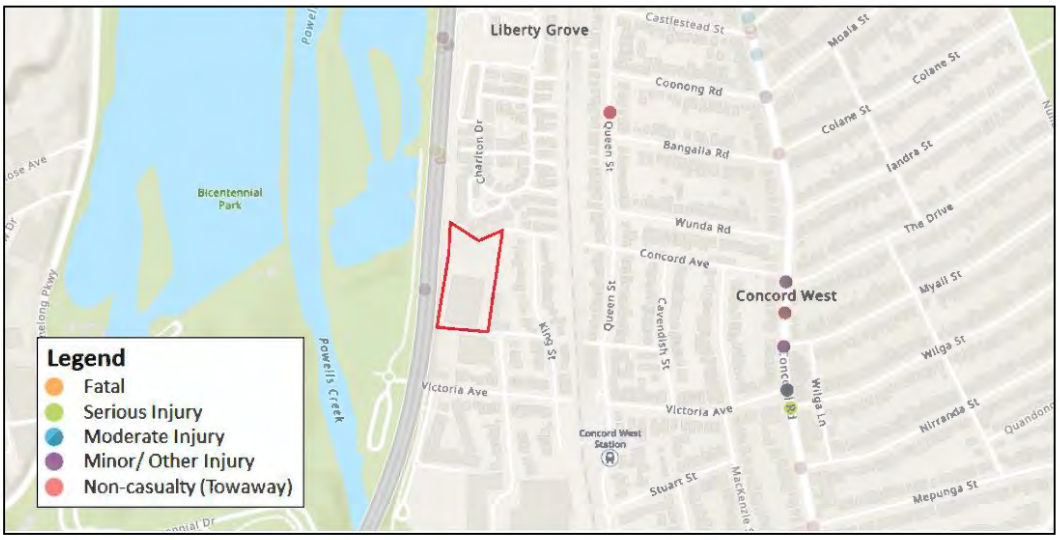


Figure 9: Crash Statistics Map

TABLE 4: CRASH SUMMARY

Year	Crash ID	Lighting	Description	Degree of Crash
2018	1181387	Daylight	Rear end	Moderate Injury
2019	1198652	Daylight	Rear end	Minor/Other Injury
2019	1221227	Darkness	Cross traffic	Moderate Injury
2020	1236934	Daylight	Out of cont on bend	Serious Injury
2020	1239189	Darkness	On road-out of cont.	Non-casualty (towaway)
2021	1264453	Daylight	Rear end	Minor/Other Injury
2021	1283446	Daylight	Lane change right	Moderate Injury
2022	1297183	Dusk	Rear end	Moderate Injury

With reference to the above, no discernible patterns were identified within the immediate vicinity of the Site.

3.5 Existing Public & Active Transport Infrastructure

The Site is well serviced by local public & active transport infrastructure as evidenced by the assessment below which evaluates transport accessibility for each mode. **Figure 10** provides an overview of the public an transport networks in the vicinity of the Site.

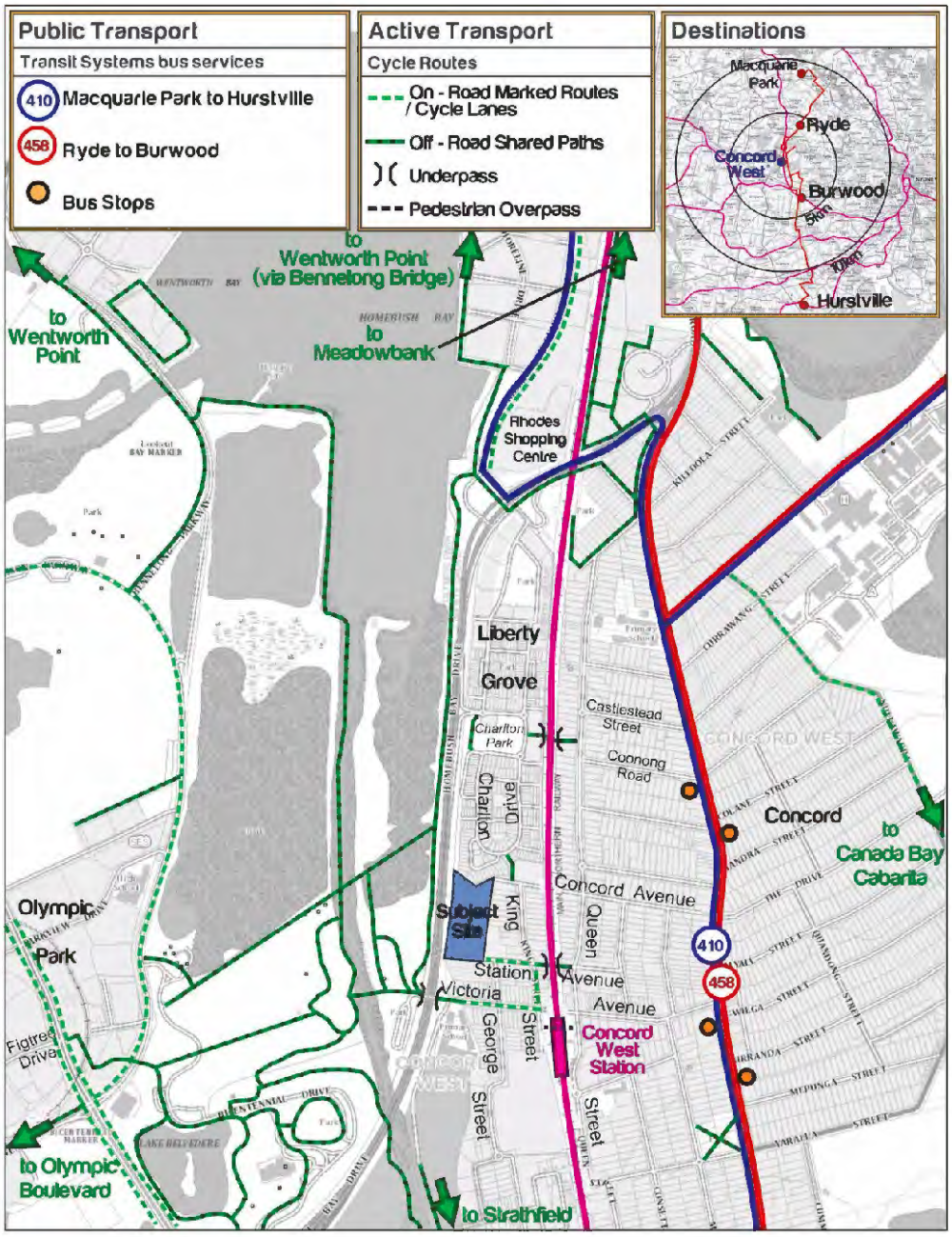


Figure 10: Public Transport Network

3.5.1 Train Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area (Transport for NSW, December 2013) state that rail services influence the travel mode choices of areas within 800 metres walk (approximately 10 minutes) of a railway station. It is therefore noteworthy that the Site is located only approximately 300 metres (4 minutes) walking distance to Concord West Station. Concord West Station is serviced by the T9 Northern Line, with connections to the Sydney CBD, Epping and Chatswood.

The following details the Concord West operating times.

TABLE 5: TRAIN SERVICE & FREQUENCY

Line	Destination	Number of services		
		AM (8am – 9am)	Midday (12pm – 1pm)	PM (5pm – 6pm)
T9 Northern Line	To City	3	4	4
	From City	4	4	4

The Northern Line and Connections to the broader network are shown below in **Figure 11**.

Figure 11: T9 Northern Line

It is notable that Greater Sydney has experienced a reduction in the number of overall trips made on the public transport network since the Covid-19 pandemic. **Figure 12** presents the available Transport for NSW data on rail patronage for the T9 Northern Line between February 2019 to September 2023.

Figure 12: Change in Public Transport Usage

With reference to the above, train usage is consistent with the wider Sydney Trains network, with patronage having increased since the low in September 2021. However, usage is still less than that prior to the COVID-19 pandemic due. This can be attributed to more flexibility with working from home practices. Based on the current uptrend, it is expected usage will be of a similar level to pre COVID-19 between 2025-2030, depending on workplace behavioural trends.

3.5.2 Bus Services

With reference to **Figure 13**, the closest bus stops to the Site are along Concord Road, approximately 700m east of the Site. Bus routes 410 and 458 services these stops which provides connections to the surrounding region and to Sydney CBD during the morning and evening peaks. It is noted however that Integrated Public Transport Service Planning Guidelines state that bus services influence the travel mode choices of sites within only 400 metres (approximately 5 minutes) of a bus stop. Therefore, the existing bus services are unlikely to have a significant impact of travel behaviour.

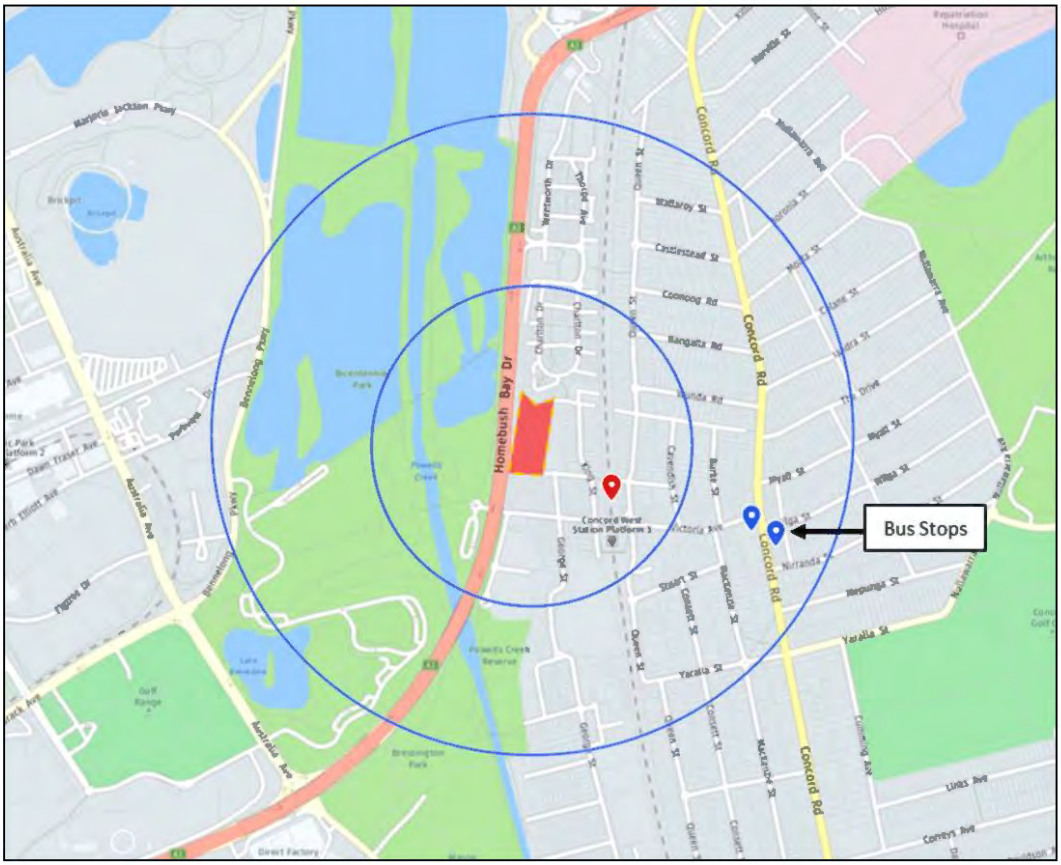


Figure 13: Public Transport

The following details the bus services that operate at these bus stops.

TABLE 6: BUS SERVICE & FREQUENCY

Bus Route No.	Route Description	Number of services		
		AM (8am – 9am)	Midday (12pm – 1pm)	PM (5pm – 6pm)
410	Hurstville to Macquarie Park	4	4	6
	Macquarie Park to Hurstville	6	4	5
458	Ryde to Burwood	2	2	2
	Burwood to Ryde	2	2	2

Note: Services valid from 10 December 2023

3.5.3 Cycle Routes

As shown in Council's visionary cycling map (Canada Bay Local Strategic Planning Statement) reproduced below, Victoria Avenue is designated as an on-street route which provides key east-west connectivity in the vicinity of the Site, including to Bicentennial Park / Sydney Olympic Park. While an off-road path provides connectivity to North Strathfield Station (relevant for Metro West), future connections to Queen Street on the eastern side of the T9 rail corridor will further enhance north-south connectivity.

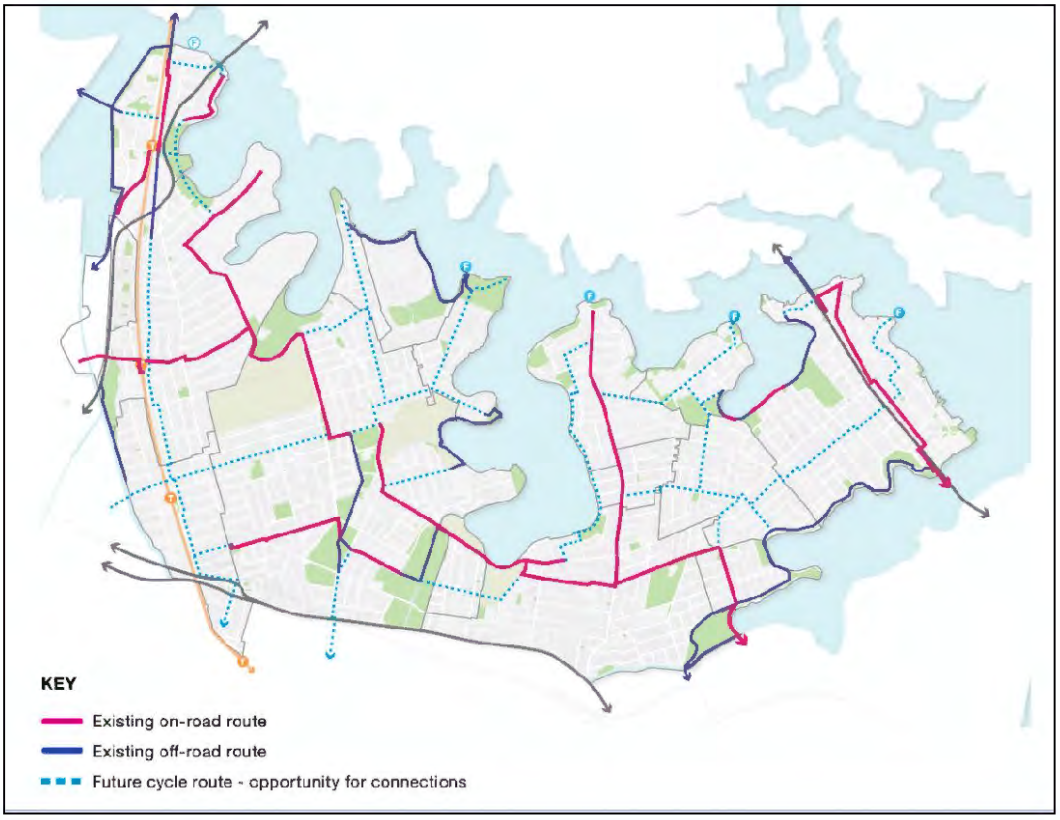


Figure 14: Canada Bay Cycle Connections

3.5.4 Pedestrian Accessibility

There are currently pedestrian footpaths within the general vicinity of the Site, on at least one side of the road, approximately 1.5m in width, allowing for pedestrian travel to and from the available public transport options. It is noted however that there are no footpaths provided from the Site's southern frontage along Station Avenue, with Site observations indicating this is currently used by residents in the area to access Concord West Station.

3.6 Existing Travel Behaviour

3.6.1 Mode Share

An analysis of the ABS Census Data was undertaken for 2016 and 2021 to determine travel mode behaviour of people travelling from Concord West - North Strathfield Statistical Area Level 2 (SA2) for work. The results are presented below, and have been filtered for only those people who travelled to work noting that the August 2021 census date was impacted by a Covid-19 related lockdown imposed by the NSW Government for all non-essential trips.

TABLE 7: EXISTING MODE SHARE FOR RESIDENTS IN 120011672

	Percentage (%) of total trips	
Travel Mode[1]	**2016**	**2021**
Car (as driver)	48%	66%
Car (as passenger)	3%	6%
Train	39%	16%
Bus	2%	2%
Bicycle	1%	1%
Walked only	6%	5%
Other	2%	5%

Note: 1. Total mode share excludes persons which worked from home or did not go to work

The above table demonstrates a predominant modal dependency on private vehicle usage when considering both census years, with train usage taking a notable decline of 23% in 2021. Regarding mode share for 2021, the census was undertaken during the height of a COVID-19 lockdown in August 2021, with the lockdown period between June and September.

As such, the vast majority of workers travelling to and from work were essential workers, with public transport patronage reducing significantly to reduce the spread of the virus. The 2021 data is therefore not an accurate depiction of current mode share with the 2016 data being used for reference.

3.6.2 2016 Worker Travel Destinations

It is expected that a significant proportion for commuter trip would be undertaken via train. Therefore, to better understand the existing travel behaviour for train trips, a visualisation is provided below for destinations reached by residents (Concord-West North Strathfield) commuting via train, as per the 2016 census.

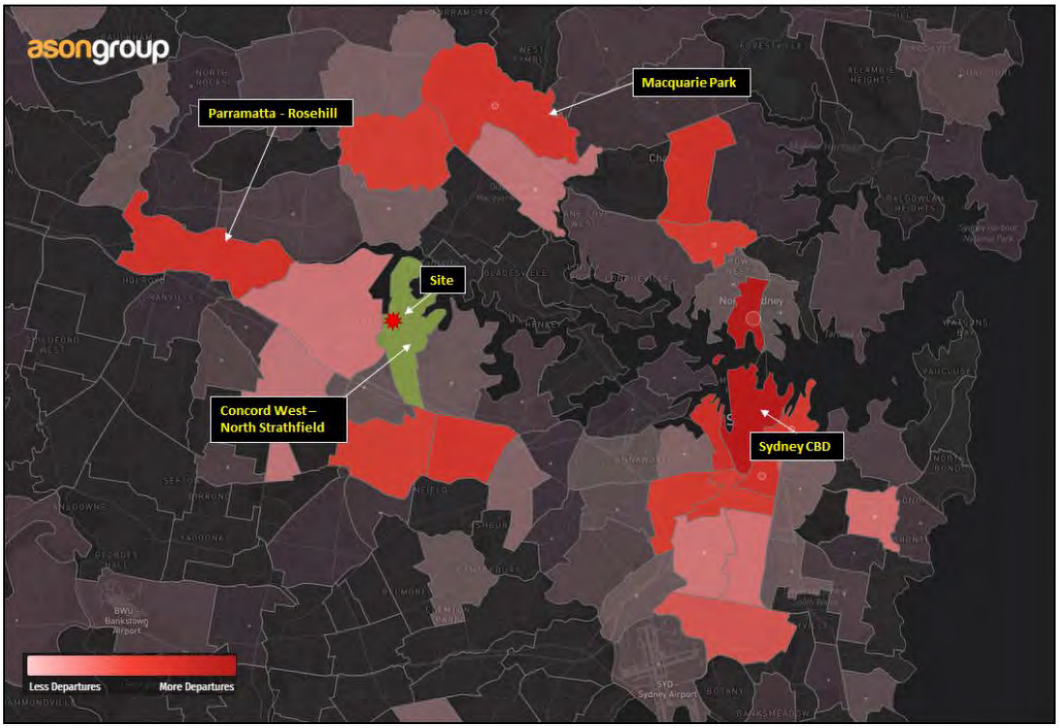


Figure 15: 2016 Census Data - Departures via Train

As seen above, the highest concentration of workers travelling to work using the train are doing so to reach the Sydney CBD with other major destinations being Strathfield, Parramatta, Macquarie Park and Chatswood. This is contrasted with **Figure 16** identifies travel destinations for workers within the SA2 area via car travel.

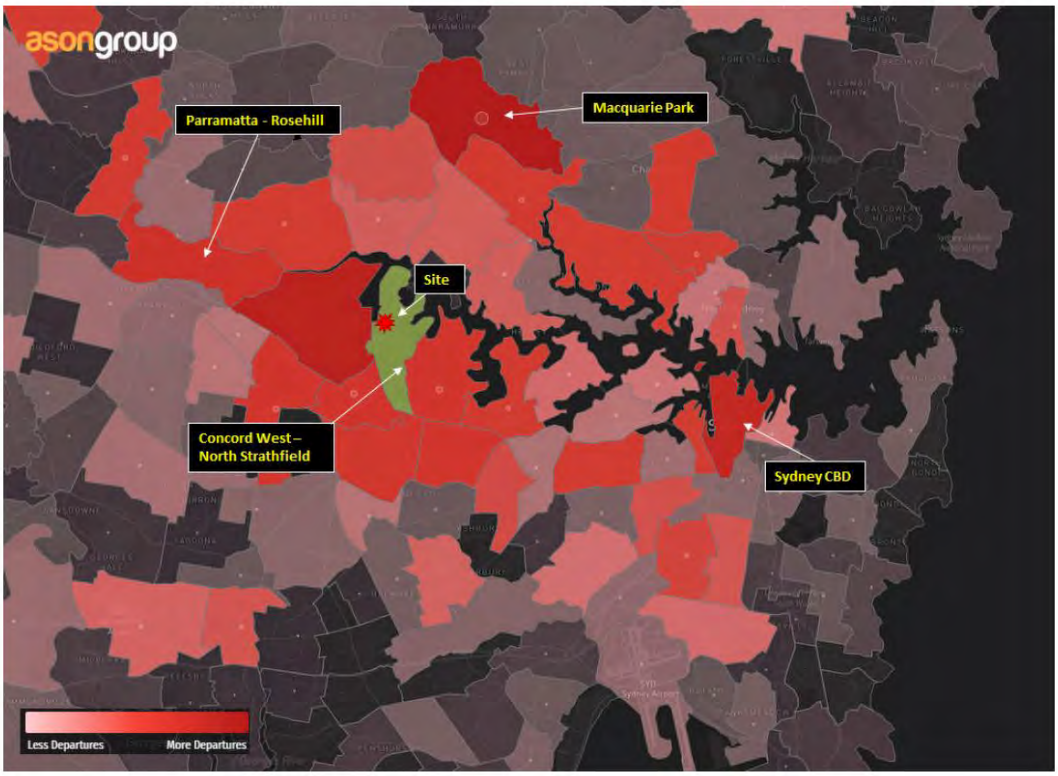


Figure 16: 2016 Census Data - Departures via Car

When comparing destinations made by train vs car, it is evident workers within the SA2 have a high reliance on car travel to reach destinations within the immediate surroundings generally within 5km, while rail generally being used to reach further destinations accessible on the Sydney Trains network.

Furthermore, **Figure 17** below illustrates journey to work patterns via bus travel.

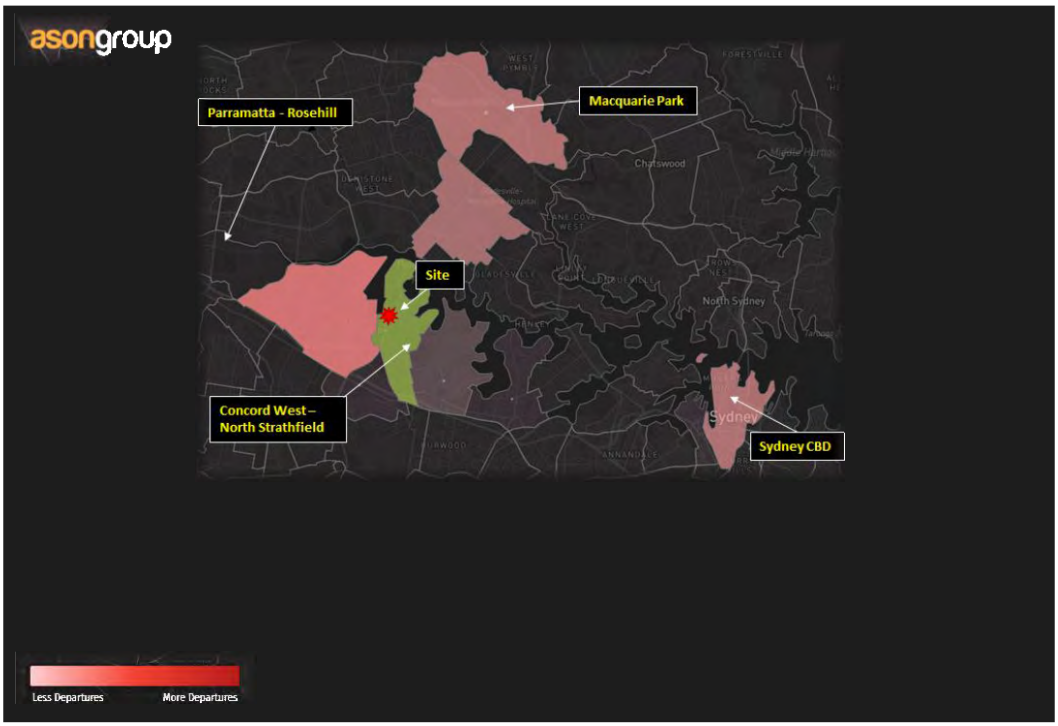


Figure 17: 2016 Census Data - Departures via Bus

As seen above, workers in the SA2 area have a low reliance on bus travel when travelling to work. This could be reflective of a lack of relevant bus services in the areas, with workers opting to use a car over a bus when travelling to the same destinations.

4 Planning Context

4.1 Strategic Planning

4.1.1 WestConnex

WestConnex has delivered motorway upgrades to connect the M4 and M5 motorways with the intention of accommodating Sydney's growing population and transport demands. The key benefits of WestConnex included easing congestion, reducing greenhouse gas emissions and supporting Sydney's long term economic growth. However, as discussed further within this report, there is no evidence at this stage that WestConnex has not actually assisted in reducing traffic growth along Parramatta Road.

The following planned / completed projects were identified to meet the objectives of WestConnex:

- M4 Widening — The M4 widening provides additional lanes in each direction between Parramatta and Homebush. 7.7km of surface motorway and 5.5km of tunnel was delivered in 2023. The new extension of the M4 opened in 2023 and links the M4 at Haberfield to the M8 at St Peters. The extensions of the M4 and M8 also include future proofed connections to the soon to open Rozelle Interchange.
- M5 East — The M5 East Motorway is an existing motorway, opened in 2001, that links the M5 South West with the CBD Sydney Airport, Eastern Suburbs and Port Botany. The M5 East now forms part of the WestConnex motorway network. The M8 now open, doubles the capacity of the M5 East.
- M8 — The WestConnex M8 opened in July 2020 and features a 9km tunnel linking the M5 East at Kingsgrove to the newly delivered St Peters Interchange. The new extension of the M8 opened in 2023 and links the M4 at Haberfield to the M8 at St Peters. The extensions of the M4 and M8 also include future proofed connections to the soon to open Rozelle Interchange.
- M4-M5 Link — Rozelle Interchange and Iron Cove Link opened in November 2023 and provides a new underground motorway interchange to City West Link and underground bypass of Victoria Road between the Iron Cove Bridge and the ANZAC Bridge, with links to the proposed Western Harbour Tunnel.

4.1.2 Sydney Metro - Metro West

Metro West is a transformational urban rail project connecting the Sydney CBD with Parramatta and Westmead, with stations including Olympic Park, Pyrmont and The Bays precinct. The project is being delivered by Sydney Metro and is planned for completion in 2030.

Designed to alleviate congestion and enhance connectivity, this project features stations strategically positioned along its route at key employment destinations and interchanges. While Concord West does not directly host a station, the project's impact on the suburb is anticipated through the proximity of North Strathfield station, approximately 1.2km to the south. Concord West stands to benefit from improved regional connectivity, as residents and businesses gain easier access to the extended transport network, potentially

reducing traffic volumes in the locality and expanding the number of locations within Greater Sydney that are easily accessible by rail.

Figure 18: Sydney Metro West Line

4.2 Parramatta Road Corridor Urban Transformation Strategy (PRCUTS)

The Site is within the Parramatta Road Urban Transformation Corridor, which is planned as an urban renewal area focusing on increased housing, economic activity and social infrastructure. The Corridor is divided into 8 precincts, which are identified as having the potential to support growth, with access to public transport, services, and jobs. The Urban Transformation Corridor is shown in **Figure 19**, where the Site has been identified within the Homebush Precinct.

Figure 19: Site Within Urban Transformation Corridor

One of the seven principles in the PRCUTS is to provide "accessible and connected" modes of transport. The intent was for this to occur over two stages; 2016-2023 and post 2023. Land Use changes were originally expected to occur pre-2023, with the NSW Government to explore long term (post 2023) rail and light rail options to serve the Corridor.

A number of projects associated with the revitalisation of the Corridor have been on hold while a number of traffic studies were completed. However, in July 2021, the Department of Planning and Environment (DPE) released the Implementation Update 2021, in addition the PRCUTS to allow Planning Proposals to be lodged, receive a gateway determination and go on public exhibition while the traffic studies were completed.

Subsequently, numerous studies were completed and strategies drafted to inform a Planning Proposal led by Canada Bay Council to enact the outcomes of the PRCUTS for relevant locations within the local government area. These are outlined below, noting that Council was successful in adopting changes to the Canada Bay Local Environmental Plan 2013:

- A traffic and transport action plan was prepared, which is discussed in detail in Section 3 in relation the Homebush North precinct;
- Local Strategic Planning Statements have been prepared by each council along the Corridor (2020);
- Local Housing Strategy has been prepared by each council along the Corridor (2020);
- NSW Government announced the delivery of Sydney Metro West (October 2019);
- Transport for NSW is progressing planning for public and active transport improvements along the road corridor; and
- The Parramatta Road Urban Amenity Improvement Program has progressed significantly and refined some infrastructure items through the detailed design process.

Council also implemented changes to the DCP in March 2023 to include the PRCUTS areas as Special Precincts. This is discussed further in **Section 5** in the context of changes to the local network around the Homebush – North site.

4.3 Planning Policies and Instruments

4.3.1 State Environmental Planning Policy (Housing) 2021

In June 2023, the NSW Government announced the following proposed changes to encourage private developers to boost affordable housing and deliver more market housing:

- residential development valued at more than $75 million will be eligible for a new state significant development (SSD) pathway, providing it includes at least 15 per cent of the total gross floor area as affordable housing
- amendments to the existing in-fill affordable housing provisions under the Housing SEPP to introduce a new floor space bonus of 30 per cent and a height bonus of 30 per cent for residential developments with at least 15 per cent affordable housing (note: affordable housing gross floor area is required to be used for affordable housing purposes for a minimum period of 15 years).
-

4.3.2 Canada Bay Environmental Strategy 2020

The Canada Bay Environmental Strategy 2020 is a comprehensive plan designed to ensure responsible environmental management in the Canada Bay area of Sydney. It outlines clear objectives focused on protecting the natural environment, promoting sustainable practices, addressing climate change, preserving biodiversity, and managing resources effectively. The strategy aims to guide local initiatives and policies toward creating a more sustainable future for the region. Its key goals include advocating for eco-friendly practices, ensuring efficient resource use, and engaging the community in environmental conservation efforts.

The key objectives in relation to transport are identified below.

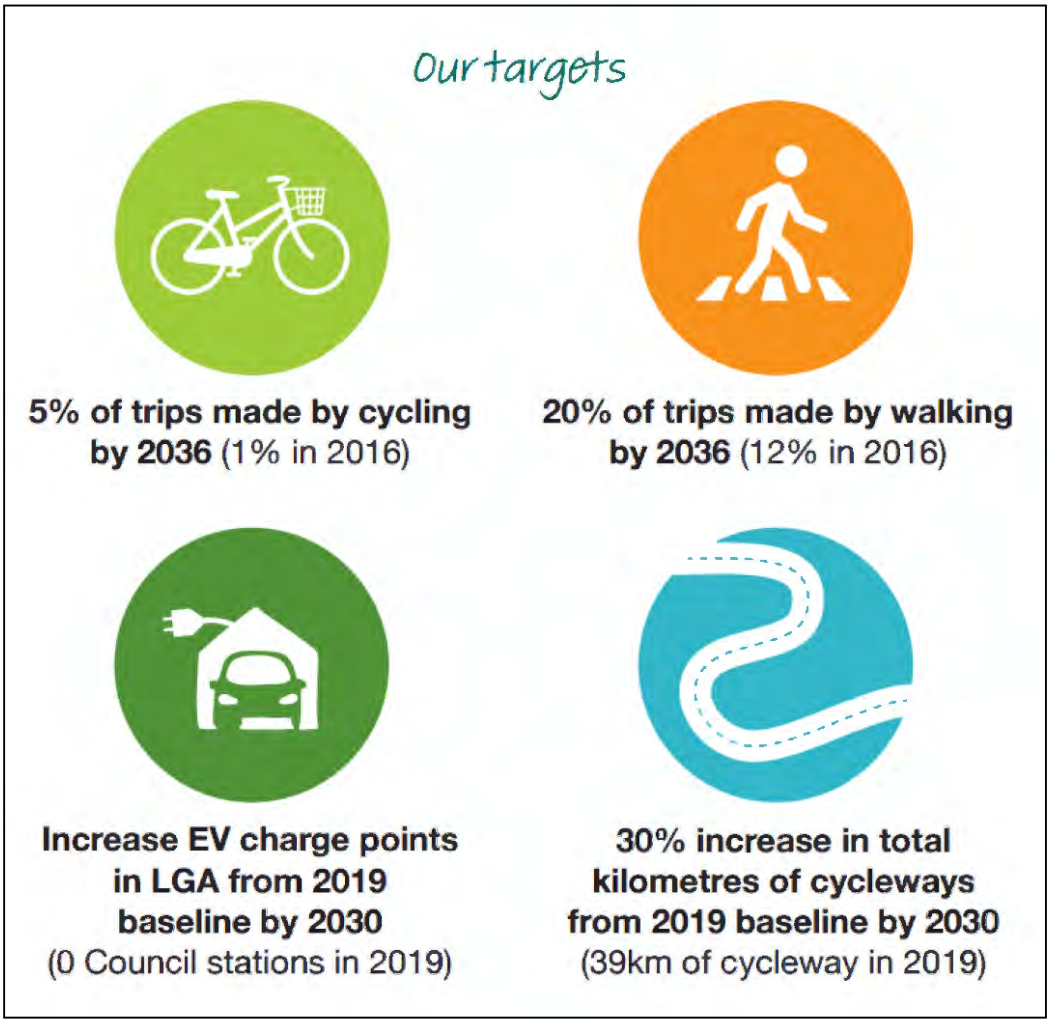


Figure 20: Transport Goals

4.3.3 Canada Bay Community Strategic Plan 2022

This plan articulates goals and strategies for the Council LGA to deliver outcomes for the community across five key themes. The plan is based on significant community consultation and reflects pedestrian outcomes in a number of its areas.

- Improving sustainability and reducing car use through increasing numbers of people walking, cycling and using public transport.
- Vibrant local centres with a mix of retail and services in these areas to encourage walking and cycling to access them.
- A measure of improved connectivity across the LGA would be an increase the number of people walking and cycling to work.

- Community consultation identified desires for:
  - More services to be located within walking distance to residential areas.
  - A more accessible waterfront using bike and walking paths.

4.3.4 City of Canada Bay Development Control Plan – Part K Special Precincts

The Site is situated within the Homebush North (PRCUTS) Precinct with reference to Part K of the DCP. **Figure 21** identifies Council's current Public Domain Plan within the context of active transport connections in proximity of the Site.

As seen, the Homebush North precinct Public Domain Plan envisages a through site link along the southern and western frontages of the Site.

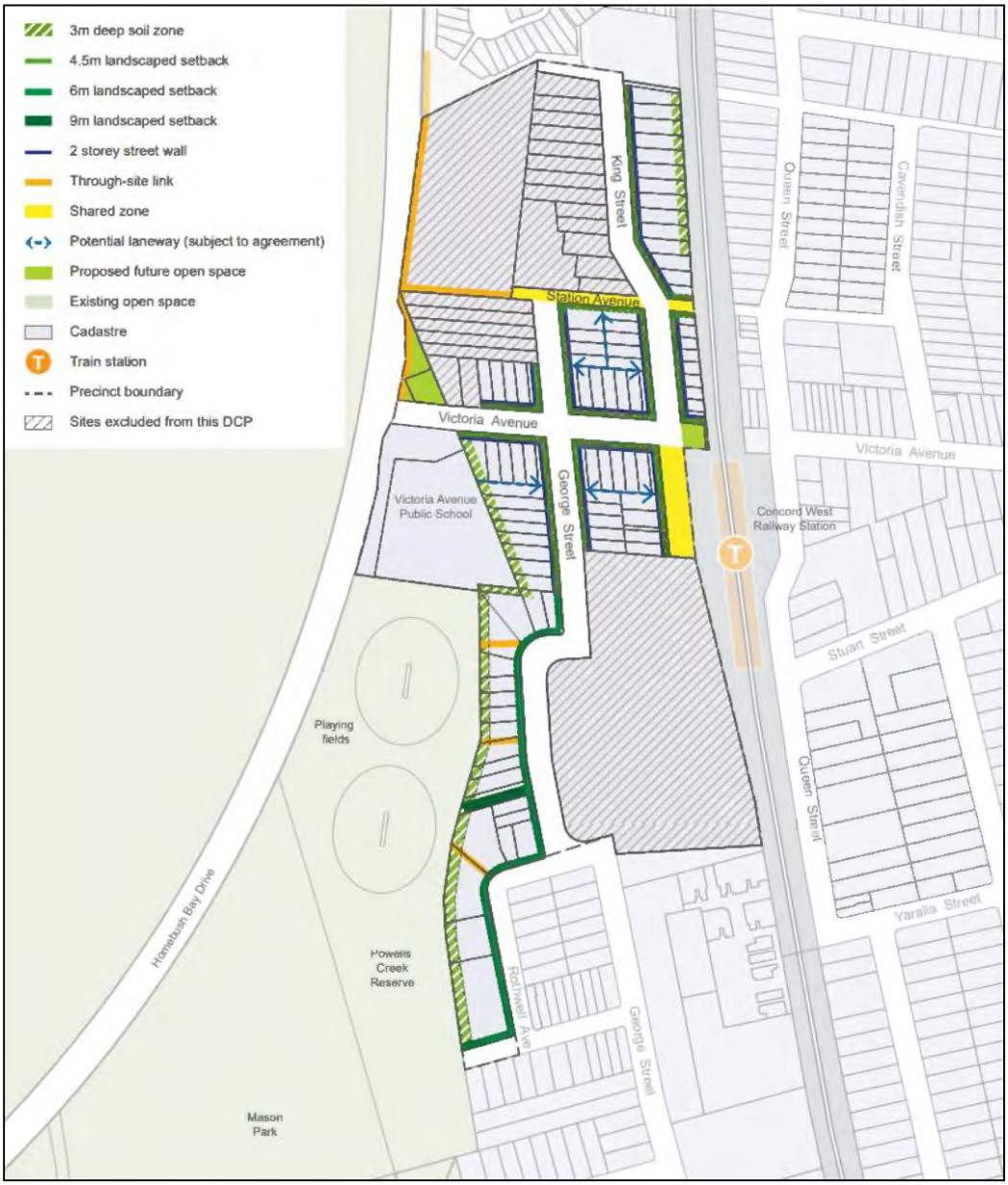


Figure 21: Homebush North Precinct Public Domain Plan

5 PRCUTS – Homebush North Precinct

5.1 Homebush North Precinct Overview

5.1.1 Homebush Precinct

The Site is within the Homebush Precinct, which has a vision to provide a residential hub with supporting mixed-use developments. An additional 5,250 dwellings and 7,250 jobs are targeted by 2050 to accommodate a population of 19,750.

The Parramatta Road Urban Transformation Strategy Planning and Design Guidelines (PDG) identifies Parramatta Road as a Movement Corridor. The road is expected to be a high pedestrian activity area. Figure 22 provides an illustration of the Homebush Precinct structure plan.

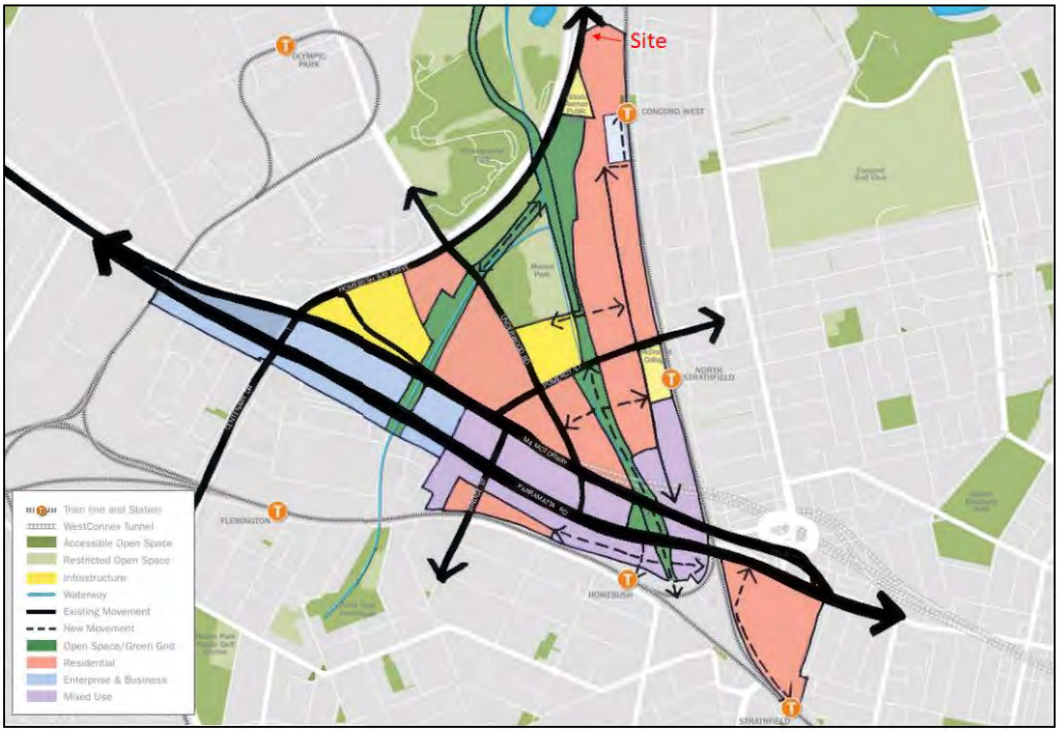


Figure 22: Homebush Precinct Structure Plan

5.1.2 Parramatta Road Corridor Urban Transformation – Planning and Design Guidelines

The PRCUTS PDG has been developed to assist designers and planners to apply "best practice" design principles in order achieve the long-term visions of the PRCUTS. The PDG does not supersede current development controls, however it informs future controls in Local Environmental Plans and Development Control Plans for land located within the Corridor. The PDG has been prepared to assist both planning professionals in local and State Government and in order to provide guidance to landowners and associated project development teams.

Under the PDG, the Site has been nominated for medium density zoning (R3), as illustrated in **Figure 23**.

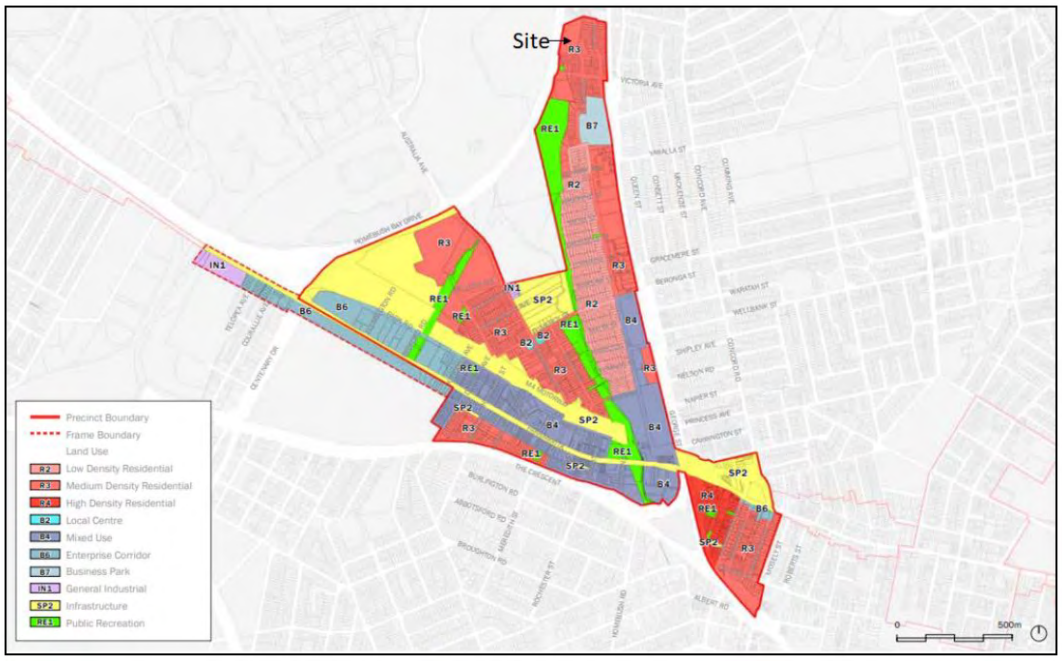


Figure 23: Recommended Land Zoning for Homebush Precinct

With reference to Figure 24, the Site sits within Zone S2, with a preferred floor to space ratio of 1.6:1.

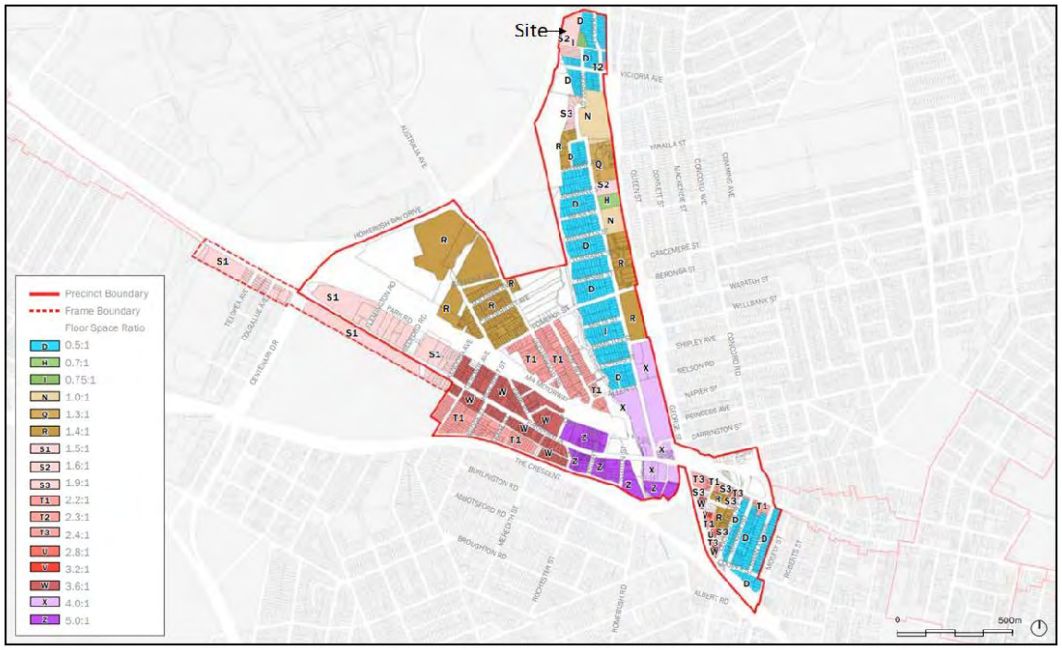


Figure 24: Preferred Floor to Space Ratios

5.1.3 Parramatta Road Precinct Transportation Report (2015)

The Parramatta Road Precinct Transportation Report was developed to establish a high-level strategic framework and provide an indicative development guidance for each precinct within the Corridor. The following transport planning principles have been adopted to achieve a liveable urban environment and facilitate future developments:

- *"Improve north-south connectivity across Parramatta Road for all road users.*
- *Improve street network permeability across the Corridor, particularly for pedestrians and cyclists.*
- *Improve the quality of public transport, walking and cycling networks, access and connectivity to and within Precincts and Frame Areas.*
- *Support an improved urban environment with areas designated for greater levels of street activity.*
- *Facilitate local access needs for new development to support the needs of residents and businesses.*
- *Encourage travel behaviour change to discourage car use and support more sustainable travel"*

5.2 Homebush North Precinct Traffic Study

5.2.1 Council's Paramatta Road Corridor Traffic and Transport Assessment

Council, alongside Burwood and Strathfield councils have had traffic studies completed to support an uplift in development density across the relevant precincts, consistent with the controls identified by PRCUTS.

The study was completed on behalf of Council and in consultation with both TfNSW and DPE, the study being:

- Bitzios, *Paramatta Road Corridor, Traffic and Transport Strategy and Action Plan, Strathfield, Burwood and Canada Bay Councils*, Version 003, 18 February 2022 (2022 Traffic Study).

The following identifies the key findings detailed in the 2022 Traffic Study.

- Traffic flows on Parramatta Road have increased to pre WestConnex levels.
- TfNSW advised that growth rates to 2036 will continue to increase and will exceed 2019 levels in 2036. That is, WestConnex has not provided any spare capacity within Parramatta Road.
- TFNSW advised "not to include kerbside bus lanes as an assumption in this study".
- It is unclear whether Sydney Metro West (in isolation) satisfies the requirement of the WestConnex approval condition for *"an alternative public transport route that provides an improved public transport outcome"*. However, TfNSW advised that as "*MetroWest has been confirmed with stations at Burwood North and Strathfield North. Bus service planning is likely to be modified significantly to anchor to with these new stations whilst also servicing the existing train stations and residential areas in the study area".*
- The modelling generally demonstrates that there are no reasonable major works that can provide congestion relief in the new uplifted precincts as they develop. The main issue remains high level of background traffic in the future year scenarios (estimated at 75%). Therefore, regardless of the uplift in development associated with the PRCUTS, the road network would still be heavily congested.
- The traffic capacity-related measures in the report therefore highlight "pinch point" solutions only and do not provide sufficient capacity to off-set development and growth demands along the Corridor. This raises considerable risk to any future development as by its own admission, the 2022 Traffic Study acknowledges capacity constraints that are unable to be resolved.
- Transport impacts need to be mitigated with public and active transport mode shifts as well as network traffic improvements which provide traffic relief on Parramatta Road. The 2022 Traffic Study notes that "*Early intentions in this study to provide more opportunities for turning and cross-movements at Parramatta Road, to the benefit of local traffic, have not been able to be progressed due to the forecast congestion and unknown outcomes of public and active transport planning currently being progressed by TfNSW".*
- It is noted that TfNSW have commenced a Public Transport Corridor study - assessing long-term public transport options along the corridor. The report notes that the outcomes of this assessment are likely to guide the direction and vision for the corridor.
- The key modelling outcomes concluded that the worst traffic issues were observed to be concentrated at the western end of the study area with some near Concord Road, George Street and Underwood Road.
- However, the proposed upgrades identified by the 2022 Traffic Study would assist in "*Reduced average delay times across the network by around 30% and consistently higher average speeds across modelled area".*

5.2.2 2022 Traffic Study – Homebush North Precinct Findings

The key findings in regard to the general connections at Parramatta Road, in most relevance to the Site were:

- The section of Parramatta Road is heavily constrained due to the M4 to the north and railway line to the south. Therefore, "*north-south traffic heading towards or across Parramatta Road is funnelled into a few crossing points, generally high turning demands at a few key intersections, generating significant pinch points by 2036*".
- George Street / Pomeroy Street and Underwood Road / Pomeroy Street intersections currently have extensive queueing and delays during both peak periods, changes to signal phasing is recommended to ease congestion.
- It is understood Canada Bay Council has plans to upgrade the George Street / Pomeroy Street intersection, with:
  - New dedicated short right turn bay on the west approach (Pomeroy Street)
  - New left turn slip lane from the northern approach (George Street) to the eastern departure (Pomeroy Street)
  - Changed to single diamond overlap signal phasing (on Pomeroy Street).
- Other key initiatives relevant to the Site, as illustrated in **Figure 25**, include the following.
  - Proposed bus stop to the west of Concord West Station, with a routes travelling through Victoria Avenue and George Street.
  - Pedestrian facilities along the Site's eastern frontage, this presents an opportunity with the Proposal already seeking to provide these facilities.
  - Improved pedestrian facilities along Station Avenue.

The 2022 Traffic Study identifies the following opportunities.

- There is capacity on George Street available for additional precinct traffic
- New developments may be designed with constrained parking allowances to encourage use of the adjacent railway station
- Additional bus services may result in a shift towards public transport for short trips between the precinct and places that are not directly connected by the rail network
- Recreational cycling and walking facilities in the adjacent Bicentennial Park may encourage residents to reconsider active transport and then use active transport for commuting and shopping.

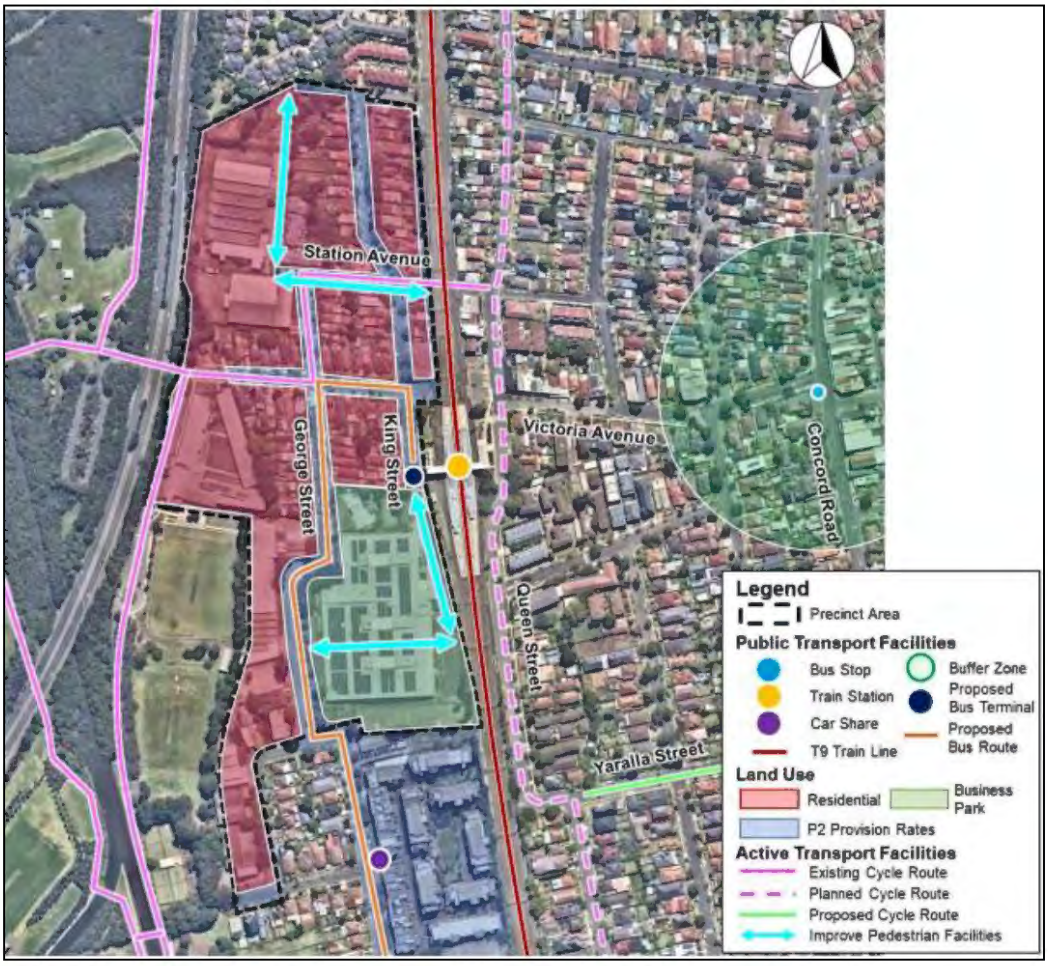


Figure 25: Proposed Upgrades

6 Parking Requirements

6.1 Car Parking

6.1.1 State Environmental Planning Policy

Section 74 (Non-discretionary development standards) of Part 4 (Build-to-rent housing) within Chapter 3 of the State Environmental Planning Policy (Housing) 2021 (Housing SEPP) is the applicable planning instrument for build-to-rent developments, which outlines the parking rates per dwelling, as per below.

TABLE 8: HOUSING SEPP PARKING RATES

Component	Rate
Housing SEPP (Build-to-rent housing)	For land within an *accessible* area – 0.2 parking spaces per dwelling
	Otherwise – 0.5 parking spaces for each dwelling
	If a relevant planning instrument specifies a requirement for a lower number of parking spaces—the lower number specified in the relevant planning instrument

With respect to the public transport network, the Site meets criteria for being land within an accessible area, being within 800 metres walking distance of a public entrance to a railway station (Concord West Station). Accordingly, the corresponding parking rate is 0.2 parking spaces per dwelling, which responds in a requirement for 65 parking spaces. It is noteworthy that Council's DCP (being a relevant planning instrument) does not stipulate minimum parking rates, which could otherwise supersede the SEPP. As such, the statutory parking requirement remains the 65 parking spaces as per the SEPP, though an assessment of the DCP is presented further below.

It is noted the Proposal seeks to provide 206 parking spaces, which aligns more closely with the SEPP requirement of 0.5 parking spaces per dwelling (162 parking spaces). While the site is in close proximity to Concord West Station, this provision responds to the current reliance on car travel for workers in the Concord West-North Strathfield SA2 area when comparing to both train and bus patronage. This is primarily due to employment in the immediate surrounding areas not being easily accessible by public transport, as such travel via car becomes the more efficient option.

6.1.2 Canada Bay DCP Parking Rates

While noting the SEPP remains the relevant planning instrument for Build-to-Rent developments, Council's DCP has been referenced to understand the permissible number of parking spaces for a residential flat building use. The respective rates for a development on 'Category C' land are shown below.

TABLE 9: CANADA BAY DCP PARKING RATES

Use	Canada Bay DCP (Maximum Rate)
Studio	0.3 spaces per unit
1-bedroom	0.5 spaces per unit
2-bedroom	0.9 spaces per unit
3-bedroom	1.2 spaces per unit
Visitors	0.2 spaces per unit

These parking rates have been applied to the dwelling yield of the Reference Scheme (Built-to-Rent) development, as per the below analysis.

TABLE 10: CANADA BAY DCP PARKING REQUIREMENTS

Use	Yield	Maximum No. of Spaces
Studio	38	11
1-bedroom	79	40
2-bedroom	170	153
3-bedroom	53	64
Visitors	324	65
Total	-	**333**

With reference to the above, a maximum car parking provision of 333 would be permissible under Council's DCP. The Reference Scheme includes 206 parking spaces which complies with this requirement and remains well below the maximum threshold. This is a desirable outcome that aligns with Council's objectives to minimise traffic congestion by limiting the availability of parking for areas which can be adequately served by public transport.

6.1.3 Comparison with PRCUTS Developments.

A comparison has also been undertaken for the number of parking spaces approved for other recently developments within the PRCUTS area, which is summarised below.

TABLE 11: PARKING PROVISION FOR APPROVED PRCUTS DEVELOPMENTS

Development	No. of Dwellings	No. of Parking Spaces	Parking Rate
2-4 Rothwell Street, Concord (Canada Bay LGA)	88 dwellings	91 parking spaces	1.03 spaces per dwelling
25 George Street, North Strathfield (Canada Bay LGA)	145 dwellings	126 parking spaces	0.87 spaces per dwelling
21 Parramatta Road, Homebush	214 dwellings 424m2 commercial GFA	227 parking spaces (residential) 9 parking spaces (commercial)	1.06 spaces per dwelling
11-17 Columbia Lane, Homebush	398 dwellings	494 parking spaces	1.24 spaces per dwelling
Average	211 dwellings	234 parking spaces	1.11 spaces per dwelling
The Proposal	324 dwellings	206 parking spaces	0.64 spaces per dwelling

With reference to the above, the four approved PRCUTS developments provide an average provision for 1.11 spaces per dwelling. The provision of 206 parking spaces under the Reference Scheme equates to a

parking rate of 0.64 spaces per dwelling, which is well below the other reference sites within the PRCUTS area.

6.1.4 Parking Conclusions

The provision of 206 spaces (or equivalent to 0.64 spaces per dwelling) is considered appropriate in light of the following factors:

- The level of parking addresses a current need for some residents to access employment areas surrounding the site by car, which are not readily accessible by bus services.
- This rate remains well below the comparable PRCUTS approved developments for residential flat building uses, and the maximum number of parking spaces permitted under Council's DCP, thus aligning with objectives to reduce the availability of parking to reduce travel by private vehicle.
- There is also a reduced need for secondary trips (non-work) due to the Site's proximity to schools and available shopping, with an excellent active transport network via Bicentennial Park connecting to the broader Sydney Olympic Park region. This is particularly relevant for Build-to-Rent developments, which are targeted towards residents seeking convenient lifestyles.
- It is noted however that a shift towards a higher public transport patronage is anticipated with:
  - completion of the Metro West, which will improve public transport accessibility to key employment destinations including the Sydney CBD, Sydney Olympic Park, Parramatta and the Westmead Health Precinct. Further capacity improvements to the Northern T9 line will also attract more rail commuters, particularly with higher service frequencies.
  - Furthermore, as mentioned in Section 3.5.2, the nearest bus stops to the Site are to the east of Concord West Station, along Concord Road. The 2022 Traffic Study recommends a bus stop to the west of Concord West Station, bringing bus access to within 400m of the Site, this will likely have a significant uptake of bus users with reference to the Integrated Public Transport Service Planning Guidelines, shifting car usage to bus usage.
- To further minimise car ownership and usage, Council could impose parking restrictions to exclude occupants of the development from parking on the street via parking permit schemes.

7 Traffic Impact Assessment

7.1 Proposal Traffic Generation

7.1.1 Traffic Generation Rates

There are currently no standard traffic generation rates for BTR apartments. As such, reference is made to the TfNSW Guide Update, which stipulates trip rates for high density residential flat buildings.

Considering the Proposal seeks to provide car parking spaces less than the maximum DCP parking rates and presumably within an area of constrained parking availability, the traffic generation has been assessed based on trips based on the number of units as well as trips based on the number of car parking spaces. Where parking is restricted, it is considered appropriate to assess trip generation of a trip per parking space basis.

The relevant rates are as follows:

- Vehicle trips per unit:
  - AM Peak: 0.19 veh/h
  - PM Peak: 0.15 veh/h
- Vehicle trips per car space:
  - AM Peak: 0.15 veh/h
  - PM Peak: 0.12 veh/h

These rates are consistent with those provided by TfNSW guidance.

7.1.2 Trip Generation

Application of the above rates to the proposed yield of 324 apartments and 206 car parking spaces results in the following traffic generation.

TABLE 12: PROPOSED TRAFFIC GENERATION

Use	Yield	Peak Period	Trip Generation Rate	Trips
Trips per Unit	324 Apartments	AM	0.19 trips per unit	62
		PM	0.15 trips per unit	49
Trips per Car Space	206 Car Parking Spaces	AM	0.15 trips per car space	31
		PM	0.12 trips per car space	25

Noting the intent for the Site to restrict car parking provisions, the traffic generation resulting from the “Trips per Car Space” is more appropriate.

7.2 Development Trip Distribution and Assignment

With regard to the local road network, the trips have been distributed onto the surrounding road network based generally on access to the major movement corridors surrounding the Site.

As such, the following vehicle splits into and out of the Site have been assumed:

- Inbound
  - 30% from the north
  - 30% from the west
  - 40% from the east
- Outbound
  - 30% to the north
  - 30% to the west
  - 40% to the east

The following Inbound/Outbound splits have been assumed to distribute the trips:

- AM Peak:
  - 20% Inbound
  - 80% Outbound
- PM Peak:
  - 80% Inbound
  - 20% Outbound

Figure 26 and **Figure 27** below identify the trip distribution based on the above assumptions.

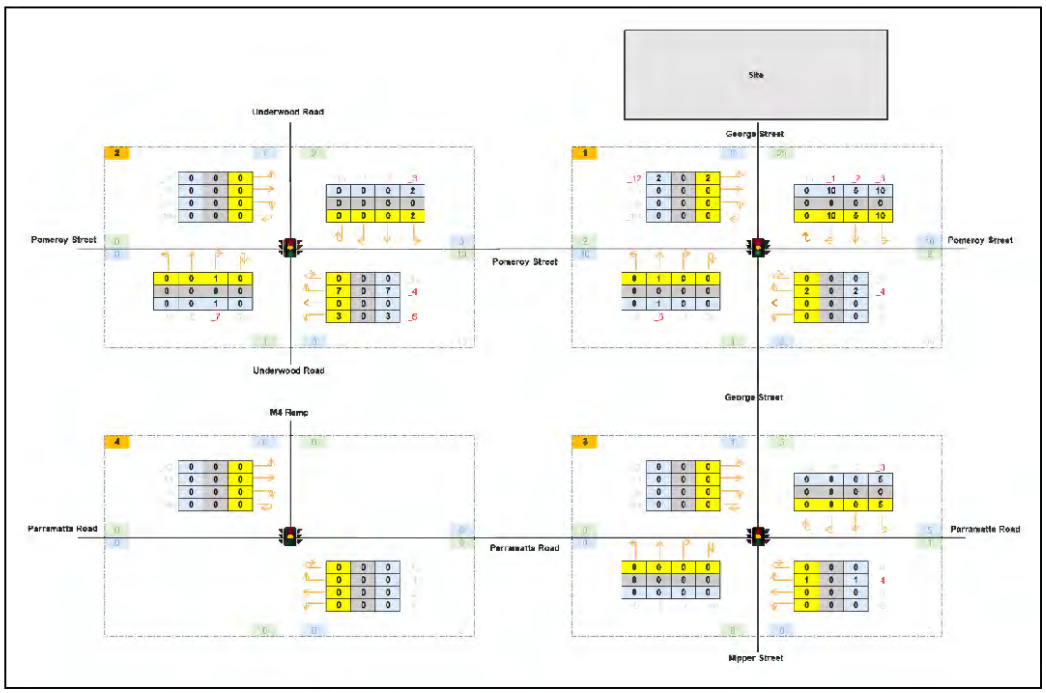


Figure 26: Trip Distribution - AM Peak

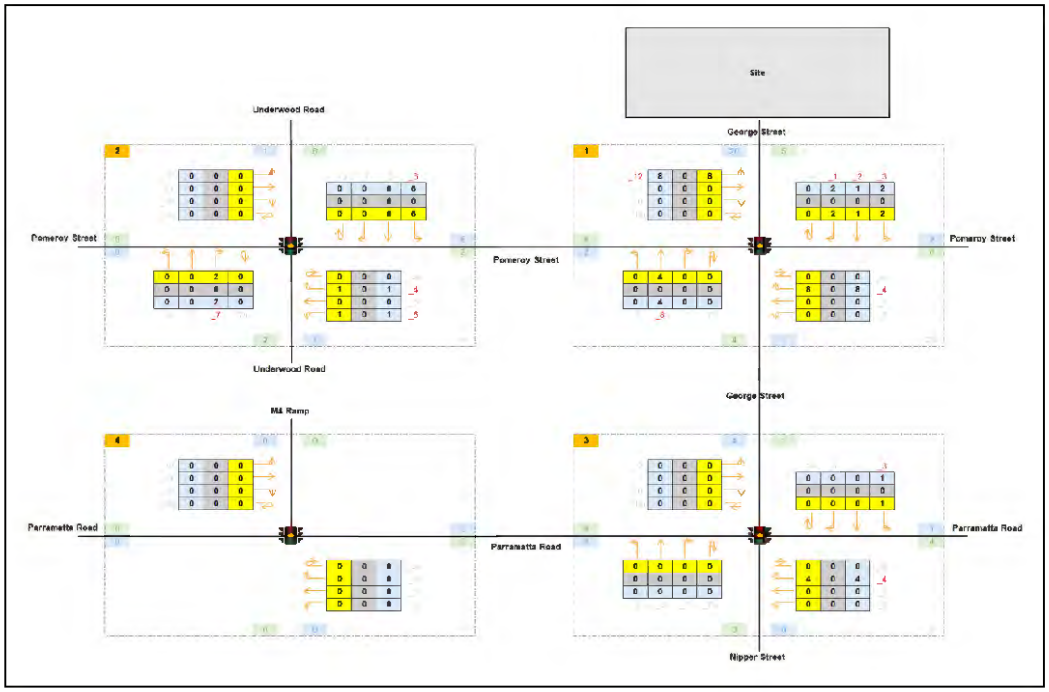


Figure 27: Trip Distribution - PM Peak

7.3 SIDRA Intersection Analysis

7.3.1 Scenarios

An assessment of the following scenarios has been undertaken to inform the traffic impacts of the Proposal, it is noted a nominal growth rate of 1% was adopted and compounded up until the relevant assessment year to incorporate "background growth" in the surrounding areas:

- Base Case – Existing Baseline (see Section 3.3).
- Future Base Case 2026 – Existing Baseline (2023) + Background Growth (a nominal growth rate of 1% was adopted).
- Project Case 2026 – Existing Baseline (2023) + Background Growth (a nominal growth rate of 1% was adopted) + Development Traffic.
- Future Base Case 2031 – Existing Baseline (2023) + Background Growth (a nominal growth rate of 1% was adopted).
- Project Case 2031 – Existing Baseline (2023) + Background Growth (a nominal growth rate of 1% was adopted) + Development Traffic.

7.3.2 Future Base Case 2026

Background case traffic volumes of the study road network in 2026 are presented in **Figure 28** and **Figure 29** below.

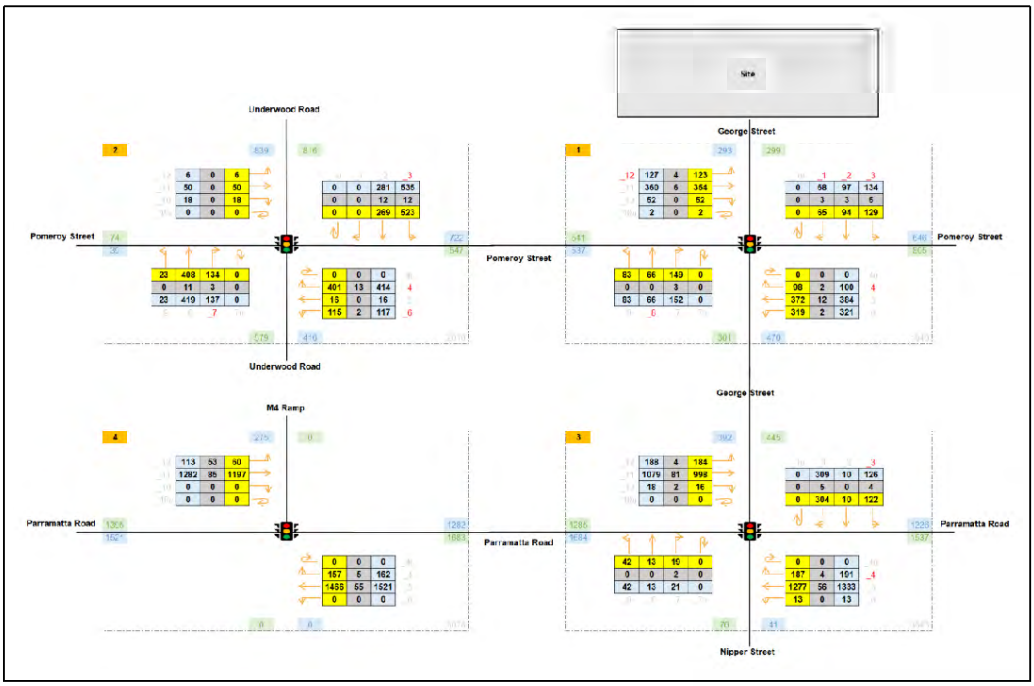


Figure 28: Future Base Case 2026 Traffic Volumes - AM Peak

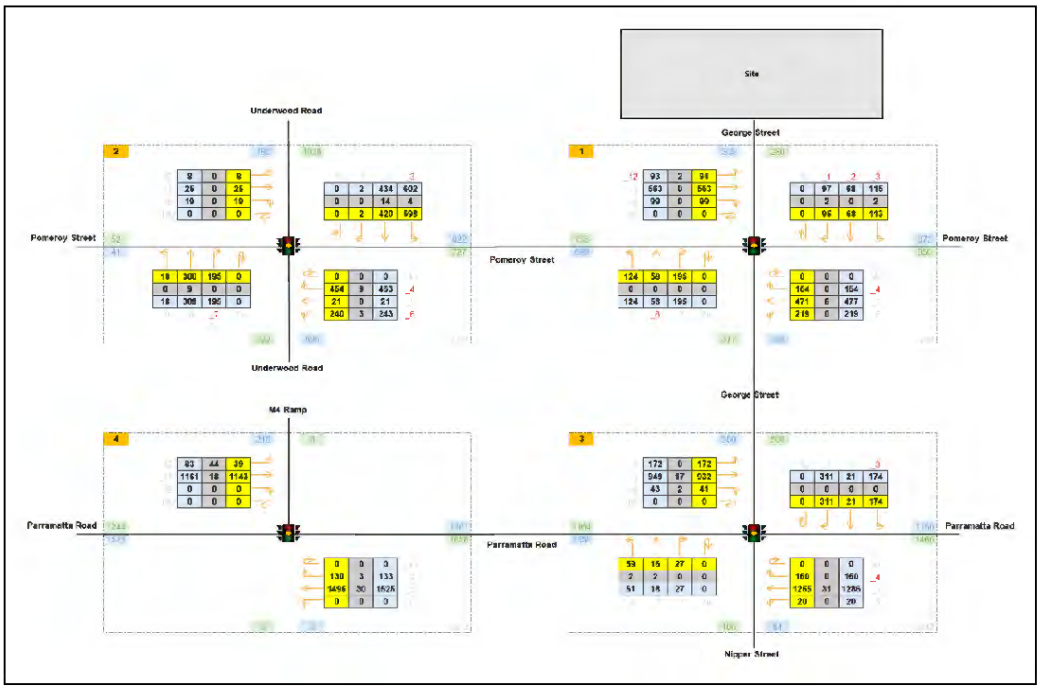


Figure 29: Future Base Case 2026 Traffic Volumes - PM Peak

The performance of the key intersections for the future baseline (2026) scenario are presented in **Table 13** below.

SIDRA outputs are provided in **Appendix A**.

TABLE 13: BASE CASE 2026 INTERSECTION PERFORMANCE

Intersection	Period	DOS	AVD	95% Queue	LOS
Pomeroy Street / George Street	AM	0.55	19.7	66.8 (W)	B
	PM	0.80	35.8	166.2 (W)	C
Pomeroy Street / Underwood Road	AM	0.83	32.4	152.6 (E)	C
	PM	0.91	43.9	249.3 (E)	D
Parramatta Road / George Street	AM	1.06	84.1	459.2 (W)	F
	PM	0.88	52.3	312.0 (E)	D
Parramatta Road / M4 Ramp	AM	0.94	20.6	259.6 (W)	B
	PM	0.79	5.7	102.6 (W)	A

The SIDRA analysis indicates that, the Pomeroy Street / George Street and Parramatta Road / M4 ramp will operate to a “satisfactory” level with reference to the RTA Guidelines. Pomeroy Street / Underwood Road and Parramatta Road / George Street during the PM peak will operate “near capacity”, with Parramatta Road / George Street failing with an LOS of F in the AM peak.

The poor performance found at the Parramatta Road / George Street intersection is consistent with the findings of the 2022 Traffic Study.

7.3.3 Project Case 2026

The Project Case 2026 volumes of the study road network in 2026 are presented in **Figure 30** and **Figure 31** below.

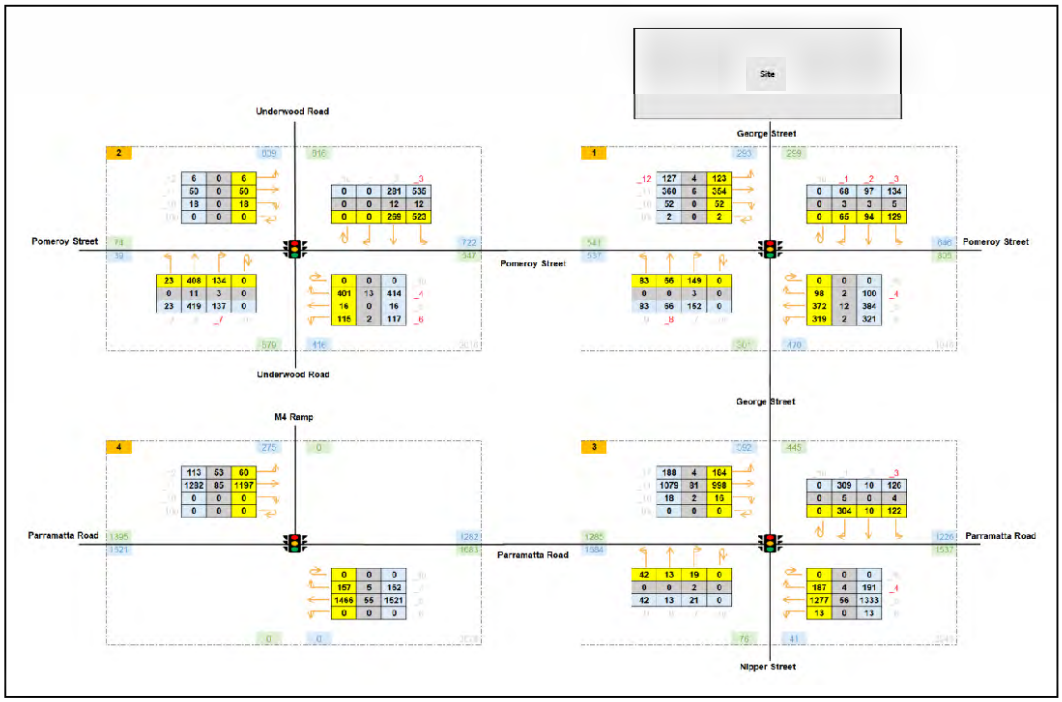


Figure 30: Project Case 2026 Traffic Volumes - AM Peak

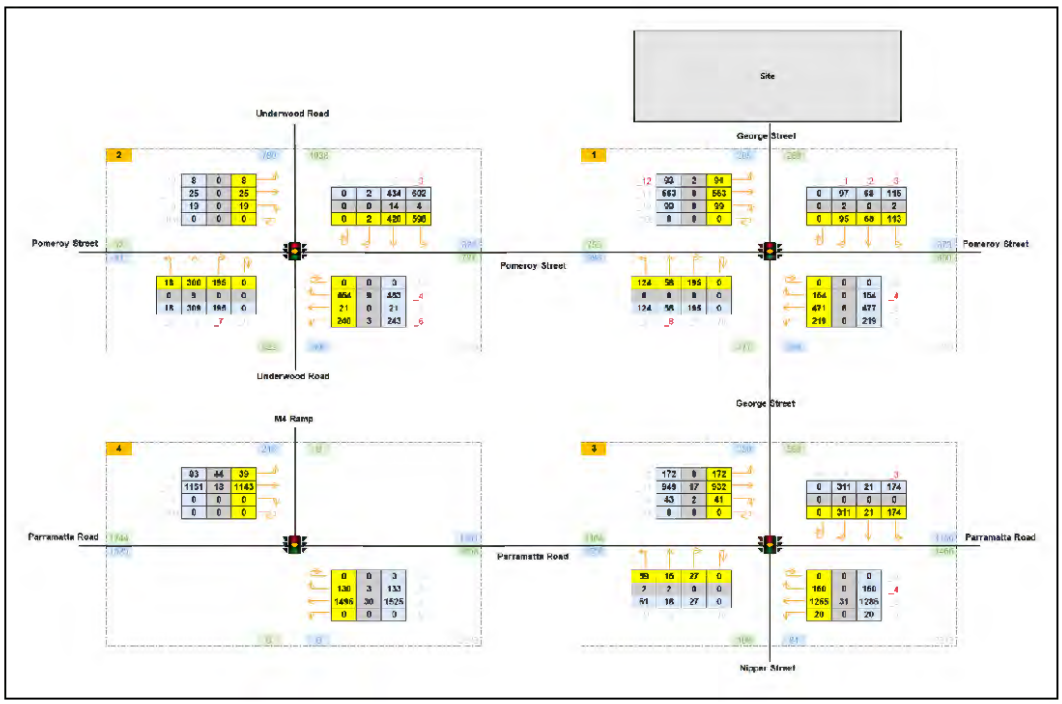


Figure 31: Project Case 2026 Traffic Volumes - PM Peak

The performance of the key intersections for the for the Project Case 2026 is provided below.

TABLE 14: PROJECT CASE 2026 INTERSECTION PERFORMANCE

Intersection	Period	DOS	AVD	95% Queue	LOS
Pomeroy Street / George Street	AM	0.55	19.4	65.7 (W)	B
	PM	0.81	36.9	173.2 (W)	C
Pomeroy Street / Underwood Road	AM	0.82	32.1	159.5 (E)	C
	PM	0.92	44.1	251.9 (E)	D
Parramatta Road / George Street	AM	1.07	92.2	483.9 (W)	F
	PM	0.89	53.1	313.9 (E)	D
Parramatta Road / M4 Ramp	AM	0.94	20.6	259.6 (W)	B
	PM	0.79	5.7	102.6 (W)	A

The SIDRA analysis indicates that the addition of the Proposal's development traffic will have a negligible impact on the operation of the key intersections.

7.3.4 Future Base Case 2031

Background Case traffic volumes of the study road network in 2031 are presented below.

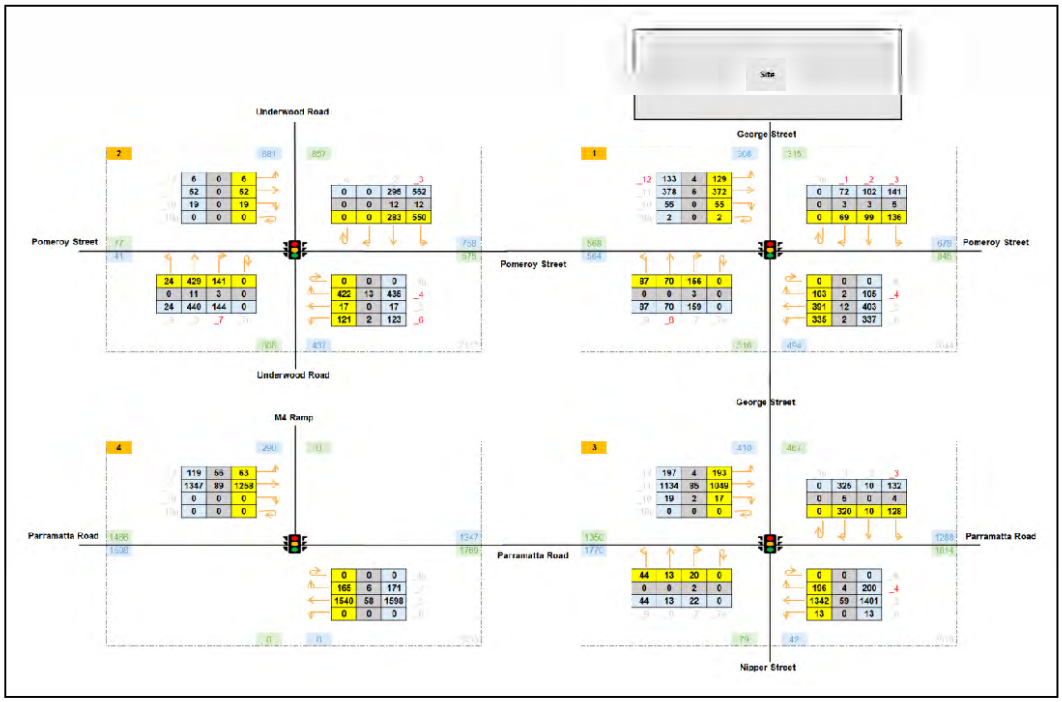


Figure 32: Future Base Case 2031 Traffic Volumes - AM Peak

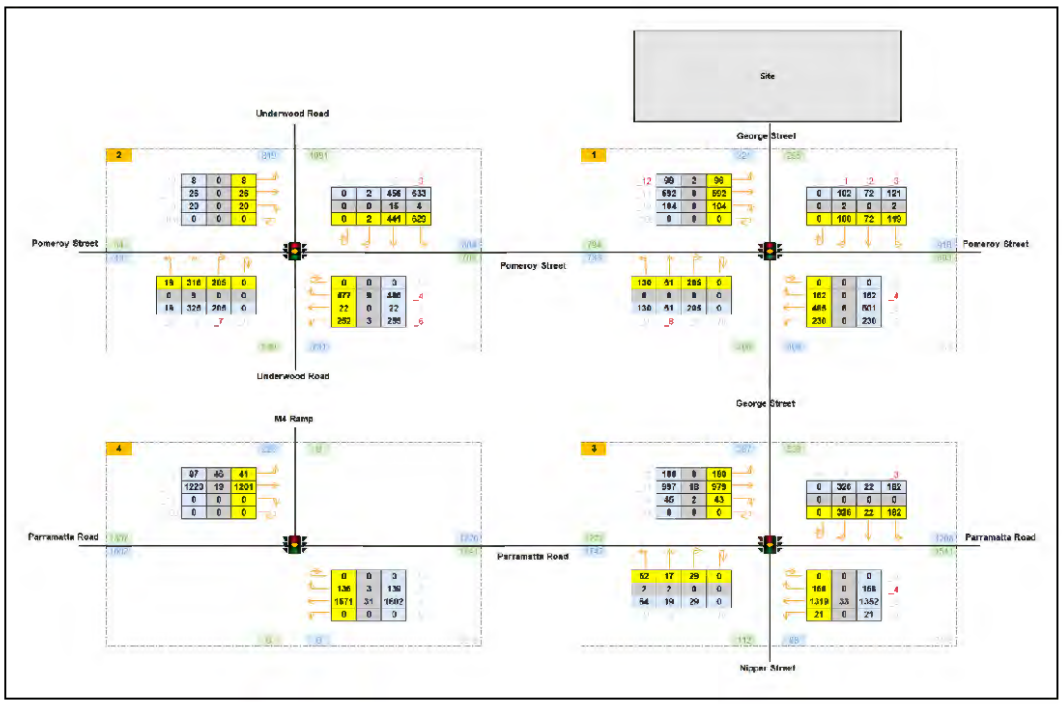


Figure 33: Future Base Case 2031 Traffic Volumes - PM Peak

The performance of the key intersections for the future baseline (2031) scenario is presented in **Table 15** below.

SIDRA outputs are provided in Appendix A.

TABLE 15: BASE CASE 2031 INTERSECTION PERFORMANCE

Intersection	Period	DOS	AVD	95% Queue	LOS
Pomeroy Street / George Street	AM	0.59	20.1	71.7 (W)	B
	PM	0.89	43.4	223.5 (W)	D
Pomeroy Street / Underwood Road	AM	0.85	33.8	174.9 (E)	C
	PM	0.97	53.1	304.1 (E)	D
Parramatta Road / George Street	AM	1.11	104.2	539.6 (W)	F
	PM	0.93	59.6	371.8 (E)	E
Parramatta Road / M4 Ramp	AM	0.99	32.5	384.5 (W)	C
	PM	0.83	7.6	130.2 (W)	A

The SIDRA analysis indicates that in the Base Case 2031 scenario, the only notable changes include the Pomeroy Street / George Street intersection shifting to an LOS D in the PM peak to “near capacity”, while Parramatta Road / George Street intersections will be at “capacity”. The LOS of the other intersections and peak periods will remain consistent with the 2026 scenarios, with only minor increases to the DOS, AVD and queueing, expected with the nominal background growth.

7.3.5 Project Case 2031

The Project Case 2031 volumes of the study road network in 2026 are presented below.

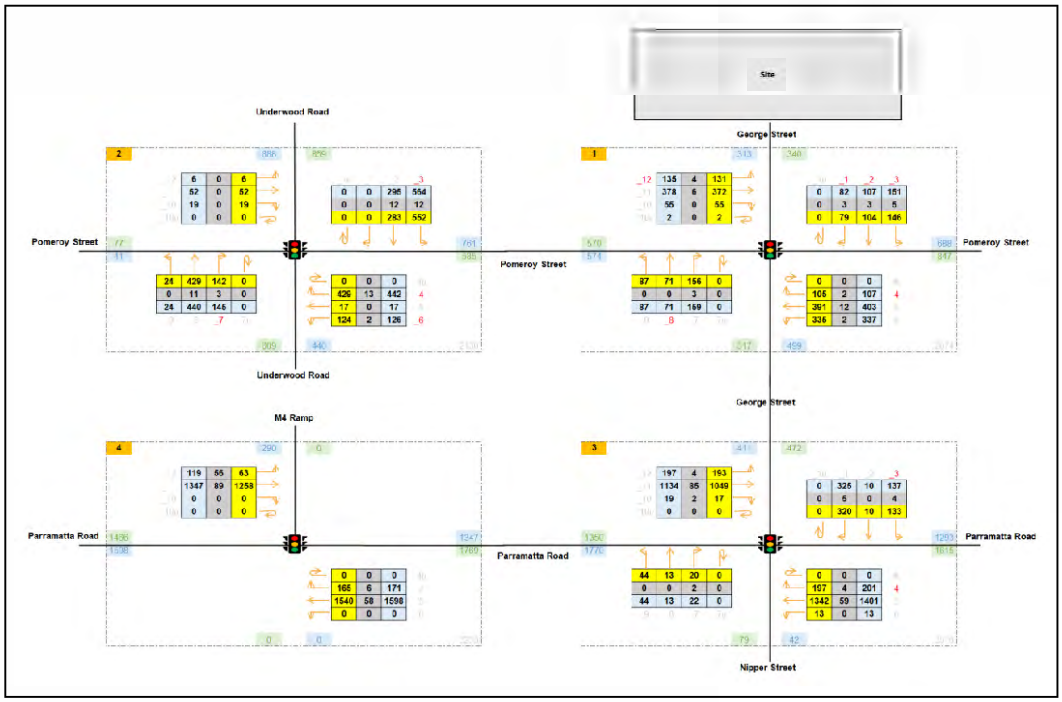


Figure 34: Project Case 2031 Traffic Volumes - AM Peak

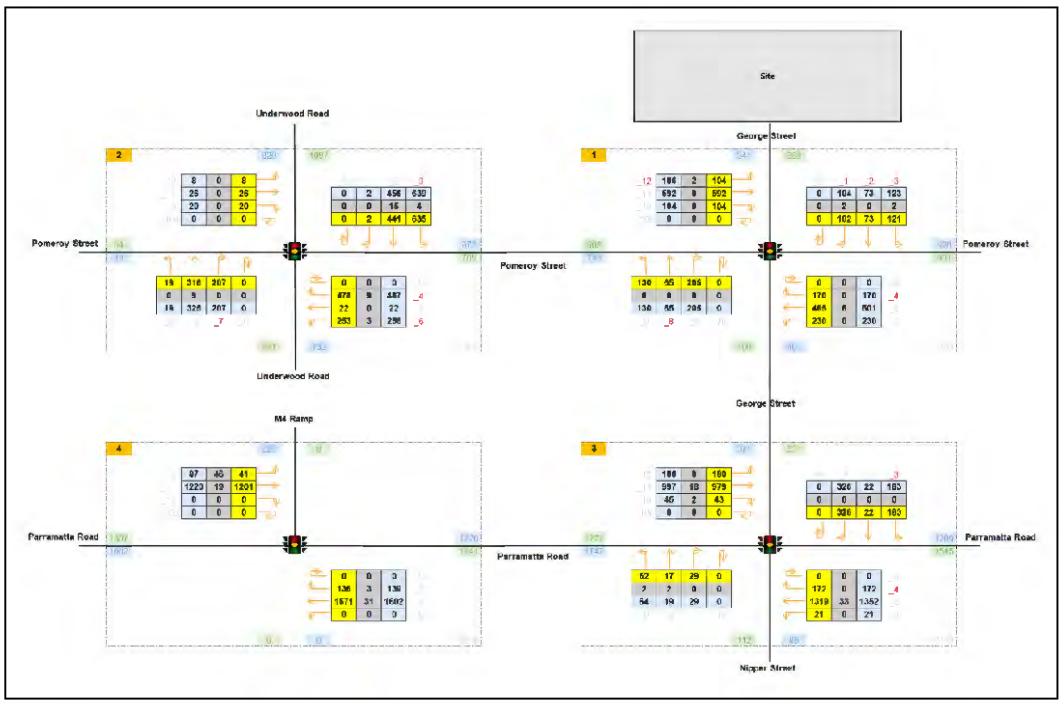


Figure 35: Project Case 2031 Traffic Volumes - PM Peak

The performance of the key intersections for the for the Project Case 2031 is provided below.

TABLE 16: PROJECT CASE 2031 INTERSECTION PERFORMANCE

Intersection	Period	DOS	AVD	95% Queue	LOS
Pomeroy Street / George Street	AM	0.56	19.8	70.4 (W)	B
	PM	0.91	46.3	235.6 (W)	D
Pomeroy Street / Underwood Road	AM	0.87	34.5	184.2 (E)	C
	PM	0.98	52.4	306.7 (E)	D
Parramatta Road / George Street	AM	1.12	104.4	539.6 (W)	F
	PM	0.93	60.9	374.5 (E)	E
Parramatta Road / M4 Ramp	AM	0.99	32.5	384.5 (W)	C
	PM	0.83	7.6	130.2 (W)	A

The SIDRA analysis indicates that the addition of the Proposal's development traffic to the 2031 baseline scenario will have a negligible impact on the operation of the key intersections. LOS at all the modelled intersections will remain consistent with the 2031 baseline, with only minor increases to AVD, DOS and queuing, having a negligible impact on the operation of the network.

7.3.6 SIDRA Intersection Modelling Summary

The below presents a summary of the impacts of the Proposal's traffic in 2026 and 2031.

TABLE 17: PROPOSAL IMPACTS IN 2026 AND 2031

Intersection	Period	Difference (2026)				Difference (2031)			
		DOS	AVD	95% Queue	LOS	DOS	AVD	95% Queue	LOS
Pomeroy Street / George Street	AM	0.00	-0.30	-1.1	-	-0.02	-0.30	-1.30	-
	PM	0.01	1.10	7.0	-	0.02	2.90	12.10	-
Pomeroy Street / Underwood Road	AM	-0.01	-0.30	6.9	-	0.02	0.70	9.30	-
	PM	0.00	0.20	2.6	-	0.00	-0.70	2.60	-
Parramatta Road / George Street	AM	0.00	8.10	24.7	-	0.01	0.20	0.00	-
	PM	0.00	0.80	1.9	-	0.00	1.30	2.70	-
Parramatta Road / M4 Ramp	AM	0.00	0.00	0.0	-	0.00	0.00	0.00	-
	PM	0.00	0.00	0.0	-	0.00	0.00	0.00	-

With reference to the above, the impacts of the Proposal are negligible on the surrounding road network in both 2026 and 2031. There is no change in LOS in either scenario, with minor changes to the DOS, AVD and queues.

It is noted under the base case scenarios that the Parramatta Road / George Street intersection will exceed capacity in 2026 in the AM Peak and reach capacity by the 2031. In this regard, upgrades to the intersection would ordinarily be warranted due to network growth, particularly with respect to the AM peak period which exceeds a Degree of Saturation of 1.0. In the case of PM performance, the increase in delay will be no more than 1.3 seconds, which demonstrates that the traffic impacts arising from the proposal will be very minimal.

The performance of the Parramatta Road /George Street intersection is consistent with the findings of the 2022 Traffic Study which identifies the intersection alongside others along the Parramatta Road corridor as "pinch points" with the study indicating there are no feasible upgrades which can alleviate congestion at the intersection. In this regard, traffic issues along Parramatta Road have been well documented, where the WestConnex project, being a large-scale infrastructure project significant to the greater Sydney metropolitan region, was expected to provide additional capacity. However, the Traffic Study 2022 notes traffic along Parramatta Road has returned to pre WestConnex (2019) levels which relates to issues of broader arterial traffic movement within Greater Sydney rather than the development of precincts.

It is noteworthy that in light of the performance issues on Parramatta Road, the Traffic Study 2022 endorses uplift levels under the PRCUTS based on the presence of Concord West Station (300m from the Site). That is, the site remains an excellent candidate to accommodate residential uplift given the accessibility to public and active transport networks, with the Proposal in line with PRCUTS and Council objectives to increase housing supply and shift mode share away from car based travel.

In light of the limited impacts to the surrounding road network as demonstrated by this software modelling, the Proposal is therefore supportable on traffic grounds.

8 Transport Impact Assessment

8.1 Person Oriented Trip Generation Surveys

In considering the overall transport impact of the development, the total person rips expected to be generated by the Reference Scheme have been considered.

Reference has been made to the TfNSW Guide Update for considering the expected person trips for the Proposal. Of specific consideration in determining appropriate sites for the was proximity to public transport, shopping and its high-density residential nature.

With reference to the site selection criteria outlined above, the person-oriented trip rates from the following developments were used:

- 13 Herbert Street, St Leonards;
- 8-12 Waratah Street, Cronulla; and
- 2 Everton Road, Strathfield.

A summary of the trip rates is provided in **Table 18**.

TABLE 18: PERSON TRIP RATE SUMMARY

Estate	AM Site Person Trip Rate per Unit	PM Site Person Trip Rate per Unit
St Leonards	0.64	0.54
Cronulla	0.32	0.14
Strathfield	0.52	0.42
Average	**0.49**	**0.37**

Application of the above rates to the provision of 324 apartments as envisaged for the Planning Proposal yields the following peak person trips for the Proposal:

- AM Peak: 159 person trips per unit
- PM Peak: 120 person trips per unit

8.2 Future Mode Share

The 2030 mode share for peak hour commuter trips to and from the Proposal have been assumed with consideration to the following:

- The 2022 traffic Study proposing a bus stop to the west of Concord West Station (Section 5.2.2), this would influence travel mode choice for the Site (Section 3.6).
- A reduced car parking provision of 206 spaces when compared to the Canada Bay DCP (Section 6.1).

- The completion of the Sydney Metro West project (Section4.1.2), likely to facilitate higher train usage for workers travelling to nearby locations such as Sydney Olympic Park, which currently has a high dependency on car travel.

Table 19 compares the 2030 forecasted site mode share with the 2016 SA2 mode share.

TABLE 19: MODE SHARE COMPARISON

Travel Mode[1]	2016 SA2 Mode Share	2030 Site Mode Share
Car (as driver)	48%	16%
Car (as passenger)	3%	5%
Train	39%	55%
Bus	2%	12%
Bicycle	1%	2%
Walked only	6%	8%
Other	2%	2%

The table applies the 2030 site mode share to the forecasted person trips stipulated above in Section 8.1.

TABLE 20: FORECASTED MODE SHARE

Travel Mode[1]	Mode Share %	AM Trips	PM Trips
Car (as driver)	16%	25	19
Car (as passenger)	5%	8	6
Train	55%	87	66
Bus	12%	19	14
Bicycle	2%	3	2
Walked only	8%	13	10
Other	2%	3	2

With reference to the above, it is expected there will be a trend of reducing private vehicle usage and increasing trend of public transport usage, driven by the restricted parking and proximity to train services. An additional 87 people in the AM peak and 66 people in the PM peak are expected to use the train.

Application of this additional demand to the existing train services results in an additional 22 people per service (or 3 people per carriage) in the AM Peak and 17 people per service (or 1 person per carriage) in the PM peak.

Site observations indicate there is sufficient capacity at Concord West Station to facilitate these additional trips with a negligible impact expected on the existing train capacity. The completion of the Sydney Metro West will also likely see a modal shift towards train usage for workers living along the T9 Line, with the possible addition of more services to facilitate this demand.

9 Access and Network

9.1 Design Commentary

9.1.1 Access

Detailed design is to be considered further at the Development Application stages. However, based on the reference scheme, a preliminary review of the ability of the Site to achieve compliance with the relevant standards has been undertaken.

A preliminary review of the Proposal's access has found the following to be considered noteworthy:

- A two-way access driveway is provided with a width of 6.6m.
- The site access driveway is well placed allowing for adequate sight clearance to oncoming vehicles within the proposed internal road, accessible from the north (100m) and south (70m) of the property boundary.
- All access driveways shall be, designed with reference to AS 2890.1, AS 2890.2, and any other relevant published road design / road engineering guidelines.

9.1.2 Pedestrian and Cyclist Networks

In the context of the Proposal's access in terms of pedestrian and cyclist connectivity, it seeks to provide a Shared Zone laneway along the eastern frontage to provide greater benefit to the surrounding community. The laneway poses as an excellent candidate for a Shared Zone, with the peak traffic generation sufficiently low enough, forecasted to be 31 veh/h (Section 7.1.2). As mentioned in Section 5.2.2, the 2022 Traffic Study identified the Site's eastern frontage to have a pedestrian link, while Council (Section 4.3.4) identified the western frontage as a future link. With reference to **Figure 36**, there is an existing pedestrian connection near the Site's north-eastern boundary, providing a link for residents of Liberty Grove to Concord West Station, Bicentennial Park and Sydney Olympic Park. The Proposal's provision of a Shared Zone along the eastern frontage better connects this existing pedestrian link, resulting in a shorter travel distance for pedestrians accessing the three destinations. It is also noted the indicative plans provide a for a width of 8.0m for the Shared Zone, with on-street parking proposed to benefit the wider community.

Figure 36: Existing Pedestrian link to Liberty Grove

9.2 Design Standards

It is noted that detailed design related matters will be confirmed during the DA stages however, the Proposal will need to be designed in reference to the following Australian Standards:

- Australian Standard 2890.1:2004: Parking Facilities – Off Street Car Parking (AS 2890.1)
- Australian Standard 2890.2:2018 Parking Facilities – Off Street Commercial Vehicle Facilities (AS 2890.2)
- Australian Standard 2890.3:2015: Parking Facilities – Bicycle Parking (AS 2890.3);
- Australian Standard 2890.5:2020: Parking Facilities – On Street Parking (AS2890.5)
- Australian Standard 2890.6:2022 Parking Facilities – Off Street Parking for People with Disabilities (AS 2890.2022); and
- Canada Bay Development Control Plan 2023
- All parking areas, including access aisles and parking modules shall be designed with reference to AS 2890.1 and AS 2890.6. It is anticipated that full parking area design compliance with AS 2890.1 and AS 2890.6 would form a standard Condition of Consent further to any DA approval.

10 Conclusions

Ason Group has been engaged by the Concord West Partnership to prepare a Transport Assessment in relation to the Proposal Planning for a build to rent residential development located on 7 Concord Avenue, Concord West (the Site).

Further to a preliminary assessment of all relevant traffic and transport issues, Ason Group provides the following conclusions:

- The Site is within close proximity to a number of amenities including Concord West Station, supermarkets and shopping centres, Concord West Reparation Public Hospital and numerous educational establishments.
- Census data for the Concord-West North Strathfield SA2 zone indicates moderate rail usage for residents, whom typically use the rail network to access employment destinations located further away such as the Sydney CBD.
- The Housing SEPP 2021 governs parking requirements for build-to-rent developments, with a minimum car parking rate of 0.2 spaces per dwelling for land within an accessible area which the Site technically qualifies as due to the proximity to Concord West Station. Notwithstanding, the Reference Scheme for the Planning Proposal proposes 206 spaces which is more aligned with the alternate rate under the SEPP of 0.5 spaces per dwelling. This provision has been assessed to be more suitable having regard for:
  - A significant reduction over other approved PRCUTS developments and the DCP rate for residential flat buildings, which aligns with objectives to limit car ownership.
  - Addressing the intermediate need for some residents to drive to surrounding areas for employment until such time that closer bus stops/services and the Metro West project will enhance public transport accessibility.
- Reference is made to the TfNSW Guide Update to establish the trip generation rate analysis of the Proposal. The average of the applicable survey sites within the document have therefore been adopted for vehicle trips per car space, they are as follows:
  - AM Peak: 0.15 veh/h
  - PM Peak: 0.12 veh/h

  As the Proposal seeks to provide for car parking below the maximum DCP rate, adopting trips based on vehicle trips per space is therefore more appropriate. Application of the above rates to the Proposal yields a traffic generation of 31 and 25 vehicles in the respective AM and PM peaks. This aligns with the expected mode share 25 and 19 trips during the peaks.
- SIDRA Intersection modelling was completed to assess the traffic impacts of the Proposal's development traffic on the existing configuration of the Parramatta Road / George Street, Pomeroy Street / Geroge Street, Pomeroy Street / Underwood Road and Parramatta Road / M4 Ramp intersections.

  The existing 2023 scenario was assessed as well as the 2026 scenario with and without development traffic, and the 2031 scenario with and without development traffic.

  It is noted under the base case scenarios that the Parramatta Road / George Street intersection will exceed capacity in 2026 in the AM Peak and reach capacity by the 2031. In this regard, upgrades to the intersection would ordinarily be warranted due to network growth, particularly with respect to the AM peak period which exceeds a Degree of Saturation of 1.0. In the case of PM performance, the increase in delay will be no more than 1.3 seconds, which demonstrates that the traffic impacts arising from the proposal will be very minimal.

  The performance of the Parramatta Road /George Street intersection is consistent with the findings of the 2022 Traffic Study which identifies the intersection alongside others along the Parramatta Road corridor as "pinch points" with the study indicating there are no upgrades which can alleviate congestion at the intersection. In this regard, traffic issues along Parramatta Road have been well documented,

where the WestConnex project, being a large-scale infrastructure project significant to the greater Sydney metropolitan region, was expected to provide additional capacity. However, the Traffic Study 2022 notes traffic along Parramatta Road has returned to pre WestConnex (2019) levels which relates to issues of broader arterial traffic movement within Greater Sydney.

It is noteworthy that in light of the performance issues on Parramatta Road, the Traffic Study 2022 endorses uplift levels under the PRCUTS based on the presence of Concord West Station (300m from the Site). That is, the site remains an excellent candidate to accommodate residential uplift given the accessibility to public and active transport networks, with the Proposal in line with PRCUTS and Council objectives to increase housing supply and shift mode share away from car based travel.

- All internal circulation, hardstand and parking areas shall be designed with reference to the Australian Standards.
- All access driveways, parking areas and service areas have been designed with reference to the appropriate Australian Standards. It is anticipated that full design compliance with the relevant Australian Standards would form a standard Condition of Consent further to approval, which will also provide for any design changes if required.
- The proposed north-south laneway along the Site's eastern frontage has been designed as a Shared Zone to provide greater benefit to the surrounding community. The laneway poses as an excellent candidate with a peak traffic generation (31veh/h), sufficiently low enough to indicate minimal interaction between vehicles and pedestrians/cyclists. It has been designed to accomodate on-street parking and extends the existing connection from Liberty grove to Concord West Station, Bicentennial park and Sydney Olympic Park.

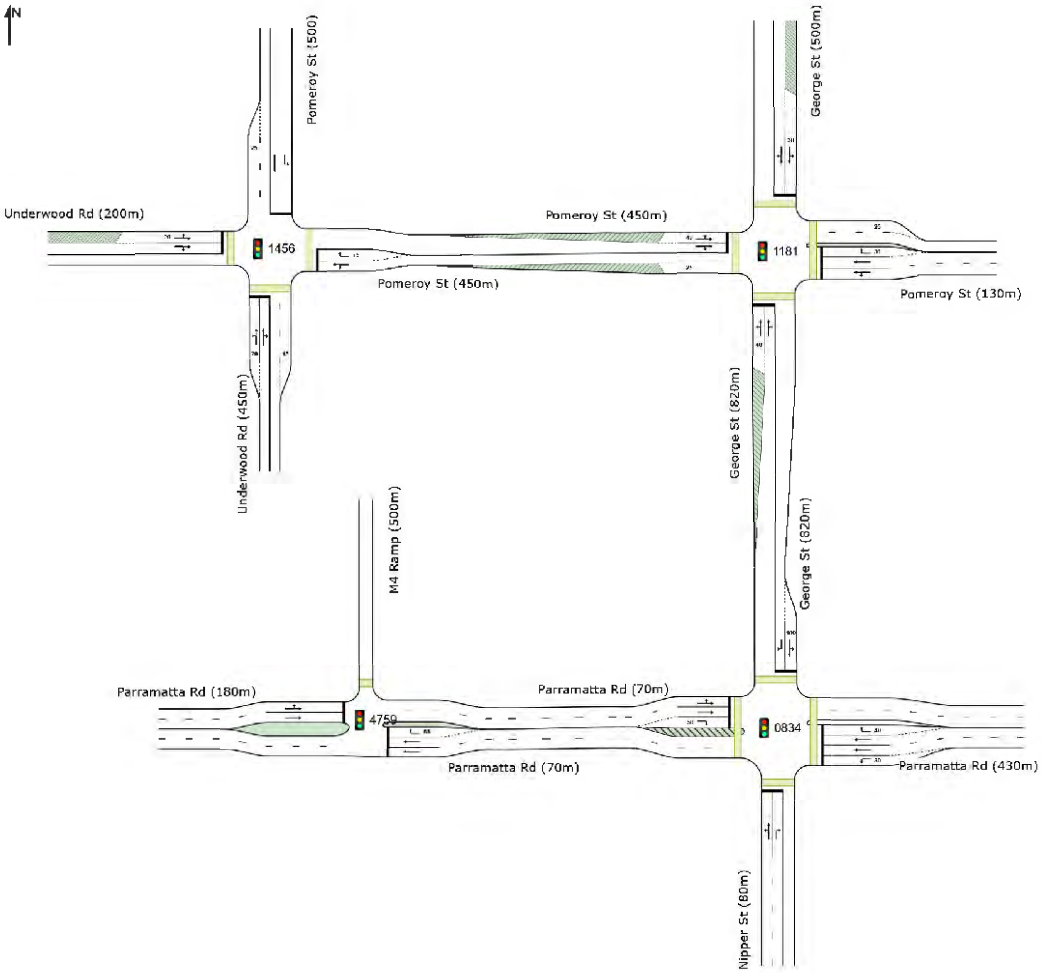
Appendix A. SIDRA Modelling Results

NETWORK LAYOUT

Network: N101 [2023 AM Existing (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-AM
1456	NA	02-Pomeroy St / Underwood Rd-AM
0834	NA	03-George St / Parramatta Rd-AM
4759	NA	04-Parramatta Rd / M4 Ramp-AM

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: ASON GROUP PTY LTD | Licence: NETWORK / 1PC | Created: Thursday, 30 November 2023 4:22:00 PM
Project: C:\Users\Babak Javani\Ason Group\Ason Group Team Site - SIDRA Model\P2439m01-7 Concord Ave.sip9

USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210 **Template: Default Site User Report**

Site: 1181 [01-Pomeroy St / George St-AM (Site Folder: 2023 AM Existing)] **Network: 1 [2023 AM Existing (Network Folder: General)]**

AM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	84	0.0	84	0.0	0.150	23.9	LOS B	1.3	9.1	0.77	0.71	0.77	30.6
2	T1	All MCs	67	0.0	67	0.0	* 0.579	22.7	LOS B	4.2	29.6	0.92	0.79	0.92	32.5
3	R2	All MCs	154	1.4	154	1.4	0.579	29.8	LOS C	4.2	29.6	0.92	0.79	0.92	30.1
Approach			305	0.7	305	0.7	0.579	26.6	LOS B	4.2	29.6	0.88	0.77	0.88	30.9
East: Pomeroy St (130m)															
4	L2	All MCs	326	0.3	326	0.3	0.353	14.9	LOS B	4.2	29.2	0.65	0.72	0.65	18.7
5	T1	All MCs	392	3.0	392	3.0	0.403	11.4	LOS A	4.9	35.3	0.64	0.56	0.64	22.1
6	R2	All MCs	101	1.0	101	1.0	* 0.237	16.4	LOS B	1.1	8.0	0.77	0.70	0.77	31.5
Approach			819	1.7	819	1.7	0.403	13.4	LOS A	4.9	35.3	0.66	0.64	0.66	23.6
North: George St (500m)															
7	L2	All MCs	136	3.1	136	3.1	0.176	18.0	LOS B	1.8	12.7	0.65	0.69	0.65	30.5
8	T1	All MCs	98	2.2	98	2.2	0.404	21.3	LOS B	2.9	21.0	0.86	0.73	0.86	26.2
9	R2	All MCs	68	3.1	68	3.1	0.404	29.2	LOS C	2.9	21.0	0.86	0.73	0.86	26.2
Approach			302	2.8	302	2.8	0.404	21.6	LOS B	2.9	21.0	0.77	0.71	0.77	28.2
West: Pomeroy St (450m)															
10	L2	All MCs	128	2.5	128	2.5	0.507	23.5	LOS B	5.2	37.2	0.85	0.75	0.85	31.7
11	T1	All MCs	366	1.4	366	1.4	* 0.507	20.2	LOS B	5.2	37.2	0.85	0.74	0.85	28.6
12	R2	All MCs	53	0.0	53	0.0	0.507	23.7	LOS B	4.1	29.1	0.84	0.73	0.84	26.6
Approach			547	1.5	547	1.5	0.507	21.3	LOS B	5.2	37.2	0.85	0.74	0.85	29.5
All Vehicles			1974	1.7	1974	1.7	0.579	18.9	LOS B	5.2	37.2	0.76	0.70	0.76	28.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

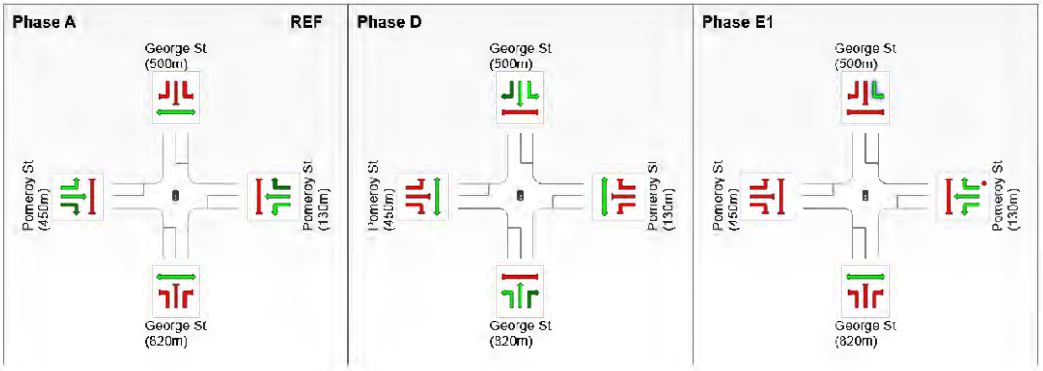
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	84	0.0	84	0.0	563	0.150	26[5]	23.9	LOS B	1.3	9.1	Short (P)	40	0.0	NA
Lane 2	221	1.0	221	1.0	382	0.579	100	27.7	LOS B	4.2	29.6	Full	820	0.0	0.0
Approach	305	0.7	305	0.7		0.579		26.6	LOS B	4.2	29.6				
East: Pomeroy St (130m)															
Lane 1	326	0.3	326	0.3	925	0.353	87[5]	14.9	LOS B	4.2	29.2	Full	130	0.0	0.0
Lane 2	392	3.0	392	3.0	971[1]	0.403	100	11.4	LOS A	4.9	35.3	Full	130	0.0	0.0
Lane 3	101	1.0	101	1.0	426	0.237	100	16.4	LOS B	1.1	8.0	Short	30	0.0	NA
Approach	819	1.7	819	1.7		0.403		13.4	LOS A	4.9	35.3				
North: George St (500m)															
Lane 1	136	3.1	136	3.1	770	0.176	44[5]	18.0	LOS B	1.8	12.7	Short (P)	30	0.0	NA
Lane 2	166	2.5	166	2.5	412	0.404	100	24.6	LOS B	2.9	21.0	Full	500	0.0	0.0
Approach	302	2.8	302	2.8		0.404		21.6	LOS B	2.9	21.0				
West: Pomeroy St (450m)															
Lane 1	308	1.9	308	1.9	607	0.507	100	21.5	LOS B	5.2	37.2	Short (P)	40	0.0	NA
Lane 2	239	1.1	239	1.1	472	0.507	100	21.1	LOS B	4.1	29.1	Full	450	0.0	0.0
Approach	547	1.5	547	1.5		0.507		21.3	LOS B	5.2	37.2				
All Vehicles	1974	1.7	1974	1.7		0.579		18.9	LOS B	5.2	37.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	30	57
Green Time (sec)	24	21	7
Phase Time (sec)	30	27	13
Phase Split	43%	39%	19%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-AM (Site Folder: 2023 AM Existing)] **Network: 1 [2023 AM Existing (Network Folder: General)]**

AM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	23	0.0	23	0.0	0.320	17.1	LOS B	5.0	35.9	0.68	0.60	0.68	34.7
2	T1	All MCs	427	2.5	427	2.5	0.641	24.4	LOS B	8.0	57.2	0.79	0.77	0.79	35.8
3	R2	All MCs	139	1.5	139	1.5	* 0.641	51.0	LOS D	8.0	57.2	0.93	0.98	0.93	23.4
Approach			589	2.1	589	2.1	0.641	30.4	LOS C	8.0	57.2	0.82	0.81	0.82	33.5
East: Pomeroy St (450m)															
4	L2	All MCs	118	0.9	118	0.9	0.162	18.6	LOS B	2.3	16.0	0.61	0.68	0.61	37.5
5	T1	All MCs	16	0.0	16	0.0	0.162	36.6	LOS C	2.3	16.0	0.61	0.68	0.61	35.2
6	R2	All MCs	422	3.0	422	3.0	* 0.695	35.5	LOS C	11.0	78.9	0.92	0.85	0.92	32.6
Approach			556	2.5	556	2.5	0.695	31.9	LOS C	11.0	78.9	0.85	0.81	0.85	33.5
North: Pomeroy St (500)															
7	L2	All MCs	545	2.1	545	2.1	0.586	14.8	LOS B	7.5	53.5	0.75	0.79	0.75	35.8
8	T1	All MCs	286	4.0	286	4.0	* 0.866	52.3	LOS D	9.6	69.4	1.00	1.05	1.27	28.5
Approach			832	2.8	832	2.8	0.866	27.7	LOS B	9.6	69.4	0.84	0.88	0.93	31.8
West: Underwood Rd (200m)															
10	L2	All MCs	5	0.0	5	0.0	0.256	59.1	LOS E	0.8	5.3	0.99	0.70	0.99	24.0
11	T1	All MCs	51	0.0	51	0.0	* 0.512	53.7	LOS D	1.6	10.9	1.00	0.73	1.01	11.0
12	R2	All MCs	18	0.0	18	0.0	0.512	58.8	LOS E	1.6	10.9	1.00	0.75	1.02	22.6
Approach			74	0.0	74	0.0	0.512	55.4	LOS D	1.6	10.9	1.00	0.74	1.01	15.9
All Vehicles			2051	2.4	2051	2.4	0.866	30.6	LOS C	11.0	78.9	0.84	0.84	0.88	32.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

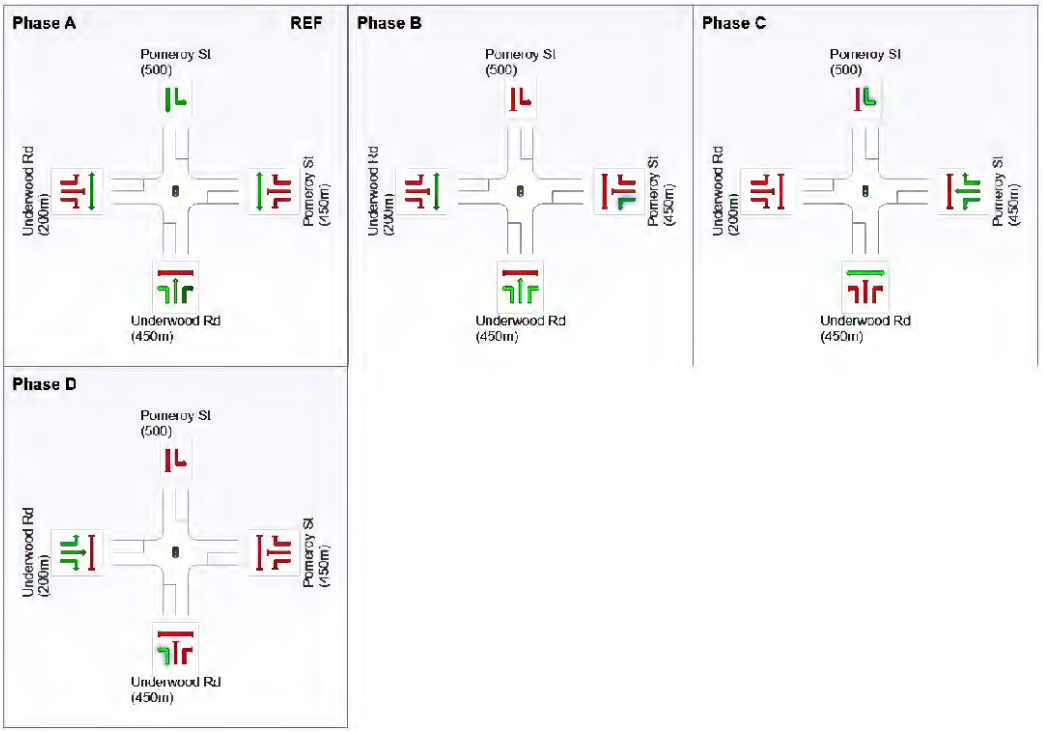
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	264	2.2	264	2.2	825	0.320	50[7]	20.7	LOS B	5.0	35.9	Short	70	0.0	NA
Lane 2	325	2.1	325	2.1	508	0.641	100	38.2	LOS C	8.0	57.2	Full	450	0.0	0.0
Approach	589	2.1	589	2.1		0.641		30.4	LOS C	8.0	57.2				
East: Pomeroy St (450m)															
Lane 1	134	0.8	134	0.8	824	0.162	100	20.7	LOS B	2.3	16.0	Full	450	0.0	0.0
Lane 2	422	3.0	422	3.0	607	0.695	100	35.5	LOS C	11.0	78.9	Short	75	0.0	NA
Approach	556	2.5	556	2.5		0.695		31.9	LOS C	11.0	78.9				
North: Pomeroy St (500)															
Lane 1	545	2.1	545	2.1	931	0.586	100	14.8	LOS B	7.5	53.5	Full	500	0.0	0.0
Lane 2	286	4.0	286	4.0	330	0.866	100	52.3	LOS D	9.6	69.4	Full	500	0.0	0.0
Approach	832	2.8	832	2.8		0.866		27.7	LOS B	9.6	69.4				
West: Underwood Rd (200m)															
Lane 1	25	0.0	25	0.0	96	0.256	50[7]	54.3	LOS D	0.8	5.3	Short (P)	20	0.0	NA
Lane 2	49	0.0	49	0.0	96	0.512	100	55.9	LOS D	1.6	10.9	Full	200	0.0	0.0
Approach	74	0.0	74	0.0		0.512		55.4	LOS D	1.6	10.9				
All Vehicles	2051	2.4	2051	2.4		0.866		30.6	LOS C	11.0	78.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

7 Lane under-utilisation specified by the user

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	23	49	89
Green Time (sec)	18	20	34	5
Phase Time (sec)	24	26	40	10
Phase Split	24%	26%	40%	10%
Phase Frequency (%)	100.0	100.0	100.0	83.3[2]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Site: 0834 [03-George St / Parramatta Rd-AM (Site Folder: 2023 AM Existing)] **Network: 1 [2023 AM Existing (Network Folder: General)]**

AM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	42	0.0	42	0.0	0.180	45.6	LOS D	1.6	11.5	0.90	0.72	0.90	6.6
2	T1	All MCs	13	0.0	13	0.0	* 0.180	48.2	LOS D	1.6	11.5	0.90	0.72	0.90	6.6
3	R2	All MCs	20	5.3	20	5.3	0.094	52.9	LOS D	0.6	4.6	0.89	0.70	0.89	20.6
Approach			75	1.4	75	1.4	0.180	48.0	LOS D	1.6	11.5	0.90	0.72	0.90	12.0
East: Parramatta Rd (430m)															
4	L2	All MCs	13	0.0	13	0.0	0.014	39.6	LOS C	0.2	1.5	0.51	0.65	0.51	34.4
5	T1	All MCs	1361	4.2	1361	4.2	0.789	42.7	LOS D	21.5	155.7	0.88	0.81	0.89	30.6
6	R2	All MCs	194	1.6	194	1.6	* 0.744	74.6	LOS F	7.0	49.5	1.00	0.87	1.10	18.7
Approach			1567	3.8	1567	3.8	0.789	46.7	LOS D	21.5	155.7	0.89	0.81	0.91	28.4
North: George St (820m)															
7	L2	All MCs	127	2.5	127	2.5	0.179	22.8	LOS B	2.8	19.9	0.65	0.70	0.65	39.0
8	T1	All MCs	9	0.0	9	0.0	0.179	35.2	LOS C	2.8	19.9	0.65	0.70	0.65	36.8
9	R2	All MCs	315	1.3	315	1.3	0.740	44.8	LOS D	9.7	68.6	0.96	0.90	1.01	28.7
Approach			452	1.6	452	1.6	0.740	38.4	LOS C	9.7	68.6	0.87	0.84	0.90	32.0
West: Parramatta Rd (70m)															
10	L2	All MCs	191	1.7	191	1.7	* 0.963	57.6	LOS E	9.5	70.0	1.00	1.17	1.32	4.1
11	T1	All MCs	1101	7.5	1101	7.5	0.963	85.7	LOS F	9.5	70.0	1.00	1.20	1.33	18.5
12	R2	All MCs	17	6.3	17	6.3	0.194	92.1	LOS F	0.6	4.6	0.99	0.69	0.99	7.5
Approach			1308	6.6	1308	6.6	0.963	81.7	LOS F	9.5	70.0	1.00	1.19	1.32	16.8
All Vehicles			3402	4.5	3402	4.5	0.963	59.1	LOS E	21.5	155.7	0.93	0.96	1.07	23.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

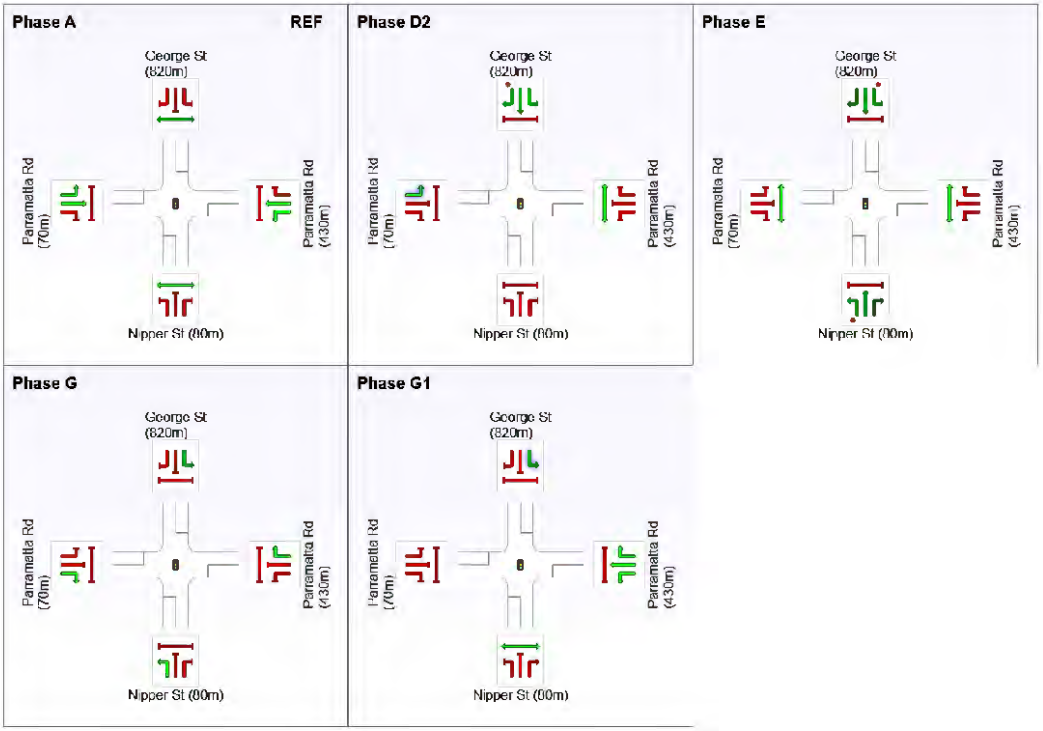
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	55	0.0	55	0.0	304	0.180	100	46.2	LOS D	1.6	11.5	Full	80	0.0	0.0
Lane 2	20	5.3	20	5.3	212	0.094	100	52.9	LOS D	0.6	4.6	Full	80	0.0	0.0
Approach	75	1.4	75	1.4		0.180		48.0	LOS D	1.6	11.5				
East: Parramatta Rd (430m)															
Lane 1	13	0.0	13	0.0	929	0.014	100	39.6	LOS C	0.2	1.5	Short	30	0.0	NA
Lane 2	741	4.2	741	4.2	939[1]	0.789	100	44.0	LOS D	21.5	155.7	Full	430	0.0	0.0
Lane 3	620	4.2	620	4.2	785[1]	0.789	100	41.3	LOS C	18.3	132.8	Full	430	0.0	0.0
Lane 4	194	1.6	194	1.6	260[1]	0.744	100	74.6	LOS F	7.0	49.5	Short	40	0.0	NA
Approach	1567	3.8	1567	3.8		0.789		46.7	LOS D	21.5	155.7				
North: George St (820m)															
Lane 1	137	2.3	137	2.3	765	0.179	100	23.6	LOS B	2.8	19.9	Short	100	0.0	NA
Lane 2	315	1.3	315	1.3	425	0.740	100	44.8	LOS D	9.7	68.6	Full	820	0.0	0.0
Approach	452	1.6	452	1.6		0.740		38.4	LOS C	9.7	68.6				
West: Parramatta Rd (70m)															
Lane 1	658	5.8	658	5.8	683	0.963	100	69.7	LOS E	9.5[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	634	7.5	634	7.5	658[1]	0.963	100	93.8	LOS F	9.4[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	17	6.3	17	6.3	87	0.194	100	92.1	LOS F	0.6	4.6	Short	50	0.0	NA
Approach	1308	6.6	1308	6.6		0.963		81.7	LOS F	9.5	70.0				
All Vehicles	3402	4.5	3402	4.5		0.963		59.1	LOS E	21.5	155.7				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	49	70	94	105
Green Time (sec)	45	15	18	6	13
Phase Time (sec)	51	21	23	8	17
Phase Split	43%	18%	19%	7%	14%
Phase Frequency (%)	100.0	100.0	88.5[2]	30.0[1]	70.0[1]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

1 Phase Frequency has been given with User-Specified Phase Times.
2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Site: 4759 [04-Parramatta Rd / M4 Ramp-AM (Site Folder: 2023 AM Existing)] **Network: 1 [2023 AM Existing (Network Folder: General)]**

AM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1553	3.6	1553	3.6	0.466	0.5	LOS A	2.4	17.2	0.17	0.13	0.17	57.7
6	R2	All MCs	165	3.2	165	3.2	* 0.944	55.2	LOS D	4.5	32.1	1.00	0.98	1.51	22.5
Approach			1718	3.6	1718	3.6	0.944	5.7	LOS A	4.5	32.1	0.25	0.21	0.30	44.3
West: Parramatta Rd (180m)															
10	L2	All MCs	115	46.8	115	46.8	0.881	27.2	LOS B	20.9	162.8	0.83	0.87	0.96	35.8
11	T1	All MCs	1308	6.6	1308	6.6	* 0.881	20.0	LOS B	20.9	162.8	0.83	0.86	0.95	21.6
Approach			1423	9.8	1423	9.8	0.881	20.6	LOS B	20.9	162.8	0.83	0.86	0.95	23.9
All Vehicles			3141	6.4	3141	6.4	0.944	12.5	LOS A	20.9	162.8	0.51	0.51	0.60	33.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

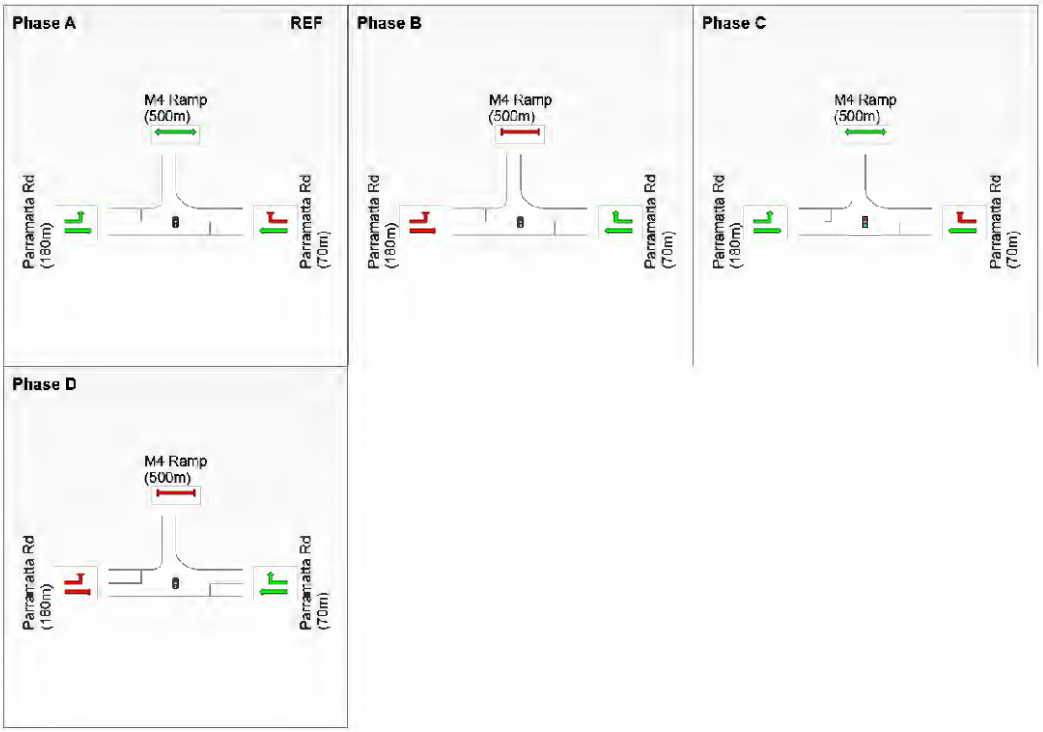
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	776	3.6	776	3.6	1666	0.466	100	0.5	LOS A	2.4	17.2	Full	70	0.0	0.0
Lane 2	776	3.6	776	3.6	1666	0.466	100	0.5	LOS A	2.4	17.2	Full	70	0.0	0.0
Lane 3	165	3.2	165	3.2	175	0.944	100	55.2	LOS D	4.5	32.1	Short	55	0.0	NA
Approach	1718	3.6	1718	3.6		0.944		5.7	LOS A	4.5	32.1				
West: Parramatta Rd (180m)															
Lane 1	684	13.3	684	13.3	776	0.881	100	22.0	LOS B	20.9 N5	162.8 N5	Full	180	-35.0 N2	40.6
Lane 2	739	6.6	739	6.6	839	0.881	100	19.4	LOS B	20.0 N5	147.6 N5	Full	180	-35.0 N2	31.5
Approach	1423	9.8	1423	9.8		0.881		20.6	LOS B	20.9	162.8				
All Vehicles	3141	6.4	3141	6.4		0.944		12.5	LOS A	20.9	162.8				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	50	62	108
Green Time (sec)	45	6	41	6
Phase Time (sec)	51	11	47	11
Phase Split	43%	9%	39%	9%
Phase Frequency (%)	100.0	91.7[2]	100.0	91.7[2]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

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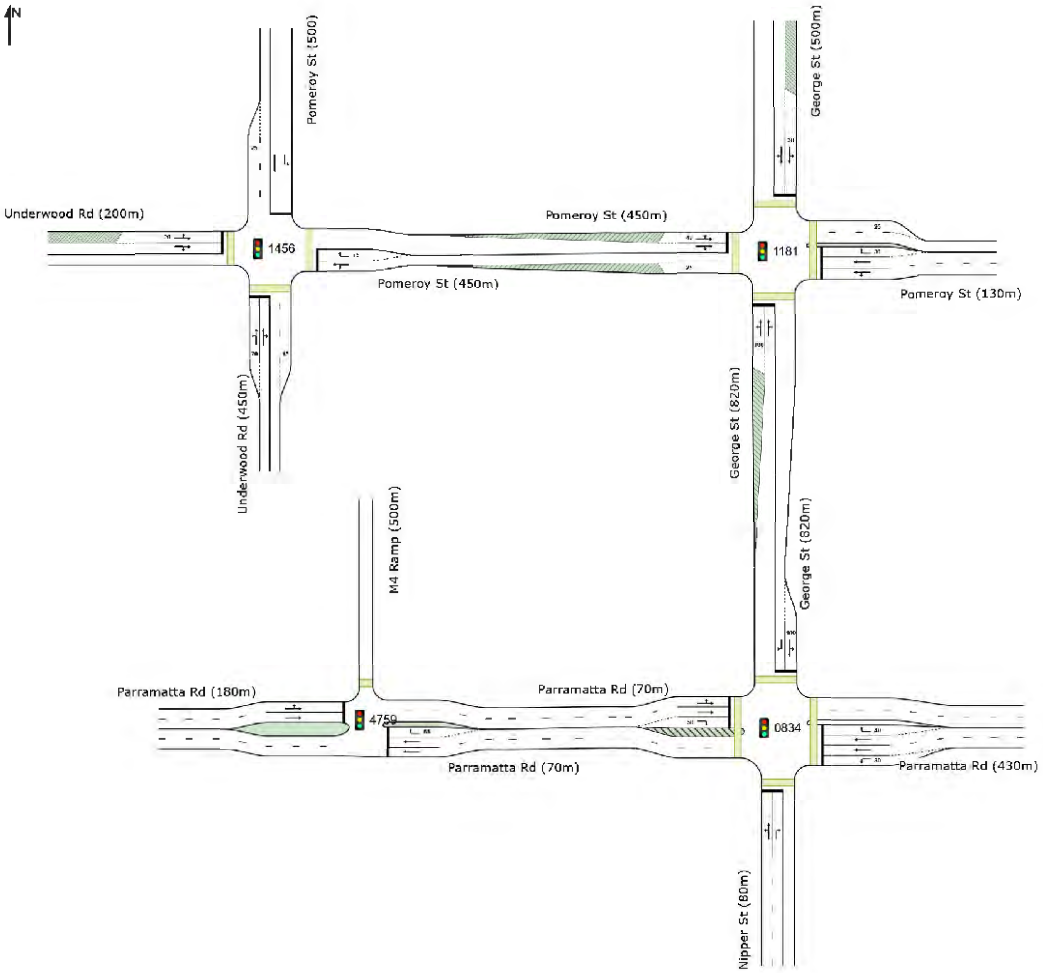
NETWORK LAYOUT

Network: N101 [2023 PM Existing (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-PM
1456	NA	02-Pomeroy St / Underwood Rd-PM
0834	NA	03-George St / Parramatta Rd-PM
4759	NA	04-Parramatta Rd / M4 Ramp-PM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210 **Template: Default Site User Report**

Site: 1181 [01-Pomeroy St / George St-PM (Site Folder: 2023 PM Existing)] **Network: 2 [2023 PM Existing (Network Folder: General)]**

PM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	126	0.0	126	0.0	0.274	42.2	LOS C	3.4	23.6	0.85	0.77	0.85	29.8
2	T1	All MCs	59	0.0	59	0.0	0.802	46.3	LOS D	8.9	62.0	1.00	0.94	1.15	32.3
3	R2	All MCs	199	0.0	199	0.0	* 0.802	55.0	LOS D	8.9	62.0	1.00	0.94	1.15	28.1
Approach			384	0.0	384	0.0	0.802	49.4	LOS D	8.9	62.0	0.95	0.89	1.06	29.3
East: Pomeroy St (130m)															
4	L2	All MCs	223	0.0	223	0.0	0.192	13.7	LOS A	3.0	21.3	0.45	0.67	0.45	21.7
5	T1	All MCs	486	1.1	486	1.1	0.609	16.6	LOS B	9.2	65.1	0.63	0.56	0.63	23.2
6	R2	All MCs	157	0.0	157	0.0	* 0.434	27.4	LOS B	2.3	16.0	0.74	0.74	0.74	34.8
Approach			866	0.6	866	0.6	0.609	17.8	LOS B	9.2	65.1	0.60	0.62	0.60	27.4
North: George St (500m)															
7	L2	All MCs	116	0.9	116	0.9	0.192	36.8	LOS C	2.7	19.2	0.76	0.74	0.76	28.5
8	T1	All MCs	69	0.0	69	0.0	0.528	40.0	LOS C	4.9	34.8	0.93	0.79	0.93	23.0
9	R2	All MCs	98	1.1	98	1.1	0.528	49.4	LOS D	4.9	34.8	0.93	0.79	0.93	23.0
Approach			283	0.7	283	0.7	0.528	42.0	LOS C	4.9	34.8	0.86	0.77	0.86	25.3
West: Pomeroy St (450m)															
10	L2	All MCs	94	1.1	94	1.1	0.557	26.5	LOS B	9.2	64.6	0.70	0.66	0.70	38.7
11	T1	All MCs	575	0.0	575	0.0	0.557	22.8	LOS B	9.2	64.6	0.73	0.68	0.73	33.6
12	R2	All MCs	101	0.0	101	0.0	* 0.557	42.0	LOS C	8.0	56.1	0.78	0.72	0.78	28.7
Approach			769	0.1	769	0.1	0.557	25.7	LOS B	9.2	64.6	0.74	0.68	0.74	33.9
All Vehicles			2303	0.4	2303	0.4	0.802	28.7	LOS C	9.2	65.1	0.74	0.70	0.75	29.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

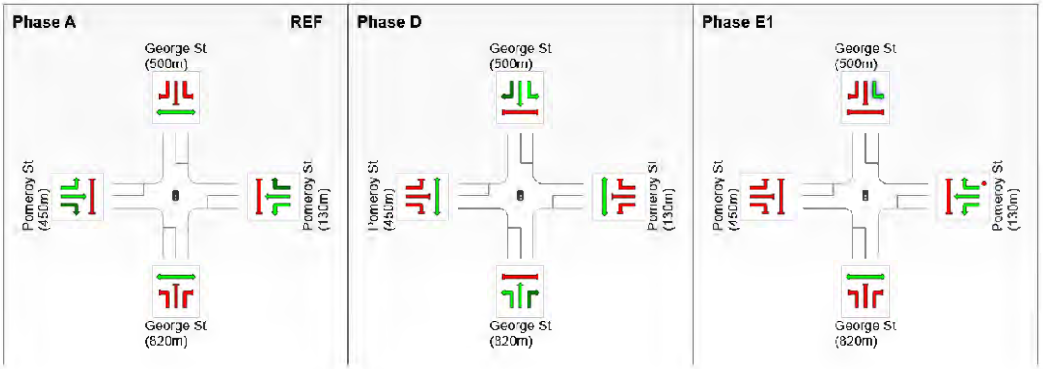
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	126	0.0	126	0.0	461	0.274	34[5]	42.2	LOS C	3.4	23.6	Short (P)	100	0.0	NA
Lane 2	258	0.0	258	0.0	322	0.802	100	53.0	LOS D	8.9	62.0	Full	820	0.0	0.0
Approach	384	0.0	384	0.0		0.802		49.4	LOS D	8.9	62.0				
East: Pomeroy St (130m)															
Lane 1	223	0.0	223	0.0	1165	0.192	31[5]	13.7	LOS A	3.0	21.3	Full	130	0.0	0.0
Lane 2	486	1.1	486	1.1	799[1]	0.609	100	16.6	LOS B	9.2	65.1	Full	130	-15.0[N2]	0.0
Lane 3	157	0.0	157	0.0	362	0.434	100	27.4	LOS B	2.3	16.0	Short	30	0.0	NA
Approach	866	0.6	866	0.6		0.609		17.8	LOS B	9.2	65.1				
North: George St (500m)															
Lane 1	116	0.9	116	0.9	602	0.192	36[5]	36.8	LOS C	2.7	19.2	Short (P)	30	0.0	NA
Lane 2	167	0.6	167	0.6	317[1]	0.528	100	45.5	LOS D	4.9	34.8	Full	500	0.0	0.0
Approach	283	0.7	283	0.7		0.528		42.0	LOS C	4.9	34.8				
West: Pomeroy St (450m)															
Lane 1	434	0.2	434	0.2	779[1]	0.557	100	22.9	LOS B	9.2	64.6	Short (P)	40	0.0	NA
Lane 2	335	0.0	335	0.0	602[1]	0.557	100	29.4	LOS C	8.0	56.1	Full	450	0.0	0.0
Approach	769	0.1	769	0.1		0.557		25.7	LOS B	9.2	64.6				
All Vehicles	2303	0.4	2303	0.4		0.802		28.7	LOS C	9.2	65.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	65	99
Green Time (sec)	60	28	5
Phase Time (sec)	66	34	10
Phase Split	60%	31%	9%
Phase Frequency (%)	100.0	100.0	83.3[2]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

2 Phase Frequency is implied by a Phase Time specified by the user that is less than the Required Movement Time.

Site: 1456 [02-Pomeroy St / Underwood Rd-PM (Site Folder: 2023 PM Existing)] **Network: 2 [2023 PM Existing (Network Folder: General)]**

PM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	18	0.0	18	0.0	0.420	20.4	LOS B	6.9	49.2	0.72	0.63	0.72	32.7
2	T1	All MCs	315	2.7	315	2.7	0.840	27.0	LOS B	9.1	63.9	0.76	0.70	0.79	35.1
3	R2	All MCs	199	0.0	199	0.0	* 0.840	71.6	LOS F	9.1	63.9	1.00	1.14	1.21	17.0
Approach			532	1.6	532	1.6	0.840	43.4	LOS D	9.1	63.9	0.85	0.86	0.94	28.2
East: Pomeroy St (450m)															
4	L2	All MCs	246	0.9	246	0.9	0.337	36.6	LOS C	6.2	43.4	0.69	0.74	0.69	34.8
5	T1	All MCs	21	0.0	21	0.0	0.337	45.6	LOS D	6.2	43.4	0.69	0.74	0.69	32.0
6	R2	All MCs	472	1.8	472	1.8	* 0.911	71.7	LOS F	19.6	139.2	1.00	1.02	1.24	26.0
Approach			739	1.4	739	1.4	0.911	59.2	LOS E	19.6	139.2	0.89	0.92	1.04	28.5
North: Pomeroy St (500)															
7	L2	All MCs	614	0.5	614	0.5	0.515	10.9	LOS A	6.6	46.3	0.58	0.74	0.58	38.7
8	T1	All MCs	442	3.1	442	3.1	* 0.774	42.4	LOS C	14.9	106.8	0.97	0.88	1.01	31.1
Approach			1056	1.6	1056	1.6	0.774	24.1	LOS B	14.9	106.8	0.74	0.80	0.76	33.9
West: Underwood Rd (200m)															
10	L2	All MCs	7	0.0	7	0.0	0.181	68.2	LOS E	0.6	4.4	0.99	0.69	0.99	21.9
11	T1	All MCs	25	0.0	25	0.0	* 0.362	63.0	LOS E	1.3	8.9	1.00	0.71	1.00	9.6
12	R2	All MCs	19	0.0	19	0.0	0.362	68.0	LOS E	1.3	8.9	1.00	0.73	1.00	20.6
Approach			52	0.0	52	0.0	0.362	65.6	LOS E	1.3	8.9	1.00	0.71	1.00	16.4
All Vehicles			2378	1.5	2378	1.5	0.911	40.2	LOS C	19.6	139.2	0.82	0.85	0.89	30.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

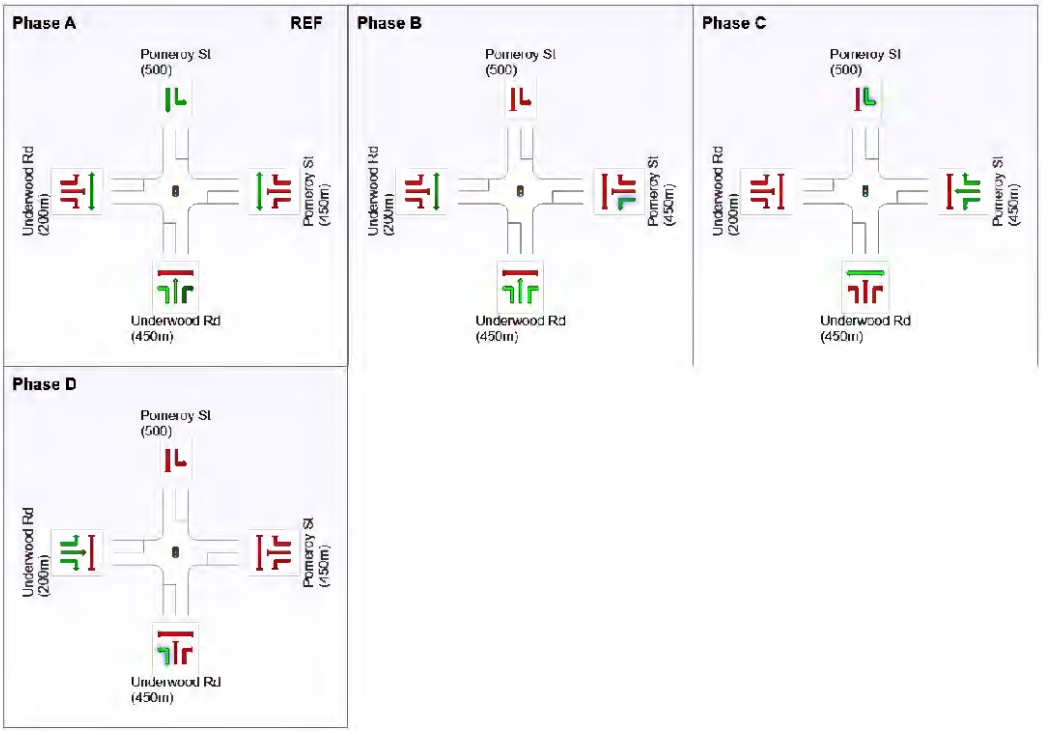
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	288	2.5	288	2.5	685	0.420	50[7]	24.8	LOS B	6.9	49.2	Short	70	-20.0[N2]	NA
Lane 2	244	0.5	244	0.5	290	0.840	100	65.4	LOS E	9.1	63.9	Full	450	0.0	0.0
Approach	532	1.6	532	1.6		0.840		43.4	LOS D	9.1	63.9				
East: Pomeroy St (450m)															
Lane 1	267	0.8	267	0.8	793	0.337	100	37.3	LOS C	6.2	43.4	Full	450	0.0	0.0
Lane 2	472	1.8	472	1.8	518[1]	0.911	100	71.7	LOS F	19.6	139.2	Short	75	0.0	NA
Approach	739	1.4	739	1.4		0.911		59.2	LOS E	19.6	139.2				
North: Pomeroy St (500)															
Lane 1	614	0.5	614	0.5	1191	0.515	100	10.9	LOS A	6.6	46.3	Full	500	0.0	0.0
Lane 2	442	3.1	442	3.1	571	0.774	100	42.4	LOS C	14.9	106.8	Full	500	0.0	0.0
Approach	1056	1.6	1056	1.6		0.774		24.1	LOS B	14.9	106.8				
West: Underwood Rd (200m)															
Lane 1	17	0.0	17	0.0	95	0.181	50[7]	64.8	LOS E	0.6	4.4	Short (P)	20	0.0	NA
Lane 2	34	0.0	34	0.0	95	0.362	100	66.0	LOS E	1.3	8.9	Full	200	0.0	0.0
Approach	52	0.0	52	0.0		0.362		65.6	LOS E	1.3	8.9				
All Vehicles	2378	1.5	2378	1.5		0.911		40.2	LOS C	19.6	139.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	43	61	108
Green Time (sec)	37	12	41	6
Phase Time (sec)	43	18	47	12
Phase Split	36%	15%	39%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-PM (Site Folder: 2023 PM Existing)] **Network: 2 [2023 PM Existing (Network Folder: General)]**

PM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	61	1.7	61	1.7	0.241	44.0	LOS D	2.3	16.4	0.89	0.74	0.89	6.8
2	T1	All MCs	17	6.3	17	6.3	* 0.241	45.4	LOS D	2.3	16.4	0.89	0.74	0.89	6.8
3	R2	All MCs	27	0.0	27	0.0	0.115	50.2	LOS D	0.8	5.9	0.88	0.71	0.88	21.2
Approach			105	2.0	105	2.0	0.241	45.8	LOS D	2.3	16.4	0.89	0.73	0.89	12.3
East: Parramatta Rd (430m)															
4	L2	All MCs	20	0.0	20	0.0	0.023	42.7	LOS D	0.4	2.6	0.55	0.66	0.55	33.1
5	T1	All MCs	1314	2.4	1314	2.4	* 0.781	45.0	LOS D	20.6	147.4	0.89	0.81	0.90	29.8
6	R2	All MCs	163	0.0	163	0.0	0.892	91.4	LOS F	6.7	46.8	1.00	1.00	1.37	15.8
Approach			1497	2.1	1497	2.1	0.892	50.1	LOS D	20.6	147.4	0.90	0.83	0.94	27.2
North: George St (820m)															
7	L2	All MCs	177	0.0	177	0.0	0.285	26.8	LOS B	4.5	31.5	0.73	0.74	0.73	37.8
8	T1	All MCs	21	0.0	21	0.0	0.285	33.2	LOS C	4.5	31.5	0.73	0.74	0.73	35.3
9	R2	All MCs	317	0.0	317	0.0	* 0.783	49.0	LOS D	9.8	68.7	0.99	0.99	1.07	27.6
Approach			515	0.0	515	0.0	0.783	40.7	LOS C	9.8	68.7	0.89	0.89	0.94	31.6
West: Parramatta Rd (70m)															
10	L2	All MCs	175	0.0	175	0.0	0.661	20.8	LOS B	9.9	70.0	0.83	0.77	0.83	9.6
11	T1	All MCs	968	1.7	968	1.7	0.661	35.0	LOS C	9.9	70.0	0.83	0.76	0.83	32.2
12	R2	All MCs	42	2.5	42	2.5	* 0.559	83.6	LOS F	1.6	11.6	1.00	0.76	1.06	7.2
Approach			1185	1.5	1185	1.5	0.661	34.6	LOS C	9.9	70.0	0.83	0.76	0.84	28.9
All Vehicles			3302	1.6	3302	1.6	0.892	42.9	LOS D	20.6	147.4	0.87	0.81	0.90	28.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

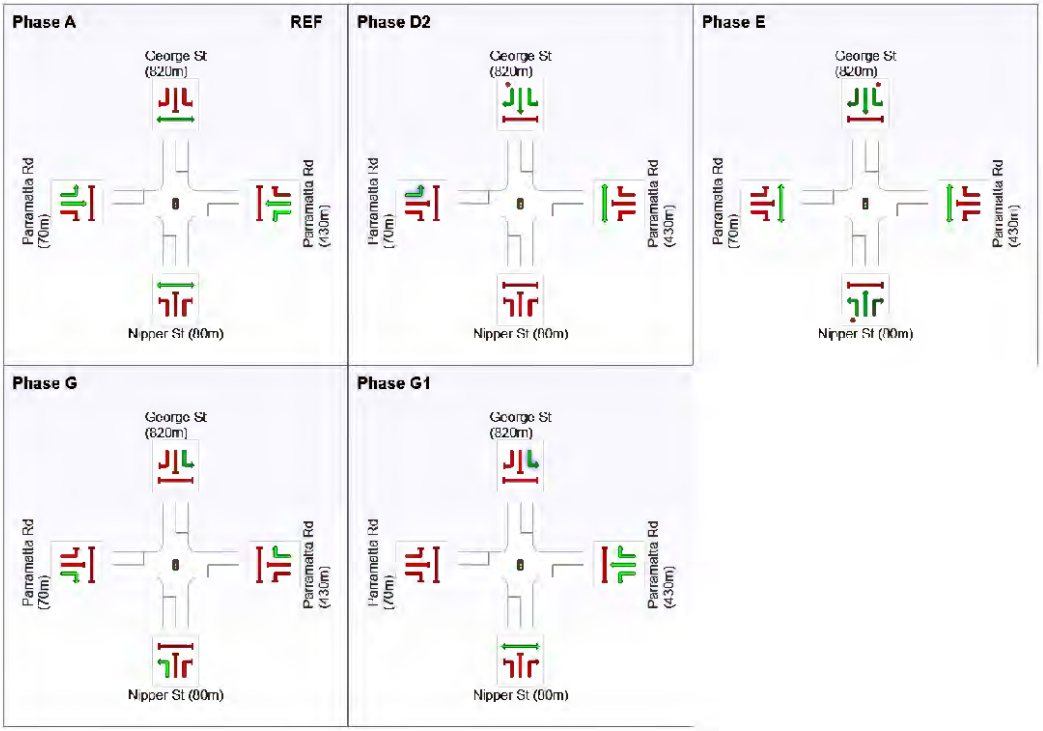
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	78	2.7	78	2.7	323	0.241	100	44.3	LOS D	2.3	16.4	Full	80	0.0	0.0
Lane 2	27	0.0	27	0.0	238	0.115	100	50.2	LOS D	0.8	5.9	Full	80	0.0	0.0
Approach	105	2.0	105	2.0		0.241		45.8	LOS D	2.3	16.4				
East: Parramatta Rd (430m)															
Lane 1	20	0.0	20	0.0	868	0.023	100	42.7	LOS D	0.4	2.6	Short	30	0.0	NA
Lane 2	704	2.4	704	2.4	901[1]	0.781	100	46.4	LOS D	20.6	147.4	Full	430	0.0	0.0
Lane 3	610	2.4	610	2.4	781[1]	0.781	100	43.4	LOS D	18.1	129.2	Full	430	0.0	0.0
Lane 4	163	0.0	163	0.0	183	0.892	100	91.4	LOS F	6.7	46.8	Short	40	0.0	NA
Approach	1497	2.1	1497	2.1		0.892		50.1	LOS D	20.6	147.4				
North: George St (820m)															
Lane 1	198	0.0	198	0.0	694	0.285	100	27.5	LOS B	4.5	31.5	Short	100	0.0	NA
Lane 2	317	0.0	317	0.0	405	0.783	100	49.0	LOS D	9.8	68.7	Full	820	0.0	0.0
Approach	515	0.0	515	0.0		0.783		40.7	LOS C	9.8	68.7				
West: Parramatta Rd (70m)															
Lane 1	583	1.2	583	1.2	881	0.661	100	27.1	LOS B	9.9[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	560	1.7	560	1.7	847[1]	0.661	100	38.7	LOS C	9.9[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	42	2.5	42	2.5	75	0.559	100	83.6	LOS F	1.6	11.6	Short	50	0.0	NA
Approach	1185	1.5	1185	1.5		0.661		34.6	LOS C	9.9	70.0				
All Vehicles	3302	1.6	3302	1.6		0.892		42.9	LOS D	20.6	147.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	57	75	102	113
Green Time (sec)	56	12	21	5	2
Phase Time (sec)	62	18	27	10	3
Phase Split	52%	15%	23%	8%	3%
Phase Frequency (%)	100.0	100.0	100.0	80.0[1]	20.0[1]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

1 Phase Frequency has been given with User-Specified Phase Times.

Site: 4759 [04-Parramatta Rd / M4 Ramp-PM (Site Folder: 2023 PM Existing)] **Network: 2 [2023 PM Existing (Network Folder: General)]**

PM
Site Category: Base Year
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Phase Times)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times specified by the user
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1557	1.9	1557	1.9	0.464	0.6	LOS A	2.4	17.1	0.19	0.15	0.19	57.5
6	R2	All MCs	135	2.3	135	2.3	* 0.705	36.4	LOS C	2.7	19.4	1.00	0.82	1.09	28.2
Approach			1692	1.9	1692	1.9	0.705	3.4	LOS A	2.7	19.4	0.25	0.20	0.26	49.2
West: Parramatta Rd (180m)															
10	L2	All MCs	84	52.5	84	52.5	* 0.778	14.5	LOS A	7.9	59.1	0.72	0.69	0.73	44.2
11	T1	All MCs	1185	1.5	1185	1.5	0.778	7.0	LOS A	8.3	59.1	0.72	0.67	0.72	36.7
Approach			1269	4.9	1269	4.9	0.778	7.5	LOS A	8.3	59.1	0.72	0.67	0.72	38.0
All Vehicles			2961	3.2	2961	3.2	0.778	5.2	LOS A	8.3	59.1	0.45	0.40	0.46	44.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

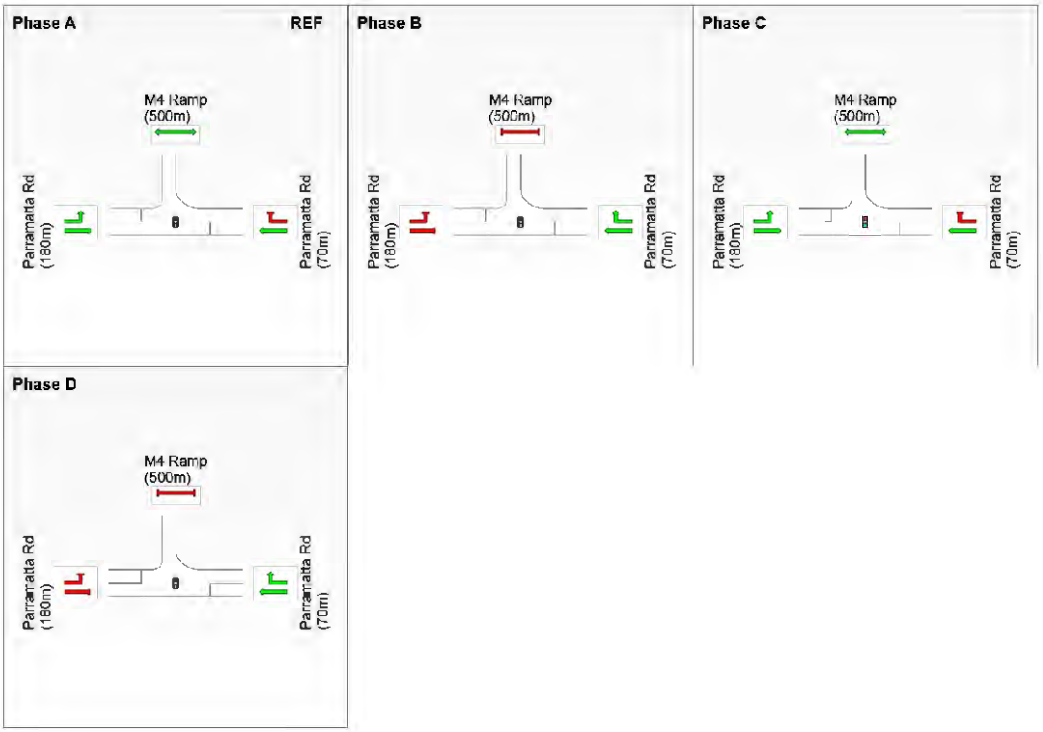
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	778	1.9	778	1.9	1679	0.464	100	0.6	LOS A	2.4	17.1	Full	70	0.0	0.0
Lane 2	778	1.9	778	1.9	1679	0.464	100	0.6	LOS A	2.4	17.1	Full	70	0.0	0.0
Lane 3	135	2.3	135	2.3	191	0.705	100	36.4	LOS C	2.7	19.4	Short	55	0.0	NA
Approach	1692	1.9	1692	1.9		0.705		3.4	LOS A	2.7	19.4				
West: Parramatta Rd (180m)															
Lane 1	608	8.6	608	8.6	783	0.778	100	8.3	LOS A	7.9	59.1	Full	180	-35.0 N2	0.0
Lane 2	661	1.5	661	1.5	850	0.778	100	6.8	LOS A	8.3	58.8	Full	180	-35.0 N2	0.0
Approach	1269	4.9	1269	4.9		0.778		7.5	LOS A	8.3	59.1				
All Vehicles	2961	3.2	2961	3.2		0.778		5.2	LOS A	8.3	59.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	49	61	107
Green Time (sec)	43	6	40	7
Phase Time (sec)	49	12	46	13
Phase Split	41%	10%	38%	11%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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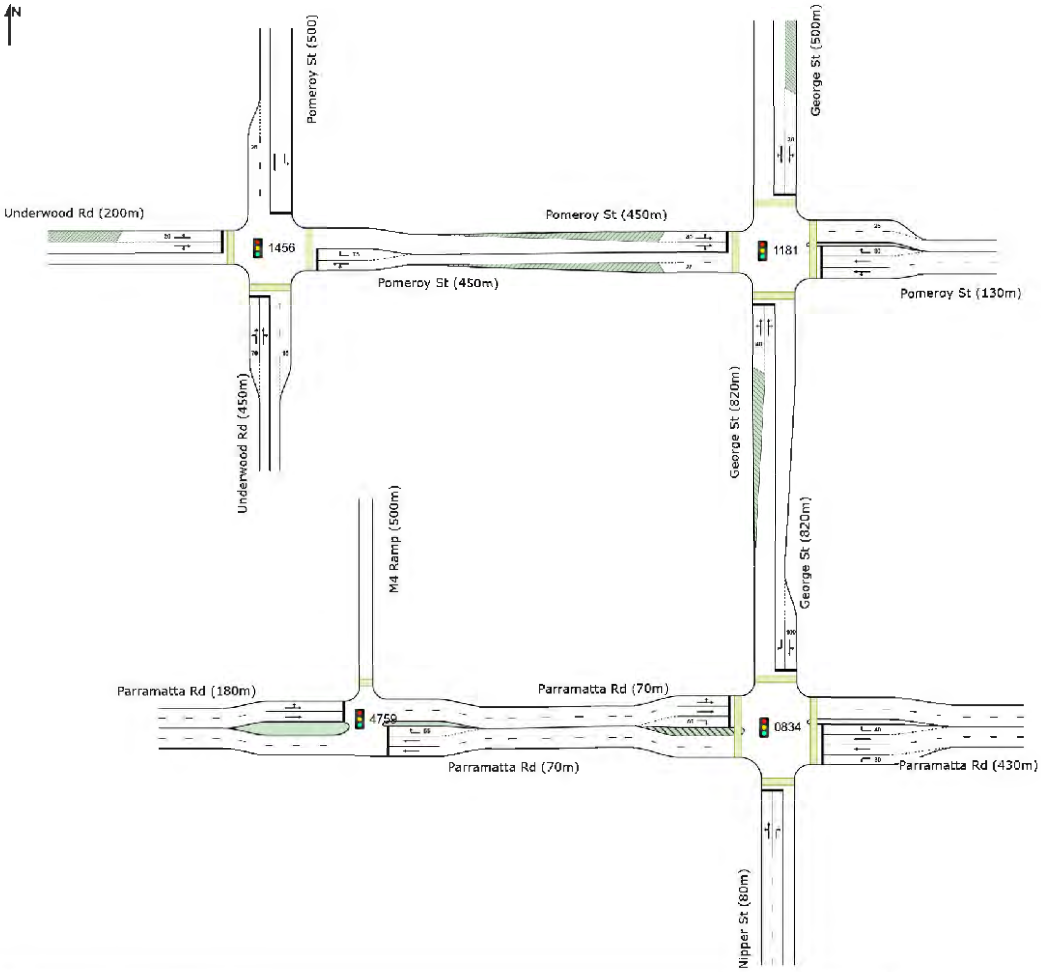
NETWORK LAYOUT

Network: N101 [2026 AM Future Base (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-AM
1456	NA	02-Pomeroy St / Underwood Rd-AM
0834	NA	03-George St / Parramatta Rd-AM
4759	NA	04-Parramatta Rd / M4 Ramp-AM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210 **Template: Default Site User Report**

Site: 1181 [01-Pomeroy St / George St-AM (Site Folder: 2026 AM Future Base)] **Network: 3 [2026 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	87	0.0	83	0.0	0.135	22.3	LOS B	1.2	8.6	0.74	0.70	0.74	31.2
2	T1	All MCs	69	0.0	66	0.0	* 0.527	20.8	LOS B	4.0	28.2	0.89	0.78	0.89	33.0
3	R2	All MCs	160	2.0	152	2.0	0.527	27.8	LOS B	4.0	28.2	0.89	0.78	0.89	30.6
Approach			317	1.0	302	1.0	0.527	24.8	LOS B	4.0	28.2	0.85	0.76	0.85	31.4
East: Pomeroy St (130m)															
4	L2	All MCs	338	0.6	338	0.6	0.389	16.4	LOS B	4.6	32.4	0.69	0.73	0.69	17.8
5	T1	All MCs	404	3.1	404	3.1	0.455	14.1	LOS A	5.5	39.5	0.69	0.60	0.69	20.7
6	R2	All MCs	105	2.0	105	2.0	* 0.281	20.3	LOS B	1.3	9.1	0.82	0.72	0.82	30.8
Approach			847	2.0	847	2.0	0.455	15.8	LOS B	5.5	39.5	0.71	0.67	0.71	22.5
North: George St (500m)															
7	L2	All MCs	141	3.7	141	3.7	0.178	17.4	LOS B	1.8	12.9	0.64	0.69	0.64	30.7
8	T1	All MCs	102	3.1	102	3.1	0.383	19.6	LOS B	3.0	21.3	0.83	0.72	0.83	26.9
9	R2	All MCs	72	4.4	72	4.4	0.383	27.4	LOS B	3.0	21.3	0.83	0.72	0.83	26.9
Approach			315	3.7	315	3.7	0.383	20.4	LOS B	3.0	21.3	0.75	0.70	0.75	28.7
West: Pomeroy St (450m)															
10	L2	All MCs	134	3.1	134	3.1	0.552	24.6	LOS B	5.6	40.1	0.87	0.77	0.87	31.4
11	T1	All MCs	379	1.7	379	1.7	* 0.552	21.4	LOS B	5.6	40.1	0.87	0.76	0.87	28.2
12	R2	All MCs	55	0.0	55	0.0	0.552	24.8	LOS B	4.4	31.1	0.87	0.75	0.87	26.1
Approach			567	1.9	567	1.9	0.552	22.5	LOS B	5.6	40.1	0.87	0.76	0.87	29.1
All Vehicles			2046	2.1	2031	2.1	0.552	19.7	LOS B	5.6	40.1	0.78	0.71	0.78	28.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

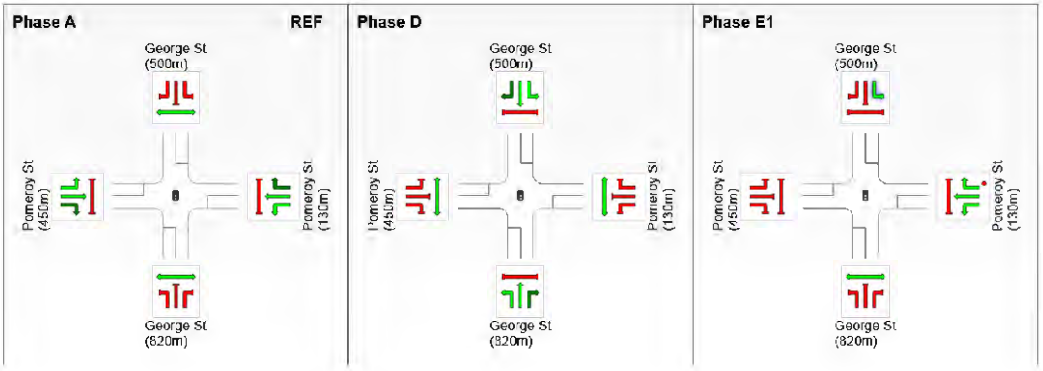
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	87	0.0	83	0.0	617	0.135	26[5]	22.3	LOS B	1.2	8.6	Short (P)	40	0.0	NA
Lane 2	229	1.4	218	1.4	414	0.527	100	25.7	LOS B	4.0	28.2	Full	820	0.0	0.0
Approach	317	1.0	302	1.0		0.527		24.8	LOS B	4.0	28.2				
East: Pomeroy St (130m)															
Lane 1	338	0.6	338	0.6	870	0.389	85[5]	16.4	LOS B	4.6	32.4	Full	130	0.0	0.0
Lane 2	404	3.1	404	3.1	888[1]	0.455	100	14.1	LOS A	5.5	39.5	Full	130	0.0	0.0
Lane 3	105	2.0	105	2.0	374	0.281	100	20.3	LOS B	1.3	9.1	Short	30	0.0	NA
Approach	847	2.0	847	2.0		0.455		15.8	LOS B	5.5	39.5				
North: George St (500m)															
Lane 1	141	3.7	141	3.7	791	0.178	47[5]	17.4	LOS B	1.8	12.9	Short (P)	30	0.0	NA
Lane 2	174	3.6	174	3.6	454	0.383	100	22.8	LOS B	3.0	21.3	Full	500	0.0	0.0
Approach	315	3.7	315	3.7		0.383		20.4	LOS B	3.0	21.3				
West: Pomeroy St (450m)															
Lane 1	320	2.3	320	2.3	579	0.552	100	22.6	LOS B	5.6	40.1	Short (P)	40	0.0	NA
Lane 2	247	1.3	247	1.3	448	0.552	100	22.2	LOS B	4.4	31.1	Full	450	0.0	0.0
Approach	567	1.9	567	1.9		0.552		22.5	LOS B	5.6	40.1				
All Vehicles	2046	2.1	2031	2.1		0.552		19.7	LOS B	5.6	40.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	29	58
Green Time (sec)	23	23	6
Phase Time (sec)	29	29	12
Phase Split	41%	41%	17%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-AM (Site Folder: 2026 AM Future Base)] **Network: 3 [2026 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	24	0.0	24	0.0	0.319	16.0	LOS B	5.1	36.6	0.67	0.59	0.67	35.0
2	T1	All MCs	441	2.6	441	2.6	0.637	23.4	LOS B	8.2	58.5	0.78	0.76	0.78	36.3
3	R2	All MCs	144	2.2	144	2.2	* 0.637	49.0	LOS D	8.2	58.5	0.93	0.97	0.93	24.0
Approach			609	2.4	609	2.4	0.637	29.2	LOS C	8.2	58.5	0.81	0.80	0.81	33.9
East: Pomeroy St (450m)															
4	L2	All MCs	123	1.7	122	1.7	0.187	23.1	LOS B	2.6	18.1	0.66	0.70	0.66	36.3
5	T1	All MCs	17	0.0	17	0.0	0.187	42.3	LOS C	2.6	18.1	0.66	0.70	0.66	33.8
6	R2	All MCs	436	3.1	433	3.2	* 0.830	47.7	LOS D	13.4	96.2	1.00	0.94	1.13	29.7
Approach			576	2.7	572	2.8	0.830	42.3	LOS C	13.4	96.2	0.91	0.88	1.02	31.0
North: Pomeroy St (500)															
7	L2	All MCs	563	2.2	563	2.2	0.630	15.6	LOS B	7.9	56.4	0.79	0.81	0.79	35.2
8	T1	All MCs	296	4.3	296	4.3	* 0.807	46.3	LOS D	9.3	67.1	1.00	0.97	1.16	30.0
Approach			859	2.9	859	2.9	0.807	26.2	LOS B	9.3	67.1	0.86	0.86	0.92	32.4
West: Underwood Rd (200m)															
10	L2	All MCs	6	0.0	6	0.0	0.226	57.6	LOS E	0.8	5.5	0.98	0.70	0.98	24.4
11	T1	All MCs	53	0.0	53	0.0	* 0.451	52.0	LOS D	1.6	11.3	0.99	0.73	0.99	11.2
12	R2	All MCs	19	0.0	19	0.0	0.451	57.1	LOS E	1.6	11.3	1.00	0.74	1.00	23.0
Approach			78	0.0	78	0.0	0.451	53.7	LOS D	1.6	11.3	0.99	0.73	0.99	16.3
All Vehicles			2122	2.6	2118	2.6	0.830	32.4	LOS C	13.4	96.2	0.87	0.84	0.92	31.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

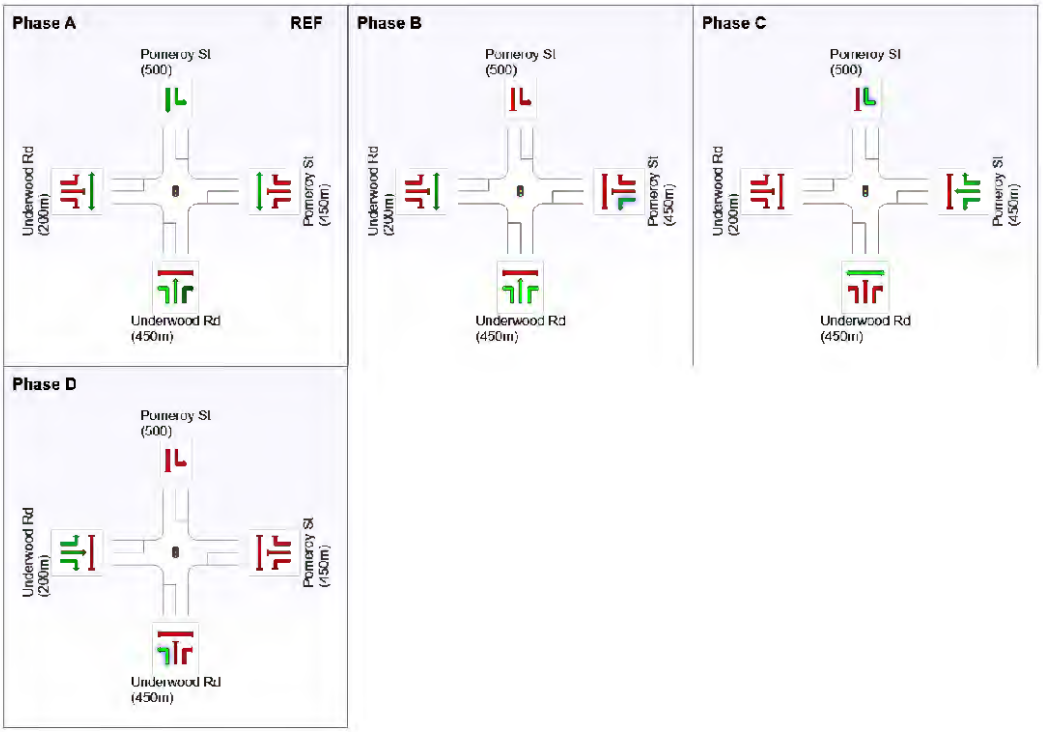
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	274	2.4	274	2.4	859	0.319	50[7]	20.2	LOS B	5.1	36.6	Short	70	0.0	NA
Lane 2	336	2.4	336	2.4	527	0.637	100	36.5	LOS C	8.2	58.5	Full	450	0.0	0.0
Approach	609	2.4	609	2.4		0.637		29.2	LOS C	8.2	58.5				
East: Pomeroy St (450m)															
Lane 1	140	1.5	139	1.5	745	0.187	100	25.4	LOS B	2.6	18.1	Full	450	0.0	0.0
Lane 2	436	3.1	433	3.2	521[1]	0.830	100	47.7	LOS D	13.4	96.2	Short	75	0.0	NA
Approach	576	2.7	572	2.8		0.830		42.3	LOS C	13.4	96.2				
North: Pomeroy St (500)															
Lane 1	563	2.2	563	2.2	893	0.630	100	15.6	LOS B	7.9	56.4	Full	500	0.0	0.0
Lane 2	296	4.3	296	4.3	366	0.807	100	46.3	LOS D	9.3	67.1	Full	500	0.0	0.0
Approach	859	2.9	859	2.9		0.807		26.2	LOS B	9.3	67.1				
West: Underwood Rd (200m)															
Lane 1	26	0.0	26	0.0	116	0.226	50[7]	52.8	LOS D	0.8	5.5	Short (P)	20	0.0	NA
Lane 2	52	0.0	52	0.0	115	0.451	100	54.2	LOS D	1.6	11.3	Full	200	0.0	0.0
Approach	78	0.0	78	0.0		0.451		53.7	LOS D	1.6	11.3				
All Vehicles	2122	2.6	2118	2.6		0.830		32.4	LOS C	13.4	96.2				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	26	52	88
Green Time (sec)	20	20	30	6
Phase Time (sec)	26	26	36	12
Phase Split	26%	26%	36%	12%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-AM (Site Folder: 2026 AM Future Base)] **Network: 3 [2026 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	44	0.0	44	0.0	0.198	45.7	LOS D	1.7	12.0	0.90	0.73	0.90	6.7
2	T1	All MCs	14	0.0	14	0.0	* 0.198	44.4	LOS D	1.7	12.0	0.90	0.73	0.90	6.7
3	R2	All MCs	22	9.5	22	9.5	0.098	51.0	LOS D	0.7	5.2	0.88	0.70	0.88	20.9
Approach			80	2.6	80	2.6	0.198	46.9	LOS D	1.7	12.0	0.89	0.72	0.89	12.4
East: Parramatta Rd (430m)															
4	L2	All MCs	14	0.0	14	0.0	0.015	42.9	LOS D	0.2	1.7	0.53	0.65	0.53	33.8
5	T1	All MCs	1403	4.2	1403	4.2	0.845	51.7	LOS D	25.1	181.9	0.94	0.90	1.00	27.1
6	R2	All MCs	201	2.1	201	2.1	* 1.062	162.7	LOS F	11.7	83.0	1.00	1.29	1.93	9.4
Approach			1618	3.9	1618	3.9	1.062	65.4	LOS E	25.1	181.9	0.94	0.95	1.11	22.0
North: George St (820m)															
7	L2	All MCs	133	3.2	133	3.2	0.178	20.7	LOS B	2.7	19.6	0.62	0.70	0.62	39.8
8	T1	All MCs	11	0.0	11	0.0	0.178	29.3	LOS C	2.7	19.6	0.62	0.70	0.62	37.8
9	R2	All MCs	325	1.6	325	1.6	0.661	37.8	LOS C	9.4	66.5	0.92	0.82	0.92	30.8
Approach			468	2.0	468	2.0	0.661	32.8	LOS C	9.4	66.5	0.83	0.78	0.83	33.8
West: Parramatta Rd (70m)															
10	L2	All MCs	198	2.1	198	2.1	* 1.043	99.1	LOS F	9.5	70.0	1.00	1.41	1.64	2.6
11	T1	All MCs	1136	7.5	1136	7.5	1.043	131.4	LOS F	9.5	70.0	1.00	1.45	1.64	12.9
12	R2	All MCs	19	11.1	19	11.1	0.685	106.6	LOS F	0.8	6.1	1.00	0.77	1.29	6.5
Approach			1353	6.8	1353	6.8	1.043	126.3	LOS F	9.5	70.0	1.00	1.44	1.64	11.5
All Vehicles			3519	4.7	3519	4.7	1.062	84.1	LOS F	25.1	181.9	0.95	1.11	1.27	17.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

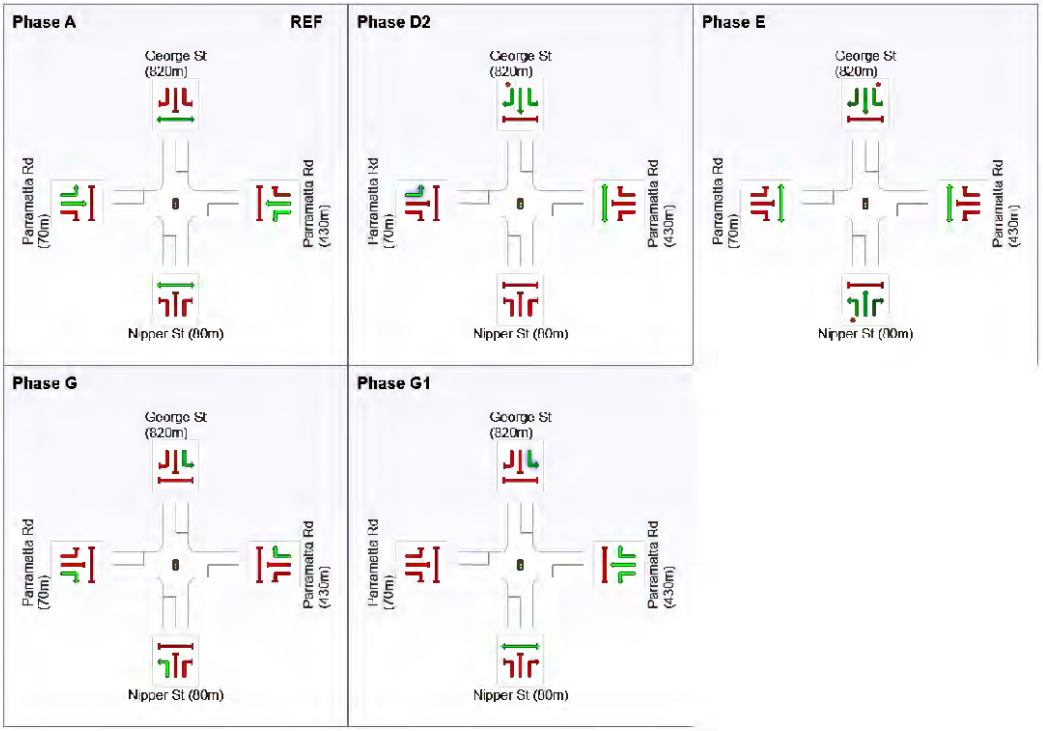
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	58	0.0	58	0.0	292	0.198	100	45.4	LOS D	1.7	12.0	Full	80	0.0	0.0
Lane 2	22	9.5	22	9.5	225	0.098	100	51.0	LOS D	0.7	5.2	Full	80	0.0	0.0
Approach	80	2.6	80	2.6		0.198		46.9	LOS D	1.7	12.0				
East: Parramatta Rd (430m)															
Lane 1	14	0.0	14	0.0	899	0.015	100	42.9	LOS D	0.2	1.7	Short	30	0.0	NA
Lane 2	767	4.2	767	4.2	908[1]	0.845	100	52.5	LOS D	25.1	181.9	Full	430	0.0	0.0
Lane 3	636	4.2	636	4.2	753[1]	0.845	100	50.7	LOS D	21.4	155.3	Full	430	0.0	0.0
Lane 4	201	2.1	201	2.1	189[1]	1.062	100	162.7	LOS F	11.7	83.0	Short	40	0.0	NA
Approach	1618	3.9	1618	3.9		1.062		65.4	LOS E	25.1	181.9				
North: George St (820m)															
Lane 1	143	2.9	143	2.9	804	0.178	100	21.3	LOS B	2.7	19.6	Short	100	0.0	NA
Lane 2	325	1.6	325	1.6	492	0.661	100	37.8	LOS C	9.4	66.5	Full	820	0.0	0.0
Approach	468	2.0	468	2.0		0.661		32.8	LOS C	9.4	66.5				
West: Parramatta Rd (70m)															
Lane 1	680	5.9	680	5.9	652	1.043	100	113.8	LOS F	9.5[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	653	7.5	653	7.5	627[1]	1.043	100	140.0	LOS F	9.4[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	19	11.1	19	11.1	28	0.685	100	106.6	LOS F	0.8	6.1	Short	50	0.0	NA
Approach	1353	6.8	1353	6.8		1.043		126.3	LOS F	9.5	70.0				
All Vehicles	3519	4.7	3519	4.7		1.062		84.1	LOS F	25.1	181.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	47	71	97	105
Green Time (sec)	43	18	20	2	13
Phase Time (sec)	49	24	26	4	17
Phase Split	41%	20%	22%	3%	14%
Phase Frequency (%)	100.0	100.0	100.0	30.0[4]	70.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-AM (Site Folder: 2026 AM Future Base)] **Network: 3 [2026 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1601	3.6	1601	3.6	0.485	0.6	LOS A	2.6	18.4	0.19	0.16	0.19	57.4
6	R2	All MCs	171	3.1	171	3.1	* 0.899	46.9	LOS D	4.2	29.9	1.00	0.94	1.38	24.7
Approach			1772	3.6	1772	3.6	0.899	5.0	LOS A	4.2	29.9	0.27	0.23	0.31	45.8
West: Parramatta Rd (180m)															
10	L2	All MCs	119	46.9	119	46.9	0.943	46.2	LOS D	28.7	224.3	0.96	1.07	1.22	28.1
11	T1	All MCs	1349	6.6	1349	6.6	* 0.943	38.8	LOS C	28.7	224.3	0.96	1.06	1.21	13.6
Approach			1468	9.9	1468	9.9	0.943	39.4	LOS C	28.7	224.3	0.96	1.07	1.21	15.5
All Vehicles			3240	6.4	3240	6.4	0.943	20.6	LOS B	28.7	224.3	0.58	0.61	0.72	25.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

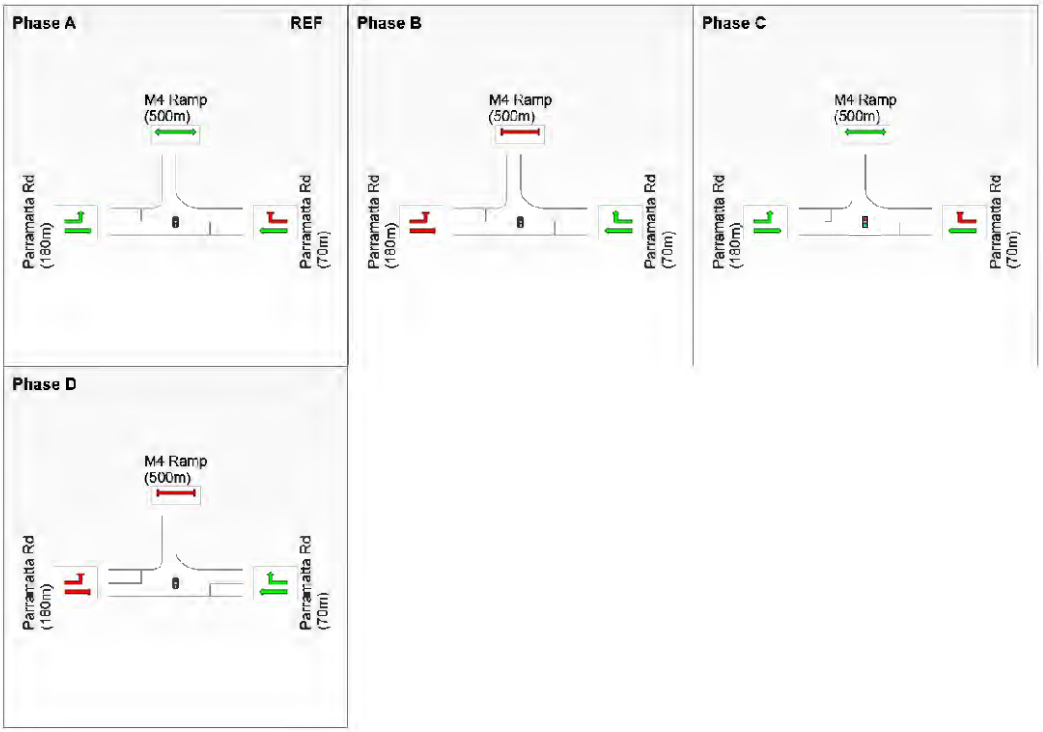
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	801	3.6	801	3.6	1651	0.485	100	0.6	LOS A	2.6	18.4	Full	70	0.0	0.0
Lane 2	801	3.6	801	3.6	1651	0.485	100	0.6	LOS A	2.6	18.4	Full	70	0.0	0.0
Lane 3	171	3.1	171	3.1	190	0.899	100	46.9	LOS D	4.2	29.9	Short	55	0.0	NA
Approach	1772	3.6	1772	3.6		0.899		5.0	LOS A	4.2	29.9				
West: Parramatta Rd (180m)															
Lane 1	706	13.4	706	13.4	749	0.943	100	41.0	LOS C	28.7 N5	224.3 N5	Full	180	-35.0 N2	70.9
Lane 2	763	6.6	763	6.6	809	0.943	100	38.0	LOS C	27.4 N5	202.6 N5	Full	180	-35.0 N2	61.2
Approach	1468	9.9	1468	9.9		0.943		39.4	LOS C	28.7	224.3				
All Vehicles	3240	6.4	3240	6.4		0.943		20.6	LOS B	28.7	224.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	49	61	107
Green Time (sec)	43	6	40	7
Phase Time (sec)	49	12	46	13
Phase Split	41%	10%	38%	11%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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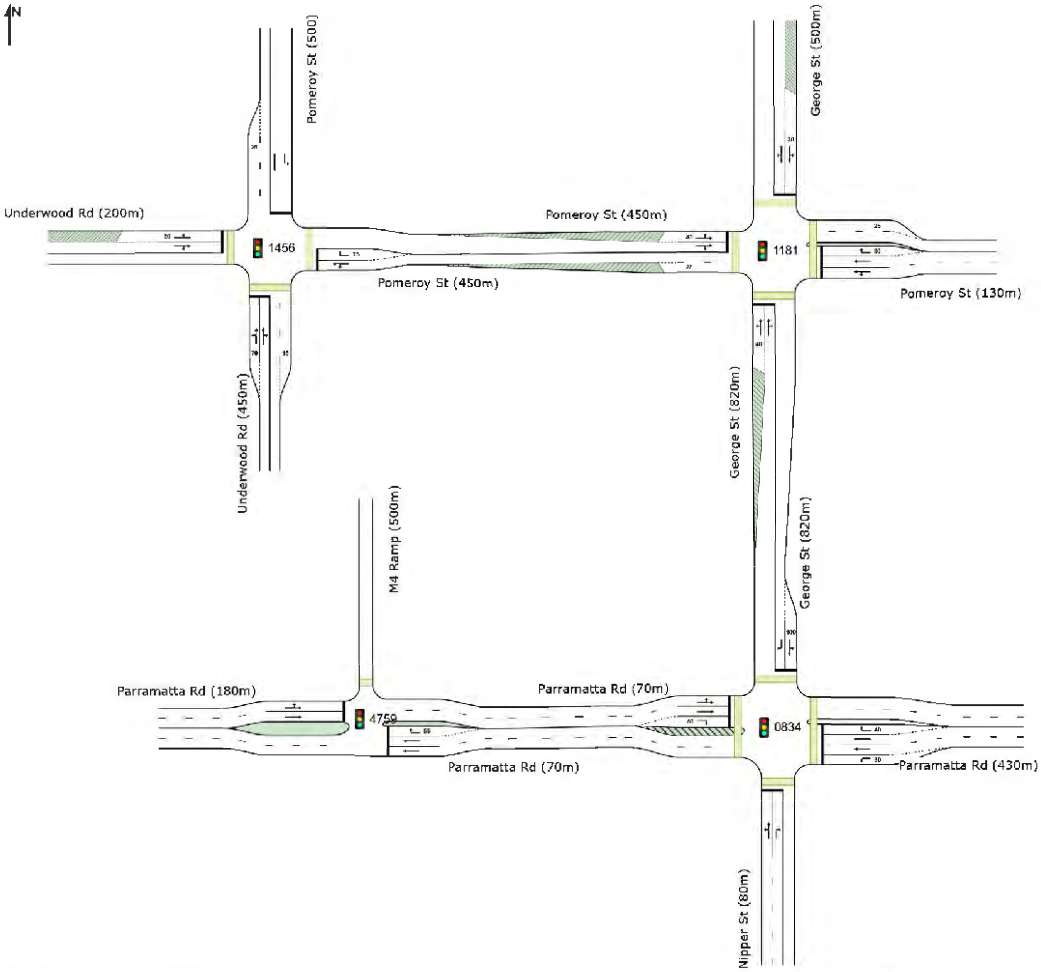
NETWORK LAYOUT

Network: N101 [2026 AM Future Project (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-AM
1456	NA	02-Pomeroy St / Underwood Rd-AM
0834	NA	03-George St / Parramatta Rd-AM
4759	NA	04-Parramatta Rd / M4 Ramp-AM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Template: Default Site User Report

Site: 1181 [01-Pomeroy St / George St-AM (Site Folder: 2026 AM Future Project)]

Network: 7 [2026 AM Future Project (Network Folder: General)]

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	87	0.0	82	0.0	0.139	23.1	LOS B	1.2	8.7	0.75	0.70	0.75	30.9
2	T1	All MCs	71	0.0	66	0.0	* 0.549	21.8	LOS B	4.0	28.6	0.91	0.79	0.91	32.8
3	R2	All MCs	160	2.0	150	2.0	0.549	28.9	LOS C	4.0	28.6	0.91	0.79	0.91	30.3
Approach			318	1.0	299	1.0	0.549	25.7	LOS B	4.0	28.6	0.86	0.76	0.86	31.1
East: Pomeroy St (130m)															
4	L2	All MCs	338	0.6	338	0.6	0.377	15.7	LOS B	4.5	31.5	0.67	0.73	0.67	18.2
5	T1	All MCs	404	3.1	404	3.1	0.439	13.0	LOS A	5.3	38.2	0.67	0.58	0.67	21.3
6	R2	All MCs	107	2.0	107	2.0	* 0.277	19.0	LOS B	1.3	9.0	0.80	0.72	0.80	31.0
Approach			849	2.0	849	2.0	0.439	14.8	LOS B	5.3	38.2	0.69	0.66	0.69	23.1
North: George St (500m)															
7	L2	All MCs	152	3.5	152	3.5	0.198	18.2	LOS B	2.0	14.3	0.66	0.69	0.66	30.4
8	T1	All MCs	107	2.9	107	2.9	0.437	21.4	LOS B	3.4	24.4	0.87	0.75	0.87	26.1
9	R2	All MCs	82	3.8	82	3.8	0.437	29.5	LOS C	3.4	24.4	0.87	0.75	0.87	26.1
Approach			341	3.4	341	3.4	0.437	21.9	LOS B	3.4	24.4	0.78	0.72	0.78	28.1
West: Pomeroy St (450m)															
10	L2	All MCs	136	3.1	136	3.1	0.532	23.7	LOS B	5.5	39.4	0.85	0.76	0.85	31.7
11	T1	All MCs	379	1.7	379	1.7	* 0.532	20.4	LOS B	5.5	39.4	0.85	0.75	0.85	28.5
12	R2	All MCs	55	0.0	55	0.0	0.532	23.9	LOS B	4.3	30.5	0.85	0.74	0.85	26.5
Approach			569	1.8	569	1.8	0.532	21.6	LOS B	5.5	39.4	0.85	0.75	0.85	29.4
All Vehicles			2078	2.0	2059	2.0	0.549	19.4	LOS B	5.5	39.4	0.77	0.71	0.77	28.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

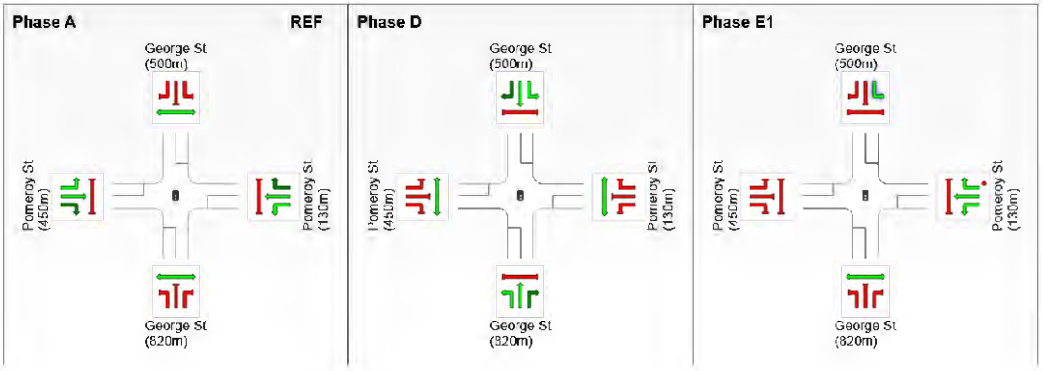
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	87	0.0	82	0.0	590	0.139	25[5]	23.1	LOS B	1.2	8.7	Short (P)	40	0.0	NA
Lane 2	231	1.4	216	1.4	394	0.549	100	26.7	LOS B	4.0	28.6	Full	820	0.0	0.0
Approach	318	1.0	299	1.0		0.549		25.7	LOS B	4.0	28.6				
East: Pomeroy St (130m)															
Lane 1	338	0.6	338	0.6	896	0.377	86[5]	15.7	LOS B	4.5	31.5	Full	130	0.0	0.0
Lane 2	404	3.1	404	3.1	920[1]	0.439	100	13.0	LOS A	5.3	38.2	Full	130	0.0	0.0
Lane 3	107	2.0	107	2.0	387	0.277	100	19.0	LOS B	1.3	9.0	Short	30	0.0	NA
Approach	849	2.0	849	2.0		0.439		14.8	LOS B	5.3	38.2				
North: George St (500m)															
Lane 1	152	3.5	152	3.5	767	0.198	45[5]	18.2	LOS B	2.0	14.3	Short (P)	30	0.0	NA
Lane 2	189	3.3	189	3.3	434	0.437	100	24.9	LOS B	3.4	24.4	Full	500	0.0	0.0
Approach	341	3.4	341	3.4		0.437		21.9	LOS B	3.4	24.4				
West: Pomeroy St (450m)															
Lane 1	321	2.3	321	2.3	604	0.532	100	21.7	LOS B	5.5	39.4	Short (P)	40	0.0	NA
Lane 2	248	1.3	248	1.3	466	0.532	100	21.3	LOS B	4.3	30.5	Full	450	0.0	0.0
Approach	569	1.8	569	1.8		0.532		21.6	LOS B	5.5	39.4				
All Vehicles	2078	2.0	2059	2.0		0.549		19.4	LOS B	5.5	39.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	30	58
Green Time (sec)	24	22	6
Phase Time (sec)	30	28	12
Phase Split	43%	40%	17%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-AM (Site Folder: 2026 AM Future Project)]

Network: 7 [2026 AM Future Project (Network Folder: General)]

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	24	0.0	24	0.0	0.329	16.6	LOS B	5.3	37.8	0.69	0.60	0.69	34.7
2	T1	All MCs	441	2.6	441	2.6	0.658	24.2	LOS B	8.3	59.0	0.79	0.77	0.79	36.0
3	R2	All MCs	145	2.2	145	2.2	* 0.658	50.1	LOS D	8.3	59.0	0.94	0.98	0.94	23.6
Approach			611	2.4	611	2.4	0.658	30.0	LOS C	8.3	59.0	0.82	0.81	0.82	33.6
East: Pomeroy St (450m)															
4	L2	All MCs	126	1.7	125	1.7	0.186	22.8	LOS B	2.6	18.2	0.65	0.70	0.65	36.6
5	T1	All MCs	17	0.0	17	0.0	0.186	40.4	LOS C	2.6	18.2	0.65	0.70	0.65	34.1
6	R2	All MCs	443	3.1	439	3.1	* 0.816	46.0	LOS D	13.3	95.4	0.99	0.93	1.10	30.2
Approach			586	2.7	581	2.7	0.816	40.8	LOS C	13.3	95.4	0.90	0.87	0.99	31.4
North: Pomeroy St (500)															
7	L2	All MCs	565	2.2	565	2.2	0.620	15.1	LOS B	7.7	54.8	0.78	0.80	0.78	35.6
8	T1	All MCs	296	4.3	296	4.3	* 0.807	46.3	LOS D	9.3	67.1	1.00	0.97	1.16	30.0
Approach			861	2.9	861	2.9	0.807	25.8	LOS B	9.3	67.1	0.85	0.86	0.91	32.6
West: Underwood Rd (200m)															
10	L2	All MCs	6	0.0	6	0.0	0.226	57.6	LOS E	0.8	5.5	0.98	0.70	0.98	24.4
11	T1	All MCs	53	0.0	53	0.0	* 0.451	52.0	LOS D	1.6	11.3	0.99	0.73	0.99	11.2
12	R2	All MCs	19	0.0	19	0.0	0.451	57.1	LOS E	1.6	11.3	1.00	0.74	1.00	23.0
Approach			78	0.0	78	0.0	0.451	53.7	LOS D	1.6	11.3	0.99	0.73	0.99	16.3
All Vehicles			2136	2.6	2130	2.6	0.816	32.1	LOS C	13.3	95.4	0.86	0.84	0.91	31.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

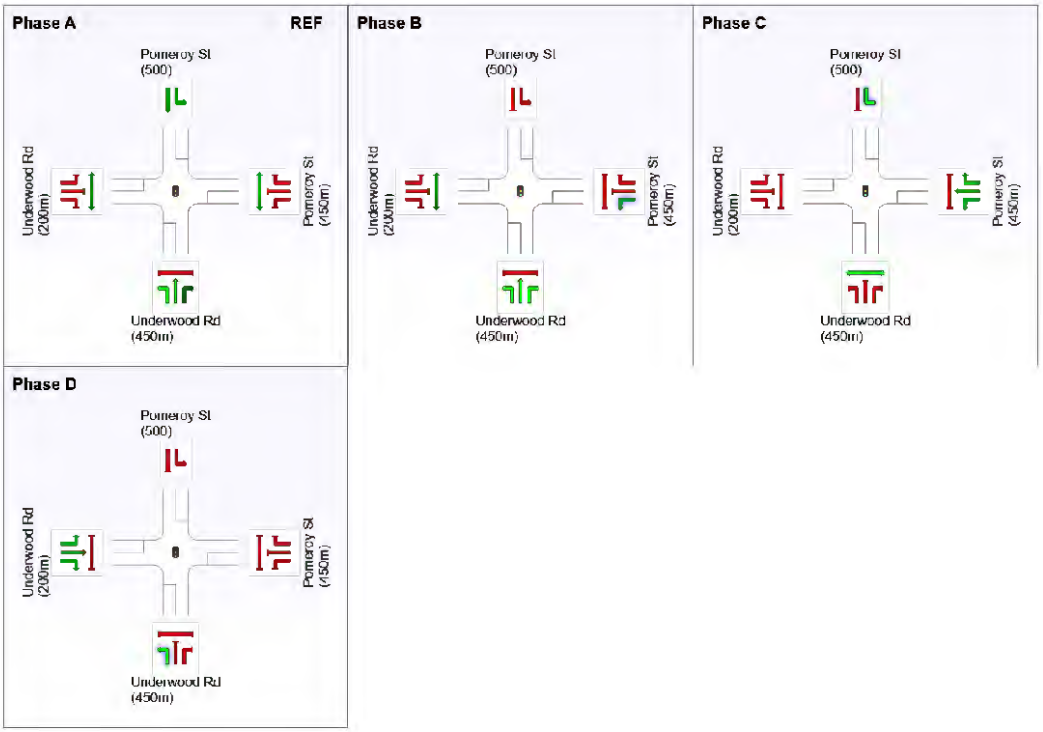
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	277	2.4	277	2.4	840	0.329	50[7]	20.9	LOS B	5.3	37.8	Short	70	0.0	NA
Lane 2	334	2.4	334	2.4	507	0.658	100	37.6	LOS C	8.3	59.0	Full	450	0.0	0.0
Approach	611	2.4	611	2.4		0.658		30.0	LOS C	8.3	59.0				
East: Pomeroy St (450m)															
Lane 1	143	1.5	142	1.5	763	0.186	100	24.9	LOS B	2.6	18.2	Full	450	0.0	0.0
Lane 2	443	3.1	439	3.1	538[1]	0.816	100	46.0	LOS D	13.3	95.4	Short	75	0.0	NA
Approach	586	2.7	581	2.7		0.816		40.8	LOS C	13.3	95.4				
North: Pomeroy St (500)															
Lane 1	565	2.2	565	2.2	912	0.620	100	15.1	LOS B	7.7	54.8	Full	500	0.0	0.0
Lane 2	296	4.3	296	4.3	366	0.807	100	46.3	LOS D	9.3	67.1	Full	500	0.0	0.0
Approach	861	2.9	861	2.9		0.807		25.8	LOS B	9.3	67.1				
West: Underwood Rd (200m)															
Lane 1	26	0.0	26	0.0	116	0.226	50[7]	52.8	LOS D	0.8	5.5	Short (P)	20	0.0	NA
Lane 2	52	0.0	52	0.0	115	0.451	100	54.2	LOS D	1.6	11.3	Full	200	0.0	0.0
Approach	78	0.0	78	0.0		0.451		53.7	LOS D	1.6	11.3				
All Vehicles	2136	2.6	2130	2.6		0.816		32.1	LOS C	13.3	95.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	26	51	88
Green Time (sec)	20	19	31	6
Phase Time (sec)	26	25	37	12
Phase Split	26%	25%	37%	12%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-AM (Site Folder: 2026 AM Future Project)]

Network: 7 [2026 AM Future Project (Network Folder: General)]

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	44	0.0	44	0.0	0.198	45.7	LOS D	1.7	12.0	0.90	0.73	0.90	6.7
2	T1	All MCs	14	0.0	14	0.0	* 0.198	44.4	LOS D	1.7	12.0	0.90	0.73	0.90	6.7
3	R2	All MCs	22	9.5	22	9.5	0.099	51.1	LOS D	0.7	5.2	0.88	0.70	0.88	20.9
Approach			80	2.6	80	2.6	0.198	46.9	LOS D	1.7	12.0	0.89	0.72	0.89	12.4
East: Parramatta Rd (430m)															
4	L2	All MCs	14	0.0	14	0.0	0.015	44.3	LOS D	0.2	1.7	0.54	0.65	0.54	33.4
5	T1	All MCs	1403	4.2	1403	4.2	0.860	55.2	LOS D	26.1	189.5	0.95	0.93	1.03	25.9
6	R2	All MCs	202	2.1	202	2.1	* 1.067	166.9	LOS F	11.8	84.4	1.00	1.30	1.95	9.2
Approach			1619	3.9	1619	3.9	1.067	69.1	LOS E	26.1	189.5	0.95	0.97	1.14	21.1
North: George St (820m)															
7	L2	All MCs	138	3.1	138	3.1	0.181	20.2	LOS B	2.8	20.0	0.62	0.69	0.62	40.0
8	T1	All MCs	11	0.0	11	0.0	0.181	28.7	LOS C	2.8	20.0	0.62	0.69	0.62	38.0
9	R2	All MCs	325	1.6	325	1.6	0.642	36.9	LOS C	9.2	65.4	0.91	0.82	0.91	31.1
Approach			474	2.0	474	2.0	0.642	31.8	LOS C	9.2	65.4	0.82	0.78	0.82	34.1
West: Parramatta Rd (70m)															
10	L2	All MCs	198	2.1	198	2.1	* 1.067	115.9	LOS F	9.5	70.0	1.00	1.49	1.76	2.3
11	T1	All MCs	1136	7.5	1136	7.5	1.067	149.3	LOS F	9.5	70.0	1.00	1.54	1.76	11.5
12	R2	All MCs	19	11.1	19	11.1	0.685	107.1	LOS F	0.8	6.1	1.00	0.77	1.29	6.5
Approach			1353	6.8	1353	6.8	1.067	143.8	LOS F	9.5	70.0	1.00	1.52	1.75	10.3
All Vehicles			3525	4.7	3525	4.7	1.067	92.2	LOS F	26.1	189.5	0.95	1.15	1.33	16.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

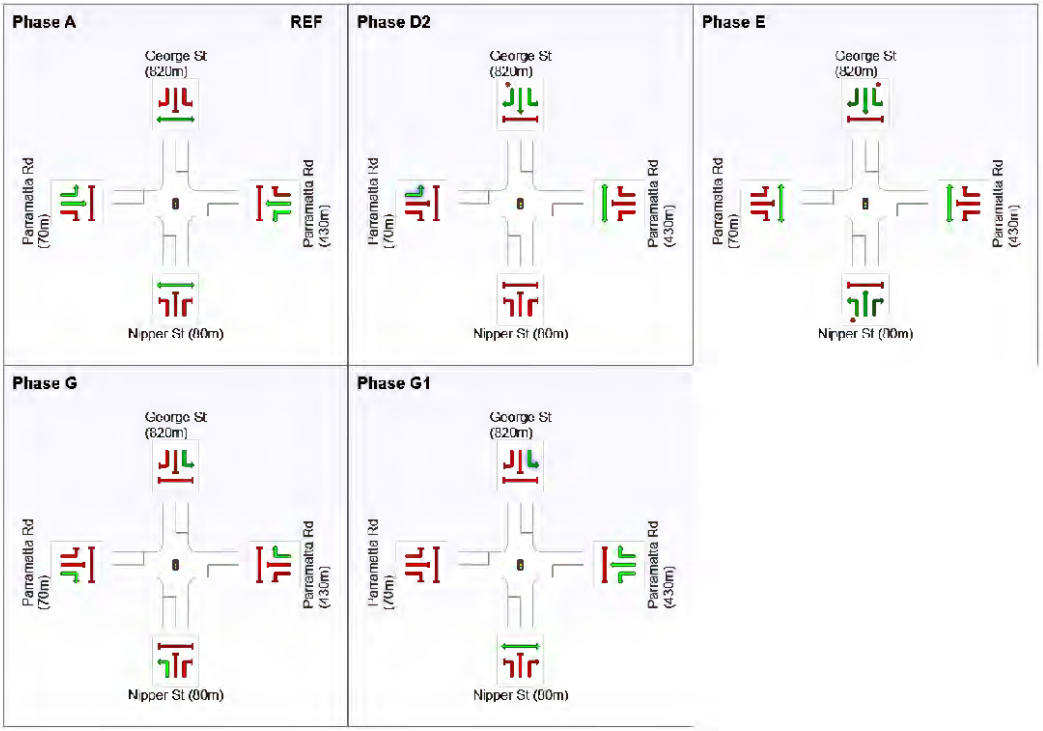
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	58	0.0	58	0.0	292	0.198	100	45.4	LOS D	1.7	12.0	Full	80	0.0	0.0
Lane 2	22	9.5	22	9.5	224	0.099	100	51.1	LOS D	0.7	5.2	Full	80	0.0	0.0
Approach	80	2.6	80	2.6		0.198		46.9	LOS D	1.7	12.0				
East: Parramatta Rd (430m)															
Lane 1	14	0.0	14	0.0	884	0.015	100	44.3	LOS D	0.2	1.7	Short	30	0.0	NA
Lane 2	768	4.2	768	4.2	893[1]	0.860	100	56.0	LOS D	26.1	189.5	Full	430	0.0	0.0
Lane 3	635	4.2	635	4.2	738[1]	0.860	100	54.3	LOS D	22.3	161.5	Full	430	0.0	0.0
Lane 4	202	2.1	202	2.1	189[1]	1.067	100	166.9	LOS F	11.8	84.4	Short	40	0.0	NA
Approach	1619	3.9	1619	3.9		1.067		69.1	LOS E	26.1	189.5				
North: George St (820m)															
Lane 1	148	2.8	148	2.8	822	0.181	100	20.8	LOS B	2.8	20.0	Short	100	0.0	NA
Lane 2	325	1.6	325	1.6	507	0.642	100	36.9	LOS C	9.2	65.4	Full	820	0.0	0.0
Approach	474	2.0	474	2.0		0.642		31.8	LOS C	9.2	65.4				
West: Parramatta Rd (70m)															
Lane 1	680	5.9	680	5.9	637	1.067	100	131.3	LOS F	9.5[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	653	7.5	653	7.5	612[1]	1.067	100	158.0	LOS F	9.4[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	19	11.1	19	11.1	28	0.685	100	107.1	LOS F	0.8	6.1	Short	50	0.0	NA
Approach	1353	6.8	1353	6.8		1.067		143.8	LOS F	9.5	70.0				
All Vehicles	3525	4.7	3525	4.7		1.067		92.2	LOS F	26.1	189.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	46	71	97	105
Green Time (sec)	42	19	20	2	13
Phase Time (sec)	48	25	26	4	17
Phase Split	40%	21%	22%	3%	14%
Phase Frequency (%)	100.0	100.0	100.0	30.0[4]	70.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-AM (Site Folder: 2026 AM Future Project)]

Network: 7 [2026 AM Future Project (Network Folder: General)]

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1601	3.6	1601	3.6	0.485	0.6	LOS A	2.6	18.4	0.19	0.16	0.19	57.4
6	R2	All MCs	171	3.1	171	3.1	* 0.899	46.9	LOS D	4.2	29.9	1.00	0.94	1.38	24.7
Approach			1772	3.6	1772	3.6	0.899	5.0	LOS A	4.2	29.9	0.27	0.23	0.31	45.8
West: Parramatta Rd (180m)															
10	L2	All MCs	119	46.9	119	46.9	0.943	46.2	LOS D	30.8	240.4	0.96	1.07	1.22	28.1
11	T1	All MCs	1349	6.6	1349	6.6	* 0.943	38.8	LOS C	30.8	240.4	0.96	1.06	1.21	13.6
Approach			1468	9.9	1468	9.9	0.943	39.4	LOS C	30.8	240.4	0.96	1.07	1.21	15.5
All Vehicles			3240	6.4	3240	6.4	0.943	20.6	LOS B	30.8	240.4	0.58	0.61	0.72	25.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

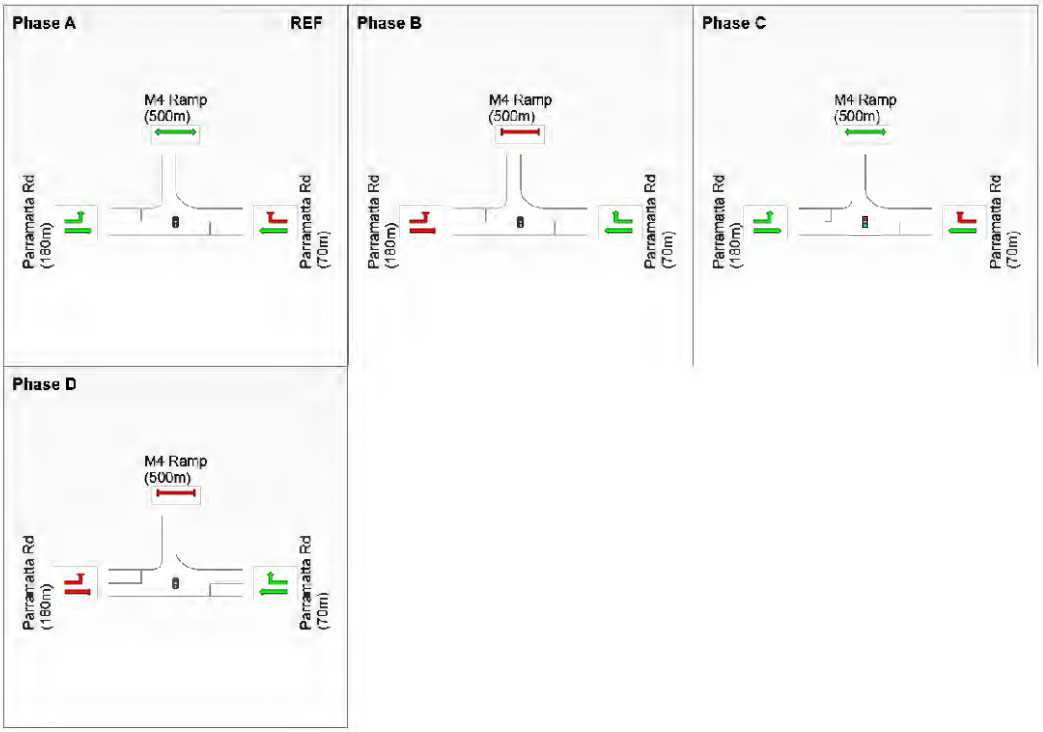
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	801	3.6	801	3.6	1651	0.485	100	0.6	LOS A	2.6	18.4	Full	70	0.0	0.0
Lane 2	801	3.6	801	3.6	1651	0.485	100	0.6	LOS A	2.6	18.4	Full	70	0.0	0.0
Lane 3	171	3.1	171	3.1	190	0.899	100	46.9	LOS D	4.2	29.9	Short	55	0.0	NA
Approach	1772	3.6	1772	3.6		0.899		5.0	LOS A	4.2	29.9				
West: Parramatta Rd (180m)															
Lane 1	706	13.4	706	13.4	749	0.943	100	41.0	LOS C	30.8 N5	240.4 N5	Full	180	-35.0 N2	77.6
Lane 2	763	6.6	763	6.6	809	0.943	100	38.0	LOS C	29.4 N5	217.1 N5	Full	180	-35.0 N2	67.8
Approach	1468	9.9	1468	9.9		0.943		39.4	LOS C	30.8	240.4				
All Vehicles	3240	6.4	3240	6.4		0.943		20.6	LOS B	30.8	240.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	49	61	107
Green Time (sec)	43	6	40	7
Phase Time (sec)	49	12	46	13
Phase Split	41%	10%	38%	11%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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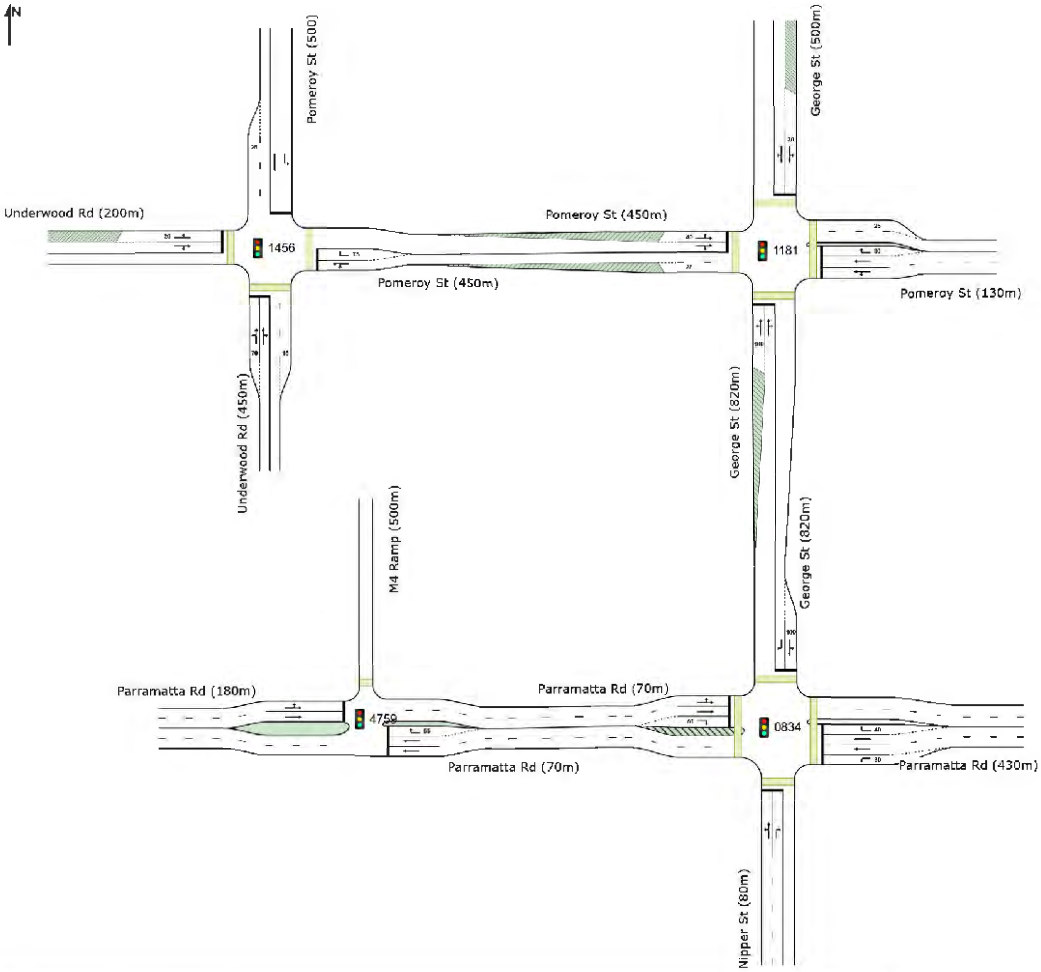
NETWORK LAYOUT

Network: N101 [2026 PM Future Base (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	CCG ID	Site Name
1181	NA	01-Pomeroy St / George St-PM
1456	NA	02-Pomeroy St / Underwood Rd-PM
0834	NA	03-George St / Parramatta Rd-PM
4759	NA	04-Parramatta Rd / M4 Ramp-PM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210 **Template: Default Site User Report**

Site: 1181 [01-Pomeroy St / George St-PM (Site Folder: 2026 PM Future Base)] **Network: 4 [2026 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	131	0.0	131	0.0	0.264	40.5	LOS C	3.4	23.8	0.83	0.76	0.83	30.3
2	T1	All MCs	61	0.0	61	0.0	0.781	43.3	LOS D	8.9	62.4	1.00	0.92	1.12	32.8
3	R2	All MCs	205	0.0	205	0.0	* 0.781	53.0	LOS D	8.9	62.4	1.00	0.92	1.12	28.6
Approach			397	0.0	397	0.0	0.781	47.4	LOS D	8.9	62.4	0.94	0.87	1.02	29.9
East: Pomeroy St (130m)															
4	L2	All MCs	231	0.0	231	0.0	0.207	15.2	LOS B	3.4	23.8	0.49	0.69	0.49	20.4
5	T1	All MCs	502	1.3	502	1.3	0.655	20.5	LOS B	10.5	74.1	0.69	0.62	0.69	21.1
6	R2	All MCs	162	0.0	162	0.0	* 0.610	38.0	LOS C	2.6	18.5	0.93	0.80	0.93	31.3
Approach			895	0.7	895	0.7	0.655	22.3	LOS B	10.5	74.1	0.68	0.67	0.68	25.0
North: George St (500m)															
7	L2	All MCs	121	1.7	121	1.7	0.187	35.8	LOS C	2.7	19.4	0.73	0.73	0.73	29.3
8	T1	All MCs	72	0.0	72	0.0	0.531	39.8	LOS C	5.1	36.0	0.92	0.79	0.92	23.2
9	R2	All MCs	102	2.1	102	2.1	0.531	50.1	LOS D	5.1	36.0	0.92	0.79	0.92	23.2
Approach			295	1.4	295	1.4	0.531	41.7	LOS C	5.1	36.0	0.84	0.77	0.84	25.7
West: Pomeroy St (450m)															
10	L2	All MCs	98	2.2	98	2.2	0.798	42.5	LOS C	14.5	101.9	0.89	0.85	0.96	34.7
11	T1	All MCs	593	0.0	593	0.0	0.798	39.5	LOS C	14.5	101.9	0.91	0.88	1.00	28.4
12	R2	All MCs	104	0.0	104	0.0	* 0.798	64.7	LOS E	9.7	68.1	0.94	0.93	1.08	22.7
Approach			795	0.3	795	0.3	0.798	43.1	LOS D	14.5	101.9	0.91	0.88	1.00	28.7
All Vehicles			2381	0.5	2381	0.5	0.798	35.8	LOS C	14.5	101.9	0.82	0.79	0.87	27.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

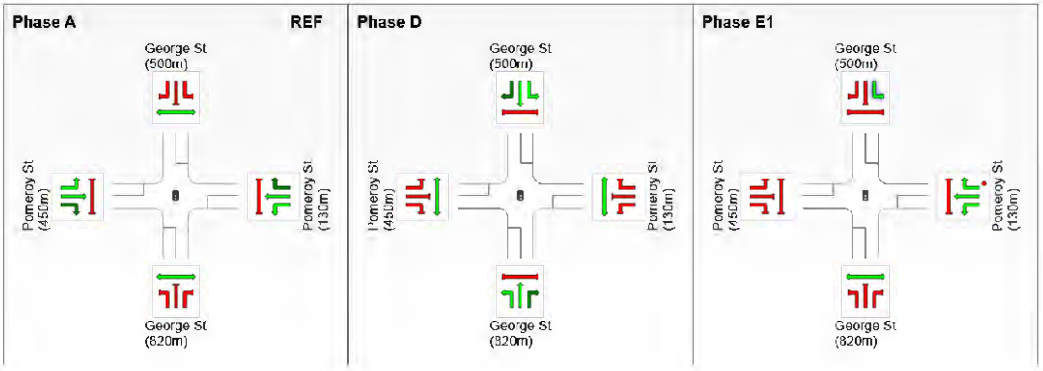
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	131	0.0	131	0.0	495	0.264	34[5]	40.5	LOS C	3.4	23.8	Short (P)	100	0.0	NA
Lane 2	266	0.0	266	0.0	341	0.781	100	50.8	LOS D	8.9	62.4	Full	820	0.0	0.0
Approach	397	0.0	397	0.0		0.781		47.4	LOS D	8.9	62.4				
East: Pomeroy St (130m)															
Lane 1	231	0.0	231	0.0	1114	0.207	32[5]	15.2	LOS B	3.4	23.8	Full	130	0.0	0.0
Lane 2	502	1.3	502	1.3	767[1]	0.655	100	20.5	LOS B	10.5	74.1	Full	130	-15.0[N2]	0.0
Lane 3	162	0.0	162	0.0	266	0.610	100	38.0	LOS C	2.6	18.5	Short	30	0.0	NA
Approach	895	0.7	895	0.7		0.655		22.3	LOS B	10.5	74.1				
North: George St (500m)															
Lane 1	121	1.7	121	1.7	646	0.187	35[5]	35.8	LOS C	2.7	19.4	Short (P)	30	0.0	NA
Lane 2	174	1.2	174	1.2	327[1]	0.531	100	45.8	LOS D	5.1	36.0	Full	500	0.0	0.0
Approach	295	1.4	295	1.4		0.531		41.7	LOS C	5.1	36.0				
West: Pomeroy St (450m)															
Lane 1	498	0.4	498	0.4	624[1]	0.798	100	38.8	LOS C	14.5	101.9	Short (P)	40	0.0	NA
Lane 2	296	0.0	296	0.0	371[1]	0.798	100	50.4	LOS D	9.7	68.1	Full	450	0.0	0.0
Approach	795	0.3	795	0.3		0.798		43.1	LOS D	14.5	101.9				
All Vehicles	2381	0.5	2381	0.5		0.798		35.8	LOS C	14.5	101.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	62	98
Green Time (sec)	56	30	6
Phase Time (sec)	62	36	12
Phase Split	56%	33%	11%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-PM (Site Folder: 2026 PM Future Base)] **Network: 4 [2026 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	19	0.0	19	0.0	0.440	21.7	LOS B	7.2	51.3	0.74	0.65	0.74	32.0
2	T1	All MCs	325	2.9	325	2.9	0.880	29.3	LOS C	9.9	69.7	0.78	0.74	0.83	34.0
3	R2	All MCs	205	0.0	205	0.0	* 0.880	78.4	LOS F	9.9	69.7	1.00	1.18	1.27	16.1
Approach			549	1.7	549	1.7	0.880	47.4	LOS D	9.9	69.7	0.86	0.90	0.99	27.1
East: Pomeroy St (450m)															
4	L2	All MCs	256	1.2	256	1.2	0.334	34.9	LOS C	6.1	43.4	0.67	0.74	0.67	35.5
5	T1	All MCs	22	0.0	22	0.0	0.334	45.4	LOS D	6.1	43.4	0.67	0.74	0.67	32.8
6	R2	All MCs	487	1.9	487	1.9	* 0.911	71.1	LOS F	20.2	144.1	1.00	1.02	1.24	26.2
Approach			765	1.7	765	1.7	0.911	58.3	LOS E	20.2	144.1	0.88	0.92	1.03	28.8
North: Pomeroy St (500)															
7	L2	All MCs	634	0.7	634	0.7	0.547	11.7	LOS A	7.5	52.7	0.61	0.75	0.61	38.1
8	T1	All MCs	457	3.2	457	3.2	* 0.898	57.8	LOS E	18.4	132.2	1.00	1.07	1.21	27.3
Approach			1091	1.7	1091	1.7	0.898	31.0	LOS C	18.4	132.2	0.78	0.89	0.86	31.0
West: Underwood Rd (200m)															
10	L2	All MCs	8	0.0	8	0.0	0.192	68.4	LOS E	0.7	4.7	0.99	0.69	0.99	21.9
11	T1	All MCs	26	0.0	26	0.0	* 0.384	63.1	LOS E	1.4	9.5	1.00	0.71	1.00	9.6
12	R2	All MCs	20	0.0	20	0.0	0.384	68.1	LOS E	1.4	9.5	1.00	0.73	1.00	20.6
Approach			55	0.0	55	0.0	0.384	65.8	LOS E	1.4	9.5	1.00	0.72	1.00	16.5
All Vehicles			2460	1.7	2460	1.7	0.911	43.9	LOS D	20.2	144.1	0.83	0.90	0.95	28.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

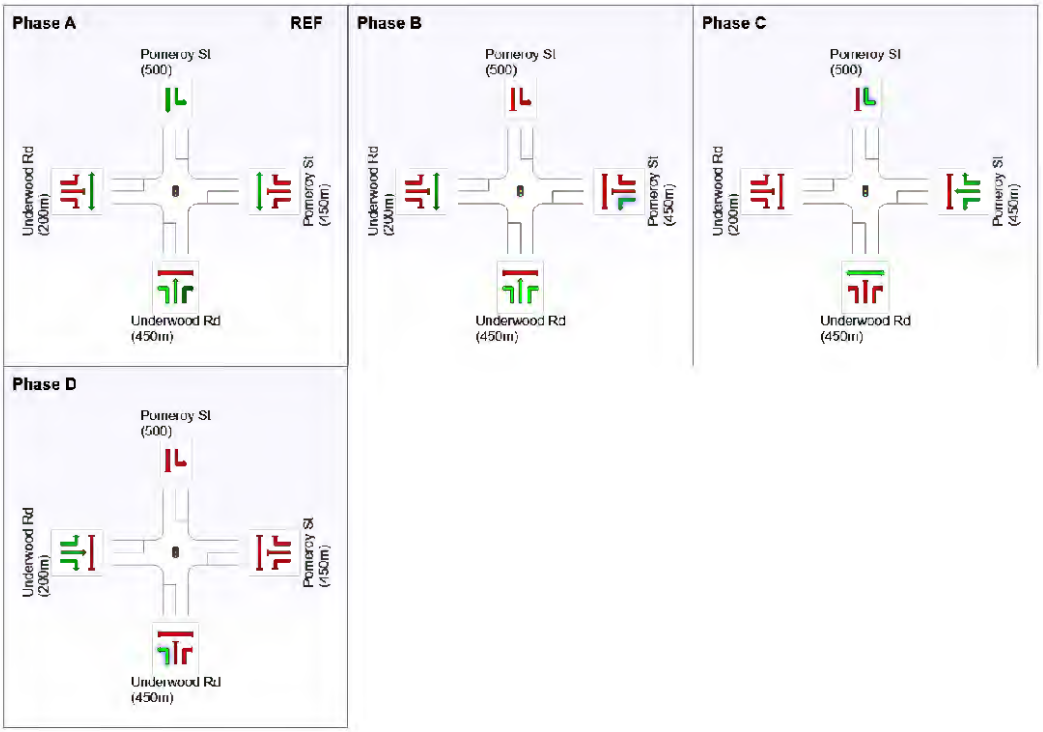
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	290	2.7	290	2.7	658	0.440	50[7]	26.5	LOS B	7.2	51.3	Short	70	-20.0[N2]	NA
Lane 2	260	0.6	260	0.6	295	0.880	100	70.7	LOS F	9.9	69.7	Full	450	0.0	0.0
Approach	549	1.7	549	1.7		0.880		47.4	LOS D	9.9	69.7				
East: Pomeroy St (450m)															
Lane 1	278	1.1	278	1.1	832	0.334	100	35.8	LOS C	6.1	43.4	Full	450	0.0	0.0
Lane 2	487	1.9	487	1.9	535[1]	0.911	100	71.1	LOS F	20.2	144.1	Short	75	0.0	NA
Approach	765	1.7	765	1.7		0.911		58.3	LOS E	20.2	144.1				
North: Pomeroy St (500)															
Lane 1	634	0.7	634	0.7	1159	0.547	100	11.7	LOS A	7.5	52.7	Full	500	0.0	0.0
Lane 2	457	3.2	457	3.2	509	0.898	100	57.8	LOS E	18.4	132.2	Full	500	0.0	0.0
Approach	1091	1.7	1091	1.7		0.898		31.0	LOS C	18.4	132.2				
West: Underwood Rd (200m)															
Lane 1	18	0.0	18	0.0	95	0.192	50[7]	65.1	LOS E	0.7	4.7	Short (P)	20	0.0	NA
Lane 2	36	0.0	36	0.0	95	0.384	100	66.1	LOS E	1.4	9.5	Full	200	0.0	0.0
Approach	55	0.0	55	0.0		0.384		65.8	LOS E	1.4	9.5				
All Vehicles	2460	1.7	2460	1.7		0.911		43.9	LOS D	20.2	144.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	39	59	108
Green Time (sec)	33	14	43	6
Phase Time (sec)	39	20	49	12
Phase Split	33%	17%	41%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-PM (Site Folder: 2026 PM Future Base)] **Network: 4 [2026 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	64	3.3	64	3.3	0.276	45.1	LOS D	2.5	18.2	0.91	0.75	0.91	6.7
2	T1	All MCs	19	11.1	19	11.1	* 0.276	46.7	LOS D	2.5	18.2	0.91	0.75	0.91	6.7
3	R2	All MCs	28	0.0	28	0.0	0.125	51.3	LOS D	0.9	6.2	0.88	0.72	0.88	21.0
Approach			112	3.8	112	3.8	0.276	47.0	LOS D	2.5	18.2	0.90	0.74	0.90	12.0
East: Parramatta Rd (430m)															
4	L2	All MCs	21	0.0	21	0.0	0.027	50.3	LOS D	0.4	3.0	0.60	0.67	0.60	31.4
5	T1	All MCs	1354	2.4	1354	2.4	* 0.884	64.6	LOS E	26.8	191.2	0.99	0.99	1.11	23.3
6	R2	All MCs	168	0.0	168	0.0	0.850	91.2	LOS F	6.6	46.5	1.00	0.95	1.27	16.5
Approach			1543	2.1	1543	2.1	0.884	67.3	LOS E	26.8	191.2	0.98	0.98	1.12	22.4
North: George St (820m)															
7	L2	All MCs	183	0.0	183	0.0	0.264	22.9	LOS B	4.3	29.8	0.68	0.72	0.68	39.1
8	T1	All MCs	22	0.0	22	0.0	0.264	29.1	LOS C	4.3	29.8	0.68	0.72	0.68	36.8
9	R2	All MCs	327	0.0	327	0.0	* 0.685	37.8	LOS C	9.4	65.8	0.93	0.83	0.93	30.8
Approach			533	0.0	533	0.0	0.685	32.3	LOS C	9.4	65.8	0.84	0.79	0.84	34.2
West: Parramatta Rd (70m)															
10	L2	All MCs	181	0.0	181	0.0	0.767	21.7	LOS B	9.9	70.0	0.92	0.84	0.92	8.1
11	T1	All MCs	999	1.8	999	1.8	0.767	44.3	LOS D	9.9	70.0	0.92	0.83	0.92	29.2
12	R2	All MCs	45	4.7	45	4.7	* 0.614	88.7	LOS F	1.8	12.8	1.00	0.79	1.11	7.1
Approach			1225	1.6	1225	1.6	0.767	42.6	LOS D	9.9	70.0	0.92	0.83	0.93	26.1
All Vehicles			3413	1.7	3413	1.7	0.884	52.3	LOS D	26.8	191.2	0.94	0.89	1.00	25.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	83	5.1	83	5.1	301	0.276	100	45.5	LOS D	2.5	18.2	Full	80	0.0	0.0
Lane 2	28	0.0	28	0.0	227	0.125	100	51.3	LOS D	0.9	6.2	Full	80	0.0	0.0
Approach	112	3.8	112	3.8		0.276		47.0	LOS D	2.5	18.2				
East: Parramatta Rd (430m)															
Lane 1	21	0.0	21	0.0	792	0.027	100	50.3	LOS D	0.4	3.0	Short	30	0.0	NA
Lane 2	728	2.4	728	2.4	824[1]	0.884	100	65.5	LOS E	26.8	191.2	Full	430	0.0	0.0
Lane 3	626	2.4	626	2.4	708[1]	0.884	100	63.6	LOS E	23.5	168.0	Full	430	0.0	0.0
Lane 4	168	0.0	168	0.0	198	0.850	100	91.2	LOS F	6.6	46.5	Short	40	0.0	NA
Approach	1543	2.1	1543	2.1		0.884		67.3	LOS E	26.8	191.2				
North: George St (820m)															
Lane 1	205	0.0	205	0.0	777	0.264	100	23.6	LOS B	4.3	29.8	Short	100	0.0	NA
Lane 2	327	0.0	327	0.0	478	0.685	100	37.8	LOS C	9.4	65.8	Full	820	0.0	0.0
Approach	533	0.0	533	0.0		0.685		32.3	LOS C	9.4	65.8				
West: Parramatta Rd (70m)															
Lane 1	604	1.3	604	1.3	788	0.767	100	32.9	LOS C	9.9[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	576	1.8	576	1.8	750[1]	0.767	100	49.2	LOS D	9.8[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	45	4.7	45	4.7	74	0.614	100	88.7	LOS F	1.8	12.8	Short	50	0.0	NA
Approach	1225	1.6	1225	1.6		0.767		42.6	LOS D	9.9	70.0				
All Vehicles	3413	1.7	3413	1.7		0.884		52.3	LOS D	26.8	191.2				

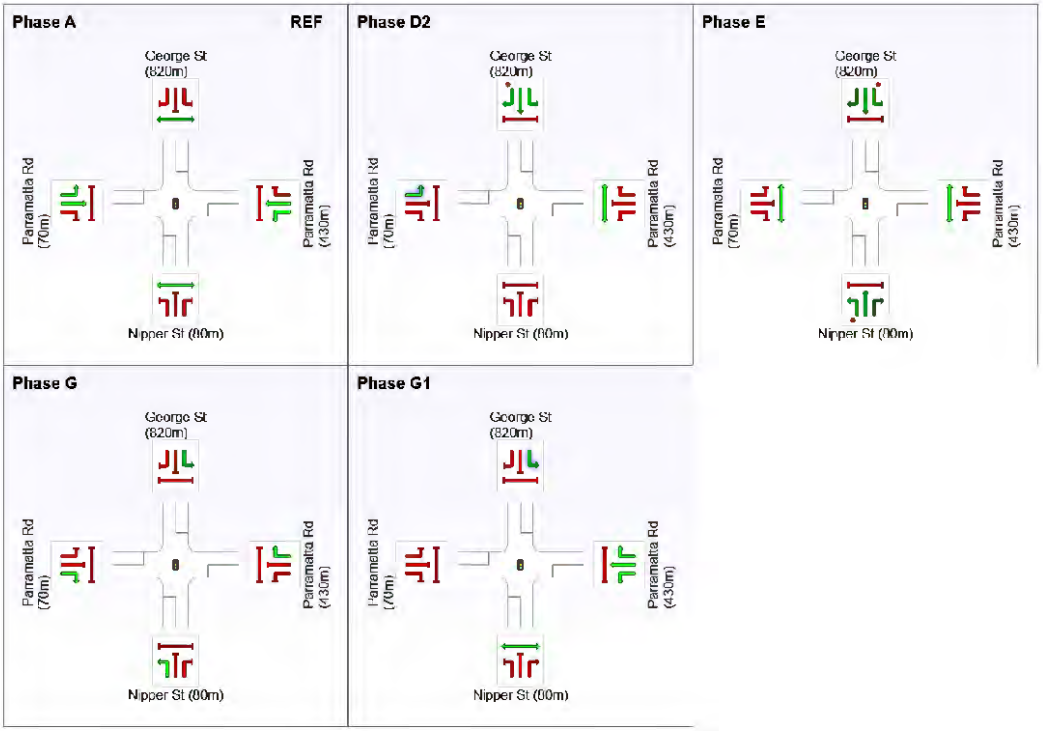
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	51	75	101	112
Green Time (sec)	50	18	20	5	3
Phase Time (sec)	56	24	26	10	4
Phase Split	47%	20%	22%	8%	3%
Phase Frequency (%)	100.0	100.0	100.0	80.0[4]	20.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-PM (Site Folder: 2026 PM Future Base)] **Network: 4 [2026 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1605	2.0	1605	2.0	0.479	0.6	LOS A	2.5	18.0	0.19	0.15	0.19	57.4
6	R2	All MCs	140	2.3	140	2.3	* 0.792	39.3	LOS C	2.9	20.8	1.00	0.86	1.20	27.2
Approach			1745	2.0	1745	2.0	0.792	3.7	LOS A	2.9	20.8	0.26	0.21	0.27	48.6
West: Parramatta Rd (180m)															
10	L2	All MCs	87	53.0	87	53.0	* 0.793	15.4	LOS B	8.5	63.9	0.73	0.70	0.75	43.4
11	T1	All MCs	1222	1.6	1222	1.6	0.793	7.8	LOS A	8.7	63.9	0.73	0.69	0.74	35.2
Approach			1309	5.0	1309	5.0	0.793	8.3	LOS A	8.7	63.9	0.73	0.69	0.74	36.7
All Vehicles			3055	3.3	3055	3.3	0.793	5.7	LOS A	8.7	63.9	0.46	0.42	0.47	43.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

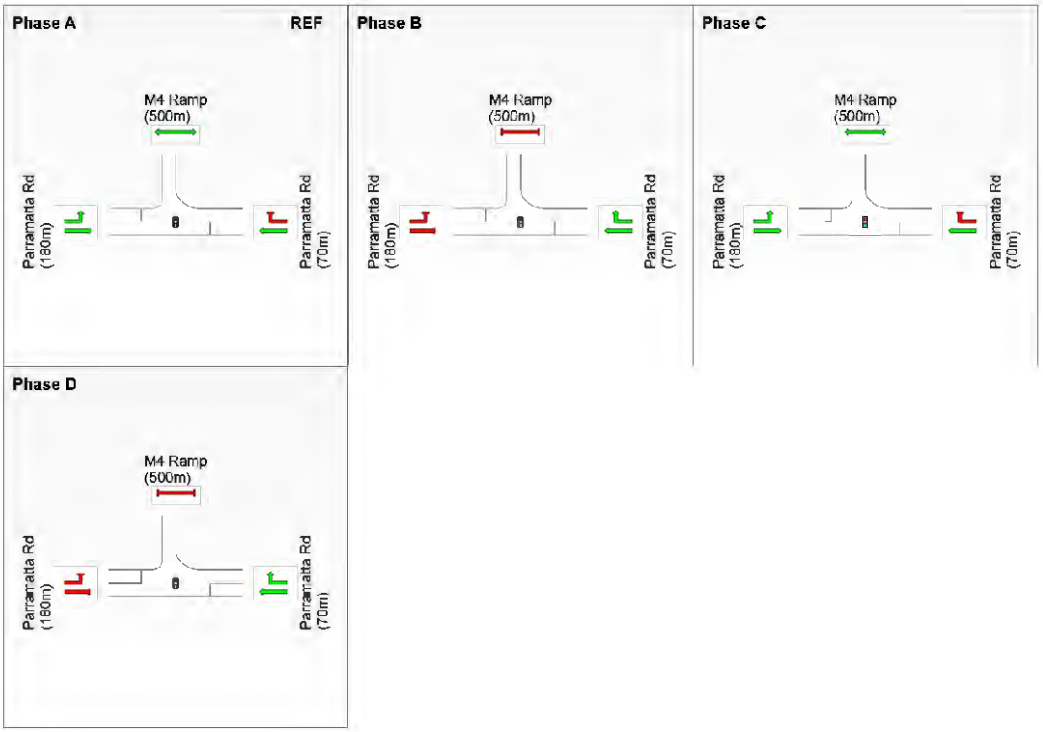
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	803	2.0	803	2.0	1677	0.479	100	0.6	LOS A	2.5	18.0	Full	70	0.0	0.0
Lane 2	803	2.0	803	2.0	1677	0.479	100	0.6	LOS A	2.5	18.0	Full	70	0.0	0.0
Lane 3	140	2.3	140	2.3	177	0.792	100	39.3	LOS C	2.9	20.8	Short	55	0.0	NA
Approach	1745	2.0	1745	2.0		0.792		3.7	LOS A	2.9	20.8				
West: Parramatta Rd (180m)															
Lane 1	627	8.7	627	8.7	791	0.793	100	9.3	LOS A	8.5 N5	63.9 N5	Full	180	-35.0 N2	0.0
Lane 2	682	1.6	682	1.6	860	0.793	100	7.4	LOS A	8.7	61.8	Full	180	-35.0 N2	0.0
Approach	1309	5.0	1309	5.0		0.793		8.3	LOS A	8.7	63.9				
All Vehicles	3055	3.3	3055	3.3		0.793		5.7	LOS A	8.7	63.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	48	60	108
Green Time (sec)	42	6	42	6
Phase Time (sec)	48	12	48	12
Phase Split	40%	10%	40%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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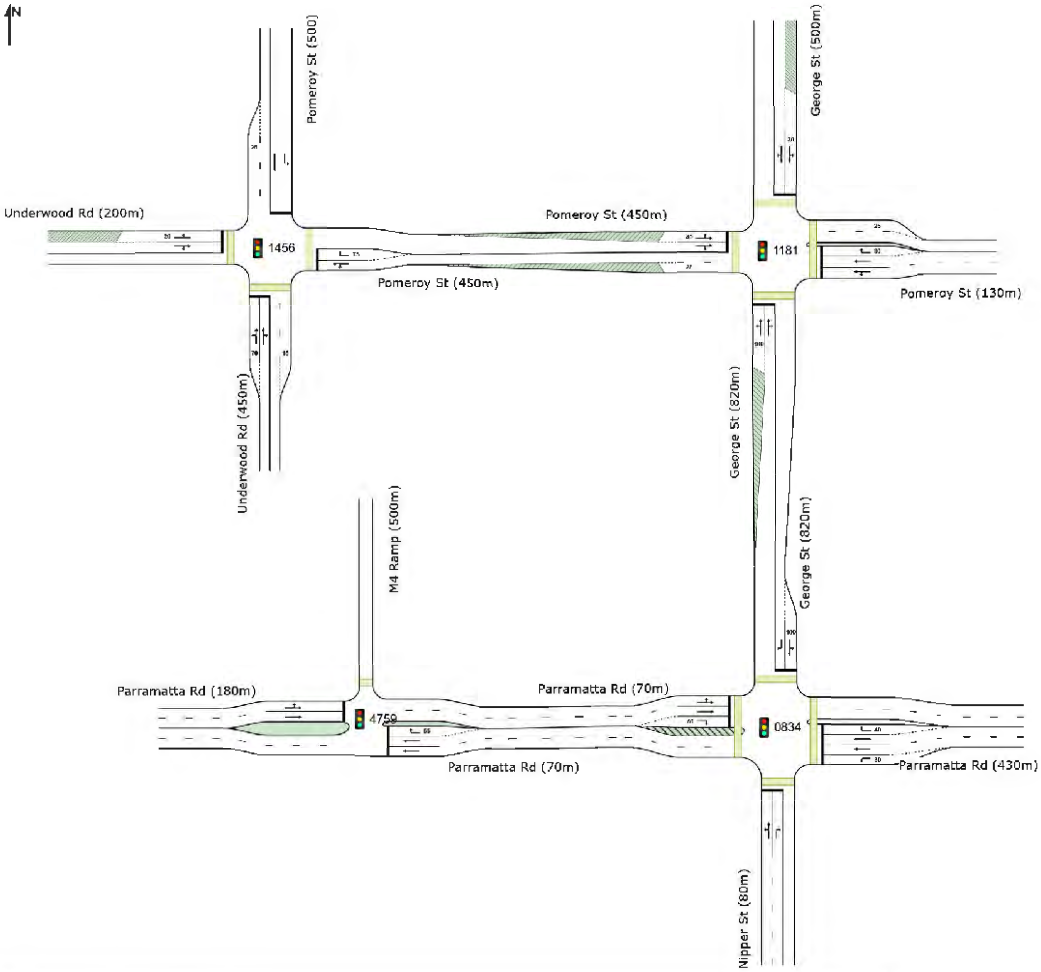
Organisation: ASON GROUP PTY LTD | Licence: NETWORK / 1PC | Created: Thursday, 30 November 2023 4:25:42 PM
Project: C:\Users\Babak Javani\Ason Group\Ason Group Team Site - SIDRA Model\P2439m01-7 Concord Ave.sip9

NETWORK LAYOUT

Network: N101 [2026 PM Future Project (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-PM
1456	NA	02-Pomeroy St / Underwood Rd-PM
0834	NA	03-George St / Parramatta Rd-PM
4759	NA	04-Parramatta Rd / M4 Ramp-PM

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Project: C:\Users\Babak Javani\Ason Group\Ason Group Team Site - SIDRA Model\P2439m01-7 Concord Ave.sip9

USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Template: Default Site User Report

Site: 1181 [01-Pomeroy St / George St-PM (Site Folder: 2026 PM Future Project)]

Network: 8 [2026 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	131	0.0	131	0.0	0.264	40.5	LOS C	3.4	23.8	0.83	0.76	0.83	30.3
2	T1	All MCs	65	0.0	65	0.0	0.793	44.2	LOS D	9.2	64.2	1.00	0.93	1.13	32.6
3	R2	All MCs	205	0.0	205	0.0	* 0.793	53.8	LOS D	9.2	64.2	1.00	0.93	1.13	28.4
Approach			401	0.0	401	0.0	0.793	47.9	LOS D	9.2	64.2	0.95	0.88	1.04	29.8
East: Pomeroy St (130m)															
4	L2	All MCs	231	0.0	231	0.0	0.207	15.2	LOS B	3.4	23.8	0.49	0.69	0.49	20.4
5	T1	All MCs	502	1.3	502	1.3	0.654	20.5	LOS B	10.5	74.0	0.69	0.62	0.69	21.2
6	R2	All MCs	171	0.0	171	0.0	* 0.662	40.1	LOS C	3.0	21.0	0.96	0.83	1.00	30.5
Approach			903	0.7	903	0.7	0.662	22.8	LOS B	10.5	74.0	0.69	0.68	0.70	24.9
North: George St (500m)															
7	L2	All MCs	123	1.7	123	1.7	0.190	36.6	LOS C	2.8	19.8	0.73	0.74	0.73	29.3
8	T1	All MCs	73	0.0	73	0.0	0.548	40.7	LOS C	5.2	36.9	0.93	0.79	0.93	23.2
9	R2	All MCs	104	2.0	104	2.0	0.548	51.0	LOS D	5.2	36.9	0.93	0.79	0.93	23.2
Approach			300	1.4	300	1.4	0.548	42.6	LOS D	5.2	36.9	0.85	0.77	0.85	25.7
West: Pomeroy St (450m)															
10	L2	All MCs	106	2.0	106	2.0	0.812	44.3	LOS D	15.1	106.1	0.90	0.87	0.98	34.2
11	T1	All MCs	593	0.0	593	0.0	0.812	41.3	LOS C	15.1	106.1	0.92	0.90	1.02	27.8
12	R2	All MCs	104	0.0	104	0.0	* 0.812	66.7	LOS E	10.0	70.2	0.95	0.95	1.11	22.2
Approach			803	0.3	803	0.3	0.812	45.0	LOS D	15.1	106.1	0.92	0.90	1.03	28.2
All Vehicles			2407	0.5	2407	0.5	0.812	36.9	LOS C	15.1	106.1	0.83	0.80	0.88	27.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

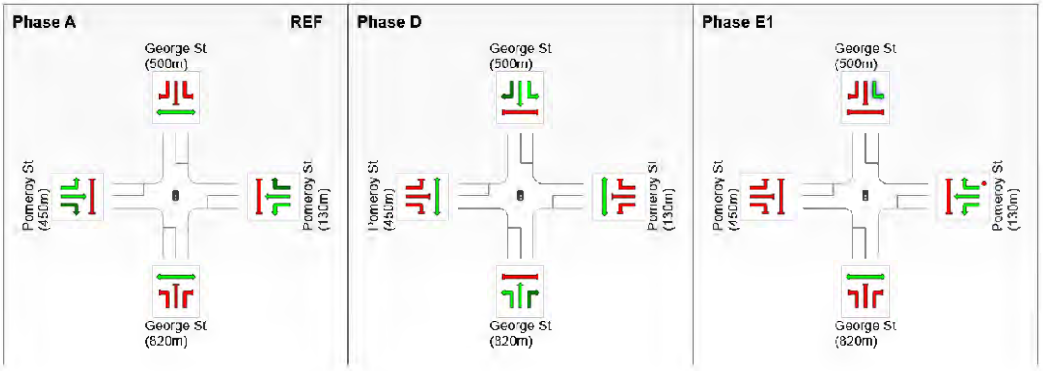
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	131	0.0	131	0.0	495	0.264	33[5]	40.5	LOS C	3.4	23.8	Short (P)	100	0.0	NA
Lane 2	271	0.0	271	0.0	341	0.793	100	51.5	LOS D	9.2	64.2	Full	820	0.0	0.0
Approach	401	0.0	401	0.0		0.793		47.9	LOS D	9.2	64.2				
East: Pomeroy St (130m)															
Lane 1	231	0.0	231	0.0	1114	0.207	32[5]	15.2	LOS B	3.4	23.8	Full	130	0.0	0.0
Lane 2	502	1.3	502	1.3	768[1]	0.654	100	20.5	LOS B	10.5	74.0	Full	130	-15.0[N2]	0.0
Lane 3	171	0.0	171	0.0	258	0.662	100	40.1	LOS C	3.0	21.0	Short	30	0.0	NA
Approach	903	0.7	903	0.7		0.662		22.8	LOS B	10.5	74.0				
North: George St (500m)															
Lane 1	123	1.7	123	1.7	647	0.190	35[5]	36.6	LOS C	2.8	19.8	Short (P)	30	0.0	NA
Lane 2	177	1.2	177	1.2	322[1]	0.548	100	46.8	LOS D	5.2	36.9	Full	500	0.0	0.0
Approach	300	1.4	300	1.4		0.548		42.6	LOS D	5.2	36.9				
West: Pomeroy St (450m)															
Lane 1	504	0.4	504	0.4	621[1]	0.812	100	40.7	LOS C	15.1	106.1	Short (P)	40	0.0	NA
Lane 2	299	0.0	299	0.0	368[1]	0.812	100	52.3	LOS D	10.0	70.2	Full	450	0.0	0.0
Approach	803	0.3	803	0.3		0.812		45.0	LOS D	15.1	106.1				
All Vehicles	2407	0.5	2407	0.5		0.812		36.9	LOS C	15.1	106.1				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	62	98
Green Time (sec)	56	30	6
Phase Time (sec)	62	36	12
Phase Split	56%	33%	11%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-PM (Site Folder: 2026 PM Future Project)]

Network: 8 [2026 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	19	0.0	19	0.0	0.442	21.7	LOS B	7.2	51.6	0.74	0.65	0.74	32.0
2	T1	All MCs	325	2.9	325	2.9	0.884	29.4	LOS C	10.0	70.3	0.78	0.74	0.83	34.0
3	R2	All MCs	207	0.0	207	0.0	* 0.884	78.8	LOS F	10.0	70.3	1.00	1.19	1.28	16.0
Approach			552	1.7	552	1.7	0.884	47.7	LOS D	10.0	70.3	0.86	0.91	0.99	27.0
East: Pomeroy St (450m)															
4	L2	All MCs	257	1.2	257	1.2	0.335	35.0	LOS C	6.2	43.6	0.67	0.74	0.67	35.5
5	T1	All MCs	22	0.0	22	0.0	0.335	45.5	LOS D	6.2	43.6	0.67	0.74	0.67	32.8
6	R2	All MCs	488	1.9	488	1.9	* 0.915	72.1	LOS F	20.4	145.5	1.00	1.03	1.25	26.0
Approach			767	1.6	767	1.6	0.915	58.9	LOS E	20.4	145.5	0.88	0.92	1.04	28.6
North: Pomeroy St (500)															
7	L2	All MCs	640	0.7	640	0.7	0.552	11.7	LOS A	7.6	53.5	0.62	0.75	0.62	38.0
8	T1	All MCs	457	3.2	457	3.2	* 0.898	57.8	LOS E	18.4	132.2	1.00	1.07	1.21	27.3
Approach			1097	1.7	1097	1.7	0.898	30.9	LOS C	18.4	132.2	0.78	0.89	0.87	31.0
West: Underwood Rd (200m)															
10	L2	All MCs	8	0.0	8	0.0	0.192	68.4	LOS E	0.7	4.7	0.99	0.69	0.99	21.9
11	T1	All MCs	26	0.0	26	0.0	* 0.384	63.1	LOS E	1.4	9.5	1.00	0.71	1.00	9.6
12	R2	All MCs	20	0.0	20	0.0	0.384	68.1	LOS E	1.4	9.5	1.00	0.73	1.00	20.6
Approach			55	0.0	55	0.0	0.384	65.8	LOS E	1.4	9.5	1.00	0.72	1.00	16.5
All Vehicles			2471	1.7	2471	1.7	0.915	44.1	LOS D	20.4	145.5	0.83	0.90	0.95	28.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

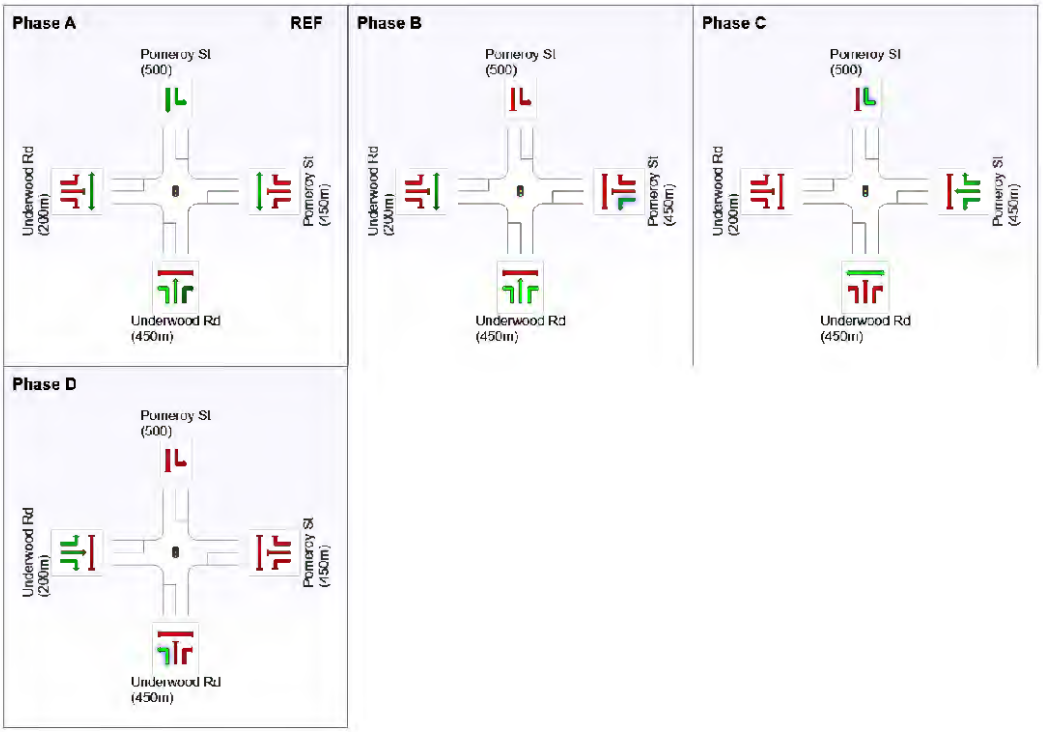
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	291	2.7	291	2.7	658	0.442	50[7]	26.5	LOS B	7.2	51.6	Short	70	-20.0[N2]	NA
Lane 2	261	0.6	261	0.6	295	0.884	100	71.3	LOS F	10.0	70.3	Full	450	0.0	0.0
Approach	552	1.7	552	1.7		0.884		47.7	LOS D	10.0	70.3				
East: Pomeroy St (450m)															
Lane 1	279	1.1	279	1.1	832	0.335	100	35.9	LOS C	6.2	43.6	Full	450	0.0	0.0
Lane 2	488	1.9	488	1.9	534[1]	0.915	100	72.1	LOS F	20.4	145.5	Short	75	0.0	NA
Approach	767	1.6	767	1.6		0.915		58.9	LOS E	20.4	145.5				
North: Pomeroy St (500)															
Lane 1	640	0.7	640	0.7	1159	0.552	100	11.7	LOS A	7.6	53.5	Full	500	0.0	0.0
Lane 2	457	3.2	457	3.2	509	0.898	100	57.8	LOS E	18.4	132.2	Full	500	0.0	0.0
Approach	1097	1.7	1097	1.7		0.898		30.9	LOS C	18.4	132.2				
West: Underwood Rd (200m)															
Lane 1	18	0.0	18	0.0	95	0.192	50[7]	65.1	LOS E	0.7	4.7	Short (P)	20	0.0	NA
Lane 2	36	0.0	36	0.0	95	0.384	100	66.1	LOS E	1.4	9.5	Full	200	0.0	0.0
Approach	55	0.0	55	0.0		0.384		65.8	LOS E	1.4	9.5				
All Vehicles	2471	1.7	2471	1.7		0.915		44.1	LOS D	20.4	145.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	39	59	108
Green Time (sec)	33	14	43	6
Phase Time (sec)	39	20	49	12
Phase Split	33%	17%	41%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-PM (Site Folder: 2026 PM Future Project)]

Network: 8 [2026 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	64	3.3	64	3.3	0.276	45.1	LOS D	2.5	18.2	0.91	0.75	0.91	6.7
2	T1	All MCs	19	11.1	19	11.1	* 0.276	46.7	LOS D	2.5	18.2	0.91	0.75	0.91	6.7
3	R2	All MCs	28	0.0	28	0.0	0.125	51.3	LOS D	0.9	6.2	0.88	0.72	0.88	21.0
Approach			112	3.8	112	3.8	0.276	47.0	LOS D	2.5	18.2	0.90	0.74	0.90	12.0
East: Parramatta Rd (430m)															
4	L2	All MCs	21	0.0	21	0.0	0.027	50.4	LOS D	0.4	3.0	0.60	0.67	0.60	31.4
5	T1	All MCs	1354	2.4	1354	2.4	* 0.886	65.0	LOS E	26.9	192.3	0.99	0.99	1.11	23.2
6	R2	All MCs	173	0.0	173	0.0	0.809	87.9	LOS F	6.6	46.2	1.00	0.92	1.20	17.1
Approach			1547	2.1	1547	2.1	0.886	67.3	LOS E	26.9	192.3	0.98	0.98	1.12	22.4
North: George St (820m)															
7	L2	All MCs	184	0.0	184	0.0	0.263	22.8	LOS B	4.3	30.0	0.68	0.72	0.68	39.1
8	T1	All MCs	22	0.0	22	0.0	0.263	30.0	LOS C	4.3	30.0	0.68	0.72	0.68	36.8
9	R2	All MCs	327	0.0	327	0.0	* 0.685	37.8	LOS C	9.4	65.8	0.93	0.83	0.93	30.8
Approach			534	0.0	534	0.0	0.685	32.3	LOS C	9.4	65.8	0.84	0.79	0.84	34.2
West: Parramatta Rd (70m)															
10	L2	All MCs	181	0.0	181	0.0	0.783	23.2	LOS B	9.9	70.0	0.93	0.86	0.95	7.8
11	T1	All MCs	999	1.8	999	1.8	0.783	46.5	LOS D	9.9	70.0	0.93	0.85	0.95	28.5
12	R2	All MCs	45	4.7	45	4.7	* 0.614	89.4	LOS F	1.8	12.8	1.00	0.79	1.11	7.1
Approach			1225	1.6	1225	1.6	0.783	44.6	LOS D	9.9	70.0	0.94	0.85	0.96	25.4
All Vehicles			3418	1.7	3418	1.7	0.886	53.1	LOS D	26.9	192.3	0.94	0.90	1.01	25.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

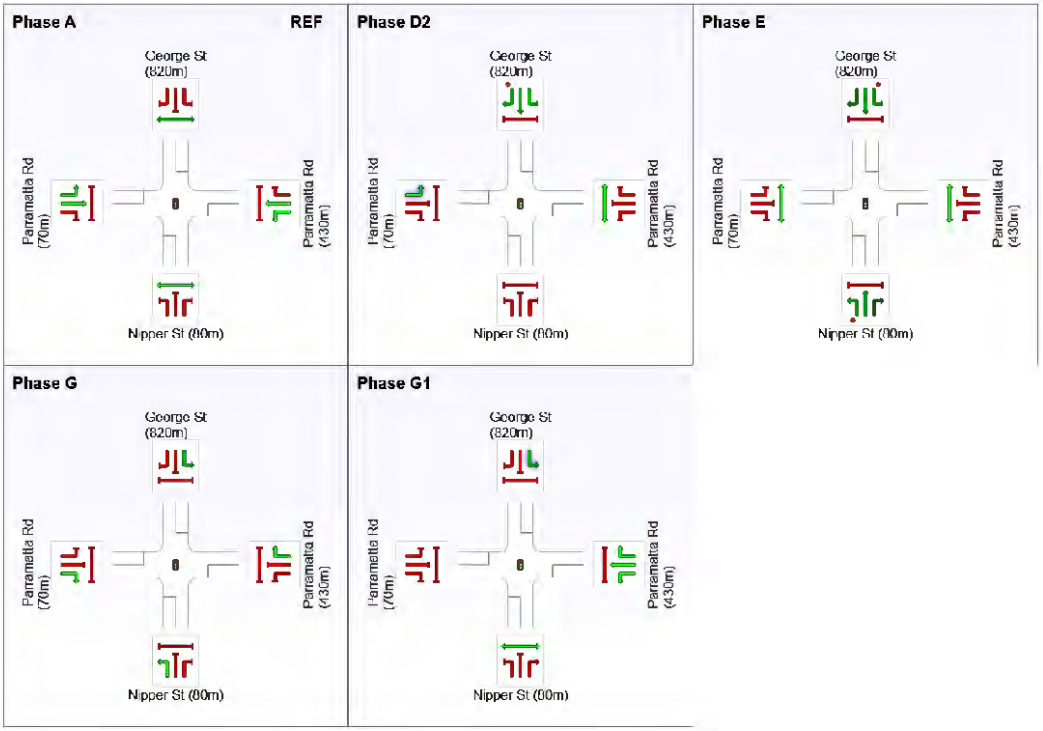
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	83	5.1	83	5.1	301	0.276	100	45.5	LOS D	2.5	18.2	Full	80	0.0	0.0
Lane 2	28	0.0	28	0.0	227	0.125	100	51.3	LOS D	0.9	6.2	Full	80	0.0	0.0
Approach	112	3.8	112	3.8		0.276		47.0	LOS D	2.5	18.2				
East: Parramatta Rd (430m)															
Lane 1	21	0.0	21	0.0	792	0.027	100	50.4	LOS D	0.4	3.0	Short	30	0.0	NA
Lane 2	730	2.4	730	2.4	824[1]	0.886	100	65.8	LOS E	26.9	192.3	Full	430	0.0	0.0
Lane 3	624	2.4	624	2.4	705[1]	0.886	100	63.9	LOS E	23.6	168.4	Full	430	0.0	0.0
Lane 4	173	0.0	173	0.0	213	0.809	100	87.9	LOS F	6.6	46.2	Short	40	0.0	NA
Approach	1547	2.1	1547	2.1		0.886		67.3	LOS E	26.9	192.3				
North: George St (820m)															
Lane 1	206	0.0	206	0.0	784	0.263	100	23.6	LOS B	4.3	30.0	Short	100	0.0	NA
Lane 2	327	0.0	327	0.0	478	0.685	100	37.8	LOS C	9.4	65.8	Full	820	0.0	0.0
Approach	534	0.0	534	0.0		0.685		32.3	LOS C	9.4	65.8				
West: Parramatta Rd (70m)															
Lane 1	605	1.3	605	1.3	772	0.783	100	34.6	LOS C	9.9[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	575	1.8	575	1.8	735[1]	0.783	100	51.6	LOS D	9.8[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	45	4.7	45	4.7	74	0.614	100	89.4	LOS F	1.8	12.8	Short	50	0.0	NA
Approach	1225	1.6	1225	1.6		0.783		44.6	LOS D	9.9	70.0				
All Vehicles	3418	1.7	3418	1.7		0.886		53.1	LOS D	26.9	192.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	50	74	100	111
Green Time (sec)	49	18	20	5	4
Phase Time (sec)	55	24	26	10	5
Phase Split	46%	20%	22%	8%	4%
Phase Frequency (%)	100.0	100.0	100.0	80.0[4]	20.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-PM (Site Folder: 2026 PM Future Project)]

Network: 8 [2026 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1605	2.0	1605	2.0	0.479	0.6	LOS A	2.5	18.0	0.19	0.15	0.19	57.4
6	R2	All MCs	140	2.3	140	2.3	* 0.792	39.3	LOS C	2.9	20.8	1.00	0.86	1.20	27.2
Approach			1745	2.0	1745	2.0	0.792	3.7	LOS A	2.9	20.8	0.26	0.21	0.27	48.6
West: Parramatta Rd (180m)															
10	L2	All MCs	87	53.0	87	53.0	* 0.793	15.4	LOS B	9.0	67.9	0.73	0.70	0.75	43.4
11	T1	All MCs	1222	1.6	1222	1.6	0.793	7.8	LOS A	9.0	67.9	0.73	0.69	0.74	35.2
Approach			1309	5.0	1309	5.0	0.793	8.3	LOS A	9.0	67.9	0.73	0.69	0.74	36.7
All Vehicles			3055	3.3	3055	3.3	0.793	5.7	LOS A	9.0	67.9	0.46	0.42	0.47	43.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

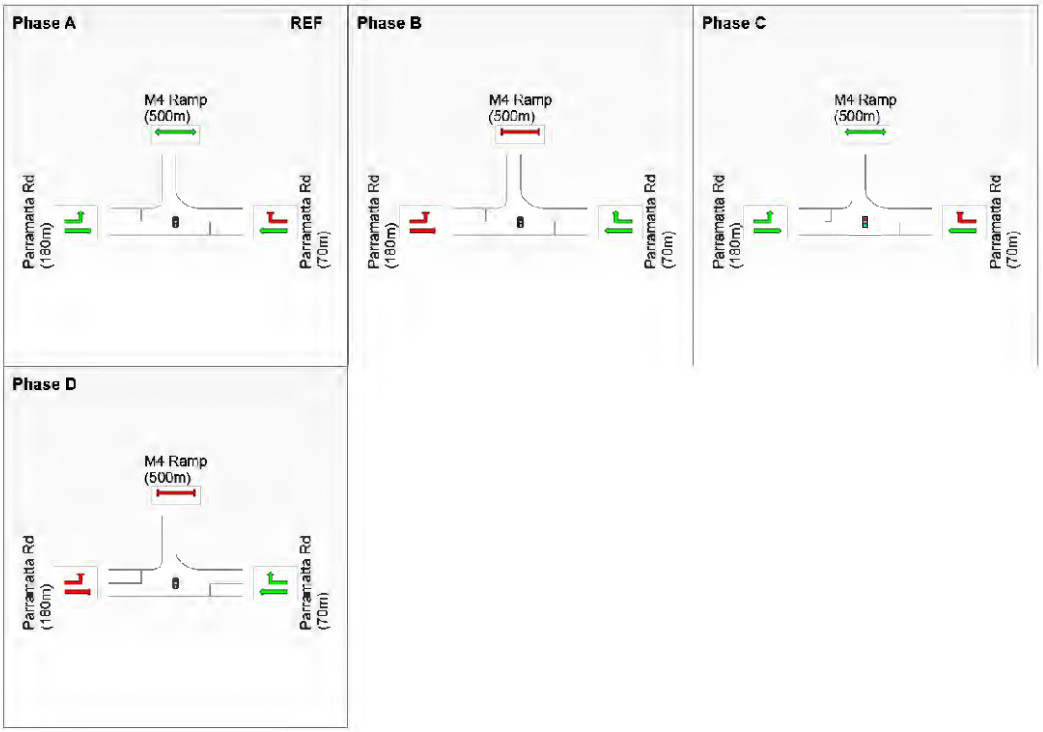
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	803	2.0	803	2.0	1677	0.479	100	0.6	LOS A	2.5	18.0	Full	70	0.0	0.0
Lane 2	803	2.0	803	2.0	1677	0.479	100	0.6	LOS A	2.5	18.0	Full	70	0.0	0.0
Lane 3	140	2.3	140	2.3	177	0.792	100	39.3	LOS C	2.9	20.8	Short	55	0.0	NA
Approach	1745	2.0	1745	2.0		0.792		3.7	LOS A	2.9	20.8				
West: Parramatta Rd (180m)															
Lane 1	627	8.7	627	8.7	791	0.793	100	9.3	LOS A	9.0 N5	67.9 N5	Full	180	-35.0 N2	0.0
Lane 2	682	1.6	682	1.6	860	0.793	100	7.4	LOS A	8.7	61.8	Full	180	-35.0 N2	0.0
Approach	1309	5.0	1309	5.0		0.793		8.3	LOS A	9.0	67.9				
All Vehicles	3055	3.3	3055	3.3		0.793		5.7	LOS A	9.0	67.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	48	60	108
Green Time (sec)	42	6	42	6
Phase Time (sec)	48	12	48	12
Phase Split	40%	10%	40%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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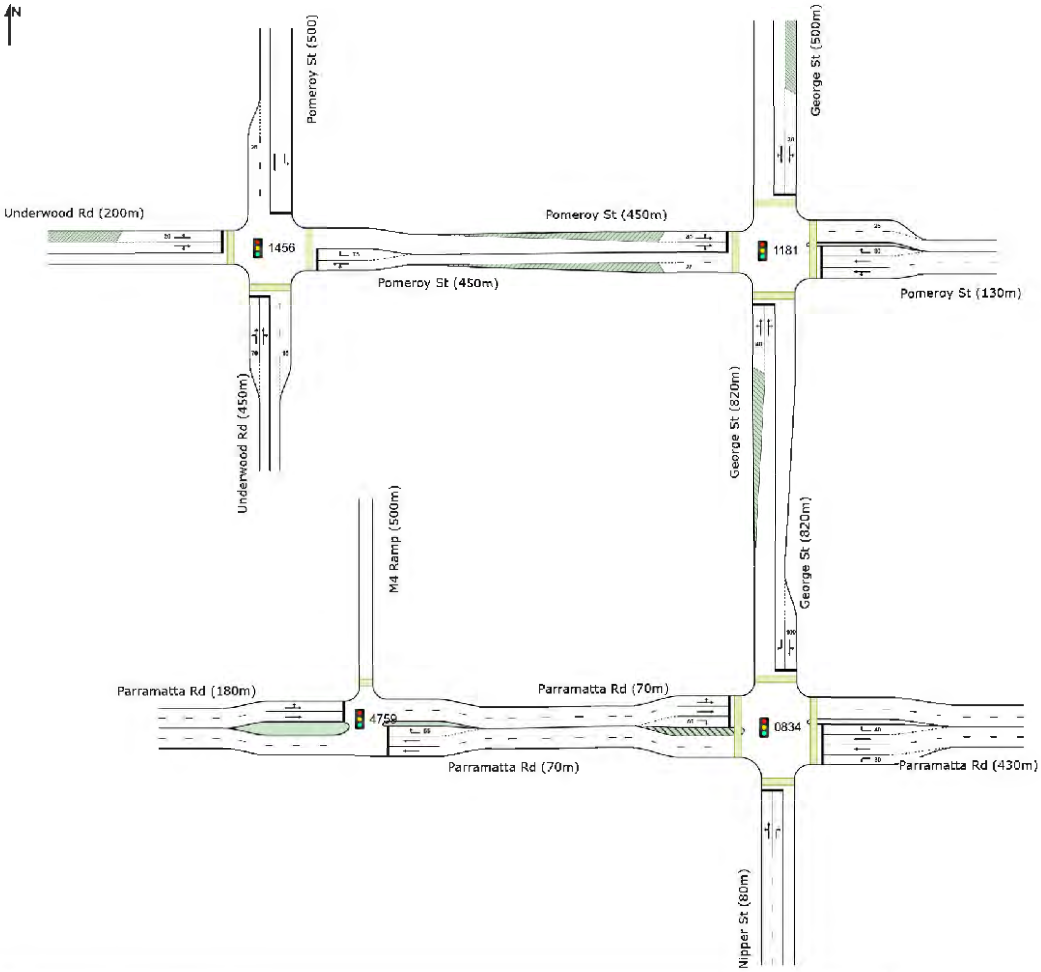
NETWORK LAYOUT

Network: N101 [2031 AM Future Base (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-AM
1456	NA	02-Pomeroy St / Underwood Rd-AM
0834	NA	03-George St / Parramatta Rd-AM
4759	NA	04-Parramatta Rd / M4 Ramp-AM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210 **Template: Default Site User Report**

Site: 1181 [01-Pomeroy St / George St-AM (Site Folder: 2031 AM Future Base)] **Network: 5 [2031 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	92	0.0	83	0.0	0.135	22.4	LOS B	1.2	8.6	0.74	0.70	0.74	31.2
2	T1	All MCs	74	0.0	67	0.0	* 0.534	20.9	LOS B	4.0	28.3	0.89	0.78	0.89	33.0
3	R2	All MCs	167	1.9	152	1.9	0.534	27.9	LOS B	4.0	28.3	0.89	0.78	0.89	30.6
Approach			333	0.9	302	0.9	0.534	24.8	LOS B	4.0	28.3	0.85	0.76	0.85	31.4
East: Pomeroy St (130m)															
4	L2	All MCs	355	0.6	355	0.6	0.408	16.5	LOS B	4.9	34.4	0.70	0.74	0.70	17.7
5	T1	All MCs	424	3.0	424	3.0	0.484	14.9	LOS B	5.9	42.2	0.71	0.62	0.71	20.5
6	R2	All MCs	111	1.9	111	1.9	* 0.304	21.9	LOS B	1.3	9.6	0.84	0.73	0.84	30.6
Approach			889	1.9	889	1.9	0.484	16.4	LOS B	5.9	42.2	0.72	0.68	0.72	22.4
North: George St (500m)															
7	L2	All MCs	148	3.5	148	3.5	0.187	17.5	LOS B	1.9	13.7	0.64	0.69	0.64	30.7
8	T1	All MCs	107	2.9	107	2.9	0.404	19.7	LOS B	3.1	22.6	0.84	0.73	0.84	26.8
9	R2	All MCs	76	4.2	76	4.2	0.404	27.6	LOS B	3.1	22.6	0.84	0.73	0.84	26.8
Approach			332	3.5	332	3.5	0.404	20.5	LOS B	3.1	22.6	0.75	0.71	0.75	28.6
West: Pomeroy St (450m)															
10	L2	All MCs	140	3.0	140	3.0	0.585	24.9	LOS B	6.0	43.0	0.88	0.78	0.88	31.3
11	T1	All MCs	398	1.6	398	1.6	* 0.585	21.6	LOS B	6.0	43.0	0.88	0.77	0.88	28.1
12	R2	All MCs	58	0.0	58	0.0	0.585	25.2	LOS B	4.6	32.8	0.88	0.76	0.88	26.0
Approach			596	1.8	596	1.8	0.585	22.8	LOS B	6.0	43.0	0.88	0.77	0.88	29.0
All Vehicles			2149	2.0	2119	2.0	0.585	20.1	LOS B	6.0	43.0	0.79	0.72	0.79	28.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

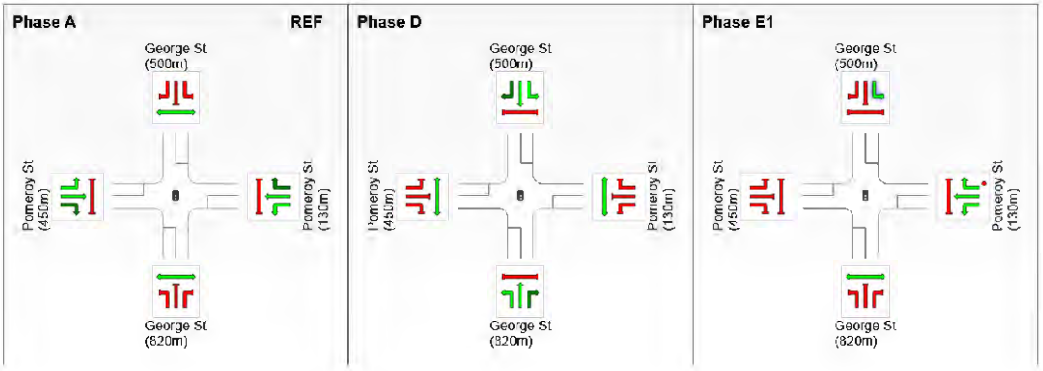
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	92	0.0	83	0.0	617	0.135	25[5]	22.4	LOS B	1.2	8.6	Short (P)	40	0.0	NA
Lane 2	241	1.3	219	1.3	410	0.534	100	25.8	LOS B	4.0	28.3	Full	820	0.0	0.0
Approach	333	0.9	302	0.9		0.534		24.8	LOS B	4.0	28.3				
East: Pomeroy St (130m)															
Lane 1	355	0.6	355	0.6	870	0.408	84[5]	16.5	LOS B	4.9	34.4	Full	130	0.0	0.0
Lane 2	424	3.0	424	3.0	876[1]	0.484	100	14.9	LOS B	5.9	42.2	Full	130	0.0	0.0
Lane 3	111	1.9	111	1.9	363	0.304	100	21.9	LOS B	1.3	9.6	Short	30	0.0	NA
Approach	889	1.9	889	1.9		0.484		16.4	LOS B	5.9	42.2				
North: George St (500m)															
Lane 1	148	3.5	148	3.5	792	0.187	46[5]	17.5	LOS B	1.9	13.7	Short (P)	30	0.0	NA
Lane 2	183	3.4	183	3.4	453	0.404	100	23.0	LOS B	3.1	22.6	Full	500	0.0	0.0
Approach	332	3.5	332	3.5		0.404		20.5	LOS B	3.1	22.6				
West: Pomeroy St (450m)															
Lane 1	339	2.2	339	2.2	580	0.585	100	22.9	LOS B	6.0	43.0	Short (P)	40	0.0	NA
Lane 2	257	1.2	257	1.2	439	0.585	100	22.6	LOS B	4.6	32.8	Full	450	0.0	0.0
Approach	596	1.8	596	1.8		0.585		22.8	LOS B	6.0	43.0				
All Vehicles	2149	2.0	2119	2.0		0.585		20.1	LOS B	6.0	43.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	29	58
Green Time (sec)	23	23	6
Phase Time (sec)	29	29	12
Phase Split	41%	41%	17%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-AM (Site Folder: 2031 AM Future Base)] **Network: 5 [2031 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	25	0.0	25	0.0	0.349	16.7	LOS B	5.7	40.5	0.70	0.61	0.70	34.6
2	T1	All MCs	463	2.5	463	2.5	0.698	24.7	LOS B	8.7	62.1	0.80	0.78	0.81	35.7
3	R2	All MCs	152	2.1	152	2.1	* 0.698	52.9	LOS D	8.7	62.1	0.95	1.01	0.97	23.0
Approach			640	2.3	640	2.3	0.698	31.1	LOS C	8.7	62.1	0.84	0.83	0.84	33.2
East: Pomeroy St (450m)															
4	L2	All MCs	129	1.6	128	1.6	0.192	24.5	LOS B	2.7	19.0	0.66	0.70	0.66	36.3
5	T1	All MCs	18	0.0	18	0.0	0.192	42.7	LOS D	2.7	19.0	0.66	0.70	0.66	33.8
6	R2	All MCs	458	3.0	452	3.0	* 0.849	50.2	LOS D	14.3	102.8	1.00	0.96	1.16	29.4
Approach			605	2.6	597	2.6	0.849	44.4	LOS D	14.3	102.8	0.92	0.89	1.04	30.7
North: Pomeroy St (500)															
7	L2	All MCs	592	2.1	592	2.1	0.648	15.3	LOS B	8.2	58.6	0.79	0.81	0.79	35.4
8	T1	All MCs	311	4.1	311	4.1	* 0.846	49.1	LOS D	10.1	73.1	1.00	1.02	1.21	29.3
Approach			902	2.8	902	2.8	0.846	26.9	LOS B	10.1	73.1	0.86	0.88	0.94	32.1
West: Underwood Rd (200m)															
10	L2	All MCs	6	0.0	6	0.0	0.235	57.8	LOS E	0.8	5.8	0.99	0.70	0.99	24.4
11	T1	All MCs	55	0.0	55	0.0	* 0.469	52.1	LOS D	1.7	11.7	0.99	0.73	0.99	11.2
12	R2	All MCs	20	0.0	20	0.0	0.469	57.2	LOS E	1.7	11.7	1.00	0.75	1.00	23.0
Approach			81	0.0	81	0.0	0.469	53.8	LOS D	1.7	11.7	1.00	0.73	1.00	16.3
All Vehicles			2228	2.5	2220	2.5	0.849	33.8	LOS C	14.3	102.8	0.87	0.87	0.94	31.4

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

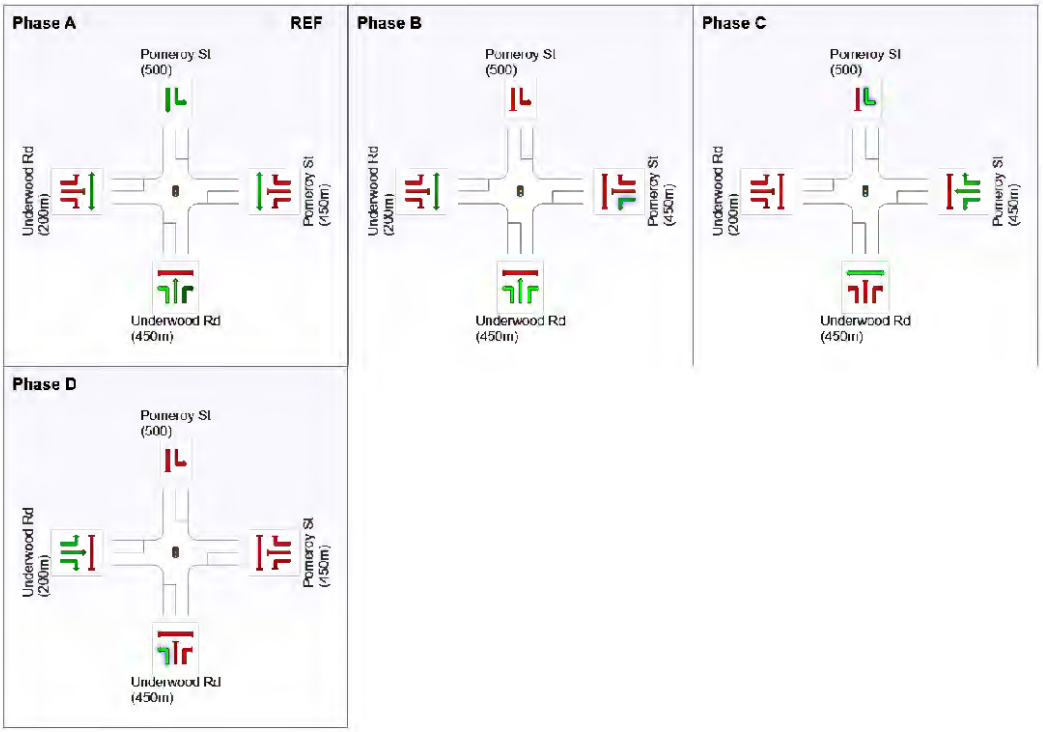
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	293	2.3	293	2.3	841	0.349	50[7]	21.3	LOS B	5.7	40.5	Short	70	0.0	NA
Lane 2	347	2.3	347	2.3	497	0.698	100	39.4	LOS C	8.7	62.1	Full	450	0.0	0.0
Approach	640	2.3	640	2.3		0.698		31.1	LOS C	8.7	62.1				
East: Pomeroy St (450m)															
Lane 1	147	1.4	145	1.4	759	0.192	100	26.7	LOS B	2.7	19.0	Full	450	0.0	0.0
Lane 2	458	3.0	452	3.0	532[1]	0.849	100	50.2	LOS D	14.3	102.8	Short	75	0.0	NA
Approach	605	2.6	597	2.6		0.849		44.4	LOS D	14.3	102.8				
North: Pomeroy St (500)															
Lane 1	592	2.1	592	2.1	913	0.648	100	15.3	LOS B	8.2	58.6	Full	500	0.0	0.0
Lane 2	311	4.1	311	4.1	367	0.846	100	49.1	LOS D	10.1	73.1	Full	500	0.0	0.0
Approach	902	2.8	902	2.8		0.846		26.9	LOS B	10.1	73.1				
West: Underwood Rd (200m)															
Lane 1	27	0.0	27	0.0	116	0.235	50[7]	52.8	LOS D	0.8	5.8	Short (P)	20	0.0	NA
Lane 2	54	0.0	54	0.0	115	0.469	100	54.3	LOS D	1.7	11.7	Full	200	0.0	0.0
Approach	81	0.0	81	0.0		0.469		53.8	LOS D	1.7	11.7				
All Vehicles	2228	2.5	2220	2.5		0.849		33.8	LOS C	14.3	102.8				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	26	51	88
Green Time (sec)	20	19	31	6
Phase Time (sec)	26	25	37	12
Phase Split	26%	25%	37%	12%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-AM (Site Folder: 2031 AM Future Base)] **Network: 5 [2031 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	46	0.0	46	0.0	0.205	45.8	LOS D	1.8	12.4	0.90	0.73	0.90	6.7
2	T1	All MCs	14	0.0	14	0.0	* 0.205	44.5	LOS D	1.8	12.4	0.90	0.73	0.90	6.7
3	R2	All MCs	23	9.1	23	9.1	0.103	51.1	LOS D	0.7	5.4	0.88	0.71	0.88	20.9
Approach			83	2.5	83	2.5	0.205	47.0	LOS D	1.8	12.4	0.89	0.72	0.89	12.4
East: Parramatta Rd (430m)															
4	L2	All MCs	14	0.0	14	0.0	0.015	44.8	LOS D	0.2	1.7	0.54	0.65	0.54	33.4
5	T1	All MCs	1475	4.2	1475	4.2	0.891	60.1	LOS E	29.4	213.5	0.98	0.99	1.10	24.2
6	R2	All MCs	211	2.0	211	2.0	* 1.111	201.2	LOS F	13.6	96.7	1.00	1.38	2.14	7.7
Approach			1699	3.9	1699	3.9	1.111	77.5	LOS F	29.4	213.5	0.97	1.03	1.22	19.2
North: George St (820m)															
7	L2	All MCs	139	3.0	139	3.0	0.185	20.8	LOS B	2.9	20.5	0.63	0.70	0.63	39.8
8	T1	All MCs	11	0.0	11	0.0	0.185	29.5	LOS C	2.9	20.5	0.63	0.70	0.63	37.7
9	R2	All MCs	342	1.5	342	1.5	0.697	38.3	LOS C	10.0	70.6	0.94	0.83	0.94	30.6
Approach			492	1.9	492	1.9	0.697	33.2	LOS C	10.0	70.6	0.84	0.79	0.84	33.6
West: Parramatta Rd (70m)															
10	L2	All MCs	207	2.0	207	2.0	* 1.095	137.0	LOS F	9.5	70.0	1.00	1.58	1.89	2.0
11	T1	All MCs	1194	7.5	1194	7.5	1.095	169.8	LOS F	9.5	70.0	1.00	1.64	1.89	10.2
12	R2	All MCs	20	10.5	20	10.5	0.719	107.7	LOS F	0.8	6.5	1.00	0.78	1.33	6.5
Approach			1421	6.7	1421	6.7	1.095	164.1	LOS F	9.5	70.0	1.00	1.62	1.88	9.1
All Vehicles			3695	4.7	3695	4.7	1.111	104.2	LOS F	29.4	213.5	0.97	1.22	1.42	15.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	60	0.0	60	0.0	292	0.205	100	45.5	LOS D	1.8	12.4	Full	80	0.0	0.0
Lane 2	23	9.1	23	9.1	225	0.103	100	51.1	LOS D	0.7	5.4	Full	80	0.0	0.0
Approach	83	2.5	83	2.5		0.205		47.0	LOS D	1.8	12.4				
East: Parramatta Rd (430m)															
Lane 1	14	0.0	14	0.0	884	0.015	100	44.8	LOS D	0.2	1.7	Short	30	0.0	NA
Lane 2	809	4.2	809	4.2	908[1]	0.891	100	60.5	LOS E	29.4	213.5	Full	430	0.0	0.0
Lane 3	666	4.2	666	4.2	748[1]	0.891	100	59.6	LOS E	25.1	181.7	Full	430	0.0	0.0
Lane 4	211	2.0	211	2.0	189[1]	1.111	100	201.2	LOS F	13.6	96.7	Short	40	0.0	NA
Approach	1699	3.9	1699	3.9		1.111		77.5	LOS F	29.4	213.5				
North: George St (820m)															
Lane 1	149	2.8	149	2.8	807	0.185	100	21.4	LOS B	2.9	20.5	Short	100	0.0	NA
Lane 2	342	1.5	342	1.5	491	0.697	100	38.3	LOS C	10.0	70.6	Full	820	0.0	0.0
Approach	492	1.9	492	1.9		0.697		33.2	LOS C	10.0	70.6				
West: Parramatta Rd (70m)															
Lane 1	715	5.9	715	5.9	652	1.095	100	151.7	LOS F	9.5[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	686	7.5	686	7.5	627[1]	1.095	100	178.7	LOS F	9.4[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	20	10.5	20	10.5	28	0.719	100	107.7	LOS F	0.8	6.5	Short	50	0.0	NA
Approach	1421	6.7	1421	6.7		1.095		164.1	LOS F	9.5	70.0				
All Vehicles	3695	4.7	3695	4.7		1.111		104.2	LOS F	29.4	213.5				

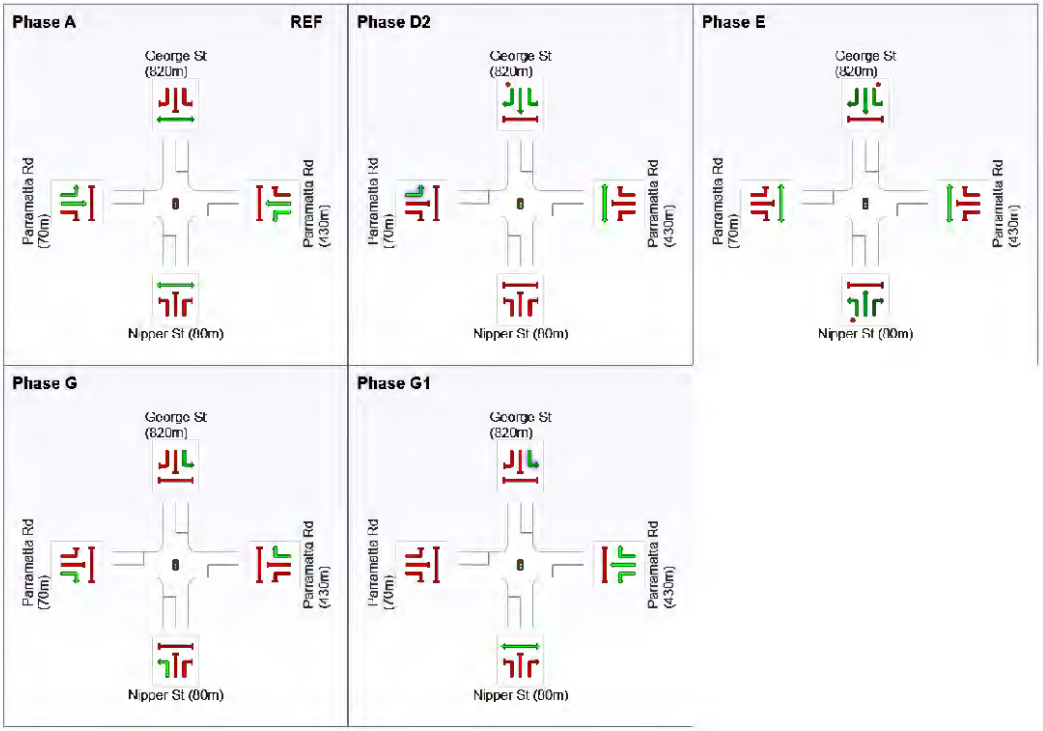
Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.

N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	47	71	97	105
Green Time (sec)	43	18	20	2	13
Phase Time (sec)	49	24	26	4	17
Phase Split	41%	20%	22%	3%	14%
Phase Frequency (%)	100.0	100.0	100.0	30.0[4]	70.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-AM (Site Folder: 2031 AM Future Base)] **Network: 5 [2031 AM Future Base (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1682	3.6	1682	3.6	0.510	0.6	LOS A	2.8	20.5	0.20	0.16	0.20	57.3
6	R2	All MCs	180	3.5	180	3.5	* 0.953	60.7	LOS E	5.6	40.2	1.00	1.01	1.52	21.3
Approach			1862	3.6	1862	3.6	0.953	6.4	LOS A	5.6	40.2	0.28	0.25	0.33	43.2
West: Parramatta Rd (180m)															
10	L2	All MCs	125	47.1	125	47.1	0.991	70.9	LOS F	35.4	276.6	1.00	1.23	1.42	22.0
11	T1	All MCs	1418	6.6	1418	6.6	* 0.991	63.4	LOS E	35.4	276.6	1.00	1.23	1.41	9.1
Approach			1543	9.9	1543	9.9	0.991	64.0	LOS E	35.4	276.6	1.00	1.23	1.41	10.6
All Vehicles			3405	6.5	3405	6.5	0.991	32.5	LOS C	35.4	276.6	0.60	0.69	0.82	19.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

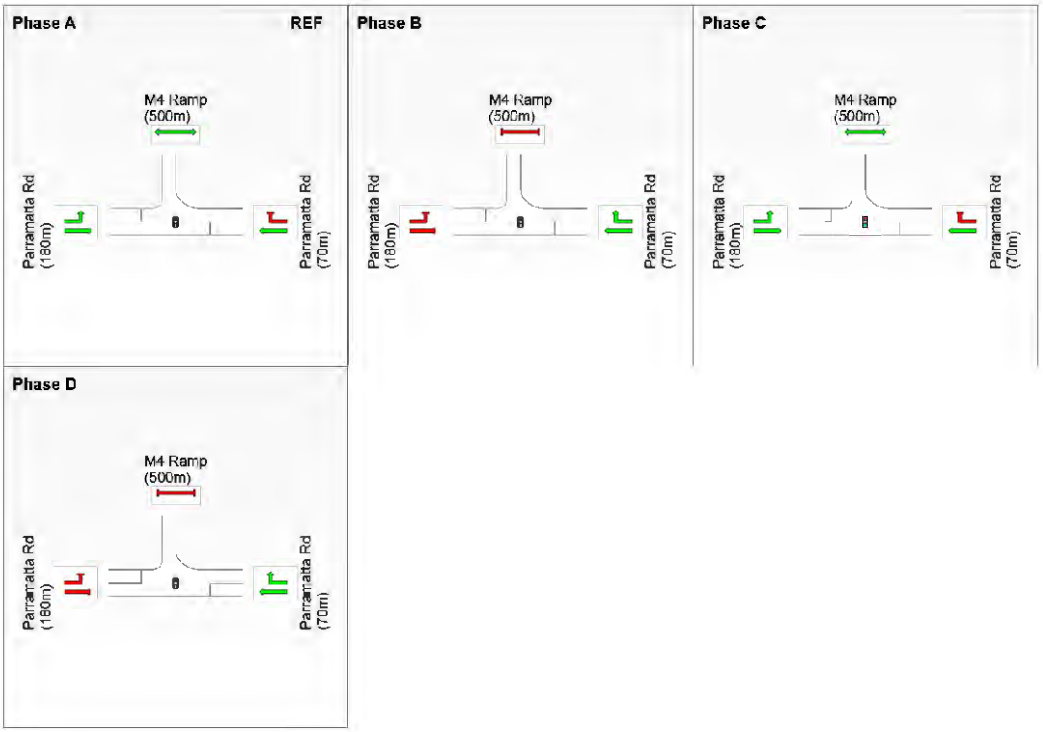
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	841	3.6	841	3.6	1650	0.510	100	0.6	LOS A	2.8	20.5	Full	70	0.0	0.0
Lane 2	841	3.6	841	3.6	1650	0.510	100	0.6	LOS A	2.8	20.5	Full	70	0.0	0.0
Lane 3	180	3.5	180	3.5	189	0.953	100	60.7	LOS E	5.6	40.2	Short	55	0.0	NA
Approach	1862	3.6	1862	3.6		0.953		6.4	LOS A	5.6	40.2				
West: Parramatta Rd (180m)															
Lane 1	741	13.4	741	13.4	748	0.991	100	65.7	LOS E	35.4 N5	276.6 N5	Full	180	-35.0 N2	91.5
Lane 2	802	6.6	802	6.6	810	0.991	100	62.5	LOS E	33.8 N5	250.1 N5	Full	180	-35.0 N2	81.5
Approach	1543	9.9	1543	9.9		0.991		64.0	LOS E	35.4	276.6				
All Vehicles	3405	6.5	3405	6.5		0.991		32.5	LOS C	35.4	276.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	36	48	107
Green Time (sec)	30	6	53	7
Phase Time (sec)	36	12	59	13
Phase Split	30%	10%	49%	11%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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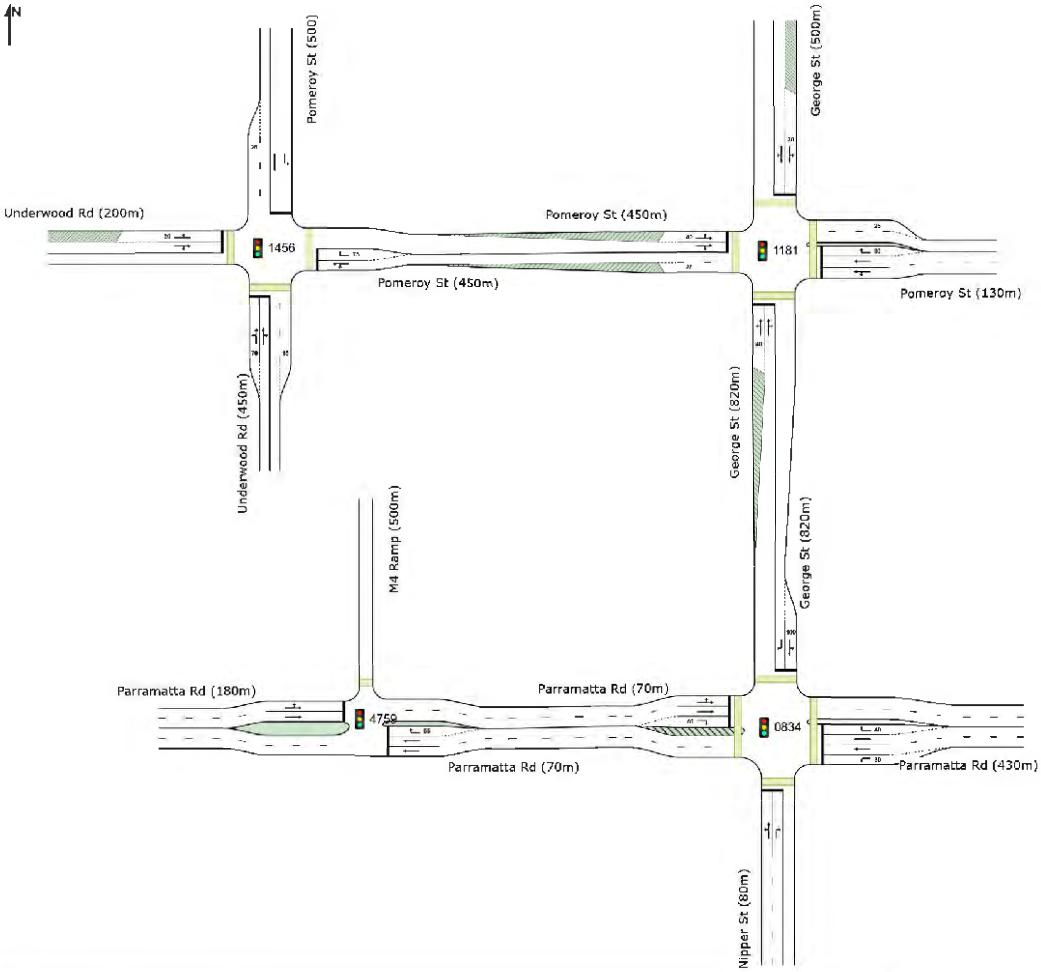
NETWORK LAYOUT

Network: N101 [2031 AM Future Project (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-AM
1456	NA	02-Pomeroy St / Underwood Rd-AM
0834	NA	03-George St / Parramatta Rd-AM
4759	NA	04-Parramatta Rd / M4 Ramp-AM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210 **Template: Default Site User Report**

Site: 1181 [01-Pomeroy St / George St-AM (Site Folder: 2031 AM Future Project)] **Network: 9 [2031 AM Future Project (Network Folder: General)]**

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 70 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	92	0.0	83	0.0	0.141	23.2	LOS B	1.3	8.8	0.75	0.70	0.75	30.9
2	T1	All MCs	75	0.0	68	0.0	* 0.563	21.9	LOS B	4.1	29.1	0.91	0.79	0.91	32.7
3	R2	All MCs	167	1.9	152	1.9	0.563	29.0	LOS C	4.1	29.1	0.91	0.79	0.91	30.3
Approach			334	0.9	303	0.9	0.563	25.8	LOS B	4.1	29.1	0.87	0.77	0.87	31.1
East: Pomeroy St (130m)															
4	L2	All MCs	355	0.6	355	0.6	0.396	15.8	LOS B	4.7	33.4	0.68	0.73	0.68	18.1
5	T1	All MCs	424	3.0	424	3.0	0.471	13.8	LOS A	5.7	41.0	0.69	0.60	0.69	21.1
6	R2	All MCs	113	1.9	113	1.9	* 0.300	20.2	LOS B	1.3	9.5	0.81	0.72	0.81	31.0
Approach			892	1.9	892	1.9	0.471	15.4	LOS B	5.7	41.0	0.70	0.67	0.70	22.9
North: George St (500m)															
7	L2	All MCs	159	3.3	159	3.3	0.207	18.3	LOS B	2.1	15.1	0.66	0.70	0.66	30.4
8	T1	All MCs	113	2.8	113	2.8	0.459	21.5	LOS B	3.6	25.7	0.88	0.75	0.88	26.0
9	R2	All MCs	86	3.7	86	3.7	0.459	29.7	LOS C	3.6	25.7	0.88	0.75	0.88	26.0
Approach			358	3.2	358	3.2	0.459	22.1	LOS B	3.6	25.7	0.78	0.73	0.78	28.0
West: Pomeroy St (450m)															
10	L2	All MCs	142	3.0	142	3.0	0.563	24.0	LOS B	5.9	42.3	0.87	0.77	0.87	31.6
11	T1	All MCs	398	1.6	398	1.6	* 0.563	20.7	LOS B	5.9	42.3	0.87	0.76	0.87	28.4
12	R2	All MCs	58	0.0	58	0.0	0.563	24.2	LOS B	4.5	32.1	0.87	0.75	0.87	26.4
Approach			598	1.8	598	1.8	0.563	21.8	LOS B	5.9	42.3	0.87	0.76	0.87	29.3
All Vehicles			2181	1.9	2150	2.0	0.563	19.8	LOS B	5.9	42.3	0.78	0.72	0.78	28.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

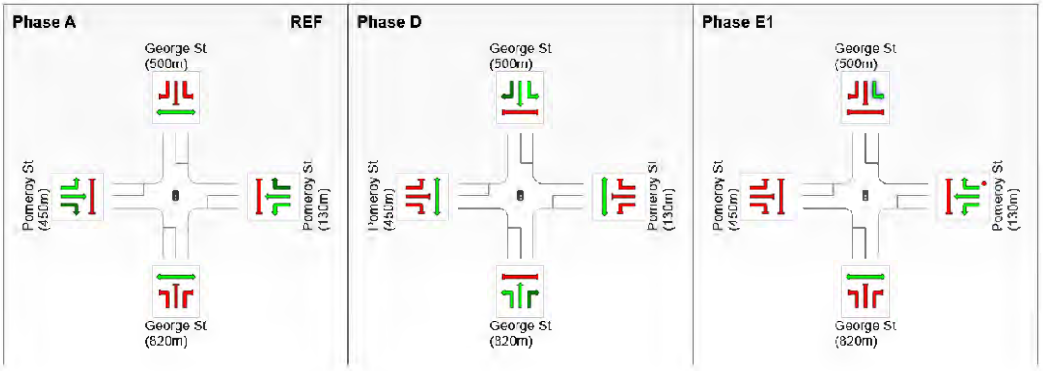
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	92	0.0	83	0.0	590	0.141	25[5]	23.2	LOS B	1.3	8.8	Short (P)	40	0.0	NA
Lane 2	242	1.3	220	1.3	390	0.563	100	26.8	LOS B	4.1	29.1	Full	820	0.0	0.0
Approach	334	0.9	303	0.9		0.563		25.8	LOS B	4.1	29.1				
East: Pomeroy St (130m)															
Lane 1	355	0.6	355	0.6	896	0.396	84[5]	15.8	LOS B	4.7	33.4	Full	130	0.0	0.0
Lane 2	424	3.0	424	3.0	900[1]	0.471	100	13.8	LOS A	5.7	41.0	Full	130	0.0	0.0
Lane 3	113	1.9	113	1.9	376	0.300	100	20.2	LOS B	1.3	9.5	Short	30	0.0	NA
Approach	892	1.9	892	1.9		0.471		15.4	LOS B	5.7	41.0				
North: George St (500m)															
Lane 1	159	3.3	159	3.3	769	0.207	45[5]	18.3	LOS B	2.1	15.1	Short (P)	30	0.0	NA
Lane 2	199	3.2	199	3.2	433	0.459	100	25.1	LOS B	3.6	25.7	Full	500	0.0	0.0
Approach	358	3.2	358	3.2		0.459		22.1	LOS B	3.6	25.7				
West: Pomeroy St (450m)															
Lane 1	341	2.2	341	2.2	605	0.563	100	22.0	LOS B	5.9	42.3	Short (P)	40	0.0	NA
Lane 2	257	1.2	257	1.2	457	0.563	100	21.6	LOS B	4.5	32.1	Full	450	0.0	0.0
Approach	598	1.8	598	1.8		0.563		21.8	LOS B	5.9	42.3				
All Vehicles	2181	1.9	2150	2.0		0.563		19.8	LOS B	5.9	42.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	30	58
Green Time (sec)	24	22	6
Phase Time (sec)	30	28	12
Phase Split	43%	40%	17%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-AM (Site Folder: 2031 AM Future Project)]

Network: 9 [2031 AM Future Project (Network Folder: General)]

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	25	0.0	25	0.0	0.350	16.7	LOS B	5.7	40.6	0.70	0.61	0.70	34.6
2	T1	All MCs	463	2.5	463	2.5	0.699	24.8	LOS B	8.7	62.3	0.80	0.78	0.81	35.7
3	R2	All MCs	153	2.1	153	2.1	* 0.699	52.9	LOS D	8.7	62.3	0.95	1.02	0.97	23.0
Approach			641	2.3	641	2.3	0.699	31.1	LOS C	8.7	62.3	0.84	0.83	0.84	33.2
East: Pomeroy St (450m)															
4	L2	All MCs	133	1.6	131	1.6	0.195	25.2	LOS B	2.7	19.4	0.66	0.70	0.66	36.3
5	T1	All MCs	18	0.0	18	0.0	0.195	43.5	LOS D	2.7	19.4	0.66	0.70	0.66	33.8
6	R2	All MCs	465	2.9	459	3.0	* 0.868	53.1	LOS D	15.0	107.9	1.00	0.98	1.20	28.8
Approach			616	2.6	607	2.6	0.868	46.8	LOS D	15.0	107.9	0.92	0.91	1.07	30.2
North: Pomeroy St (500)															
7	L2	All MCs	594	2.1	594	2.1	0.651	15.3	LOS B	8.3	58.9	0.79	0.81	0.79	35.4
8	T1	All MCs	311	4.1	311	4.1	* 0.846	49.1	LOS D	10.1	73.1	1.00	1.02	1.21	29.3
Approach			904	2.8	904	2.8	0.846	26.9	LOS B	10.1	73.1	0.87	0.88	0.94	32.1
West: Underwood Rd (200m)															
10	L2	All MCs	6	0.0	6	0.0	0.235	57.8	LOS E	0.8	5.8	0.99	0.70	0.99	24.4
11	T1	All MCs	55	0.0	55	0.0	* 0.469	52.1	LOS D	1.7	11.7	0.99	0.73	0.99	11.2
12	R2	All MCs	20	0.0	20	0.0	0.469	57.2	LOS E	1.7	11.7	1.00	0.75	1.00	23.0
Approach			81	0.0	81	0.0	0.469	53.8	LOS D	1.7	11.7	1.00	0.73	1.00	16.3
All Vehicles			2242	2.5	2234	2.5	0.868	34.5	LOS C	15.0	107.9	0.88	0.87	0.95	31.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

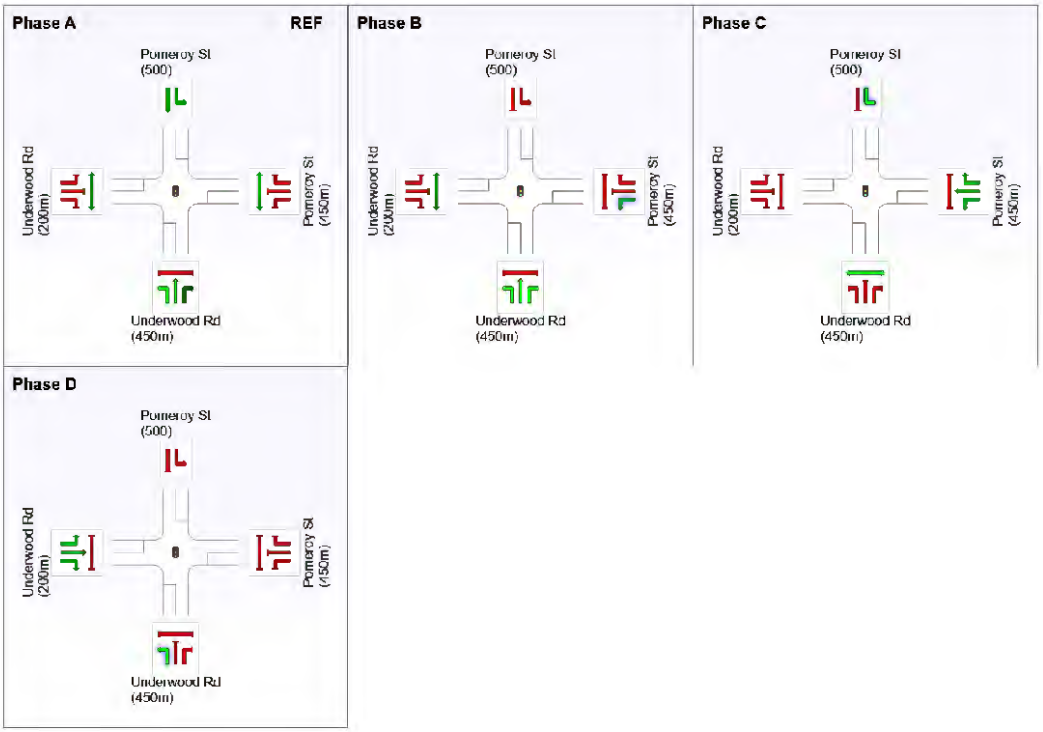
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	294	2.3	294	2.3	841	0.350	50[7]	21.3	LOS B	5.7	40.6	Short	70	0.0	NA
Lane 2	347	2.3	347	2.3	496	0.699	100	39.5	LOS C	8.7	62.3	Full	450	0.0	0.0
Approach	641	2.3	641	2.3		0.699		31.1	LOS C	8.7	62.3				
East: Pomeroy St (450m)															
Lane 1	151	1.4	148	1.4	762	0.195	100	27.4	LOS B	2.7	19.4	Full	450	0.0	0.0
Lane 2	465	2.9	459	3.0	528[1]	0.868	100	53.1	LOS D	15.0	107.9	Short	75	0.0	NA
Approach	616	2.6	607	2.6		0.868		46.8	LOS D	15.0	107.9				
North: Pomeroy St (500)															
Lane 1	594	2.1	594	2.1	913	0.651	100	15.3	LOS B	8.3	58.9	Full	500	0.0	0.0
Lane 2	311	4.1	311	4.1	367	0.846	100	49.1	LOS D	10.1	73.1	Full	500	0.0	0.0
Approach	904	2.8	904	2.8		0.846		26.9	LOS B	10.1	73.1				
West: Underwood Rd (200m)															
Lane 1	27	0.0	27	0.0	116	0.235	50[7]	52.8	LOS D	0.8	5.8	Short (P)	20	0.0	NA
Lane 2	54	0.0	54	0.0	115	0.469	100	54.3	LOS D	1.7	11.7	Full	200	0.0	0.0
Approach	81	0.0	81	0.0		0.469		53.8	LOS D	1.7	11.7				
All Vehicles	2242	2.5	2234	2.5		0.868		34.5	LOS C	15.0	107.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	26	51	88
Green Time (sec)	20	19	31	6
Phase Time (sec)	26	25	37	12
Phase Split	26%	25%	37%	12%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-AM (Site Folder: 2031 AM Future Project)]

Network: 9 [2031 AM Future Project (Network Folder: General)]

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	46	0.0	46	0.0	0.205	45.8	LOS D	1.8	12.4	0.90	0.73	0.90	6.7
2	T1	All MCs	14	0.0	14	0.0	* 0.205	44.5	LOS D	1.8	12.4	0.90	0.73	0.90	6.7
3	R2	All MCs	23	9.1	23	9.1	0.104	51.1	LOS D	0.7	5.4	0.88	0.71	0.88	20.9
Approach			83	2.5	83	2.5	0.205	47.0	LOS D	1.8	12.4	0.89	0.72	0.89	12.4
East: Parramatta Rd (430m)															
4	L2	All MCs	14	0.0	14	0.0	0.015	44.8	LOS D	0.2	1.7	0.54	0.65	0.54	33.4
5	T1	All MCs	1475	4.2	1475	4.2	0.891	60.2	LOS E	29.5	213.9	0.98	0.99	1.10	24.2
6	R2	All MCs	212	2.0	212	2.0	* 1.116	205.2	LOS F	13.8	98.2	1.00	1.39	2.16	7.6
Approach			1700	3.9	1700	3.9	1.116	78.1	LOS F	29.5	213.9	0.98	1.03	1.23	19.0
North: George St (820m)															
7	L2	All MCs	144	2.9	144	2.9	0.191	20.8	LOS B	3.0	21.3	0.63	0.70	0.63	39.8
8	T1	All MCs	11	0.0	11	0.0	0.191	29.6	LOS C	3.0	21.3	0.63	0.70	0.63	37.7
9	R2	All MCs	342	1.5	342	1.5	0.697	38.3	LOS C	10.0	70.6	0.94	0.83	0.94	30.6
Approach			497	1.9	497	1.9	0.697	33.1	LOS C	10.0	70.6	0.84	0.79	0.84	33.7
West: Parramatta Rd (70m)															
10	L2	All MCs	207	2.0	207	2.0	* 1.095	137.0	LOS F	9.5	70.0	1.00	1.58	1.89	2.0
11	T1	All MCs	1194	7.5	1194	7.5	1.095	169.8	LOS F	9.5	70.0	1.00	1.64	1.89	10.2
12	R2	All MCs	20	10.5	20	10.5	0.719	107.7	LOS F	0.8	6.5	1.00	0.78	1.33	6.5
Approach			1421	6.7	1421	6.7	1.095	164.1	LOS F	9.5	70.0	1.00	1.62	1.88	9.1
All Vehicles			3701	4.7	3701	4.7	1.116	104.4	LOS F	29.5	213.9	0.96	1.22	1.42	15.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

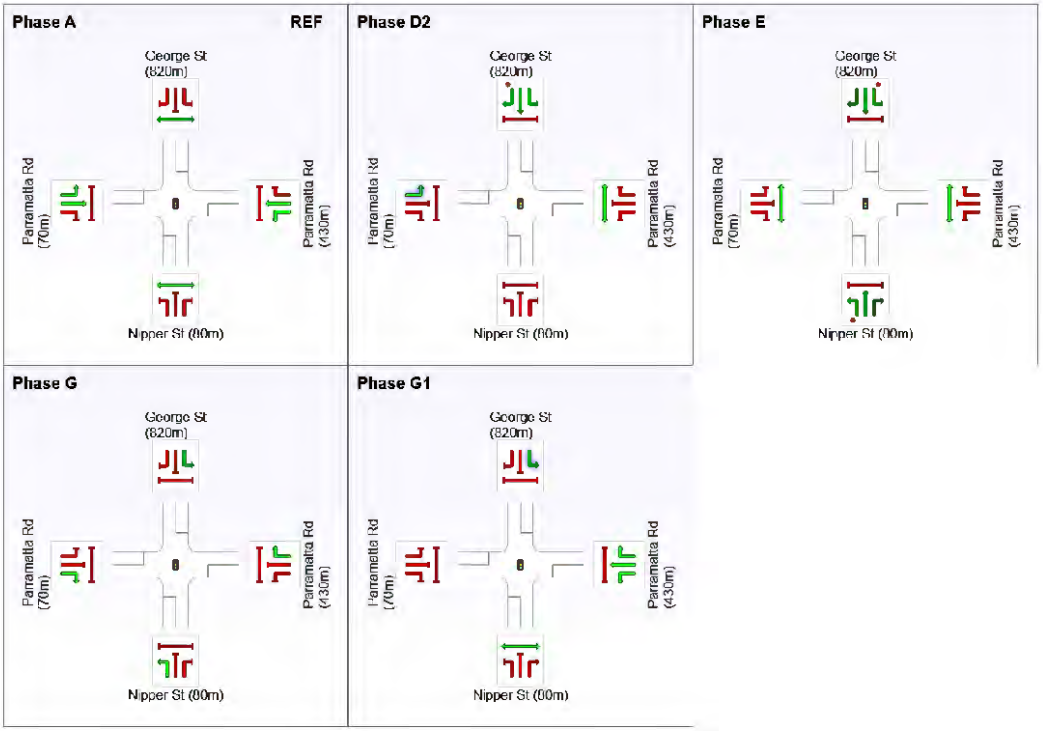
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	60	0.0	60	0.0	292	0.205	100	45.5	LOS D	1.8	12.4	Full	80	0.0	0.0
Lane 2	23	9.1	23	9.1	224	0.104	100	51.1	LOS D	0.7	5.4	Full	80	0.0	0.0
Approach	83	2.5	83	2.5		0.205		47.0	LOS D	1.8	12.4				
East: Parramatta Rd (430m)															
Lane 1	14	0.0	14	0.0	884	0.015	100	44.8	LOS D	0.2	1.7	Short	30	0.0	NA
Lane 2	809	4.2	809	4.2	908[1]	0.891	100	60.6	LOS E	29.5	213.9	Full	430	0.0	0.0
Lane 3	666	4.2	666	4.2	747[1]	0.891	100	59.7	LOS E	25.1	181.8	Full	430	0.0	0.0
Lane 4	212	2.0	212	2.0	190[1]	1.116	100	205.2	LOS F	13.8	98.2	Short	40	0.0	NA
Approach	1700	3.9	1700	3.9		1.116		78.1	LOS F	29.5	213.9				
North: George St (820m)															
Lane 1	155	2.7	155	2.7	810	0.191	100	21.4	LOS B	3.0	21.3	Short	100	0.0	NA
Lane 2	342	1.5	342	1.5	491	0.697	100	38.3	LOS C	10.0	70.6	Full	820	0.0	0.0
Approach	497	1.9	497	1.9		0.697		33.1	LOS C	10.0	70.6				
West: Parramatta Rd (70m)															
Lane 1	715	5.9	715	5.9	652	1.095	100	151.7	LOS F	9.5[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	686	7.5	686	7.5	627[1]	1.095	100	178.7	LOS F	9.4[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	20	10.5	20	10.5	28	0.719	100	107.7	LOS F	0.8	6.5	Short	50	0.0	NA
Approach	1421	6.7	1421	6.7		1.095		164.1	LOS F	9.5	70.0				
All Vehicles	3701	4.7	3701	4.7		1.116		104.4	LOS F	29.5	213.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	47	71	97	105
Green Time (sec)	43	18	20	2	13
Phase Time (sec)	49	24	26	4	17
Phase Split	41%	20%	22%	3%	14%
Phase Frequency (%)	100.0	100.0	100.0	30.0[4]	70.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-AM (Site Folder: 2031 AM Future Project)]

Network: 9 [2031 AM Future Project (Network Folder: General)]

AM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1682	3.6	1682	3.6	0.510	0.6	LOS A	2.8	20.5	0.20	0.16	0.20	57.3
6	R2	All MCs	180	3.5	180	3.5	* 0.953	60.7	LOS E	5.6	40.2	1.00	1.01	1.52	21.3
Approach			1862	3.6	1862	3.6	0.953	6.4	LOS A	5.6	40.2	0.28	0.25	0.33	43.2
West: Parramatta Rd (180m)															
10	L2	All MCs	125	47.1	125	47.1	0.991	70.9	LOS F	35.4	276.6	1.00	1.23	1.42	22.0
11	T1	All MCs	1418	6.6	1418	6.6	* 0.991	63.4	LOS E	35.4	276.6	1.00	1.23	1.41	9.1
Approach			1543	9.9	1543	9.9	0.991	64.0	LOS E	35.4	276.6	1.00	1.23	1.41	10.6
All Vehicles			3405	6.5	3405	6.5	0.991	32.5	LOS C	35.4	276.6	0.60	0.69	0.82	19.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

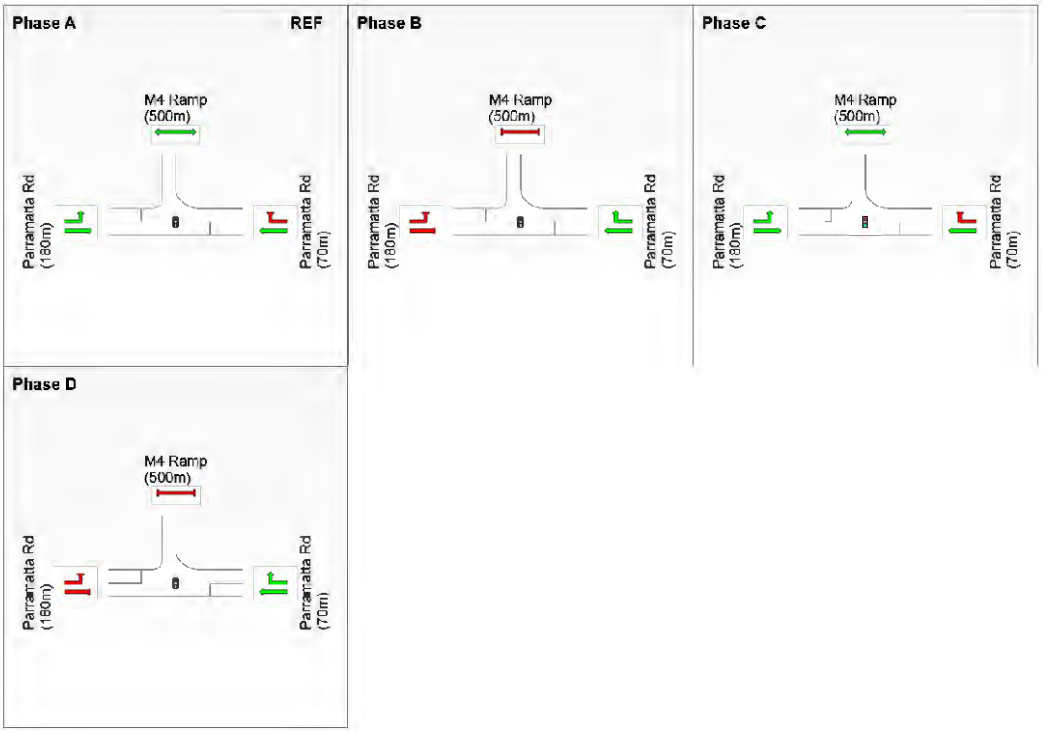
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	841	3.6	841	3.6	1650	0.510	100	0.6	LOS A	2.8	20.5	Full	70	0.0	0.0
Lane 2	841	3.6	841	3.6	1650	0.510	100	0.6	LOS A	2.8	20.5	Full	70	0.0	0.0
Lane 3	180	3.5	180	3.5	189	0.953	100	60.7	LOS E	5.6	40.2	Short	55	0.0	NA
Approach	1862	3.6	1862	3.6		0.953		6.4	LOS A	5.6	40.2				
West: Parramatta Rd (180m)															
Lane 1	741	13.4	741	13.4	748	0.991	100	65.7	LOS E	35.4 N5	276.6 N5	Full	180	-35.0 N2	91.5
Lane 2	802	6.6	802	6.6	810	0.991	100	62.5	LOS E	33.8 N5	250.1 N5	Full	180	-35.0 N2	81.5
Approach	1543	9.9	1543	9.9		0.991		64.0	LOS E	35.4	276.6				
All Vehicles	3405	6.5	3405	6.5		0.991		32.5	LOS C	35.4	276.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	36	48	107
Green Time (sec)	30	6	53	7
Phase Time (sec)	36	12	59	13
Phase Split	30%	10%	49%	11%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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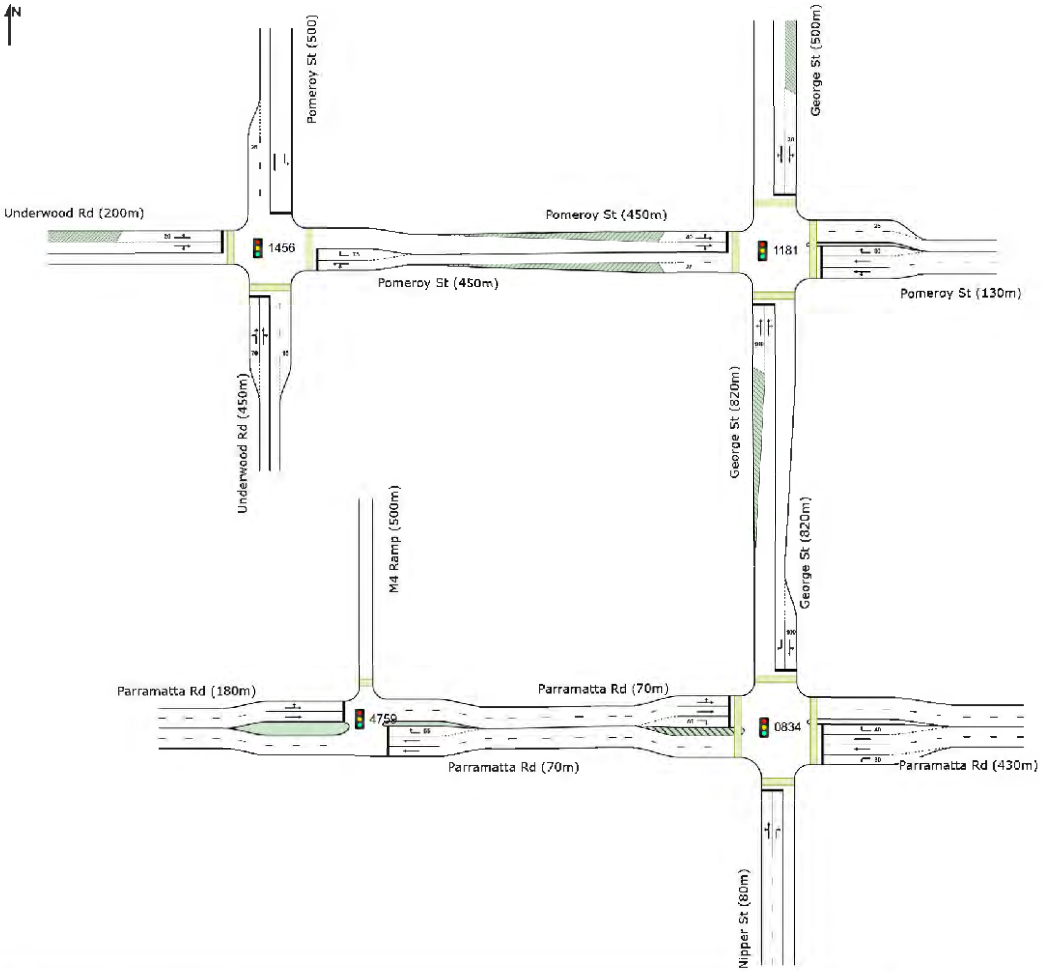
NETWORK LAYOUT

Network: N101 [2031 PM Future Base (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	CCG ID	Site Name
1181	NA	01-Pomeroy St / George St-PM
1456	NA	02-Pomeroy St / Underwood Rd-PM
0834	NA	03-George St / Parramatta Rd-PM
4759	NA	04-Parramatta Rd / M4 Ramp-PM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210 **Template: Default Site User Report**

Site: 1181 [01-Pomeroy St / George St-PM (Site Folder: 2031 PM Future Base)] **Network: 6 [2031 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	137	0.0	137	0.0	0.277	40.8	LOS C	3.6	25.1	0.84	0.77	0.84	30.3
2	T1	All MCs	64	0.0	64	0.0	0.851	48.9	LOS D	10.1	70.5	1.00	1.00	1.23	31.6
3	R2	All MCs	216	0.0	216	0.0	* 0.851	58.6	LOS E	10.1	70.5	1.00	1.00	1.23	27.3
Approach			417	0.0	417	0.0	0.851	51.3	LOS D	10.1	70.5	0.95	0.92	1.10	28.9
East: Pomeroy St (130m)															
4	L2	All MCs	242	0.0	242	0.0	0.217	15.2	LOS B	3.6	25.2	0.49	0.69	0.49	20.4
5	T1	All MCs	527	1.2	527	1.2	0.669	21.2	LOS B	11.2	78.9	0.70	0.63	0.70	21.0
6	R2	All MCs	171	0.0	171	0.0	* 0.783	48.0	LOS D	3.6	25.5	1.00	0.90	1.18	28.0
Approach			940	0.7	940	0.7	0.783	24.5	LOS B	11.2	78.9	0.70	0.69	0.73	23.8
North: George St (500m)															
7	L2	All MCs	127	1.7	127	1.7	0.197	39.3	LOS C	2.9	20.5	0.73	0.74	0.73	29.3
8	T1	All MCs	76	0.0	76	0.0	0.622	44.4	LOS D	5.6	39.7	0.96	0.81	0.96	22.4
9	R2	All MCs	107	2.0	107	2.0	0.622	57.1	LOS E	5.6	39.7	0.96	0.81	0.96	22.4
Approach			311	1.4	311	1.4	0.622	46.7	LOS D	5.6	39.7	0.87	0.78	0.87	25.2
West: Pomeroy St (450m)															
10	L2	All MCs	103	2.0	103	2.0	0.889	58.4	LOS E	19.5	137.0	0.97	1.01	1.17	30.5
11	T1	All MCs	623	0.0	623	0.0	0.889	55.5	LOS D	19.5	137.0	0.98	1.04	1.21	24.0
12	R2	All MCs	109	0.0	109	0.0	* 0.889	83.6	LOS F	11.7	81.8	1.00	1.09	1.32	18.7
Approach			836	0.3	836	0.3	0.889	59.5	LOS E	19.5	137.0	0.98	1.04	1.22	24.3
All Vehicles			2503	0.5	2503	0.5	0.889	43.4	LOS D	19.5	137.0	0.85	0.86	0.97	25.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

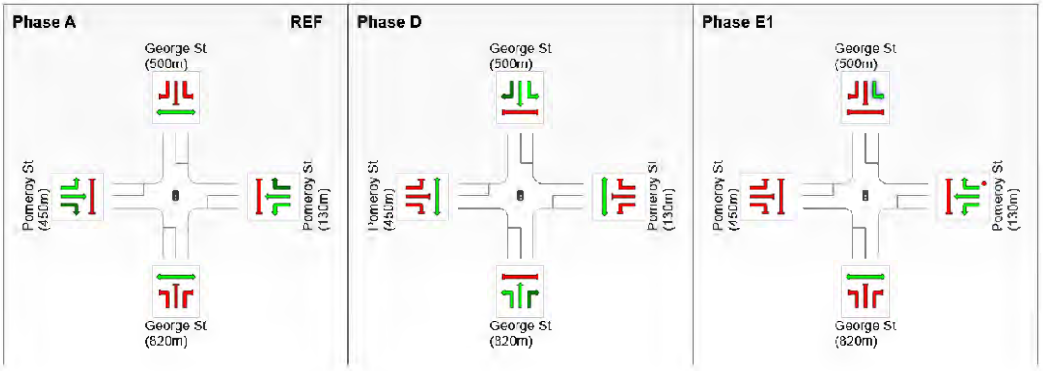
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	137	0.0	137	0.0	495	0.277	32[5]	40.8	LOS C	3.6	25.1	Short (P)	100	0.0	NA
Lane 2	280	0.0	280	0.0	329	0.851	100	56.4	LOS D	10.1	70.5	Full	820	0.0	0.0
Approach	417	0.0	417	0.0		0.851		51.3	LOS D	10.1	70.5				
East: Pomeroy St (130m)															
Lane 1	242	0.0	242	0.0	1114	0.217	32[5]	15.2	LOS B	3.6	25.2	Full	130	0.0	0.0
Lane 2	527	1.2	527	1.2	789[1]	0.669	100	21.2	LOS B	11.2	78.9	Full	130	-15.0[N2]	4.2
Lane 3	171	0.0	171	0.0	218	0.783	100	48.0	LOS D	3.6	25.5	Short	30	0.0	NA
Approach	940	0.7	940	0.7		0.783		24.5	LOS B	11.2	78.9				
North: George St (500m)															
Lane 1	127	1.7	127	1.7	647	0.197	32[5]	39.3	LOS C	2.9	20.5	Short (P)	30	0.0	NA
Lane 2	183	1.1	183	1.1	294[1]	0.622	100	51.9	LOS D	5.6	39.7	Full	500	0.0	0.0
Approach	311	1.4	311	1.4		0.622		46.7	LOS D	5.6	39.7				
West: Pomeroy St (450m)															
Lane 1	540	0.4	540	0.4	607[1]	0.889	100	54.7	LOS D	19.5	137.0	Short (P)	40	0.0	NA
Lane 2	296	0.0	296	0.0	333[1]	0.889	100	68.4	LOS E	11.7	81.8	Full	450	0.0	0.0
Approach	836	0.3	836	0.3		0.889		59.5	LOS E	19.5	137.0				
All Vehicles	2503	0.5	2503	0.5		0.889		43.4	LOS D	19.5	137.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	62	98
Green Time (sec)	56	30	6
Phase Time (sec)	62	36	12
Phase Split	56%	33%	11%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-PM (Site Folder: 2031 PM Future Base)] **Network: 6 [2031 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	20	0.0	20	0.0	0.482	22.7	LOS B	8.0	57.2	0.77	0.68	0.77	31.5
2	T1	All MCs	342	2.8	342	2.8	0.965	32.6	LOS C	11.7	82.0	0.80	0.77	0.87	33.0
3	R2	All MCs	216	0.0	216	0.0	* 0.965	97.9	LOS F	11.7	82.0	1.00	1.29	1.49	13.5
Approach			578	1.6	578	1.6	0.965	56.7	LOS E	11.7	82.0	0.87	0.96	1.10	24.9
East: Pomeroy St (450m)															
4	L2	All MCs	268	1.2	268	1.2	0.344	36.0	LOS C	6.4	45.2	0.66	0.74	0.66	35.7
5	T1	All MCs	23	0.0	23	0.0	0.344	46.4	LOS D	6.4	45.2	0.66	0.74	0.66	33.0
6	R2	All MCs	512	1.9	512	1.9	* 0.955	85.6	LOS F	23.7	168.5	1.00	1.10	1.35	23.9
Approach			803	1.6	803	1.6	0.955	67.9	LOS E	23.7	168.5	0.88	0.97	1.10	26.9
North: Pomeroy St (500)															
7	L2	All MCs	666	0.6	666	0.6	0.575	11.9	LOS A	8.1	56.9	0.63	0.76	0.63	37.9
8	T1	All MCs	480	3.3	480	3.3	* 0.973	79.6	LOS F	22.8	164.2	1.00	1.26	1.42	23.3
Approach			1146	1.7	1146	1.7	0.973	40.2	LOS C	22.8	164.2	0.79	0.97	0.96	27.9
West: Underwood Rd (200m)															
10	L2	All MCs	8	0.0	8	0.0	0.199	68.5	LOS E	0.7	4.9	0.99	0.69	0.99	21.9
11	T1	All MCs	27	0.0	27	0.0	* 0.399	63.2	LOS E	1.4	9.9	1.00	0.72	1.00	9.6
12	R2	All MCs	21	0.0	21	0.0	0.399	68.2	LOS E	1.4	9.9	1.00	0.73	1.00	20.6
Approach			57	0.0	57	0.0	0.399	65.8	LOS E	1.4	9.9	1.00	0.72	1.00	16.5
All Vehicles			2584	1.6	2584	1.6	0.973	53.1	LOS D	23.7	168.5	0.84	0.96	1.04	26.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

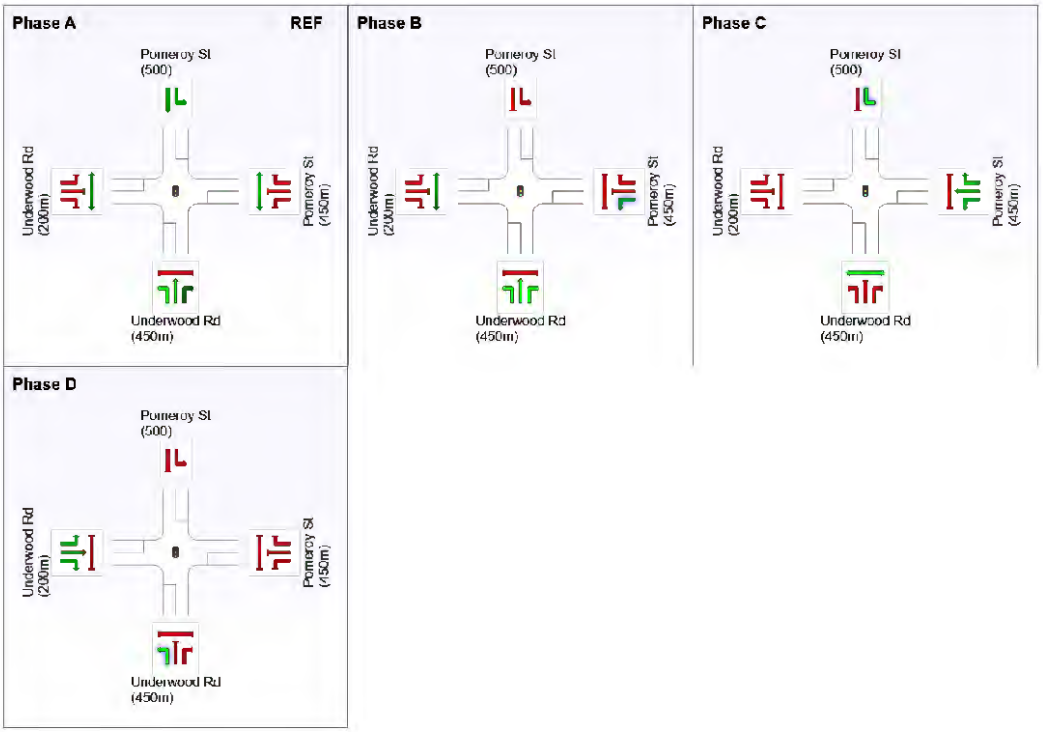
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	312	2.6	312	2.6	647	0.482	50[7]	27.8	LOS B	8.0	57.2	Short	70	-20.0[N2]	NA
Lane 2	266	0.5	266	0.5	276	0.965	100	90.5	LOS F	11.7	82.0	Full	450	0.0	0.0
Approach	578	1.6	578	1.6		0.965		56.7	LOS E	11.7	82.0				
East: Pomeroy St (450m)															
Lane 1	292	1.1	292	1.1	847	0.344	100	36.9	LOS C	6.4	45.2	Full	450	0.0	0.0
Lane 2	512	1.9	512	1.9	536[1]	0.955	100	85.6	LOS F	23.7	168.5	Short	75	0.0	NA
Approach	803	1.6	803	1.6		0.955		67.9	LOS E	23.7	168.5				
North: Pomeroy St (500)															
Lane 1	666	0.6	666	0.6	1159	0.575	100	11.9	LOS A	8.1	56.9	Full	500	0.0	0.0
Lane 2	480	3.3	480	3.3	493	0.973	100	79.6	LOS F	22.8	164.2	Full	500	0.0	0.0
Approach	1146	1.7	1146	1.7		0.973		40.2	LOS C	22.8	164.2				
West: Underwood Rd (200m)															
Lane 1	19	0.0	19	0.0	95	0.199	50[7]	65.1	LOS E	0.7	4.9	Short (P)	20	0.0	NA
Lane 2	38	0.0	38	0.0	95	0.399	100	66.2	LOS E	1.4	9.9	Full	200	0.0	0.0
Approach	57	0.0	57	0.0		0.399		65.8	LOS E	1.4	9.9				
All Vehicles	2584	1.6	2584	1.6		0.973		53.1	LOS D	23.7	168.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	38	58	108
Green Time (sec)	32	14	44	6
Phase Time (sec)	38	20	50	12
Phase Split	32%	17%	42%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-PM (Site Folder: 2031 PM Future Base)] **Network: 6 [2031 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	67	3.1	67	3.1	0.290	45.2	LOS D	2.6	19.1	0.91	0.75	0.91	6.7
2	T1	All MCs	20	10.5	20	10.5	* 0.290	46.8	LOS D	2.6	19.1	0.91	0.75	0.91	6.7
3	R2	All MCs	31	0.0	31	0.0	0.136	51.4	LOS D	1.0	6.7	0.89	0.72	0.89	20.9
Approach			118	3.6	118	3.6	0.290	47.1	LOS D	2.6	19.1	0.90	0.74	0.90	12.0
East: Parramatta Rd (430m)															
4	L2	All MCs	22	0.0	22	0.0	0.028	51.8	LOS D	0.4	3.1	0.60	0.67	0.60	31.4
5	T1	All MCs	1423	2.4	1423	2.4	* 0.932	77.3	LOS F	31.9	227.9	1.00	1.10	1.22	20.0
6	R2	All MCs	177	0.0	177	0.0	0.861	93.0	LOS F	7.0	49.2	1.00	0.97	1.29	16.5
Approach			1622	2.1	1622	2.1	0.932	78.6	LOS F	31.9	227.9	0.99	1.08	1.22	19.7
North: George St (820m)															
7	L2	All MCs	192	0.0	192	0.0	0.274	22.9	LOS B	4.5	31.4	0.68	0.72	0.68	39.0
8	T1	All MCs	23	0.0	23	0.0	0.274	30.1	LOS C	4.5	31.4	0.68	0.72	0.68	36.8
9	R2	All MCs	343	0.0	343	0.0	* 0.722	38.9	LOS C	10.1	70.6	0.95	0.84	0.96	30.5
Approach			558	0.0	558	0.0	0.722	33.0	LOS C	10.1	70.6	0.84	0.80	0.86	34.0
West: Parramatta Rd (70m)															
10	L2	All MCs	189	0.0	189	0.0	0.823	25.9	LOS B	9.9	70.0	0.96	0.90	1.00	7.2
11	T1	All MCs	1049	1.8	1049	1.8	0.823	50.5	LOS D	9.9	70.0	0.96	0.90	1.01	27.1
12	R2	All MCs	47	4.4	47	4.4	* 0.641	91.0	LOS F	1.8	13.4	1.00	0.80	1.13	7.1
Approach			1286	1.6	1286	1.6	0.823	48.3	LOS D	9.9	70.0	0.96	0.90	1.01	24.3
All Vehicles			3584	1.7	3584	1.7	0.932	59.6	LOS E	31.9	227.9	0.96	0.96	1.08	23.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

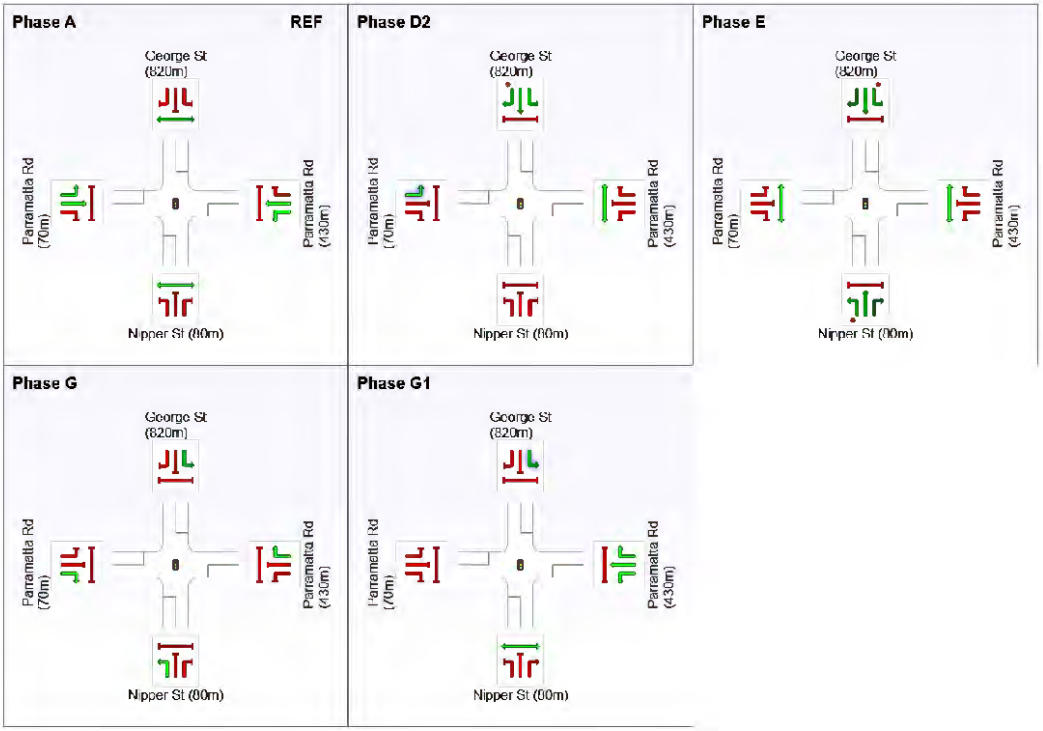
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	87	4.8	87	4.8	302	0.290	100	45.6	LOS D	2.6	19.1	Full	80	0.0	0.0
Lane 2	31	0.0	31	0.0	225	0.136	100	51.4	LOS D	1.0	6.7	Full	80	0.0	0.0
Approach	118	3.6	118	3.6		0.290		47.1	LOS D	2.6	19.1				
East: Parramatta Rd (430m)															
Lane 1	22	0.0	22	0.0	792	0.028	100	51.8	LOS D	0.4	3.1	Short	30	0.0	NA
Lane 2	767	2.4	767	2.4	823[1]	0.932	100	77.8	LOS F	31.9	227.9	Full	430	0.0	0.0
Lane 3	656	2.4	656	2.4	704[1]	0.932	100	76.7	LOS F	27.9	199.4	Full	430	0.0	0.0
Lane 4	177	0.0	177	0.0	205[1]	0.861	100	93.0	LOS F	7.0	49.2	Short	40	0.0	NA
Approach	1622	2.1	1622	2.1		0.932		78.6	LOS F	31.9	227.9				
North: George St (820m)															
Lane 1	215	0.0	215	0.0	783	0.274	100	23.7	LOS B	4.5	31.4	Short	100	0.0	NA
Lane 2	343	0.0	343	0.0	475	0.722	100	38.9	LOS C	10.1	70.6	Full	820	0.0	0.0
Approach	558	0.0	558	0.0		0.722		33.0	LOS C	10.1	70.6				
West: Parramatta Rd (70m)															
Lane 1	635	1.3	635	1.3	772	0.823	100	37.7	LOS C	9.9[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	603	1.8	603	1.8	733[1]	0.823	100	56.2	LOS D	9.8[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	47	4.4	47	4.4	74	0.641	100	91.0	LOS F	1.8	13.4	Short	50	0.0	NA
Approach	1286	1.6	1286	1.6		0.823		48.3	LOS D	9.9	70.0				
All Vehicles	3584	1.7	3584	1.7		0.932		59.6	LOS E	31.9	227.9				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	50	74	100	111
Green Time (sec)	49	18	20	5	4
Phase Time (sec)	55	24	26	10	5
Phase Split	46%	20%	22%	8%	4%
Phase Frequency (%)	100.0	100.0	100.0	80.0[4]	20.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-PM (Site Folder: 2031 PM Future Base)] **Network: 6 [2031 PM Future Base (Network Folder: General)]**

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1686	1.9	1686	1.9	0.503	0.6	LOS A	2.8	19.7	0.20	0.16	0.20	57.4
6	R2	All MCs	146	2.2	146	2.2	* 0.827	40.9	LOS C	3.1	22.4	1.00	0.88	1.25	26.6
Approach			1833	2.0	1833	2.0	0.827	3.8	LOS A	3.1	22.4	0.26	0.22	0.28	48.3
West: Parramatta Rd (180m)															
10	L2	All MCs	92	52.9	92	52.9	* 0.833	19.9	LOS B	11.3	84.6	0.78	0.77	0.84	40.3
11	T1	All MCs	1284	1.6	1284	1.6	0.833	12.1	LOS A	11.3	84.6	0.78	0.76	0.83	28.9
Approach			1376	5.0	1376	5.0	0.833	12.6	LOS A	11.3	84.6	0.78	0.76	0.83	30.7
All Vehicles			3208	3.2	3208	3.2	0.833	7.6	LOS A	11.3	84.6	0.48	0.45	0.52	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

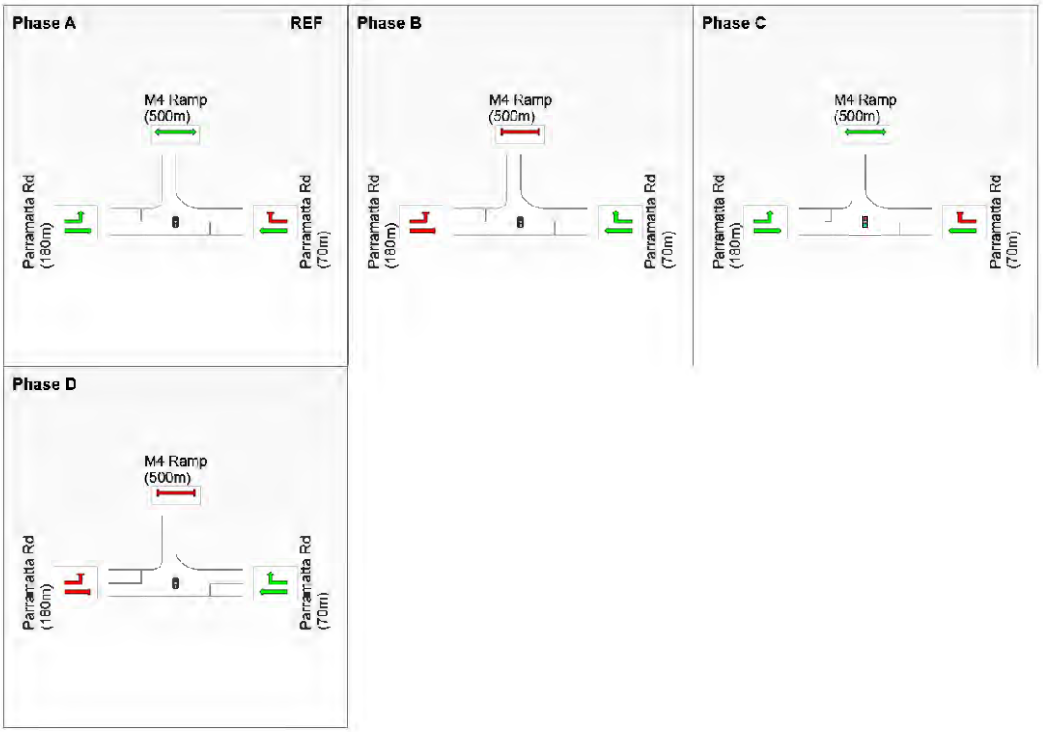
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	843	1.9	843	1.9	1678	0.503	100	0.6	LOS A	2.8	19.7	Full	70	0.0	0.0
Lane 2	843	1.9	843	1.9	1678	0.503	100	0.6	LOS A	2.8	19.7	Full	70	0.0	0.0
Lane 3	146	2.2	146	2.2	177	0.827	100	40.9	LOS C	3.1	22.4	Short	55	0.0	NA
Approach	1833	2.0	1833	2.0		0.827		3.8	LOS A	3.1	22.4				
West: Parramatta Rd (180m)															
Lane 1	659	8.7	659	8.7	791	0.833	100	13.7	LOS A	11.3 N5	84.6 N5	Full	180	-35.0 N2	0.0
Lane 2	717	1.6	717	1.6	860	0.833	100	11.6	LOS A	11.1	78.7	Full	180	-35.0 N2	0.0
Approach	1376	5.0	1376	5.0		0.833		12.6	LOS A	11.3	84.6				
All Vehicles	3208	3.2	3208	3.2		0.833		7.6	LOS A	11.3	84.6				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	48	60	108
Green Time (sec)	42	6	42	6
Phase Time (sec)	48	12	48	12
Phase Split	40%	10%	40%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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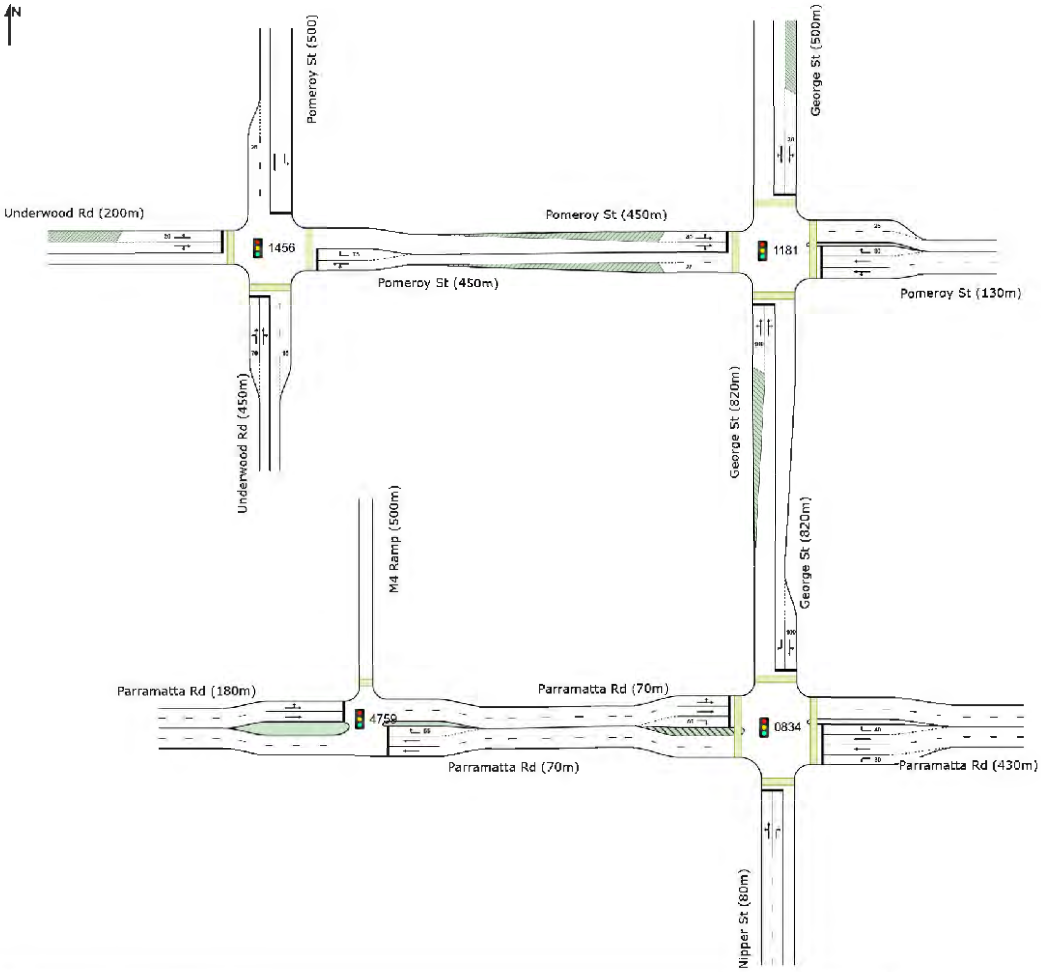
NETWORK LAYOUT

Network: N101 [2031 PM Future Project (Network Folder: General)]

AM
Network Category: Base Year

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
1181	NA	01-Pomeroy St / George St-PM
1456	NA	02-Pomeroy St / Underwood Rd-PM
0834	NA	03-George St / Parramatta Rd-PM
4759	NA	04-Parramatta Rd / M4 Ramp-PM

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USER REPORT FOR NETWORK SITE

Project: P2439m01-7 Concord Ave

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Template: Default Site User Report

Site: 1181 [01-Pomeroy St / George St-PM (Site Folder: 2031 PM Future Project)]

Network: 10 [2031 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1181-Actual
Input Phase Sequence: A, D, E1
Output Phase Sequence: A, D, E1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: George St (820m)															
1	L2	All MCs	137	0.0	137	0.0	0.277	40.8	LOS C	3.6	25.1	0.84	0.77	0.84	30.3
2	T1	All MCs	68	0.0	68	0.0	* 0.909	57.4	LOS E	11.4	79.6	1.00	1.10	1.36	29.4
3	R2	All MCs	216	0.0	216	0.0	0.909	70.6	LOS F	11.4	79.6	1.00	1.10	1.36	25.1
Approach			421	0.0	421	0.0	0.909	58.8	LOS E	11.4	79.6	0.95	0.99	1.19	27.3
East: Pomeroy St (130m)															
4	L2	All MCs	242	0.0	242	0.0	0.217	15.2	LOS B	3.6	25.2	0.49	0.69	0.49	20.4
5	T1	All MCs	527	1.2	527	1.2	0.673	21.3	LOS B	11.2	79.3	0.71	0.64	0.71	20.9
6	R2	All MCs	179	0.0	179	0.0	* 0.850	52.9	LOS D	4.2	29.3	1.00	0.94	1.30	26.4
Approach			948	0.7	948	0.7	0.850	25.7	LOS B	11.2	79.3	0.71	0.71	0.76	23.3
North: George St (500m)															
7	L2	All MCs	129	1.6	129	1.6	0.200	39.0	LOS C	2.9	20.9	0.73	0.74	0.73	29.3
8	T1	All MCs	77	0.0	77	0.0	0.631	43.4	LOS D	5.6	39.5	0.94	0.81	0.95	23.0
9	R2	All MCs	109	1.9	109	1.9	0.631	53.9	LOS D	5.6	39.5	0.94	0.81	0.95	23.0
Approach			316	1.3	316	1.3	0.631	45.2	LOS D	5.6	39.5	0.86	0.78	0.86	25.5
West: Pomeroy St (450m)															
10	L2	All MCs	112	1.9	112	1.9	0.903	62.2	LOS E	20.6	144.4	0.98	1.05	1.21	29.6
11	T1	All MCs	623	0.0	623	0.0	* 0.903	59.4	LOS E	20.6	144.4	0.99	1.07	1.26	23.1
12	R2	All MCs	109	0.0	109	0.0	0.903	87.9	LOS F	12.2	85.3	1.00	1.13	1.36	18.0
Approach			844	0.2	844	0.2	0.903	63.5	LOS E	20.6	144.4	0.99	1.08	1.26	23.5
All Vehicles			2529	0.5	2529	0.5	0.909	46.3	LOS D	20.6	144.4	0.86	0.89	1.01	24.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

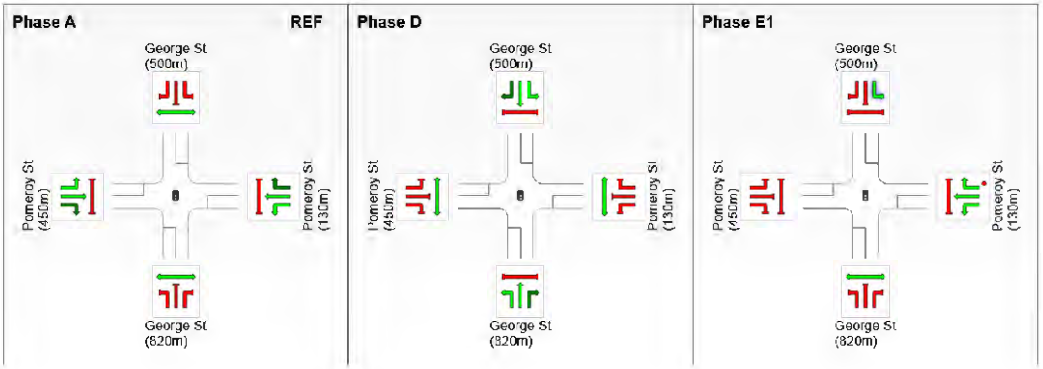
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: George St (820m)															
Lane 1	137	0.0	137	0.0	495	0.277	30[5]	40.8	LOS C	3.6	25.1	Short (P)	100	0.0	NA
Lane 2	284	0.0	284	0.0	313	0.909	100	67.4	LOS E	11.4	79.6	Full	820	0.0	0.0
Approach	421	0.0	421	0.0		0.909		58.8	LOS E	11.4	79.6				
East: Pomeroy St (130m)															
Lane 1	242	0.0	242	0.0	1114	0.217	32[5]	15.2	LOS B	3.6	25.2	Full	130	0.0	0.0
Lane 2	527	1.2	527	1.2	784[1]	0.673	100	21.3	LOS B	11.2	79.3	Full	130	-15.0[N2]	4.6
Lane 3	179	0.0	179	0.0	210	0.850	100	52.9	LOS D	4.2	29.3	Short	30	0.0	NA
Approach	948	0.7	948	0.7		0.850		25.7	LOS B	11.2	79.3				
North: George St (500m)															
Lane 1	129	1.6	129	1.6	647	0.200	32[5]	39.0	LOS C	2.9	20.9	Short (P)	30	0.0	NA
Lane 2	186	1.1	186	1.1	295[1]	0.631	100	49.6	LOS D	5.6	39.5	Full	500	0.0	0.0
Approach	316	1.3	316	1.3		0.631		45.2	LOS D	5.6	39.5				
West: Pomeroy St (450m)															
Lane 1	546	0.4	546	0.4	605[1]	0.903	100	58.6	LOS E	20.6	144.4	Short (P)	40	0.0	NA
Lane 2	298	0.0	298	0.0	330[1]	0.903	100	72.5	LOS F	12.2	85.3	Full	450	0.0	0.0
Approach	844	0.2	844	0.2		0.903		63.5	LOS E	20.6	144.4				
All Vehicles	2529	0.5	2529	0.5		0.909		46.3	LOS D	20.6	144.4				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
5 Lane under-utilisation found by the program
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D	E1
Phase Change Time (sec)	0	62	98
Green Time (sec)	56	30	6
Phase Time (sec)	62	36	12
Phase Split	56%	33%	11%
Phase Frequency (%)	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 1456 [02-Pomeroy St / Underwood Rd-PM (Site Folder: 2031 PM Future Project)]

Network: 10 [2031 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 1456-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Underwood Rd (450m)															
1	L2	All MCs	20	0.0	20	0.0	0.473	22.0	LOS B	7.9	56.3	0.75	0.67	0.75	31.8
2	T1	All MCs	342	2.8	342	2.8	0.946	31.1	LOS C	11.3	79.4	0.79	0.75	0.85	33.5
3	R2	All MCs	218	0.0	218	0.0	* 0.946	91.6	LOS F	11.3	79.4	1.00	1.27	1.43	14.3
Approach			580	1.6	580	1.6	0.946	53.5	LOS D	11.3	79.4	0.87	0.94	1.07	25.6
East: Pomeroy St (450m)															
4	L2	All MCs	269	1.2	269	1.2	0.351	37.4	LOS C	6.5	46.2	0.67	0.74	0.67	35.4
5	T1	All MCs	23	0.0	23	0.0	0.351	48.0	LOS D	6.5	46.2	0.67	0.74	0.67	32.7
6	R2	All MCs	513	1.8	513	1.8	* 0.976	95.6	LOS F	25.2	179.0	1.00	1.15	1.43	22.4
Approach			805	1.6	805	1.6	0.976	74.8	LOS F	25.2	179.0	0.88	1.00	1.15	25.7
North: Pomeroy St (500)															
7	L2	All MCs	673	0.6	673	0.6	0.580	11.9	LOS A	8.2	57.8	0.63	0.76	0.63	37.9
8	T1	All MCs	480	3.3	480	3.3	* 0.944	68.6	LOS E	21.2	152.7	1.00	1.18	1.32	25.2
Approach			1153	1.7	1153	1.7	0.944	35.5	LOS C	21.2	152.7	0.79	0.93	0.92	29.4
West: Underwood Rd (200m)															
10	L2	All MCs	8	0.0	8	0.0	0.199	68.5	LOS E	0.7	4.9	0.99	0.69	0.99	21.9
11	T1	All MCs	27	0.0	27	0.0	* 0.399	63.2	LOS E	1.4	9.9	1.00	0.72	1.00	9.6
12	R2	All MCs	21	0.0	21	0.0	0.399	68.2	LOS E	1.4	9.9	1.00	0.73	1.00	20.6
Approach			57	0.0	57	0.0	0.399	65.8	LOS E	1.4	9.9	1.00	0.72	1.00	16.5
All Vehicles			2595	1.6	2595	1.6	0.976	52.4	LOS D	25.2	179.0	0.84	0.95	1.03	26.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

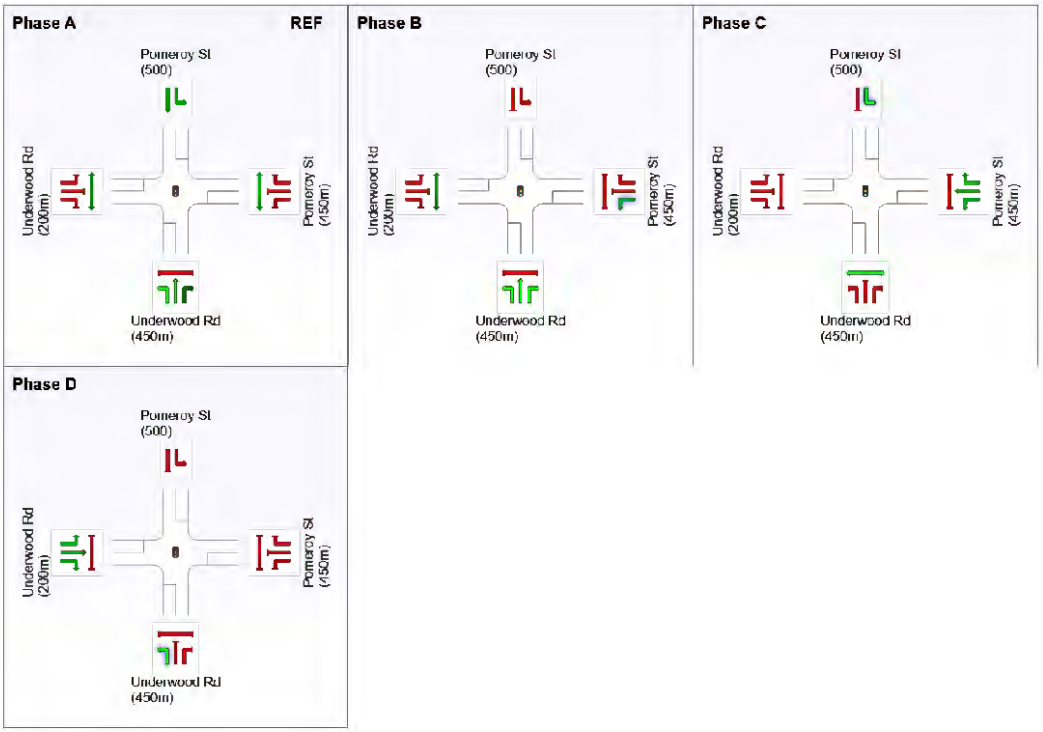
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Underwood Rd (450m)															
Lane 1	312	2.6	312	2.6	659	0.473	50[7]	27.0	LOS B	7.9	56.3	Short	70	-20.0[N2]	NA
Lane 2	268	0.5	268	0.5	283	0.946	100	84.3	LOS F	11.3	79.4	Full	450	0.0	0.0
Approach	580	1.6	580	1.6		0.946		53.5	LOS D	11.3	79.4				
East: Pomeroy St (450m)															
Lane 1	293	1.1	293	1.1	833	0.351	100	38.3	LOS C	6.5	46.2	Full	450	0.0	0.0
Lane 2	513	1.8	513	1.8	525[1]	0.976	100	95.6	LOS F	25.2	179.0	Short	75	0.0	NA
Approach	805	1.6	805	1.6		0.976		74.8	LOS F	25.2	179.0				
North: Pomeroy St (500)															
Lane 1	673	0.6	673	0.6	1159	0.580	100	11.9	LOS A	8.2	57.8	Full	500	0.0	0.0
Lane 2	480	3.3	480	3.3	509	0.944	100	68.6	LOS E	21.2	152.7	Full	500	0.0	0.0
Approach	1153	1.7	1153	1.7		0.944		35.5	LOS C	21.2	152.7				
West: Underwood Rd (200m)															
Lane 1	19	0.0	19	0.0	95	0.199	50[7]	65.1	LOS E	0.7	4.9	Short (P)	20	0.0	NA
Lane 2	38	0.0	38	0.0	95	0.399	100	66.2	LOS E	1.4	9.9	Full	200	0.0	0.0
Approach	57	0.0	57	0.0		0.399		65.8	LOS E	1.4	9.9				
All Vehicles	2595	1.6	2595	1.6		0.976		52.4	LOS D	25.2	179.0				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes. Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
7 Lane under-utilisation specified by the user
N2 Capacity Adjustment specified by user.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	39	59	108
Green Time (sec)	33	14	43	6
Phase Time (sec)	39	20	49	12
Phase Split	33%	17%	41%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Site: 0834 [03-George St / Parramatta Rd-PM (Site Folder: 2031 PM Future Project)]

Network: 10 [2031 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 0834-Actual
Input Phase Sequence: A, D2, E, G, G1
Output Phase Sequence: A, D2, E, G, G1
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Nipper St (80m)															
1	L2	All MCs	67	3.1	67	3.1	0.290	45.2	LOS D	2.6	19.1	0.91	0.75	0.91	6.7
2	T1	All MCs	20	10.5	20	10.5	* 0.290	46.8	LOS D	2.6	19.1	0.91	0.75	0.91	6.7
3	R2	All MCs	31	0.0	31	0.0	0.136	51.4	LOS D	1.0	6.7	0.89	0.72	0.89	20.9
Approach			118	3.6	118	3.6	0.290	47.1	LOS D	2.6	19.1	0.90	0.74	0.90	12.0
East: Parramatta Rd (430m)															
4	L2	All MCs	22	0.0	22	0.0	0.028	51.8	LOS D	0.4	3.1	0.60	0.67	0.60	31.4
5	T1	All MCs	1423	2.4	1423	2.4	* 0.934	77.9	LOS F	32.1	229.5	1.00	1.11	1.22	19.9
6	R2	All MCs	181	0.0	181	0.0	0.877	94.3	LOS F	7.3	51.1	1.00	0.98	1.32	16.3
Approach			1626	2.1	1626	2.1	0.934	79.3	LOS F	32.1	229.5	0.99	1.09	1.23	19.5
North: George St (820m)															
7	L2	All MCs	193	0.0	193	0.0	0.273	22.8	LOS B	4.5	31.6	0.68	0.72	0.68	39.0
8	T1	All MCs	23	0.0	23	0.0	0.273	31.0	LOS C	4.5	31.6	0.68	0.72	0.68	36.8
9	R2	All MCs	343	0.0	343	0.0	* 0.722	38.9	LOS C	10.1	70.6	0.95	0.84	0.96	30.5
Approach			559	0.0	559	0.0	0.722	33.0	LOS C	10.1	70.6	0.84	0.80	0.85	34.0
West: Parramatta Rd (70m)															
10	L2	All MCs	189	0.0	189	0.0	0.840	28.1	LOS B	9.9	70.0	0.97	0.93	1.04	6.8
11	T1	All MCs	1049	1.8	1049	1.8	0.840	53.4	LOS D	9.9	70.0	0.97	0.93	1.04	26.2
12	R2	All MCs	47	4.4	47	4.4	* 0.641	91.7	LOS F	1.8	13.4	1.00	0.80	1.13	7.1
Approach			1286	1.6	1286	1.6	0.840	51.1	LOS D	9.9	70.0	0.97	0.92	1.05	23.4
All Vehicles			3589	1.7	3589	1.7	0.934	60.9	LOS E	32.1	229.5	0.96	0.97	1.09	23.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

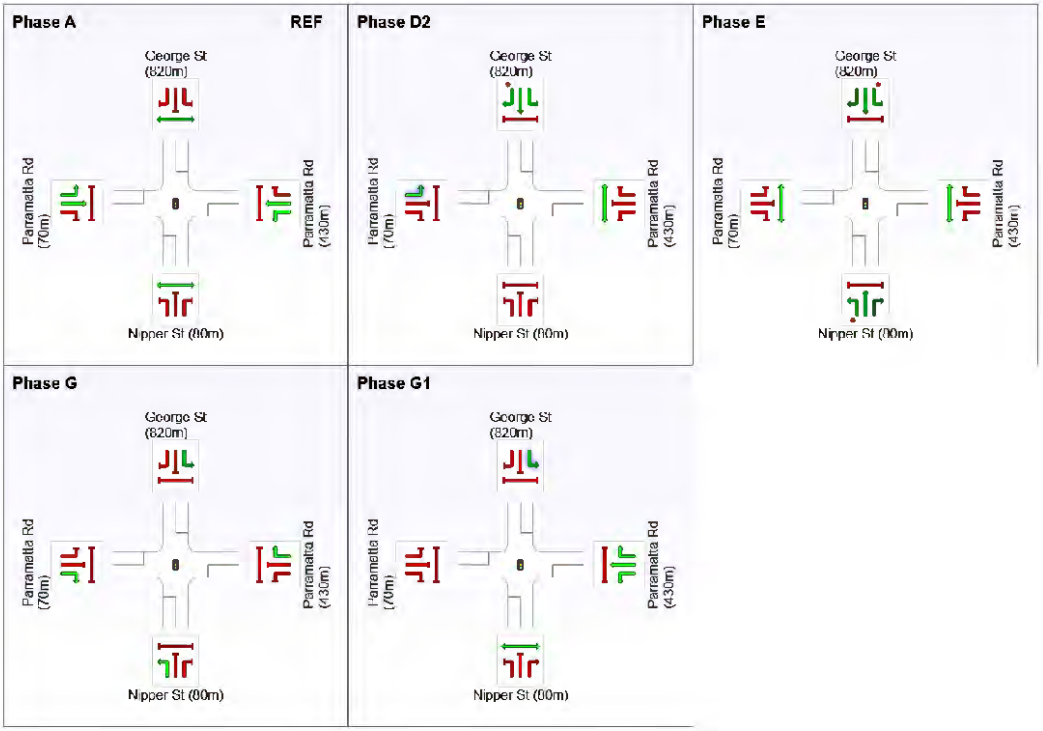
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Nipper St (80m)															
Lane 1	87	4.8	87	4.8	302	0.290	100	45.6	LOS D	2.6	19.1	Full	80	0.0	0.0
Lane 2	31	0.0	31	0.0	225	0.136	100	51.4	LOS D	1.0	6.7	Full	80	0.0	0.0
Approach	118	3.6	118	3.6		0.290		47.1	LOS D	2.6	19.1				
East: Parramatta Rd (430m)															
Lane 1	22	0.0	22	0.0	792	0.028	100	51.8	LOS D	0.4	3.1	Short	30	0.0	NA
Lane 2	769	2.4	769	2.4	823[1]	0.934	100	78.3	LOS F	32.1	229.5	Full	430	0.0	0.0
Lane 3	654	2.4	654	2.4	701[1]	0.934	100	77.3	LOS F	28.0	200.1	Full	430	0.0	0.0
Lane 4	181	0.0	181	0.0	206[1]	0.877	100	94.3	LOS F	7.3	51.1	Short	40	0.0	NA
Approach	1626	2.1	1626	2.1		0.934		79.3	LOS F	32.1	229.5				
North: George St (820m)															
Lane 1	216	0.0	216	0.0	790	0.273	100	23.7	LOS B	4.5	31.6	Short	100	0.0	NA
Lane 2	343	0.0	343	0.0	475	0.722	100	38.9	LOS C	10.1	70.6	Full	820	0.0	0.0
Approach	559	0.0	559	0.0		0.722		33.0	LOS C	10.1	70.6				
West: Parramatta Rd (70m)															
Lane 1	636	1.3	636	1.3	756	0.840	100	40.1	LOS C	9.9[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 2	603	1.8	603	1.8	718[1]	0.840	100	59.4	LOS E	9.8[N4]	70.0[N4]	Full	70	0.0	50.0
Lane 3	47	4.4	47	4.4	74	0.641	100	91.7	LOS F	1.8	13.4	Short	50	0.0	NA
Approach	1286	1.6	1286	1.6		0.840		51.1	LOS D	9.9	70.0				
All Vehicles	3589	1.7	3589	1.7		0.934		60.9	LOS E	32.1	229.5				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the full-length lanes.
Delay and stops experienced by drivers upstream of short lane entry have been accounted for.
N4 Average back of queue has been restricted to the available queue storage space.

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	D2	E	G	G1
Phase Change Time (sec)	0	49	73	99	110
Green Time (sec)	48	18	20	5	5
Phase Time (sec)	54	24	26	10	6
Phase Split	45%	20%	22%	8%	5%
Phase Frequency (%)	100.0	100.0	100.0	80.0[4]	20.0[4]

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

Site: 4759 [04-Parramatta Rd / M4 Ramp-PM (Site Folder: 2031 PM Future Project)]

Network: 10 [2031 PM Future Project (Network Folder: General)]

PM
Site Category: NA
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Downstream lane blockage effects included in determining phase times
Phase Sequence: 4759-Actual
Input Phase Sequence: A, B, C, D
Output Phase Sequence: A, B, C, D
Reference Phase: Phase A
Offset: NA

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Parramatta Rd (70m)															
5	T1	All MCs	1686	1.9	1686	1.9	0.503	0.6	LOS A	2.8	19.7	0.20	0.16	0.20	57.4
6	R2	All MCs	146	2.2	146	2.2	* 0.827	40.9	LOS C	3.1	22.4	1.00	0.88	1.25	26.6
Approach			1833	2.0	1833	2.0	0.827	3.8	LOS A	3.1	22.4	0.26	0.22	0.28	48.3
West: Parramatta Rd (180m)															
10	L2	All MCs	92	52.9	92	52.9	* 0.833	19.9	LOS B	12.0	90.3	0.78	0.77	0.84	40.3
11	T1	All MCs	1284	1.6	1284	1.6	0.833	12.1	LOS A	12.0	90.3	0.78	0.76	0.83	28.9
Approach			1376	5.0	1376	5.0	0.833	12.6	LOS A	12.0	90.3	0.78	0.76	0.83	30.7
All Vehicles			3208	3.2	3208	3.2	0.833	7.6	LOS A	12.0	90.3	0.48	0.45	0.52	39.8

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

* Critical Movement (Signal Timing)

Lane Use and Performance

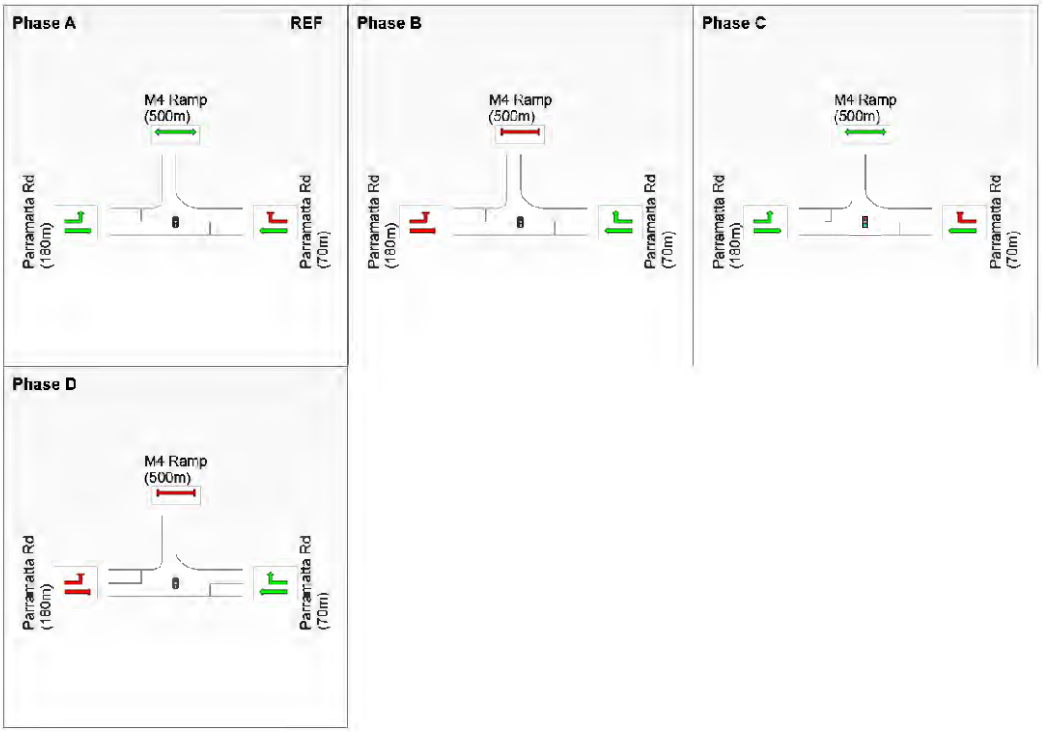
	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	Aver. Back Of Queue [Veh	Dist] m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
East: Parramatta Rd (70m)															
Lane 1	843	1.9	843	1.9	1678	0.503	100	0.6	LOS A	2.8	19.7	Full	70	0.0	0.0
Lane 2	843	1.9	843	1.9	1678	0.503	100	0.6	LOS A	2.8	19.7	Full	70	0.0	0.0
Lane 3	146	2.2	146	2.2	177	0.827	100	40.9	LOS C	3.1	22.4	Short	55	0.0	NA
Approach	1833	2.0	1833	2.0		0.827		3.8	LOS A	3.1	22.4				
West: Parramatta Rd (180m)															
Lane 1	659	8.7	659	8.7	791	0.833	100	13.7	LOS A	12.0 N5	90.3 N5	Full	180	-35.0 N2	0.0
Lane 2	717	1.6	717	1.6	860	0.833	100	11.6	LOS A	11.1 N5	78.8 N5	Full	180	-35.0 N2	0.0
Approach	1376	5.0	1376	5.0		0.833		12.6	LOS A	12.0	90.3				
All Vehicles	3208	3.2	3208	3.2		0.833		7.6	LOS A	12.0	90.3				

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Lane LOS values are based on average delay per lane.
Intersection and Approach LOS values are based on average delay for all lanes.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

N2 Capacity Adjustment specified by user.
N5 Results for this lane are determined by Back of Queue values of downstream lanes (proportional to lane movement flows).

Input Phase Sequence

Movement Class: All Movement Classes



REF: Reference Phase
VAR: Variable Phase

Phase Timing Summary

Phase	A	B	C	D
Phase Change Time (sec)	0	48	60	108
Green Time (sec)	42	6	42	6
Phase Time (sec)	48	12	48	12
Phase Split	40%	10%	40%	10%
Phase Frequency (%)	100.0	100.0	100.0	100.0

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

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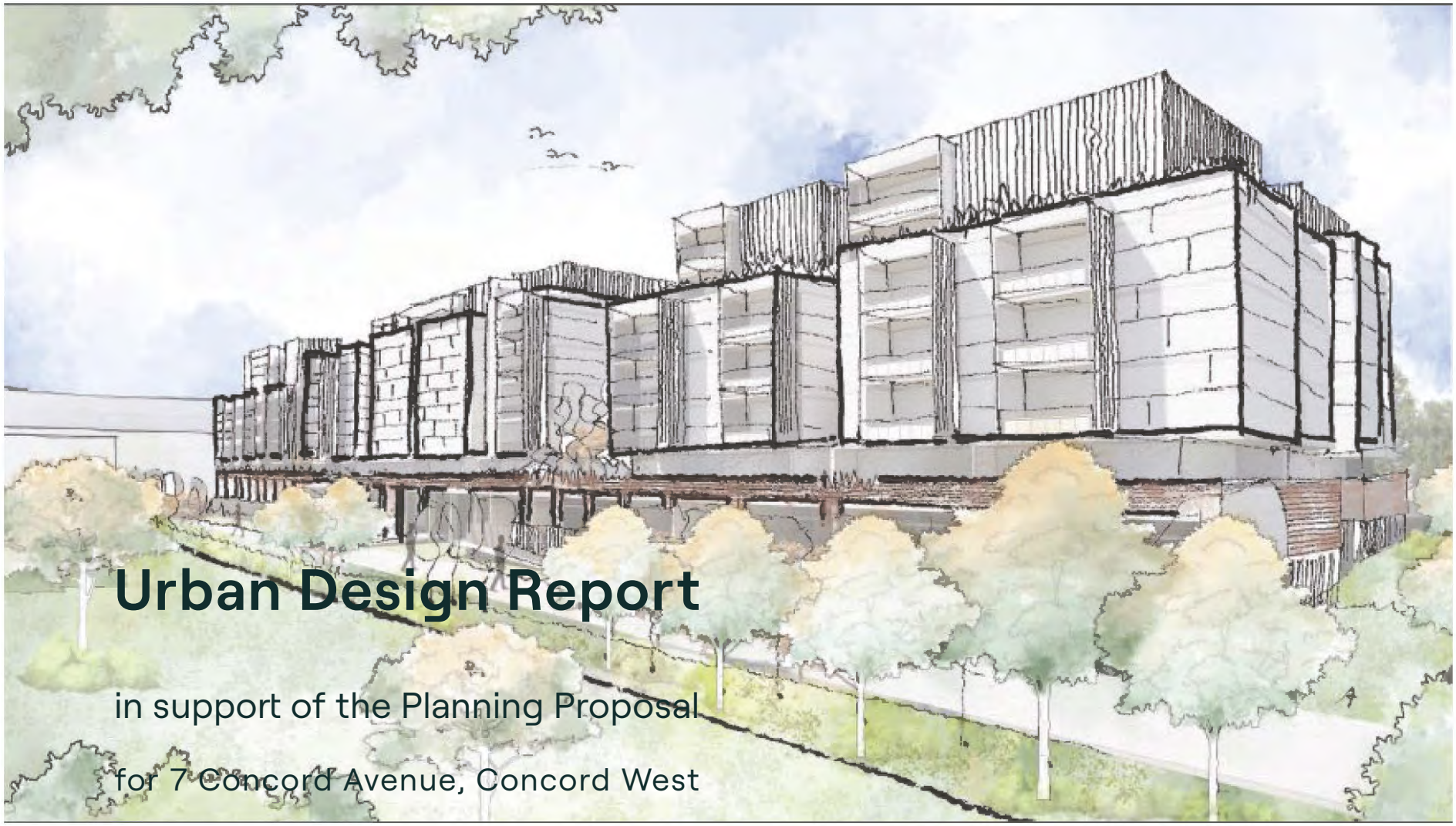

Urban Design Report

in support of the Planning Proposal

for 7 Concord Avenue, Concord West

Prepared for D'Agostino Solicitors March 2024

GYDE

This report has been prepared by Gyde with input from a number of expert consultants. To the best of our knowledge, the information contained herein is neither false nor misleading and the contents are based on information and facts that were correct at the time of writing. Gyde accepts no responsibility or liability for any errors, omissions or resultant consequences including any loss or damage arising from reliance on information in this publication.

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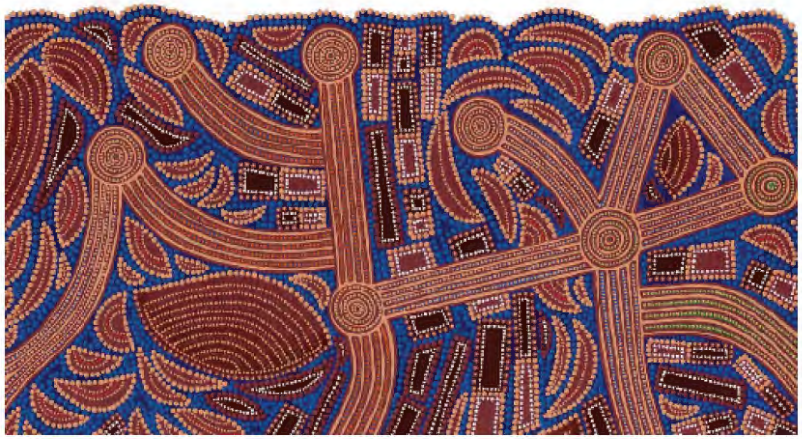
Acknowledgment of Country

Gyde Consulting acknowledges and pays respect to Aboriginal and Torres Strait Islander peoples past, present and future Traditional Custodians and Elders of this nation and the cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander people. We recognise the deep and ongoing connections to Country – the land, water and sky – and the memories, knowledge and diverse values of past and contemporary Aboriginal and Torres Strait communities.

Gyde is committed to learning from Aboriginal and Torres Strait Islander people in the work we do across the country.



Towards Harmony by Aboriginal Artist Adam Laws

Cover image: Courtesy Antoniades Architects

1 Introduction

Introduction

This Urban Design Report was prepared by Gyde Consulting (Gyde) on behalf of D'Agostino Solicitors (the Proponent).

In preparing this report, Gyde's urban design team worked with the following consultants:

- Project Management Team - MKA Consulting
- Town Planning Consultants - Gyde Consulting
- Project Architects - Antoniades Architects
- Landscape Architects - TURF
- Traffic Consultant - Ason Group
- Flood Consultant - Worley

Gyde was appointed by the Proponent to undertake urban design investigations relating to the land located at No 7 Concord Avenue, Concord West (the Site).

As part of the urban design analysis, our team examined the existing and likely future context of the Site, to understand the potential of Concord West in general, and the role of the Site within the emerging context, in particular.

This report summarises the findings of our investigations which include analysis of the broader urban fabric as well as the structure of Concord West, and the immediate surroundings of the subject site.

Considerations for the future context have informed the massing strategies explored by Antoniades Architects along with a suite of the detailed design responses.

The architects have developed an indicative scheme to demonstrate the capacity of the preferred massing strategy to deliver the project vision, through appropriate urban design and built form responses to the key constraints and opportunities applying to the Site.

This report summarises the underlying urban design investigations along with the built form outcomes developed in response to future character of Concord West.

In summary, the indicative scheme demonstrates the capacity for future redevelopment of the Site, to contribute to the renewal of an area which is considered well suited for residential growth and additional housing choices.

The scheme demonstrates the Site's capacity to facilitate the project vision in a manner which is sympathetic to the Site as well as the immediate context.

1.1 Methodology

In undertaking this study, the team reviewed the strategic planning framework, local controls and the background history leading to the current proposal.

In undertaking this study, we have adopted the following methodology:

- Undertaken site and context inspections, to understand the character of the local area and the relationship between the subject site and the wider area. As part of the site inspections, we visited surrounding areas to understand the journey experienced when travelling through, as well as to and from, the precinct.
- Examined the grain and scale of neighbouring suburbs, exploring the topographical framework within which, the Site is located and experienced. Importantly, our team walked through areas in proximity to the Site to appreciate the characteristics of the local walking catchment and experience the existing qualities of the local setting.
- Reviewed the Eastern District Plan including the nominated expectations for areas surrounding Concord West.
- Reviewed the Better Placed design policy by Government Architect NSW (GANSW).
- Reviewed the City of Canada Bay Local Strategic Planning Statement (LSPS) which sets out a 20-year land use planning vision for the Local Government Area (LGA). The LSPS is considered an important tool in understanding the local strategic planning direction for the area including Planning Priorities and Actions relevant to this Urban Design Report.
- Reviewed current applicable development controls including the Canada Bay Local Environmental Plan (CLEP) 2013 and 2023 and the City of Canada Bay Development Control Plan (CDCP).
- Reviewed publicly available documents relating to the history of the strategic studies undertaken for the area including documents with respect to:
  - Parramatta Road Corridor Urban Transformation Strategy (PRCUTS) 2016.
  - The approved Planning Proposal amending the CBLEP 2013 to implement Stage 1 (2016-2023 release areas) of the PRCUTS.
  - The Master Plan document for the Homebush North Precinct, prepared by Group GSA on behalf of Council in April 2021. The Master Plan includes analysis, built form testing and recommendations for the Homebush North precinct.
  - The Powells Creek Flood Study which was adopted by Council in December 2022.
  - The Stage 1 Planning Proposal to amend the CBLEP 2013 deferred a number of sites, including the subject site, subject to updated flood investigations. Therefore, the recent flood study has informed the approach and opportunities identified for the Site, based on input and detailed flood impact advice provided by Worley Flood Consultants.
  - Reviewed relevant correspondence from other consultants in relation to site specific constraints.
- Reviewed recent Planning Proposals in the vicinity of the Site to understand the likely future development context.
- Considered survey information prepared by Project Surveyors.
- Considered traffic advice prepared by Ason Group.
- Considered numerous iterations of built form testing options prepared by Antoniades Architects.
- Considered the flood impact assessment advice prepared by Worley.
- Undertaken desktop review of maps and aerial photography to supplement the physical context and site investigations. The desktop review has allowed us to understand the surrounding urban structure and the character of the existing building fabric to identify key neighbourhood character elements.
- Prepare analysis diagrams and mapping of local destinations and pedestrian routes, to identify the current availability of safe, convenient and connected active transport networks.
- Preparation of urban design analyisi diagrams and principles for the Site, based on the findings of the urban investigations.

As part of our advisory role, Gyde reviewed a wide range of design options prepared by the project architects, to determine the most appropriate massing strategy for accommodating feasible and appropriate built form outcomes based on the Proponent's desire to redevelop the Site for residential purposes.

This report considers the reasons guiding the design decisions made by the project team in the development of the indicative scheme which subsequently has led to the proposed amendments to the current development standards under CLEP.

The views expressed in this report should be read in conjunction with the Planning Proposal Report prepared by Gyde Consulting. The report includes detailed discussion relating to relevant planning justifications and the strategic merit of the proposed uplift.

1.2 Project history

The Proponent controls the lots nominated as the subject site.

Gyde understands a Planning Proposal (PP) was previously lodged for the site in 2017.

The previous PP was subject to a rezoning review by the Sydney Eastern City Planning Panel (SECPP). The panel decision, served 11 March 2021, was to not proceed with the PP.

The reasons for the determination by the SECPP included that the Planning Proposal was considered inconsistent with the Ministerial Direction, section 9.1 direction 4.3 pertaining to flood prone land.

The Planning Proposal was also considered to be inconsistent with good planning principles.

Gyde understands part of the reason for the extended assessment process related to classification of the flooding issues applying to the Site.

Ministerial Direction 4.3 (now 4.1) states that planning proposals must not contain provisions which allow development in floodway areas.

In November 2021, the Gateway Determination for the Stage 1 PRCUTS Planning Proposal was released by the NSW Department of Planning, Industry & Environment. The proposal related to three precincts within the City of Canada Bay LGA; Kings Bay, Burwood-Concord; and Homebush North.

The Gateway Determination Report nominated the following objectives and intended outcomes stated in the Planning Proposal:

- Implement planning controls for the Canada Bay Stage 1 (2016 – 2023) release areas consistent with Parramatta Road Corridor Urban Transformation Strategy (PRCUTS), with refinements based on Council's evidence-based strategies and planning processes;
- Deliver infrastructure commensurate to the planned intensity of development as set out in the PRCUTS Infrastructure Schedule;
- Create fine-grained precincts that are safe, socially activated and community and family friendly;
- Create new centres that are socially and economically activated; and
- Create public domain and development that is well-designed, sustainable, and resilient and that is supported by commensurate public benefits.

The Gateway Determination concludes the objectives of this planning proposal were clear and adequate.

A Planning Proposal was approved in 2021 amending the Canada Bay Local Environmental Plan 2013 (CBLEP) to implement Stage 1 (2016-2023 release areas) of the Parramatta Road Corridor Urban Transformation Strategy.

The subject site forms part of the Homebush North Precinct. However, while the Stage 1 Planning Proposal included the Homebush North Precinct, Land identified as being affected by a 1 in 100-year flood event in the Concord West Flood Study was deferred, subject to further flood studies being completed to determine land suitably.

Deferred sites include:

- 7 Concord Avenue (Subject Site, excluding the north western corner of the Site)
- 2 Station Avenue, 2020 George Street
- 71-73 Victoria Avenue and
- Residential properties west of King Street and north of Victoria Avenue.

In December 2022 City of Canada Bay Council adopted a new flood study for the Powells Creek Catchment, which includes the Site.

The new flood study identifies that the site is not located within a floodway. On this basis, the previous proposal has been amended and refined.

The Planning Proposal report prepared by Gyde accounts for the proposal's capacity to satisfy the Ministerial Direction. The Flood Impact Study accounts for details relating to flood constraints and the appropriate flood mitigation strategies.

1.3 The subject site

The Site is located at 7 Concord Avenue, Concord West within the Local Government Area (LGA) of Canada Bay.

The Site is located approximately 12km to the north west of the Sydney Central Business District (CBD) and 9km south east of Parramatta CBD .

The Site comprises the proposed consolidation of Lot 1 IN DP219742 and Part Lot 1 in DP 270137 Lot 1, DP219742.

The Site is irregular in geometry, comprising an area of approximately 1.652 hectares according to survey data.

The consolidated site area presents a frontage of approximately 5m to Concord Avenue (east) and 5.5m to Station Avenue (east). The western site edge adjoins Homebush Bay Drive.

The land is currently occupied by a single storey warehouse style building which is understood to be used for indoor recreational purposes including paint ball and indoor Go-kart. Gyde understands the warehouse facility is also used for the storage of concrete equipment.

The existing building is generally surrounded by hardstand areas and pockets of vegetation within the eastern and northern portions of the Site.

Mature trees align the western site edge, screening the site from Homebush Bay Drive which is a major metropolitan arterial route through suburban Sydney.

According to survey data prepared by Project Surveyors, Homebush Bay Drive is elevated approximately 2-3m above the existing site level.

Mature trees are located west of the site boundary. The trees contribute to the strong sense of screening and spatial containment perceived when travelling along Homebush Bay Drive.

According to survey information dated 25 May 2023, existing easements affect the northern, western and southern parts of the site.

The Site is located in within proximity of a number of local destinations and community facilities including:

- A Concord West Train Station (approximately 300m)
- B Concord West commuter car park (approximately 350m)
- C Concord West Playground and Bicentennial Park (approximately 200m)
- D Victoria Avenue Public School (approximately 200m)
- E Victoria Avenue Long Day Childcare (approximately 200m)
- F Victoria Avenue Community Hall (approximately 200m)
- G Concord Only About Children Preschool (approximately 400m)
- H Concord West local neighbourhood shops (approximately 350m)
- I St Ambrose Catholic Primary School

Concord Hospital is located within the eastern part of the suburb, approximately 1.5km to the north east of the Site.

The hospital is a major health facility and an employment node which, according to the Concord Hospital Strategic Plan (2019–2024) employs approximately 3,000 staff.

An aerial photograph is provided in **Figure 1.** The photograph depicts the location of the Site within the western part of the suburb known as Concord West.

Figure 1. Aerial photograph (adapted from NearMap). The subject site is outlined in red.

Figure 2. Aerial Photographs indicating the location of the Site adjacent to Homebush Bay Drive (Source: Google Maps).

2 Strategic Context

2.1 Strategic direction for Concord West

This chapter considers the role of Concord West and the subject site, within the strategic and urban framework. Gyde's strategic framework review informs our understanding of how the site may complement and contribute to achieving outcomes consistent with strategic aims defined for the area.

2.1.1 Eastern City District Plan

The Eastern City District Plan (the Plan) sets out Planning Priorities and Actions for the Eastern District, to guide future growth in the area. Consistency with the Plan's priorities, objectives and actions is considered in detail in the Planning Proposal Report.

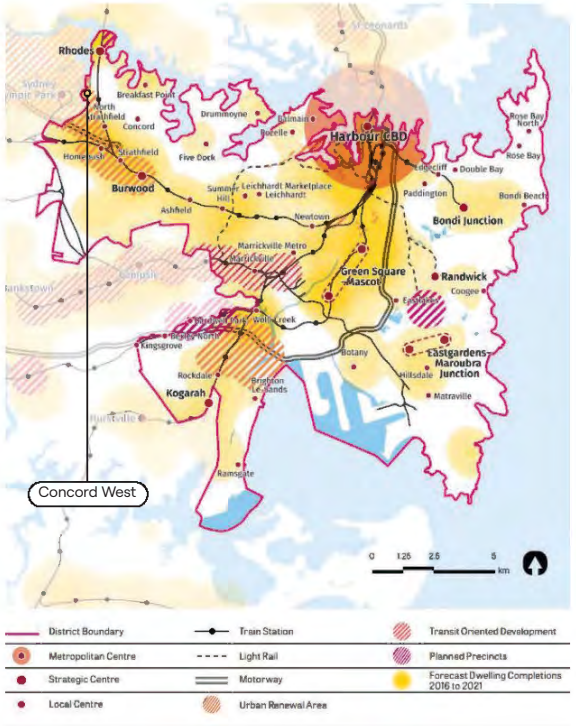
The Plan nominates Concord West as located within the Parramatta River Basin.

Under "Projects important to the District (7)", the Plan identifies the provision of walking and cycling links, urban greening, stormwater treatment and a mix of open space uses that link Concord West, North Strathfield, Homebush and Strathfield to Parramatta Road, Bicentennial Park and the Parramatta River foreshore.

Under Planning Priority E19, the Plan identifies that improved integration of land use with transport planning may help slow emissions growth by locating new homes near public transport and high quality walkways and cycle paths.

Planning Priority E5 (Livability) relates to the provision of housing supply, choice and affordability, with access to jobs, services and public transport.

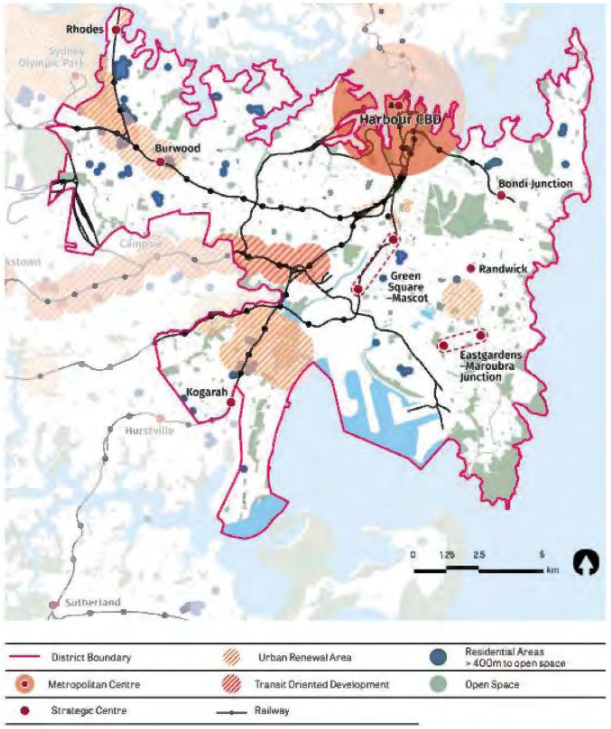
The subject site is located within a short walking distance of the public transport node connecting the Concord West to employment hubs and Sydney's CBD. The area has immediate access to schools as well as health and community services, and is within walking distance of unique open space amenity, as outlined in later chapters of this report.



The locality is identified as an Urban Renewal Area in the Eastern City District Future Housing Supply diagram (Figure 03).

Under Planning Priority E5, the Plan proceeds to nominate the need for accommodating more housing in the right locations, acknowledging next generations needs to be linked to local infrastructure, identifying that opportunities for capacity can be realised by urban renewal and local infill developments. The Plan considers that in older more established parts of Greater Sydney, urban renewal opportunities may exist around regional transport and strategic centres where links for walking and cycling promote a healthy lifestyle and contribute to liveability.

Figure 3. Eastern City District future housing supply (Source: Greater Sydney Commission).



Concord West is not nominated as a local, nor a strategic centre. However, the suburb benefits from proximity to Sydney Trains connections, retail hubs, health facilities and spectacular open space amenity, within 15mins commute of Sydney's CBD.

For this reason, areas within the western part of Concord West are considered an ideal location for additional housing investigations.

Figure 4. Eastern City District access to open space (Source: Greater Sydney Commission).

2.1.2 Local Strategic Planning (LSPS) City of Canada Bay

The City of Canada Bay Local Strategic Planning Statement (LSPS) is nominated as the core strategic planning document for the City of Canada Bay. The LSPS guides the character of centres and neighbourhoods within the Local Government Area (LGA).

The statement contains 19 planning priorities under four (4) themes, being:

- Infrastructure and collaboration
- Liveability
- Productivity
- Sustainability

The subject site is located within the western part of Concord West which the LSPS identifies as forming part of the Urban Renewal Area which includes Parramatta Road North, Rhodes Planned Precinct as indicated in the Structure Map and the Economic Context Map included in **Figure 05.**

The statement identifies that knowledge-intensive jobs form the highest proportion of employment in the LGA and that these and are increasing. It nominates that jobs are concentrated around several key centres, particularly Rhodes/Concord Hospital Strategic Centre, which, according to the Statement, accommodates 10,500 jobs.

Rhodes/ Concord Hospital is located employment hubs are located within approximately 1.2km-1.5km from the Site and as discussed in later chapters of this report, the indicative scheme provides a diverse range of high-amenity apartment options in proximity to these employment centres.

Action 5.6 under Priority 5 (Liveability) includes to Ensure that Planned Precincts, the Parramatta Road Corridor and the redevelopment of large sites deliver a diversity of housing types ranging from terraces to apartments is located within a short walking distance of Concord West Station.

The western part of Concord West is considered a suitable location for delivering housing diversity.

The Social Infrastructure (Community) Strategy and Action Plan prepared by Cred Consulting for City of Canada Bay Council in 2019, nominated the following:

Concord West is currently lower density but with land around the Concord West station zoned for future high density and forecast population growth.

The Plan includes mapping of all social infrastructure (hard) in Canada Bay LGA which confirms that Concord West is well services by social infrastructure compared to other neighbourhoods in the LGA, which is evident in **Figure 6**.

The Planning Proposal Report by Gyde considers in detail how the proposal responds to strategic aims and actions.

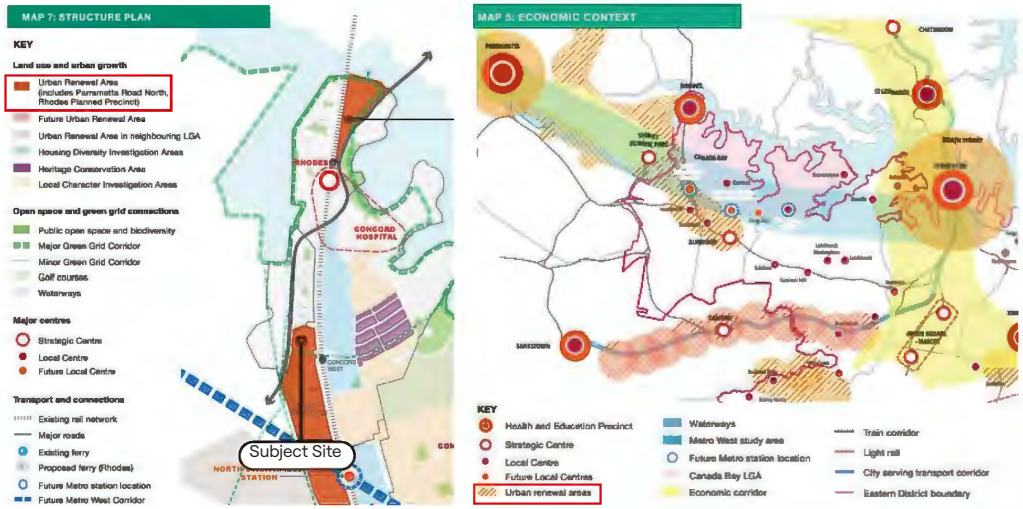


Figure 5. Structure Plan and Economic Context Map (Source: LSPS - Canada Bay).

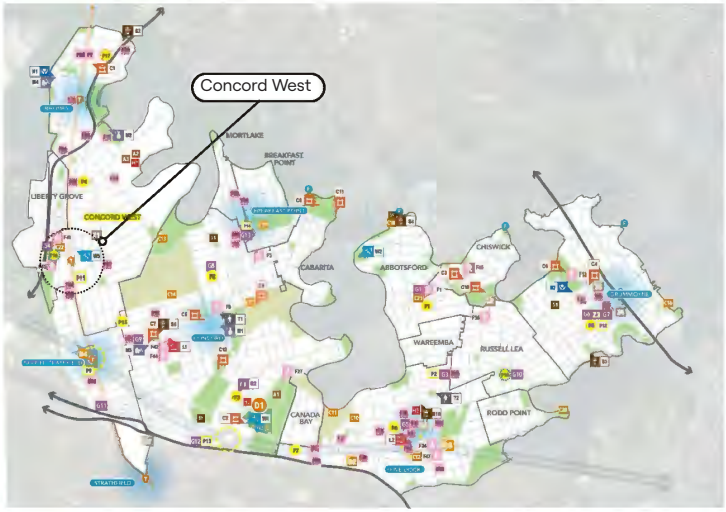


Figure 6. Map of all social infrastructure (hard) (Source: Adapted from Cred Consulting).

The LSPS Planning Priorities nominated under the Sustainability Theme acknowledge biodiversity and opportunities for improving connectivity.

As indicated on the Biodiversity Map **(Figure 07),** the subject site is located in proximity to unique open space amenity in an area identified for opportunities for improved connectivity.

The proposal seeks to enhance landscape amenity across the site.

Under the Sustainability Theme, the LSPS identifies key areas where Council can make a difference which includes:

- Integrating transport and land use, so that new development is located close to employment, services and public transport, therefore reducing travel times, traffic congestion and emissions, and increasing efficiencies and convenience;
- Promoting and mandating renewable energy and water efficiency measures in new and precinct-scale development;
- Encouraging cycling and walking by developing a connected, user-friendly active transport network; and
- Increasing tree canopy coverage.

Redevelopment of the subject site presents an opportunity to contribute to sustainability initiatives by expanding the existing active transport network with publicly accessible links and by providing housing opportunities and choice within proximity of a public transport node and local employment hubs such Concord Hospital and Rhodes.

Priority 17 acknowledges how open space is currently unevenly distributed across the LGA which is evident in the "Proximity to Open Space in High Density Areas Map".

Residential neighbourhoods within the western part of Concord West are considered desirable locations for residential uses as they benefit from proximity to open space amenity as well as public transport connections.

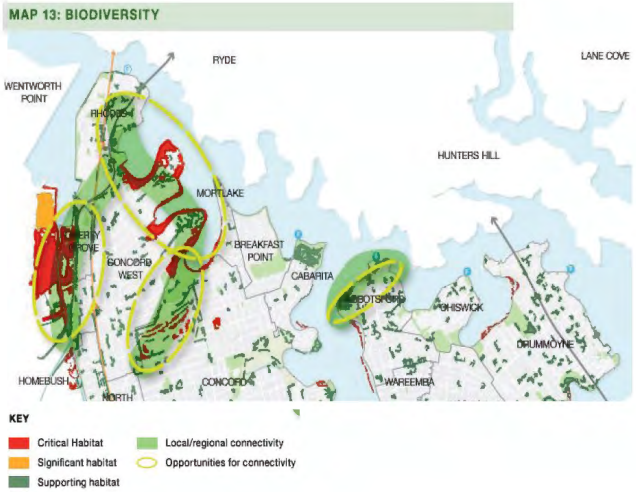
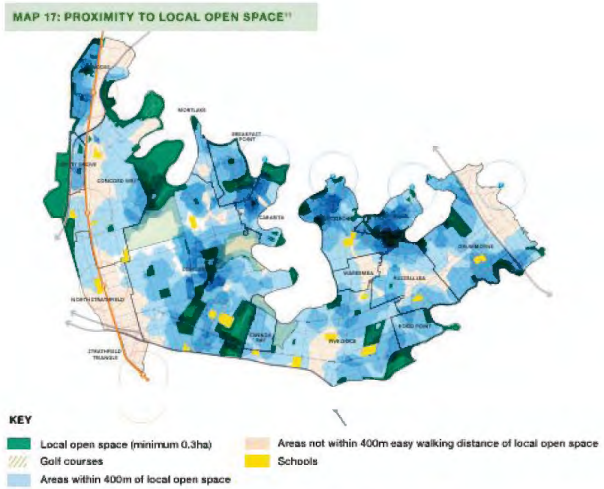


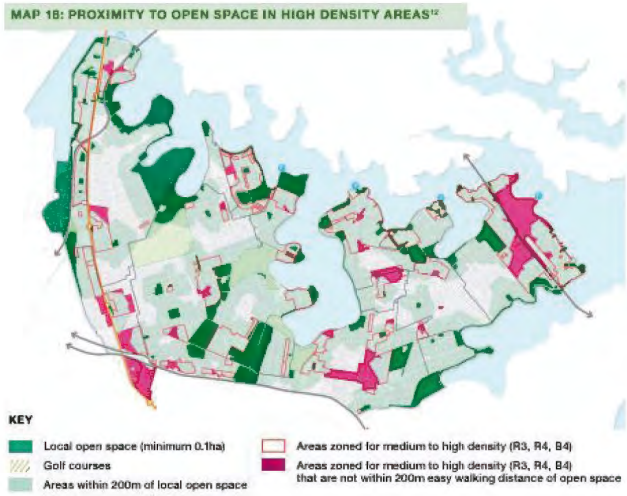
Figure 7. LSPS Strategic intent diagrams (Source: City of Canada Bay).

By contrast, areas within the eastern part of the suburb benefit from proximity to the Parramatta River Foreshore but neighbourhoods east of the railway are generally more car dependant due to greater distance to public transport connections and a more permeable street network connections.

With easy access to open space amenity and a wide network of bicycle and walking tracks, areas within the western part of the suburb are considered suitable for contemporary apartment typologies in a walkable neighbourhood.

Active transport connections are considered in further detail in Chapter 4.1.6 of this report.





2.1.3 Nearby centres and the wider urban profile

As part of the early site investigations, our team reviewed building heights in surrounding suburbs.

Nearby centres such as Rhodes and Olympic Park include significant tower clusters and permissable building heights up to approximately 150m (approximately 40-45 storeys).

Rhodes is an important Strategic Centre located immediately to the north of the Concord West. Similarly to Concord West, the area presents as two distinct localities separated by the railway line.

Over the past decade, Rhodes West has transformed from industrial area into a high density residential, retail and business area with a recognisable and evolving tower skyline.

By contrast, Rhodes East is characterised by low scale residential areas with scattered office buildings and remnant industrial sites.

The Rhodes Place Strategy which was developed by the Department of Planning, Industry and Council (September 2021), sets out a 20-year vision, and a planning and infrastructure delivery framework, to guide significant renewal of the precinct.

The Place Strategy builds on the assumption that successful renewal will occur by unlocking capacity within the transport system to ensure people can walk and cycle safely in their local neighbourhood, relying on the rail network for daily commutes to employment areas.

In the near future, Rhodes is likely to be further strengthened as a retail and employment hub with improved access and active transport links to surrounding areas.

Unlike Concord West, Rhodes is nominated as a Strategic Centre in the strategic hierarchy. However, Concord West is visually and physically connected to Rhodes as well as Olympic Park and the ongoing transformation of these neighbouring centres will inevitably impact of the scale and grain of the urban character of neighbouring areas including Concord West.

Nearby centres are linked visually as well as via movement transport networks and therefore, form part of the local urban setting within the locals work, shop and live.

The local skyline currently includes taller building forms which exceed the maximum building heights envisaged under the current planning framework. An example is Liberty Grove where four (4) 10 storey residential buildings present adjacent to Homebush Bay Drive within an area where the current height of building controls allow for maximum 20m Height of Buildings.

This diverse skyline profile is characteristic of the suburb's unique character as a local neighbourhood adjacent to vibrant retail centres and spectacular open space amenity.

Permissible building heights in nearby suburban areas (not nominated as local or strategic centres) serviced by rapid train connections include:

- Croydon – 26mm
- Lewisham – 32m
- Petersham - 35m
- St Peters - 26m
- Dulwich Hill - 26m

Gyde's review confirms current permissible building heights in Concord West are significantly lower than in other comparable areas that are not nominated as centres, located within 20 minutes travel (via Sydney Trains) of Sydney's CBD.

The strategic direction nominated by the District Plan and Council's LSPS is to concentrate growth around Strategic Centres within public transport corridors, to ensure additional residential and commercial densities are located to meet the objectives of the 30-minute City.

The existing and evolving development scale is discussed in further detail in Chapters 4.1.13 and 4.1.14 of this report.

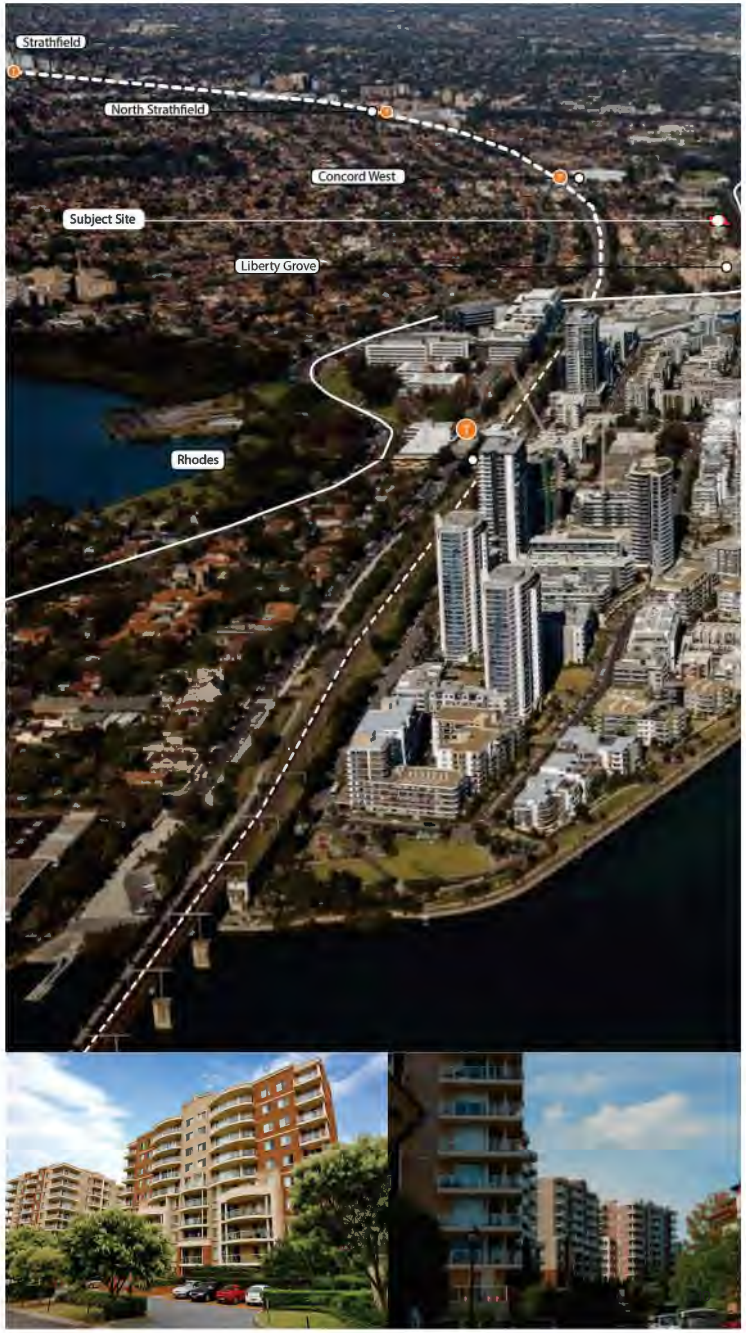


Figure 8. Aerial photograph indicating the location of the subject site (adapted from City of Canada Bay LSPS). Imagery from the neighbouring Liberty Grove precinct.

2.1.4 Parramatta Road Corridor Urban Transformation Strategy

The Parramatta Road Corridor Urban Transformation Strategy (PRCUTS) covers land along the length of Parramatta Road from Granville to Camperdown

The strategy sets out the NSW Government's 30-year plan for the Corridor, identifying the future land use, development decisions and long-term infrastructure to be provided.

The Strategy was adopted by the NSW Government and given statutory effect by Ministerial Direction 1.5 under Section 9.1 of the EP&A Act.

PRCUTS is an urban renewal strategy, designed to redevelop and transform the Parramatta Road Corridor from the vehicle dominated road, to place-based precincts with new housing, commercial and retail opportunities, employment generation, open space and public areas.

The Site is identified in the PRCUTS 2016-2030 release area for the Homebush Precinct, except for the small triangular parcel at the north western corner of the Site.

The Planning and Design Guidelines provided as part of the Implementation Tool Kit (November 2016), provide recommendations for land use zones to implement the vision for the Homebush Precinct and Frame Area, recommends rezoning of the subject site to R3 Medium Density Residential.

The recommended maximum Height of Buildings for the subject site was 25m (T1) within the majority of the area and 11m (L) along the eastern frontage. The Strategy anticipated building heights transitioning to the east and south.

The Strategy recommended building heights of 22m transitioning to 16m on the adjacent site to the south.

The preferred floor space ratio for the subject site was nominated as 1.6:1

The Strategy's Future Character and Identity vision identifies the Homebush North Precinct as a focus for high density housing with a hub of activity between Homebush, North Strathfield, Concord West and Strathfield Stations.

The Strategy was released in 2016 and since then, focus by NSW Government on the housing challenge and changes in policies, have led to further and more detailed investigations into opportunity sites and areas suited for increased housing densities.

Part 7.3 of the Section 117 Directions (Section 117(2) of the Environmental Planning and Assessment Act 1979) relate to PRCUTS.

The objectives of the Direction are to:

- (a) Facilitate development within the Parramatta Road Corridor that is consistent with PRCUTS (November, 2016) and the Parramatta Road Corridor Implementation Tool Kit
- (b) Provide a diversity of jobs and housing to meet the needs of a broad cross-section of the community, and
- (c) Guide the incremental transformation of the Parramatta Road Corridor in line with the delivery of necessary infrastructure.

The key recommendations for future planning controls under the PRCUTS framework (November 2016) are summarised in **Figures 09 - 11** below.

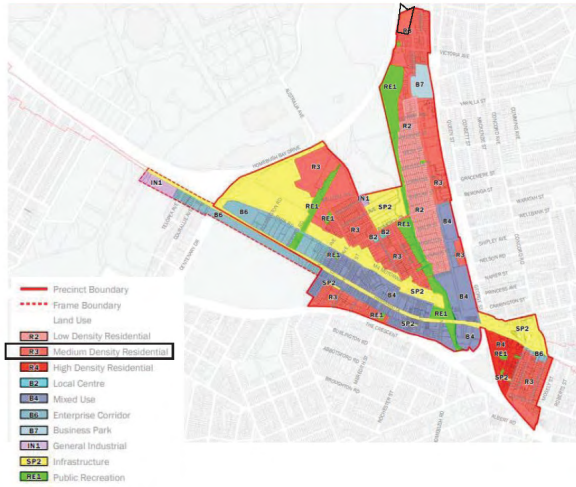


Figure 9. Homebush Recommended Land Use Map (PRCUTS November 2016).

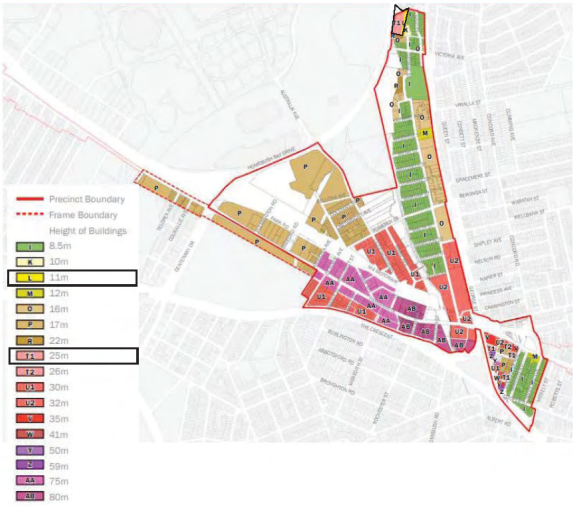


Figure 10. Homebush Recommended Building heights (PRCUTS November 2016).

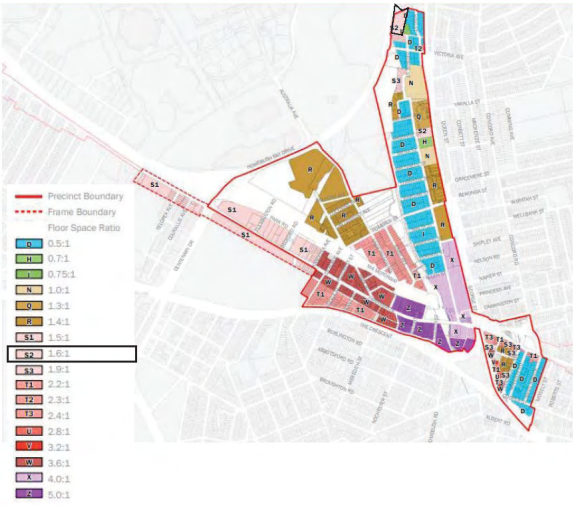


Figure 11. Homebush Recommended Densities (PRCUTS November 2016).

2.1.5 Parramatta Road Corridor Urban Transformation Strategy (PRCUTS) – Stage 1 (Canada Bay)

A Planning Proposal was approved in 2021, amending the Canada Bay Local Environmental Plan 2013 (CBLEP) to implement Stage 1 (2016-2023 release areas) of the PRCUTS.

The proposal amended existing planning controls for several areas, introducing flooding and contamination remediation requirements, active street frontages, community infrastructure and sustainability incentives, and local provisions.

The Planning Proposal included the Homebush North Precinct. However, land identified as being affected by a 1 in 100-year flood event, in the Concord West Flood Study, was deferred from the Planning Proposal, subject to further flood studies being completed to determine land suitably. Deferred sites include:

- 7 Concord Avenue (the subject site excluding the lot at the north western corner)
- 2 Station Avenue, 2020 George Street
- 71-73 Victoria Avenue and
- Residential properties west of King Street and north of Victoria Avenue.

Under 4.3 Flooding, the Gateway Determination Report noted the following in relation to the Homebush North Precinct that Council had commenced a flood study for the Powell's Creek catchment which was expected to be completed mid-2022.

The report noted the flood study would inform any future land use change and Planning Proposal for deferred areas in the Homebush North.

In February 2023, Canada Bay Council adopted a new flood study in for the Powells Creek Catchment (known as the "Powells Creek Flood Study"), which includes the Site.

The recent flood study confirms the site is not within a floodway but identifies a combination of flood fringe and flood storage conditions.

The indicative scheme discussed in this report is informed by the Powell's Creek Flood Study (February 2023) and detailed flood advice provided by Advisian.

The amended planning controls adopted as part of the PRCUTS Stage 1 Planning Proposal (2021) are summarised in **Figure 12.**

Gyde understands other deferred sites are currently pursuing a Planning Proposal based on the updated flood advice including for the site No 1 King Street, West Concord.

The Stage 1 Planning Proposal zoned adjacent lots to the east R3 and R2 with building heights ranging from 8.5m to 10m as indicated in **Figure 13** below.

Further details relating to the proposal's consistency with PRCUTS and Ministerial Direction 4.3 (now 4.1) are provided in the Planning Proposal Report prepared by Gyde Consulting.

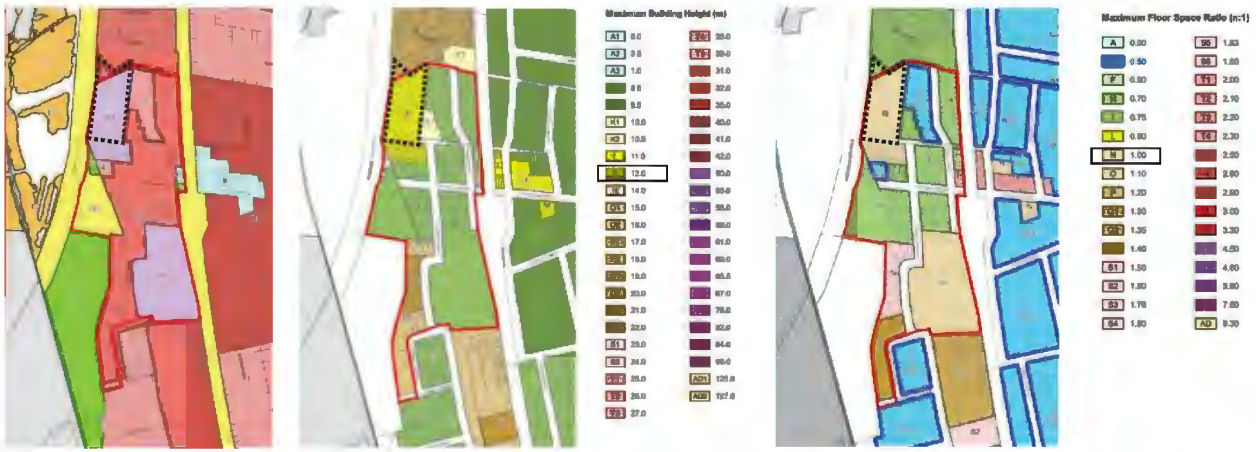


Figure 12. Under Stage 1 of PRCUTS, no change was proposed to the land zoning, building heights or densities of deferred lands (Gateway Determination Report, NSW DPIE).

Figure 13. Enlarged mapping: Land zoning and Building heights (Source: NSW DPIE).

3 Local Controls

2.2 Canada Bay Local Environmental Plan

The Stage 1 Planning Proposal discussed in the previous chapter of this report amended CBLEP accordingly.

Land Zoning

As indicated in **Figure 14**, the majority of the subject site is located within the E4 General Industrial zone with the lot located in the north western corner of the site zoned R3 Medium Density Residential.

The nominated objectives for the E4 General Industrial zone aim:

- To provide a range of industrial, warehouse, logistics and related land uses.
- To ensure the efficient and viable use of land for industrial uses.
- To minimise any adverse effect of industry on other land uses.
- To encourage employment opportunities.
- To enable limited non-industrial land uses that provide facilities and services to meet the needs of businesses and workers.

I minor portion of the Site is zoned R3 Medium Density Residential. The nominated objectives for the R3 Medium Density Residential zone aim:

- To provide for the housing needs of the community within a medium density residential environment.
- To provide a variety of housing types within a medium density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

The subject site is located within a small and relatively isolated pocket of E4 General Industrial zone, and surrounded by areas of R3 and R2 residential zones.

The site is bordered by an SP2 Classified Road zone extending across Homebush Bay Drive, separating the subject site from the conservation and recreation zones further west.

Height of Buildings

The subject site is currently subject to a maximum Height of Buildings control of 12m and 20m.

The nominated objectives of the Height of Buildings as per the Cl. 4.3 of CBLEP are:

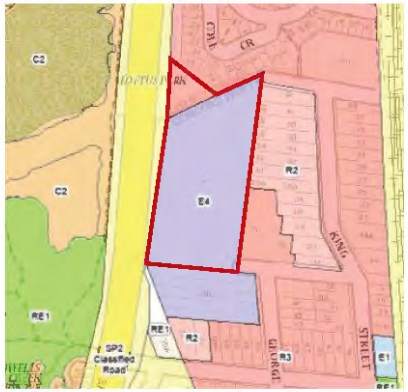
- To ensure that buildings are compatible with the height, bulk and scale of the desired future character of the locality and positively contribute to the streetscape and public spaces.
- To protect the amenity of residential accommodation, neighbouring properties and public spaces in terms of—
    - Visual and acoustic privacy, and, solar access and view sharing.
- To establish a transition in scale between medium and high density centres and adjoining lower density and open space zones to protect local amenity,
- To ensure that buildings respond to the natural topography of the area loss of privacy and loss of solar access to existing development.

Floor Space Ratio

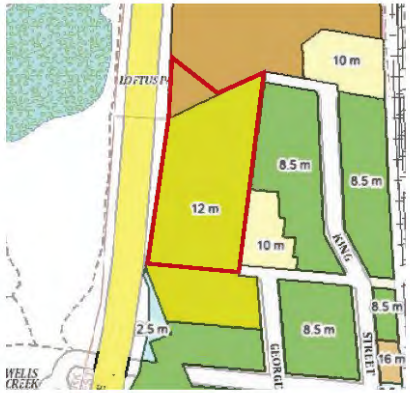
The site is currently subject to a maximum Floor Space Ration control of 1:1, and 0.75:1 in the north western corner. The objectives of Clause 4.4 of CBLEP aim:

- To ensure that buildings are compatible with the bulk, scale, streetscape and desired future character of the locality.
- To provide a suitable balance between landscaping and built form.
- To minimise overshadowing of, and loss of privacy to, neighbouring properties.
- To maximise solar access and amenity for public places.
- To manage the visual impact of development when viewed from public places, including the Parramatta River.

Land Zoning Map



Height of Buildings Map



Floor Space Ratio Map

Figure 14. Extracts from the NSW Planning Portal Spatial Viewer (Source: NSW Government).

Minimum Lot Size

The site is subject to a minimum Lot Size control of 450m2 over the majority of the site and no Minimum Lot Size nominated for the north western corner. The objectives of Clause 4.1 of the CBLEP aim:

- To ensure that subdivision reflects and reinforces the predominant subdivision pattern of the area.
- To minimise any likely impact of subdivision and development on the amenity of neighbouring properties.
- To ensure that lot sizes and dimensions are able to accommodate development.
- To maintain visual amenity and character of the area.
- To retain residential amenity through the provision of suitable landscaped areas and vehicular access.

Acid Sulfate Soils

The subject site is located entirely on Class 2 soils.

Clause 6.1 Acid Sulfate Soils identifies that consent is required for any works below the natural ground surface, or works by which the water-table is likely to be lowered.

Local Provisions

The majority of the site is identified within the Homebush Affordable Housing Contribution Area.

The affordable housing levy contribution for development in the following affordable housing contribution areas is 4% of the relevant floor area—

- The Homebush affordable housing contribution area, except for 3 King Street, Concord West and 176–184 George Street, Concord West.

Heritage

The site is not identified as a heritage item nor is it in a heritage conservation area under the CBLEP 2013.

However, a locally listed heritage item is located to the south of the site as indicated below. The heritage item is identified as Powells Creek Reserve, nominated as having local significance for its contribution to the landscape. The heritage listing extends over the existing Victoria Avenue Public School.

No other heritage items are identified in or surrounding the subject site.

Conservation controls apply to the protection of heritage items under Part 5.10 of the CBLEP.

Minimum Lot Size Map

Acid Sulfate Soils Map

Local Provisions Map

Heritage Map

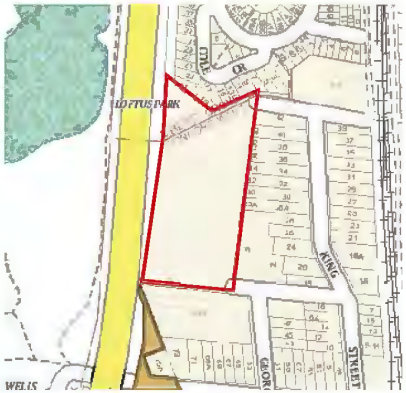


Figure 15. Extracts from the NSW Planning Portal Spatial Viewer (Source: NSW Government).

3.1 Canada Bay Development Control Plan

The City of Canada Bay Development Control Plan (CDCP) contains objectives and controls for development across the suburbs of Canada Bay Council.

The DCP was adopted on 28 March 2023 and came into effect immediately. The provisions of the DCP support the Canada Bay Local Environmental Plan and apply to all land within the Canada Bay Local Government Area, except for the sites listed in Site Specific or Precinct Specific Development Control Plans.

This chapter includes a summary of the key relevant controls applying to the Site and the area. The Planning Proposal Report includes a more detailed account of the proposal's response to the existing DCP framework.

Part K (Special Precincts) includes controls under K22 applying to Concord West known as the Homebush North Precinct in PRCUTS.

Figure 16. DCP K22-5 Laneway map (Source: Canada Bay Council).

As indicated in **Figure 16**, the majority of the site is included in the land to which the DCP applies however the site is excluded from a suite of development controls in Part K22 of CBDCP.

K22.3 Desired Future Character

The Character Statement identifies that the desired future character of the precinct is a transit oriented community which features higher densities that maximise site renewal opportunities. The following characteristics are desired:

- Well Integrated Built Form: Development will provide a built form that steps down in height toward adjoining lower-rise residential areas. The siting, bulk and scale of development will ensure there are no significant adverse impacts to sunlight access and privacy within the precinct.
- Mixed Use: Development adjoining the station square will provide a focal point for the neighbourhood by providing active uses such as shops, cafes and restaurants.

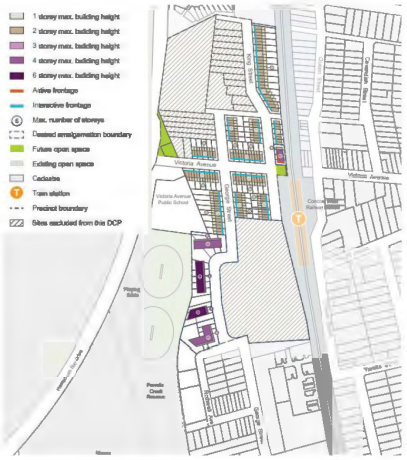


Figure 17. DCP K22-8 Building Envelopes Plan (Source: Canada Bay Council).

- Accessibility: Development will better connect the precinct as a whole by creating a street network with emphasis on active transport. Connections will strengthen existing or promote new routes to the station and open space.

The indicative scheme is informed by these characteristics.

K22.4 Built Form Principles

This character of the precinct is a transit oriented The chapter includes general principles for Solar Access,

Sensitive Interfaces and Street Character.

K22.5 Block configuration

Objectives for block configurations seek:

- To arrange building forms including heights and massing that reinforce the future desired character of the area and protect valued character attributes (O1).
- To facilitate daylight access and ventilation to

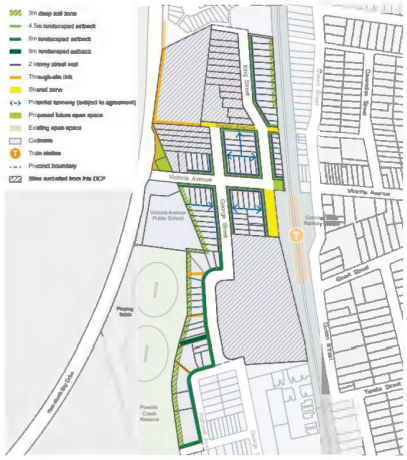


Figure 18. DCP K22-7 Public Domain Plan (Source: Canada Bay Council).

streets, public places and neighbouring properties (O2).

- To maximise visual and acoustic privacy (O3).
- To consider future development opportunities on adjoining sites and avoid isolated sites (O4).
- To maximise permeable ground surfaces to allow rainwater to penetrate the soil (O5).

The indicative scheme is informed by these objectives.

Key controls include to ensure:

- New development considers future development on adjoining sites by providing sufficient separation and setbacks, and avoid creating isolated sites (C1).
- The maximum length of any building more than three storeys high is 60m (C3).
- Built form is to be positioned for optimal access to daylight and direct sunlight for internal and external spaces, and for adjoining public and private land (C5).

K22.6 Access Network

Objectives seek:

- To provide a better and more robust access network that links residential, local schools, employment and retail uses to Concord West Station and open spaces such as the playing fields, Powells Creek Reserve and Sydney Olympic Park (O1).
- To encourage travel behaviour change by discouraging car usage and supporting sustainable travel choices such as public and active transport (O2).
- To improve network permeability, in particular for pedestrians, by breaking up long blocks with new streets and quality pedestrian prioritised links (O3).
- To meet access requirements for future development and enable increased density in selected locations (O4).

The site is excluded from the Public Domain Plan although a through-site link is indicated along the western and

southern site interfaces as indicated in the Public Domain Plan **(Figure 18).**

K22.7 Public Domain Experience

Objectives seek the following:

- To protect and improve the quality, accessibility and safety of the public domain across the precinct (O1).
- To support walking and cycling along new and upgraded walking routes to key destinations such as Concord West Station and Sydney Olympic Park (O2).
- To improve the immediate surrounds of Concord West Station including the new Station Square and support increased activity levels, safety and comfort (O3).
- To increase tree canopy cover and provide for more greenery associated with the public domain (O4).

The site is excluded from the Building Envelopes Plan **(Figure 17).**

K22.9 Transitions and Interfaces

This chapter of the DCP establishes that changes in height and scale will require transitions to sensitive interfaces such as existing low scale residential areas and open spaces.

The chapter proceeds to stipulate that interface treatments for development adjacent to the rail line and/or Homebush Bay Drive need to support the protection of future residents and building users from negative impacts such as noise, vibration and air pollution.

Objectives seek the following:

- To encourage new development that is sensitive and complementary in scale and site location to surrounding properties (O1).
- To protect residential amenity at the interface to existing low rise development (O2).
- To ensure streets and open spaces receive adequate sunlight and ventilation (O3).
- To protect future residents and building users from negative impacts generated by the rail line and Homebush Bay Drive (O4).

Relevant controls include to ensure:

- Where adjacent to low density residential interfaces, new development should gradually step away in height and provide appropriate setbacks. (C1)

The indicative scheme is informed by these objectives.

K22.10 Massing and Articulation

This part of the DCP identifies that detailed articulation and appropriate scale of built form defines and reinforces the identity and desired character of a place.

Objectives seek to:

- To ensure buildings and their individual elements are appropriately scaled to define and respond to the surrounding character (O1).
- To add visual quality and interest to new buildings with a focus on breaking up massing of higher density forms when viewed from public places and neighbouring properties (O2).

Controls relevant to the proposals include to ensure:

- Buildings that are 3 storeys or more are to be designed so that they clearly articulate a base, middle and top (C1).
- New development is to place particular focus on creating a 'human scale' at the lower levels through the use of detailed design, insets and projections that create interest and, where relevant, the appearance of finer grain buildings (C4).
- Building massing is also to be vertically articulated (C5).
- For built form that is 3 storeys or more, the upper-most level is set back and visually unobtrusive. Ways to achieve this include the use of lightweight construction techniques, darker colours, solid balustrades and roof overhangs that create deep shadows (C7).
- Roof plant, lift overruns, vents, carpark entries and other service related elements are integrated into the built form and complement the architecture of the building (C9).

The indicative scheme is informed by these objectives and controls.

K22.11 Interactive Frontages

The chapter provides controls to ensure adequate passive surveillance to promote streetscape activity and local interactions.

Objectives seek to achieve the following outcomes:

- To encourage new development that promotes activity on the street and enhances public safety and security (O1).
- To encourage new development that provides a high level of passive surveillance (O2).
- To ensure development provides a high quality visual experience and creates interest when experienced from a walking pace (O3).
- To ensure private spaces and entries facing the street are safe, attractive and comfortable to use (O4)

The indicative scheme is consistent with the outcomes sought by the DCP Objectives.

K22.12 Safety and Accessibility

Relevant objectives seek:

- To ensure new development supports the wider neighbourhood and community safety and maximises opportunities for passive surveillance (O1).
- To incorporate a high degree of accessibility into the design of new buildings and the public domain that considers the various mobility levels of future users, i.e. disabled and elderly (O2).

K22.13 Amenity

DCP objectives seek to:

- To minimise the impact of new development on the outlook, privacy and sun access of adjoining properties (O1).
- To minimise overshadowing of streets, links and public open spaces (O2).
- To protect building users from negative impacts (noise, air quality, vibration) from the rail line and Homebush Bay Drive (O3).

Relevant controls include to ensure:

- Siting and built form configuration optimises solar access within the development and minimises overshadowing of adjoining properties (C1).
- New development adjacent to existing residential uses complies with the following:

a) at least 50% of the private open space of adjoining residential properties receives sunlight for a minimum of 2 hours between 9am and 3pm in mid-winter; or

b) where the adjoining private open space does not currently receive 2 hours of sunlight, the development does not reduce sunlight by more than 30% (C2).

- Taller elements of built form are oriented north-south where possible. The height and modulation of east-west buildings allows solar access to courtyard spaces (where courtyards are appropriate) (C3).
- For residential components of new development, noise sensitive areas (living rooms, bedrooms) are located away from the rail line and Homebush Bay Drive (C6).

Park K of CDCP also includes development controls relating to appearance, Landscape Design, Sustainability and Resilience, Access and Parking, Housing Diversity and the Apartment Design Guide.

Part F of CDCP includes general controls relating to Residential Flat Buildings. The proposal's performance against relevant planning frameworks is discussed in detail in the Planning Proposal report.

In addition to objectives of the local development controls, the indicative scheme is informed by the strategies and goals set out across state policies and guidelines including State Environmental Policy No 65 (SEPP 65) and the Apartment Design Guidelines (ADG).

The indicative scheme's performance against the key ADG Objectives and Design Criteria is discussed in later chapters of this report.

4 Context Analysis

4.1 Key characteristics of the area

Concord West is a suburb located approximately 12 km north west of Sydney's CBD.

Concord West is bounded by the neighbouring suburbs of Liberty Grove and Rhodes (north), North Strathfield (south), Sydney Olympic Park (west) and Concord (east) as indicated in **Figure 19.**

The wider area is known for foreshore destinations and the scenic settings of the Parramatta River. The foreshore defines the topography and the scenic landscape framework of the area, and its importance to history and place.

Immediately west of the Concord West, Sydney Bicentennial Park presents approximately 40 hectares of open space networks and natural parkland including mangroves, wetlands, lakeside meadows, walking and cycling pathways as well as playgrounds, picnic shelters, barbecue areas and public amenities.

The western part of the neighbourhood is well connected to surrounding centres via the road and rail network. The subject site is located within short walking distance of Concord West Train Station which is serviced by the T9 Northern Line with services to Hornsby and Sydney's CBD.

Concord Respiration General Hospital (known as Concord Hospital) is a district general hospital located to the north east of Concord Road.

The hospital occupies an area of approximately 40 hectares adjacent to the River's edge. The hospital is a major health facility and a local employment hub which includes allied health services, a nursing school and research institutes.

Concord hospital is also identified as a teaching Medical Clinical School Facility under University of Sydney and a destination for staff, students and patients from across Sydney. The location of Concord Hospital is indicated in **Figure 20.**

TAFE NSW Meadowbank is another local employment hub and educational facility located less than 3 km north of Concord West.

The Site benefits from the proximity to Rhodes which is a major retail hub located immediately north of Liberty Grove. Rhodes Waterside Shopping Centre provides a range of retail outlets, specialty stores, cinemas and dining options. Other large retail formats are located within 1.5 km north of the site including Ikea Rhodes and supermarkets.

Concord West is known as a residential precinct located adjacent to the parkland which, along with the foreshore areas, are some of Sydney's most desirable recreational destinations.

The convenience of the direct Sydney Trains services, nearby retail centres, recreational amenity and access to local schools and health services, makes residential neighbourhoods in and around Concord West desirable locations for modern families.

Figure 19. Diagram indicating the location of Concord West and neighbouring suburbs. The site is outlined in red.

Figure 20. Locality Map. The site is outlined in red.

4.1.1 Local connectivity

The suburb is well connected to neighbouring localities via Homebush Bay Drive which is an arterial road connecting Lane Cove Road in the north, to Roberts Road and Hume Highway in the south.

Homebush Bay Drive forms part of a major metropolitan arterial route known as the A3, linking the Concord West to the suburbs of Rhodes, Meadowbank, Ryde and Macquarie Park to the north.

To the south, Homebush Bay Drive provides access to areas near Homebush, connecting directly to the M4 Motorway which links to Sydney's CBD in an easterly direction and to Sydney's western suburbs and lower Blue Mountains to the west.

The eastern part of Concord West is connected to neighbouring areas via Concord Road which s a sub-Arterial road. Concord Road also provides access to Concord Hospital from areas further south.

While the western part of the town centre is well connected to the wider Greater Sydney Metropolitan Area, local street networks are convoluted with poor permeability.

George Street provides the only direct vehicular connection to the western part of the suburb. The local street network is restricted by Homebush Bay Drive (west) and the railway line to the east, with no vehicular connections to the Liberty Grove precinct to the north.

The local street network west of the railway can be characterised as fragmented and generally characterised by terminating streets and an irregular lot subdivision pattern which is evident in **Figure 21 and 22** below.

Homebush Bay Drive and the railway line act as barriers for pedestrian movements, with a limited number of pedestrian links connecting the western part of the suburb to surrounding areas. This affects pedestrian movement patterns as indicated in **Figure 22.**

Liberty Grove is characterised by an internalised street network with a narrow pedestrian laneway providing the only direct pedestrian link to the north. However, the precinct DCP seeks to establish further future pedestrian linkages as discussed in previous chapters.

The elevated railway line and Homebush Bay Drive contribute to the limited visual exposure of areas located within the north western part of Concord West, in particular sites along the western precinct edge. The limited visual exposure and the poor connectivity amplifies the perceived sense of neighbourhood.

The Site is accessed from Station Avenue at the south-eastern corner of the site and from Concord Avenue at the north-eastern corner. Currently, these local streets terminate at the subject site.

4.1.2 Public transport

Unlike most other suburbs within the LGA, Concord West is serviced by Sydney Trains services.

Concord West Train Station is located approximately 100m to the southeast of the Site where the T9 Northern Line connects to Hornsby via Epping and Berowra via City Circle.

The trip from Concord West to Central Station takes less than 20 minutes.

Bus services can be accessed from Concord Road approximately 400m east of Concord Railway Station as indicated in **Figure 21.**

The general area is also services by Sydney Ferries from the following locations:

- Sydney Olympic Park Wharf
- Meadowbank Wharf
- Kissing Point Ferry Wharf
- Caparita Wharf

The Sydney Metro network . will revolutionise movement between suburbs across Sydney, as it has for other metropolitan cities around the world. Construction of the Olympic Park and Strathfield North Metro Stations is expected to commence in 2024.

Figure 21. Key structural barriers and pedestrian connection points. The site is outlined in red.

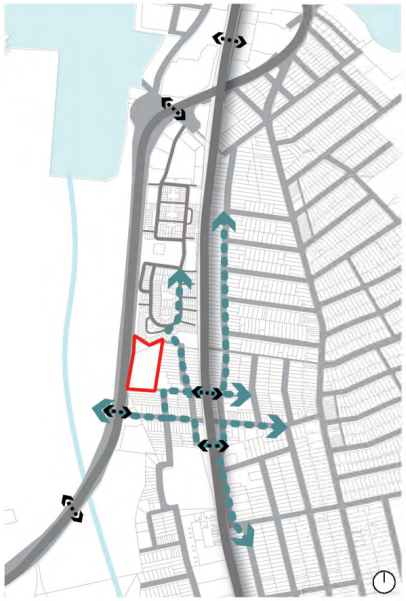


Figure 22. Key pedestrian routes in proximity to the site.

Figure 23. Bicentennial Park (Source: NSW Government).

4.1.3 Landscape and open space amenity

Much of the landscape and open space amenity of the area is unique to this part of Sydney, given the proximity to the Sydney's CBD.

The area benefits from a range of public parks and open destinations distributed on both sides of the railway line including:

1. Bicentennial Park
2. Newington Nature Reserve
3. Powells Creek Reserve
4. Ron Routley Oval
5. Dame Eadith Walker Estate Reserve
6. Thomas Walker Estate Reserve
7. Mcilwaine Park
8. Newington Armoury Area

4.1.4 Recreational destinations

The area benefits from a range of recreational destinations and sports facilities located in the vicinity of Concord West including:

- Bicentennial Park playground and picnic area
- Concord Golf Course
- Newington Playground and waterplay areas
- Newington Armoury
- The Brickpit Ringwalk
- Sydney Olympic Park Tennis Centre
- Concord Bowling Greens
- Concord West Tennis Courts
- UrbnSurf Wavepark (expected to open 2024)

The area is also known for seasonal community and sporting events held in Olympic Park such as the Royal Easter Show. The area is also known for the extensive pedestrian and bicycle networks along the Parramatta River.

Figure 24. Map of key open space destinations. The location of the Site is indicated in red.

4.1.5 Community destinations

Neighbourhoods on both sides of the railway line benefit from community facilities arts, cultural, retail, educational and health facilities. These facilities act as destinations and anchors in the structure and daily use of the local community. Key community destinations include:

- Concord Hospital
- Concord Family Doctors
- Concord Medical Centre
- Markets Medical & Dental Centre
- Rivendell School for Specific Purposes
- Rhodes Waterside Shopping Centre
- Local shops, Queen Street and Concord Road
- Concord Library
- Concord West Public School
- Yaralla Child Care Centre
- St Ambrose Catholic Primary School
- Papilio Early Learning Centre
- All About Children Child Care Centre
- Victoria Avenue Public School
- Concord West Community Hall
- Cazon Family Day Care
- Concord West Long Day Care
- Concord West Public School

Nearby high schools include:

- Concord High School
- Strathfield Girls High School
- Strathfield South High School
- St Patrick's College Strathfield
- Marsden High School

Figure 25. Pedestrian movements and local destinations.

4.1.6 Local active transport networks

The expanding active transport network within, and surrounding Concord West, is a desirable feature of the area which appeals to a diverse cross section of household types. Active transport opportunities are increasingly important to liveability, health and sustainability which are increasingly being recognised as a factor to consider in relation to urban growth.

The PRCUTS Implementation Tool Kit (November 2016) includes the Homebush Action Plan 2016-2023. Nominated Active Transport Actions include:

- Delivery of the Powells Creek reserve pedestrian and cycle link.
- Delivery of new pedestrian and cycle bridge crossings over Powells Creek at Hamilton Street and Lorraine Street.
- Development in the Precinct to make an appropriate contribution to the delivery of new pedestrian and cycle links as indicated in the Planning and Design Guidelines, including:
    - New north-south cycle connection along the riparian corridor from Station Street in the south to Pomeroy Street in the north
    - New cycle connection from Strathfield Station in the south, along Cooper Street to Parramatta Road and the M4 Motorway, and looping around to Princess Avenue.
    - Development in the Precinct to be designed to deliver through-site links as indicated in the Planning and Design Guidelines.

An Active Homebush Open Space and Active Transport diagram (**Figure 26**) is provided in the PRCUTS Planning and Design Guidelines. The diagram indicates several existing and proposed bicycle links within the western part of Concord West which will strengthen the active connections within the precinct.

The Guidelines concentrate new and existing links south of Station Avenue, with no nominated linkages within or beyond the northern part of the precinct.

Figure 26. Active Homebush Open Space and Active Transport, PRCUTS Implementation Tool Kit 2016 (Source: UrbanGrowth NSW).

However, as discussed in Chapter 3.1, Part K (Special Precincts) of the DCP also includes controls under K22 applying to Concord West.

DCP objectives relating to Access Network seek:

- To provide a better and more robust access network that links residential, local schools, employment and retail uses to Concord West Station and open spaces such as the playing fields, Powells Creek Reserve and Sydney Olympic Park.
- To encourage travel behaviour change by discouraging car usage and supporting sustainable travel choices such as public and active transport.
- To improve network permeability, in particular for pedestrians, by breaking up long blocks with new streets and quality pedestrian prioritised links.

The Public Domain Plan (K22-7) seeks to establish a link along the western perimeter of the subject site and the adjacent site to the south to further strengthen the north-south active transport network as indicated in **Figure 18.**

Aside from local cycle and walking tracks, Concord West and surrounding areas are connected to an extensive network of cycle routes along and around the Parramatta River foreshore. The expansive network of cycle and shared zone routes is used by commuters and recreational cyclist throughout the year.

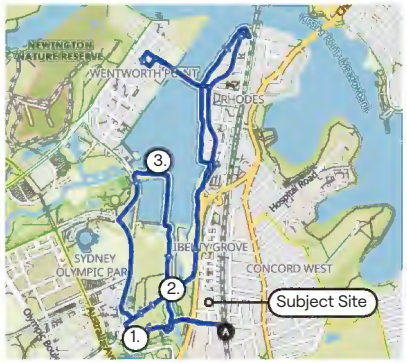


Figure 27. Example of a local 13km cycle route (Graphics adapted from: cycle route planner - komoot.com).

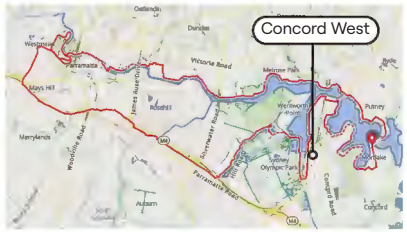


Figure 28. Map outlining the 40km Parramatta River Loop (Source: Sydneycyclepaths.com.au).

Concord West is ideally located for future residents to utilise the active transport facilities, promoting sustainable travel behaviour and a safe and healthy lifestyle option by providing a walkable and well connected local community.

Aims to complement and strengthen the active transport networks across the precinct with improved permeability and passive surveillance have informed the preferred master plan and detailed design outcomes.

Figure 29. Destinations along a local 13km cycle route (Source: cycle route planner - komoot.com).

Figure 30. Diagram indicating areas within 5, 10 and 15 minutes walking distance of the Site.

4.1.7 Walking Catchment

Easy access to public transport, local shops, employment areas, schools, health facilities and open space amenity are key factors in maintaining the physical and mental health of local communities.

While the western part of Concord West is characterised by a poor street connectivity, the Site is within a walkable distance of key destinations which makes it suitable for residential uses.

Since the Covid19 pandemic, a broad variety of household types value local access to significant open space amenity within convenient access to employment hubs.

Pedestrian movements within the western part of Concord West concentrate around the Train Station, the Station Avenue underpass and the Parkland Entry on Victoria Avenue. These three (3) connection points link the local community to employment and retail nodes (via train services) and the large parkland west of Homebush Bay Drive.

The locations are active neighbourhood nodes during the morning when locals travel to work and during the afternoon during after school hours.

Ped Sheds were used to examine the walkable catchment of the site following the physical site and context visits.

4.1.8 Topography

The topography of the wider area generally descends from the ridgeline, located east of the railway, to the foreshore further east and north east, as well as to wetland areas west of Homebush Bay Drive.

As a result of the local landform, wide precinct views are available from areas along the railway line. Scenic precinct views are also available from the elevated pedestrian areas near the Concord West Train Station.

Distant vistas are generally layered compositions of roofscape settings, parkland and clusters of tower developments protruding beyond the canopy line across neighbouring suburbs to the south west (Olympic Park) and the north (Rhodes).

Within the western part of the suburb, the sloping terrain is particularly noticeable along east west bound streets overlooking Bicentennial Park.

The elevated terrain along the railway corridor provides visual containment along the eastern edge of the neighbourhood, whereby pedestrian neighbourhood views are orientated to a north-easterly aspect.

Existing residential neighbourhood views are characterised by low scale residential roofscape settings outlook with distant landscape vistas forming a distinct backdrop.

A prominent visual corridor occurs along Victoria Avenue to the south of the site. The local street extends from the railway carpark (east) to the Victoria Avenue underpass (Victoria Avenue Gates) to the west.

The street is the main pedestrian thoroughfare as the key pedestrian and bicycle link between Concord West Railway Station, Bicentennial Park and the local public school and child care facilities near the park entry.

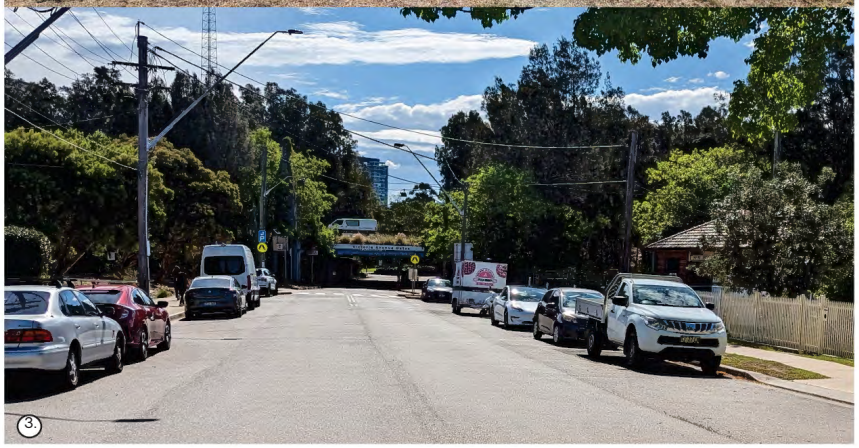


Figure 31. Local topography and photographs of local vistas. The site is outlined in red.

4.1.9 Waterways

Parramatta River is one of Australia's most iconic waterways. The River is the main tributary of Sydney Harbour with a series of creeks and tributaries traversing the areas north of Concord West.

Many parts of the River have been reclaimed in the past and used for industrial landfill including areas in and around Homebush Bay.

Over the years, some creeks have been channelised where others have been remediated.

Large wetlands, ponds, billagongs and mangrove forests contribute to the spectacular landscape qualities of foreshore areas within Bicentennial Park within walking distance of the subject site.

Parramatta River defines the Sydney Basin landscape and is of unique environmental, historic and cultural importance to the identity and scenic quality of Sydney.

Waterways flowing into the Parramatta River include Powells Creek. According to the Powells Creek Flood Study prepared for City of Canada Bay Council (WMA water, 2022), the creek is a small southern tributary of the Parramatta River and Saleyards Creek.

The creek traverses Concord West (**Figure 32**) and Gyde understands the creek catchment drains to Homebush Bay on the Parramatta River via an open channel and a series of inlet pits and pipes. Reserves and park areas are located along parts of the creek line.

The creek is an integral part of the historical and cultural landscape of Sydney and the character of the local area.

The creek is one of several structural and physical constraints impacting on the extent, pattern and urban grain of the western part of Concord West.

Figure 32. Local waterways. The Site is outlined in red.

4.1.10 Flood considerations

The flood report prepared by Worley summarises the findings of the Flood Impact and Risk Assessment undertaken for the Site.

The report outlines key design strategies incorporated into the indicative scheme to address flood conditions including:

- To allow flood waters to pass through the Site with minimal disturbance to existing flow conveyance and storage behaviour, the building footprint at ground level is reduced by incorporating undercroft spaces beneath the apartments around the southern and eastern perimeters of the building. Ground levels within undercroft spaces will be at similar elevations to existing conditions.
- All habitable floor levels are situated above the PMF level at a minimum elevation of 3.6m AHD.
- The entry to the ground floor car park is elevated at 3.0m AHD which is 1.0 m above the 1% AEP flood level. The report also confirms the car park will be fitted with floodgates to prevent inundation in flood events up to and including the PMF.
- The driveway will have a minimum elevation of 1.8m AHD which is 0.2 metres below the peak 1% AEP flood level. Flood waters will pass beneath the driveway through regularly spaced culverts into a swale which would direct flows around the perimeter of the building to open space located in the north of the Site.
- The north western corner of the Site will be used to improve flood conveyance and storage via excavation.

The report proceeds to conclude the following:

- The proposed redevelopment is not expected to result in any off-site flood level increases in the 1% AEP or PMF events.
- A minor increase of 20 to 30 mm is predicted in the 20% AEP flood but is contained to within a drainage easement adjacent to Homebush Bay Drive and does not affect any private property.

4.1.11 Concord West

The suburb currently includes two small retail areas with local shops. One area is located along Concord Road to the north east of the Site, while the other is located near Concord West Train Station along Queen Street.

The western part of the town centre is, due to the railway line and Homebush Bay Drive, largely isolated from the eastern part of the town centre and areas further north.

Residential areas located west of the railway line will typically access the local retail outlets and commercial offices located immediately east of Concord West Train Station, on Victoria Avenue and Queen Street.

Alternatively, locals can access neighbourhood shops south of the Train Station along George Street. However, the limited availability of retail offerings is partly a symptom of the proximity to major retail destinations in Rhodes and Olympic Park.

The western part of the village is currently primarily a residential neighbourhood precinct with limited vehicular traffic due the convoluted street network and proximity to the train station as discussed in previous chapters of this report.

Key

- Subject Site
- Community / Education
- Residential
- Commercial / Remnant industrial
- Retail
- Train Station

The western part of the Concord West is currently defined by the range of built form typologies and limited retail activation. Gyde understand a current Planning Proposal seeks to provide a mixed use hub immediately west of Concord West Train Station which is discussed in later chapters of this report.

The residential subdivision pattern is fragmented by larger land parcels with non-residential uses which, in combination with terminating streets, results in areas with poor connectivity and very limited passive surveillance.

Inadequate passive surveillance is noticeable within the northern part of the precinct near the subject site which may encourage antisocial behaviour.

Future redevelopment of the northern parts of the precinct provides an opportunity to improve connectivity and enhance visual permeability to optimise the character and amenity of active movement networks in the area, as sought by strategic and local frameworks.

Remnant industrial typologies currently offer only limited contributions to the activation of, and engagement with, the pedestrian environment.

Pedestrian and cyclist movements within the western precinct are concentrated along streets connecting to the parkland and community destinations to the two (only) pedestrian links crossing the railway line.

Future redevelopment of the precinct should seek to capture opportunities to enhance walkability and embrace the unique access to landscape, public transport and community destinations which is part of the 'village' neighbourhood character.

The site is accessed from Station Avenue which currently terminates at the subject site. While Station Street is a local road, it provides a direct connection to the railway underpass, which is frequently used by locals to access school and childcare facilities as well as the community sporting facilities and recreational areas.

Figure 33. Diagram indicating the current land uses west of the railway line.

Figure 34. Site photographs (Courtesy Antoniades Architects).

Figure 35. Existing development pattern and grain.

Figure 36. Existing landscape character.

4.1.12 Existing development grain

Observations with respect to the existing development grain within the western part of Concord West include:

- The residential areas are characterised by a repetitive fine grain subdivision pattern. Free-standing residential lots are generally orientated east-west, except for lots fronting Victoria Avenue which generally have a north south orientation.
- Free-standing dwellings present with frontages varying from approximately 10m to 18m in width and 40m to 60m in depth.
- Driveways are typically located along side boundaries within landscaped front setbacks with small to medium sized trees and specimen plantings.
- Mid-block clusters of mature canopy trees contribute to the landscape character and 'visual layering' of the area.
- Due to the sloping topography, west bound pedestrian views terminate in canopy views except for west bound views from Kings Street, where views are slightly elevated, extending to towers in Olympic Park.
- Multi dwelling and townhouse typologies are located at the northern end of the western precinct on larger blocks.

- Aside from the Victoria Avenue Public School Site, larger consolidated lots are typically occupied by warehouses and commercial buildings, one of which is occupied by the subject site.
- Near Concord West Train Station, commercial properties have a presence to the street whereas the subject site at the north western end of the precinct, is largely visually screened from the public domain. The limited levels of site visibility is due to the narrow frontage and the terminated street network at the Liberty Grove development.

In addition to desktop and streetscape investigations, the project architects have developed a detailed 3D model based on available terrain data. The context model was developed to include the existing and the likely future built form context, based on the current planning framework and recent Planning Proposals.

The context model was interrogated as a tool to understand the level of visibility from surrounding streets and understand how the evolving development will impact on the visual setting of the Site.

To understand the capacity for the proposed massing strategy to respond to the likely future development context in the mid to longer term, the context model was expanded to include a schematic residential scheme on the adjacent site to the south.

The adjacent site is currently zoned for industrial uses as it was deferred from the Stage 1 Planning Proposal, subject to further flood investigations, as discussed in previous chapters of this report.

Based on the recently completed Powells Creek Flood Study, the urban design investigations assume the adjacent remnant industrial site will eventually redevelop as the precinct evolves. Therefore, a high level massing strategy was anticipated for the neighbouring site to ensure the capacity for the indicative scheme to respond appropriately.

The likely future 3D context modelling assumes a scale for the neighbouring site which is consistent with the scale nominated under the 2016 PRCUTS framework (16m and 22m). The context model includes an arrangement with building footprints configured on the adjacent site, to establish a mid-block open space corridor across both sites.

The 3D model was further expanded to include the indicative massing included in the Planning Proposal for the site at No 1 King Street near Concord West Train Station.

Investigations examining the existing versus the likely future context and development grain have informed the massing options tested developed for the subject site including the preferred master plan.

Figure 37. Likely future context scenario depicting the potential future grain of the area.

4.1.13 Existing development scale

As part of the context investigations, Gyde's team analysed the scale of existing development in the area along with likely future height scenarios anticipated under current controls.

Existing building heights vary across eastern and western sides of the railway line along with the grain and character vary significantly between the, as previously discussed in this study.

The distribution of scale and built form typologies informs the character of a neighbourhood and the intensity of the urban fabric.

Neighbourhoods and streets merge across precincts and local government areas and observations regarding neighbourhood character are often closely linked to the extent of visual catchments and the movement patterns of local residents. Therefore, it is important to examine the broader context of an area as well as the local site context, to identify the structural and visual characteristics defining the local character.

Eastern precinct

Areas east of the railway line largely consists of residential neighbourhoods with a relatively uniform distribution of 1-2 storeys dwellings. Isolated examples of 2-3 storey walk-ups and smaller portions of 2-3 storey streetwall buildings presenting to the eastern side of Concord Road.

Taller development within the eastern precinct is concentrated near Concord Hospital site where 7-10 storeys buildings are visible to the public domain.

Concord Road is the main spine through the eastern precinct. Surrounding residential neighbourhoods are configured in a uniform grid pattern along both sides of the corridor, connecting North Strathfield in the south to Rhodes to the north.

A journey travelling along Concord Road, presents as intervals of local shop frontages interrupted by single dwelling suburban subdivisions.

In a northbound direction, Concord Road visually terminates in a vista of taller towers in Rhodes. Large footprint hospital buildings also visually announce themselves at the northern end of Concord Road.

Near Concord West Train Station, 1-2 storey shopfronts are located near 3-4 storeys residential apartment buildings along Victoria Avenue .

West bound vistas are terminated by the skyline profile of towers within Olympic Park.

A key character element is the topographical framework which allows for linear vistas, from lower scale neighbourhoods, to taller tower clusters within nearby centres. The vistas form part of the local character.

The contrasting development scale, and the visual presence of more intense development nodes, is a visual reminder of the convenient proximity of these residential neighbourhoods to larger centres.

Western precinct

By contrast, areas located west of the railway line can only be accessed from the south via George Street.

As discussed in previous chapters of this report, the western part of the precinct is constrained by physical barriers including the railway line, Homebush Bay Drive and the Liberty Grove development.

The western part of the suburb is a narrow pocket of land spanning only approximately 300m between railway line and Homebush Bay Drive. This means the western part of the suburb is within walking distance of the station as indicated in **Figure 19.**

South of the Train Station, Powells Creek presents another precinct edge condition (west), where parks and wetland areas occupy areas along the creek. Culverts restrict the depth of the residential lots, terminating several of the local streets. The development pattern is more fragmented in this location than within the eastern precinct, with significant variations in lot sizes and orientation within a relatively small area.

Unlike areas east of the railway, the western side is characterised by a fragmented street pattern and a range of development typologies, scale and grain.

Within a few urban blocks, building heights range from 1-2 storeys single dwellings to 2-3 storey townhouse developments as well as large footprint typologies of 2-3 storeys.

Warehouse typologies are found within the western precinct alongside other large footprint built forms such as the school and community facility. The large forms occupy significant portions of the street blocks, contributing to the limited permeability of the area.

South of Concord West Train Station, residential apartment building typologies occupy lots fronting the eastern side of George street through to North Strathfield station.

The sloping topography allows for pedestrian vistas from George Street and other areas within the western precinct, to the parkland and tower development in Olympic Park and Rhodes as discussed in previous chapters.

Our analysis concludes that the existing urban profile of the western precinct is different from the eastern precinct. In some locations, existing development heights vary from the outcome sought by the current height controls. For example within the Liberty Grove precinct, where four (4) 10 storey residential buildings align Homebush Bay Drive.

The analysis concludes the current scale emphasis is provided as 'peaks' where clusters of towers form recognisable skyline profiles around strategic centres.

Outside the identified centres, mid-range development scale (4 to 10 storeys) is distributed unevenly along Homebush Bay Drive and the railway line.

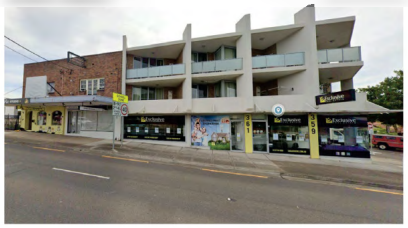


Figure 38. Shoptop housing typology along Concord Road (Source Google).

Figure 39. Concord Hospital (Source Google).

Figure 40. Olympic Park tower cluster terminates west bound vista along Victoria Avenue (Source Google).

Figure 41. North bound view along George Street provides an example of the existing scale contrast (Source Google).

4.1.14 The evolving precinct scale

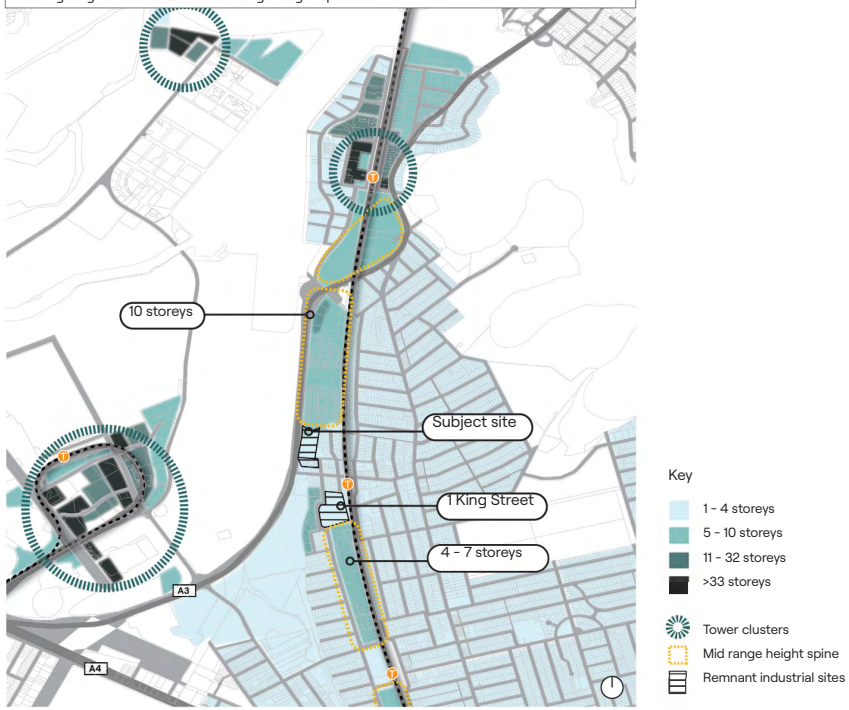
The western precinct includes a limited number of consolidated lots with the opportunity for redevelopment to contribute to the general renewal of the precinct.

As discussed, the Stage 1 of the PRCUTS Planning Proposal elected to retain the industrial zoning for these sites, deferring rezoning of some IN1 and R3 zoned land in the Homebush North Precinct subject to further flood investigation including the completion of the Powells Creek flood study.

Nevertheless, the updated flood study has since been completed, enabling some of the larger sites to be for uses that are more compatible with the residential character of the area.

According to the Agenda to Ordinary Council Meeting 5 December 2023, a recommendation was made by the Director of Planning and Environment to endorse a Proponent-initiated Planning Proposal for land located at 1 King Street, Concord West.

Existing height nodes and the mid-range height spine



According to our desktop review, the proposal is to:

- Rezone the land from Zone E4 General Industrial to Zone R3 Medium Density Residential with an additional permitted use for commercial uses;
- Increase the maximum building height from 8.5m to a maximum of 47m (12 storeys), including various building heights across a total of 10 buildings ranging from 6 to 12 storeys;
- Increase the maximum permissible Floor Space Ratio for the site from 1.0:1 to 2.65:1, and;
- Introduce new local clauses that enable development on the site to exceed the maximum permitted building height and exclude Gross Floor Area under certain conditions.

Potential height nodes and emerging mid-range height spine

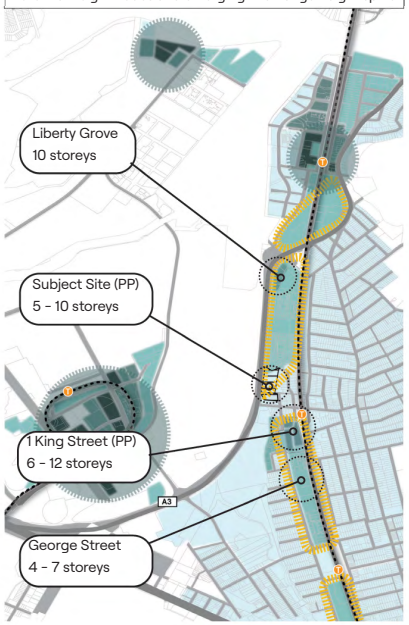


Figure 42. Diagram identifying the emerging mid range height spine and height nodes located outside nearby centres. Taller development is generally concentrated along the railway line or adjacent to Homebush Bay Drive.

Gyde understands that a range of recommendations accompany Council's endorsement, including to reduce the maximum heights for selected buildings and reduce the Floor Space Ratio to 2.23:1. However, despite the reduction in building heights, if adopted, the Planning Proposal will increase the permissible building heights near Concord West Train Station.

In line with our analysis of the existing height distribution within the western precinct, amended building heights on the King Street site (up to 12 storeys) would, if the site is upzoned, continue the pattern of the mid-range development spine (of 5-12 storeys) extending along Homebush Bay Drive and the railway line.

The northern part of likely future height spine is currently defined by Liberty Grove where current controls allow for up to 6 storeys (20m) under CLEP, with four (4) exsisting towers bookend the mid range height spine with a 10 storey scale.

Other remnant industrial sites, including the subject site along Homebush Bay Drive, were also deferred as part of the Stage 1 of the PRCUTS Planning Proposal.

As indicated in **Figure 42, t**hese sites present an opportunity to continue the emerging height distribution pattern by expanding the mid range height spine along the eastern edge of Homebush Bay Drive.

For the purpose of the context analysis, the team has assumed a likely future development scale on the adjacent site to the south of 4 to 6 storeys which is consistent with the height nominated by the 2016 PRCUTS.

The preferred master plan was informed by this analysis and demonstrates the capacity for renewal of the site while complementing the emerging urban form and the pattern of scale distribution within the western neighbourhood precinct.

Figure 43. Aerial map (Adapted from NearMap).

4.1.15 Streetscape character

In preparing this report, Gyde has examined the character of the local streetscapes within the western precinct.

George Street

George Street provides access to the western sub precinct from the south.

From the Pomeroy Street intersection to Concord West Train Station, George Street presents with a suburban streetscape with 4-7 storey residential flat buildings fronting the eastern side of the street and lower scale areas presenting to the western street edge.

The older style residential flat buildings provide containment along the eastern street edge with consolidated driveway access to at grade parking areas within the blocks. Buildings are generally elevated above the street level.

Along George Street, the terrain slopes to the west, resulting in many of the free standing dwellings providing a second floor level at the rear of the site in response to the sloping sites.

Landscaped front setbacks, green verges and street trees of varying size characterise the streetscape. A small reserve with play ground equipment is located on the corner of Brussels Street.

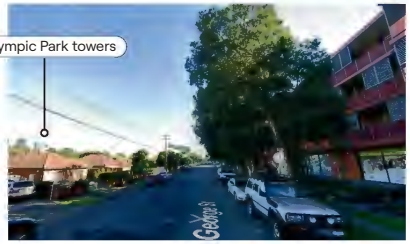
North of Argonne Street, commercial development presents along the eastern street frontage and small retail outlets occupy the ground floor tenancies.

North of Rothwell Street, Commercial and warehouse typologies 2-3 storeys present to both sides of the street.

King Street

King street extends from Concord West Train Station in the south to Concord Avenue to the north. The street is approximately 400m in length, connecting a limited number of residential blocks north of the station.

King Street runs parallel to the ridgeline which enables west bound vistas across the parkland and tower clusters in Olympic park.



View looking north along George Street where the contrasting development scale is evident (Source: Google).

Blank wall interfaces where warehouse typologies present to George Street (Source: Google).

View looking north along George Street near the subject site.

Properties along the western side of King Street are located below the level of the street.

Dwellings along King Street are predominantly 1-2 storey freestanding dwellings with a 2-3 storeys townhouse development where the street terminates at the northern end.

Mature street trees are prominent along the northern end of King Street.

Concord Avenue

The street is a narrow local neighbourhood street. Residential lots present side boundaries to the street which is characterised by colourbond fences and grass verges with no public footpaths.

The townhouse development known as 'Kings Court' at No 3-5 Concord Avenue, presents at the intersection of Kings Street and Concord Avenue. The subject site presents at the western end of the street.

The public street terminates at the north eastern corner of the site. The area currently has limited pedestrian movements and no passive surveillance.

A narrow link provides pedestrian access from Concord Avenue to the Liberty Grove precinct to the north.

King Street has a strong landscape character with mature street trees and landscaped front setbacks (Source: Google).

Concord Avenue terminates at the railway line (Source: Google).

Concord Avenue terminates at the subject site. The street is a 'dead end' street will no passive surveillance (Source: Google).

Pedestrian link from Liberty Grove to Concord Avenue (Source: Google).

Station Avenue.

Station Avenue is a narrow local street.

The subject site fronts the western end of Station Avenue. Residential lots present side boundaries to the street which is characterised by colourbond fences and grass verges with no public footpaths.

The eastern end of Station Avenue aligns with the pedestrian link to Queen Street and the eastern part of Concord West.

Station Avenue is a key local pedestrian thoroughfare connecting residential areas east of the railway, to the Victoria Avenue Public School, childcare facilities and the unique recreational areas within the Bicentennial Parkland.

At the western end of Station Avenue, the subject site street terminates the street adjacent to Waratah Court which is a 2-3 storey townhouse development at the intersection of George Avenue and Station Avenue.

Victoria Avenue

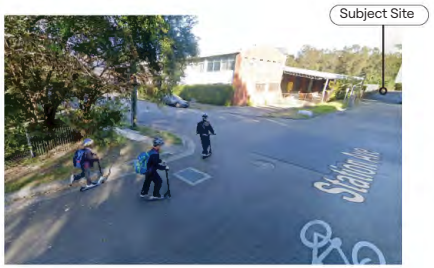
Victoria Avenue is the main local link between the Station entry (east) and the community hub near the Bicentennial Parkland entry (west).

1-2 storey residential properties front the street with a staggered front alignment.

The sloping landform allows for canopy views across Bicentennial Park with the characteristic profile of tower developments within Olympic Park.

The street is the pedestrian and bicycle thoroughfare used by visitor to Bicentennial Park arriving via train services.

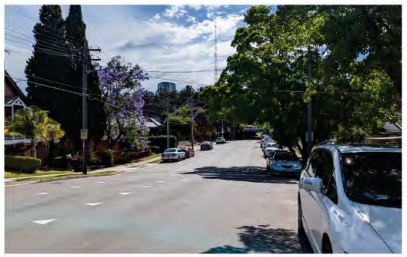
Station Street is a major local pedestrian thoroughfare to the local school and Bicentennial Park entry (Source: Google).



There is currently only limited passive surveillance to Station Avenue (Source: Google).

Station Avenue terminates at the subject site adjacent to the townhouse development (Waratah Court).

Vistas across the parkland to Olympic Park towers are available from Victoria Avenue (Source: Google).



View looking west along Victoria Avenue.

Victoria Avenue terminates where the local school and facilities are located adjacent to Bicentennial Park entry (Source: Google).

4.1.16 Existing setbacks and lot orientation

Observations with respect to the existing development pattern and setbacks within the immediate context of the site include:

Concord Avenue

- The street is only approximately 90m in length.
- Existing front setbacks range from approximately 5-10m with properties along the southern side of the street presenting a side boundary condition to Concord Avenue.
- The existing townhouse development at Nos 3-5 Concord Avenue is orientated to front Concord Avenue with continuous but tapered front alignments and on grade car parking along the street edge.
- Concord Avenue is a 'dead-end' street, terminating the northern part of the network within the western part of the suburb.
- Mature vegetation provides containment to the street along all street edges.

King Street

- Properties are configured with an east west orientation with landscaped areas at the rear of the properties.
- Front setbacks range from approximately 3m-9m with 1m-3.5m vegetated side setbacks.

Station Street

- Single dwelling lots present side boundaries to Station street with setbacks ranging from approximately 0.9m - 5m.
- The townhouse development located at No 2 Station Street provides a direct frontage to the western end of the street with front setbacks ranging from approximately 3m-5m.
- The large warehouse typology defines the south western end of the street where it terminates at the eastern boundary of the subject site.

Figure 44. Existing setbacks, lot orientation and frontages.

4.2 Site edge conditions

The main characteristics of the Site's relationship with the immediate surrounding context are summarised below:

- The Site comprises the proposed consolidation of Lot 1 IN DP219742 and Part Lot 1 in DP 270137 Lot 1, DP219742.
- The Site is irregular in shape and has an area of approximately 1.6 hectares.
- The Site is currently occupied by a warehouse typology used for indoor paintball and indoor gokarting. Gyde understand the site is used for storage of concrete equipment.
- The surrounding land uses are mixed, with low and medium density residential to the north and the east.
- The adjoining site immediately to the south is occupied by light industrial uses..
- The western site edge adjoins Homebush Bay Drive which is elevated above the level of the site. Dense vegetation aligns the western site edge some of which is located within the road reserve.
- The eastern boundary adjoins lots fronting King Street. A 2-3 storey townhouse development is located along the southern part of the shared boundary.
- The northern site boundary adjoins the southern perimeter of the Liberty Grove development where detached dwellings present private open spaces to the landscaped site edge.
- The Site offers limited landscape amenity but dense vegetation occupies areas adjacent to the western boundary.

Figure 45. Aerial photographs (Adapted from NearMap).

Figure 46. Site photographs showing the site edge conditions (Source: Antoniades Architects).

4.2.1 Site constraints

Gyde has investigated the key constraints applying to the Site and its immediate context including:

- The Site currently has a single access point from Station Street.
- The Site is subject to acoustic impacts associated with traffic movements along Homebush Bay Drive which is elevated above the existing site levels.
- Flood constraints apply to the land. Flood constraints and mitigation strategies are discussed in detail in the Flood Impact Study prepared by Advisian.
- Existing mature trees align the western boundary. The trees and the embankment visually screen the western interface, providing perceived containment to Homebush Bay Drive. The majority of trees are located west of the boundary.
- A significant portion of the subject site is currently occupied either by building footprint or hardstand areas, leaving only limited capacity for soft landscaping.
- The subject site and the northern end of the precinct has limited visual exposure to surrounding areas and limited passive surveillance.
- The existing buildings on site are not considered sympathetic to the residential character of the surrounding area in terms of the use, building typology and aesthetic presentation.
- Public access and pedestrian activity across the Site is limited due to the current use.
- The Site's eastern and northern boundaries adjoin residential development.
- The townhouse development located at No 2 Station Avenue has bedroom windows overlooking the subject site.
- Fine grain residential dwellings form part of the local context.
- The sloping landform allows for west bound scenic vistas from vantage points along King Street and Concord West Train Station.
- Heritage listed fabric is located within the vicinity of the site however, heritage fabric does not form part of the immediate streetscape context of the site.
- The local street network is convoluted with terminating streets and poor connectivity to the north, east and west.
- Pedestrian connectivity is restricted by the railway line, Homebush Bay Drive and large remnant industrial lots. Many pedestrian areas have limited activation and poor levels of passive surveillance.
- Existing easements for sewer, electricity and drainage apply to areas along the northern and southern boundaries.

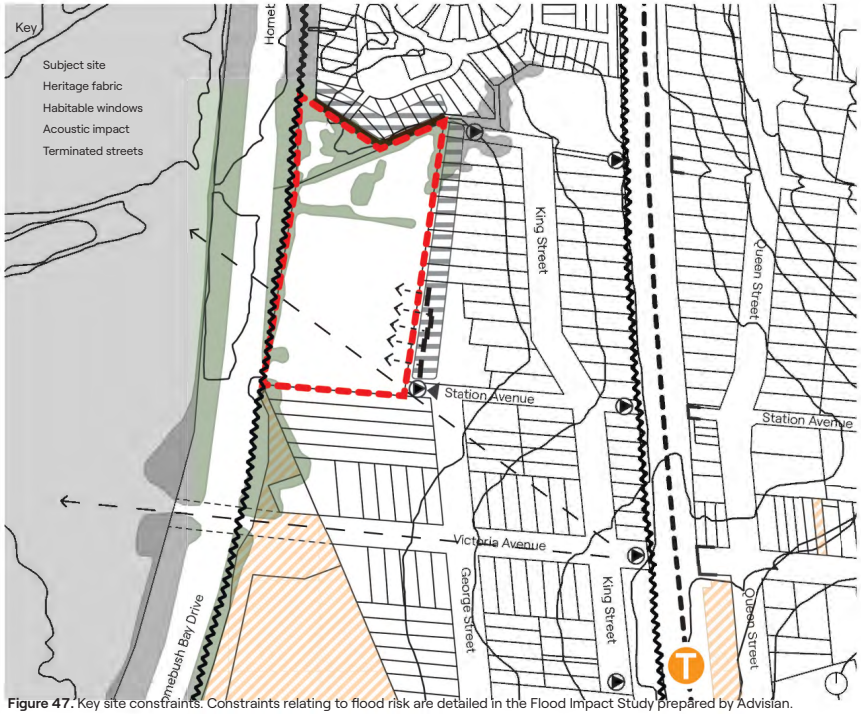


Figure 47. Key site constraints. Constraints relating to flood risk are detailed in the Flood Impact Study prepared by Advisian.

Figure 48. Key Flood Risk Precinct diagram extracted from the Powells Creek Flood Study (April 2022, City of Canada Bay Council).

4.2.2 Site opportunities

Based on analysis, Gyde considers the following opportunities are available to the subject site by:

- Replacing the commercial warehouse facility with contemporary and vibrant residential development to complement the evolving local character and the general revitalisation of the area.
- Expanding and improving the landscape offering to strengthen the 'leafy' character of this part of the precinct.
- Improving the provision of permeable areas across the Site, to allow for landscape treatment and mitigation of flood impacts.
- Enhancing the landscape treatment and screening to site edges.
- Introducing an open space corridor at the centre of the Site, to strengthen the north west landscape links across the block, with the potential to connect to the adjacent site to the south redevelops in the future.
- Improving the level of engagement with surrounding street frontages and providing a residential interface to complement the use of the adjoining areas.

Figure 49. Key site opportunities.

- Expanding the local road network to improve local connectivity, introducing an new street frontage to Concord Avenue.
- Enhancing the pedestrian permeability of the area by improving active transport networks through the site, linking to surrounding streets and pedestrian walkways.
- Enhancing pedestrian activity and improving passive surveillance within the northern part of the precinct, noting the level of passive surveillance is currently poor.
- Providing the capacity to accommodate a new pedestrian link through the site as sought by the precinct DCP.
- Providing additional housing diversity and density in proximity to public transport nodes, schools, community and health facilities as well as unique open space amenity, in accordance with strategic aims.
- Providing additional diversity and housing choice in a suburb which is currently occupied predominantly by single dwelling typologies. The area lacks contemporary apartment options to cater for the need of a broad cross-section of the community as sought by Local Planning Directions.
- Promoting healthy travel habits as sought by strategic plans, by providing housing with access to active transport networks, within 200m of a public transport node.

Key

- Subject site
- Enhanced landscape treatment
- Maximise building separation near sensitive interfaces
- Improve connectivity and visual permeability

- Providing high-quality sustainable apartment living opportunities in an area which benefits from proximity to a wealth of recreational open space networks, promotes cycling and walking as an integral part of the evolving neighbourhood amenity.
- Providing additional residential density on a site with limited visual exposure where additional built form bulk and scale can visually integrate with the urban profile of the area.
- Providing additional density within a part of Corncord West which will undergo change within the immediate to mid-term future.
- Delivering new built forms with the capacity to expand on communal offerings and residential amenity to meet the lifestyle expectations of future residents.
- Providing for architectural solutions to mitigate acoustic and flood related constraints applying to the Site.
- Maximising building separation to sensitive interfaces to the east and north.
- Ensuring taller built form components are located to minimise adverse overshadowing and visual bulk impacts as sought by local controls.
- Providing modulated built forms transitioning in scale and grain to surrounding residential areas.
- Enhance the landscape character of the site to improve the aesthetic presentation of the Site.
- Provide design excellence and high-amenity apartments in a unique lifestyle setting within walking distance of transport, community facilities, the local village and spectacular open space amenity.

The identified site opportunities have informed the preferred master plan and detailed design solutions.

5 Site Vision and Design Principles

5.1 The vision

The project team has developed a vision for the Site and its opportunity to contribute to the renewal of Concord West and the wider area.

Urban design analysis of the urban context with its unique access to scenic landscape amenity, retail destinations and local community infrastructure, demonstrates that the locality is well suited to accommodate residential uses.

The vision is to redevelop the Site for residential uses, providing for a high quality contemporary residential development typology which is not currently available in the immediate area.

The location and site specific circumstances allow for the provision of a high amenity and 'community focused' residential development, with a diverse range of placemaking gestures and communal facilities, to meet the lifestyle expectations of a growing segment of households.

The indicative scheme aims to deliver diversity in terms of the apartment typologies to expand the supply and choice of dwelling types in the area.

The scheme is designed to promote a healthy, high amenity living with easy access to retail centres and the CBD.

To meet the needs and expectations of future residents, the indicative scheme incorporates indoor and open space communal amenities, as an extension of the private apartments. High quality communal facilities promote activation and social interaction and are increasingly important for home buyers along with proximity to active transport networks and convenient access to retail areas.

The Site layout captures opportunities to reinstate a strong landscape character across the consolidated lots, by replacing the large footprint of the industrial building, with modulated pavillion building forms separated by a green open space corridor.

The vision is to deliver a residential development which is connected to the local neighbourhood through active transport networks, with a wealth of communal facilities to encourage social interaction as part of future apartment living.

To improve access and connectivity, the indicative scheme introduces a new publicly accessible street connection, improving the permeability and activation of the block as well as the local network.

The site layout is arranged around an open space corridor interfacing communal facilities that engage with a sequence of connected outdoor areas on Level 01, with each their individual character and purpose. Programs include BBQ and kitchen facilities to host and entertain guests, gym and wellness facilities, shared office facilities to promote balanced work arrangements, dog grooming areas for pet owners, communal gardens and open space areas as a tranquil setting for social interaction and relation

While the Site is largely visually screened from surrounding areas, the vision seeks to ensure future redevelopment of the Site for residential uses which is more sympathetic to the evolving character of the area than the current outcomes achieved for the warehouse facility.

The indicative scheme provides an innovative response to the flood constraints applying the Site and the area, sleeving elevated basement levels with residential apartments while maximising permeable surfaces and opportunities for deep soil and landscape screening.

The indicative scheme delivers well articulated built forms designed to respond to the grain and texture of the surrounding urban fabric.

The distribution of built form concentrates taller forms within areas which are less visible from low scale areas, complementing the pattern of mid-range height nodes emerging within the western precinct.

The indicative scheme demonstrates the capacity to complement strategic aims by contribute to the renewal of the area and aims to slow emissions growth through the provision of high amenity homes near public transport and high quality walkways and cycle paths.

The vision seeks to deliver improved apartment living options within well proportions built forms, in a landscaped setting, conveniently located with access to local schools, health facilities, retail destinations, open space amenity and a public transport node.

Figure 50. Indicative 3D view from Station Avenue (Source: Antoniades Architects).

Figure 51. Improved landscape outcomes are demonstrated in the Landscape Concept Plan (Source: TURF).

5.2 Design principles

Informed by the findings of the urban design analysis, the team was guided by the following urban design principles for the Site to:

- Provide uses to complement the residential character of the area of the area.
- Improve site permeability by introducing a new publicly accessible street to connect to existing streets which are currently terminated by the large remnant industrial block.
- Achieve a site layout to maximise building separation to the northern and eastern site edges near sensitive residential interfaces.
- Replace the large footprint warehouse typology with pavillion building forms tailored, to deliver a wide selection of unit types and generous shared facilities.
- Ensure the capacity to deliver a suitable flood mitigation responses, sleeving elevated car park areas with residential uses to maximise engagement with the ground plane.
- Maximise permeable surfaces and deep soil capacity along site edges.
- Distribute building heights in response to the level of visual exposure to ensure taller forms are concentrated near the western site edge to minimise visual prominence and overshadowing.
- Provide maximum 5-7 habitable storeys along the eastern part of the site in proximity to lower scale development further east.
- Express built forms to provide a human scale podium height aligning the new street.
- Deliver sculpted built forms and a modulated building profile to minimise adverse visual bulk impacts when viewed from surrounding areas as sought by the DCP.
- Orientate built forms to maximise solar access and minimise overshadowing.
- Provide appropriate building separation between new tower forms to maximise residential amenity and minimise perceived bulk to surrounding areas.
- Deliver tailored design responses to prevent amenity impacts associated with the proximity to Homebush Bay Drive.
- Ensure the capacity to minimise privacy impacts to neighbouring sites.
- Provide tailored outcomes to achieve good residential amenity for future residents.
- Provide an engaging ground plane interface to maximise passive surveillance to perimeter areas.
- Deliver a new street which is public in nature to encourage pedestrian and bicycle movements through the Site.
- Provide a modulated frontages to the open spine maximise daylight penetration and promote a sense of place and journey.
- Provide sculpted tower forms with slender proportions to minimise adverse visual bulk and shadow impacts to neighbouring sites.
- Provide a textured podium and upper level façades that is sympathetic to the rhythm and proportions of the surrounding urban pattern.
- Provide capacity to deliver a publicly accessible through site link to complement Precinct DCP objectives.
- Provide a vibrant communal open space within the site, minimising adverse impacts to surrounding development.
- Strengthen the landscape response across the site to complement and improve the aesthetic quality of the site and the area.

Figure 52. Open space corridor and enhance landscape amenity.

Figure 53. Principles for height distribution.

Figure 54. Principles for improved connectivity.

6 Massing Strategy and Grain

6.1 Massing scenarios

The indicative scheme builds on a body of built form testing.

The built form investigations have proven a valuable tool to understand how the site specific circumstances, environmental constraints and outcomes sought under Part K of the DCP, should inform the distribution of built form massing across the Site.

Based on the project vision, the design team investigated a series of potential site layouts, exploring various options for how building footprints and site levels should be configured to allow for improved landscape amenity and minimised amenity impacts to neighbouring sites.

As part of the investigations, the project architects undertook rigorous testing to determine the capacity of each massing option to deliver acceptable architectural outcomes, to meet relevant standards and design guidance provided by the ADG.

The project architects have tailored the envelopes to provide reduced upper level footprints along the western site perimeter, to ensure the predominant scale read from surrounding areas to the east is 7 storeys.

The preferred massing strategy seeks to concentrate height at the rear (west) of the site with building heights tapering to the northern, eastern and southern site edges. The height and bulk strategy responds to the Desired Future Character outcomes sought by the DCP (K22.3).

The scheme locates taller building components along the western site edge to minimise visual bulk and scale exposure to King Street and surrounding areas.

Through testing, the team was able to identify and test the various aspects of the relationship between the orientation and proportions of built forms against the proposal's performance with regard to spatial relationships, access arrangements, solar access, cross ventilation, outlook and visual bulk.

As part of the early investigations, the team tested a range of site layout options. The aim of each site layouts tested, was to enhance the landscape character and establish an open space corridor through the Site.

However, due to the geometry and orientation of the site, several options were proven through detailed 3D testing to result in poor outcomes including; self-overshadowing, deep building footprints, inadequate building separation, poor acoustic screening or unfeasible building footprint proportions.

Importantly, testing demonstrated that none of the alternative layout options explored for the Site had the capacity to deliver a sufficient landscaped area, relying on greater building heights to achieve a feasible development outcome.

The diagrams included in this report illustrate the key principles and massing strategies explored to summarise the design decisions which lead to the preferred massing strategy.

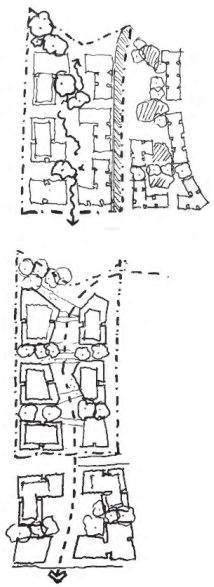


Figure 55. Sketch examples of alternative site layout options.

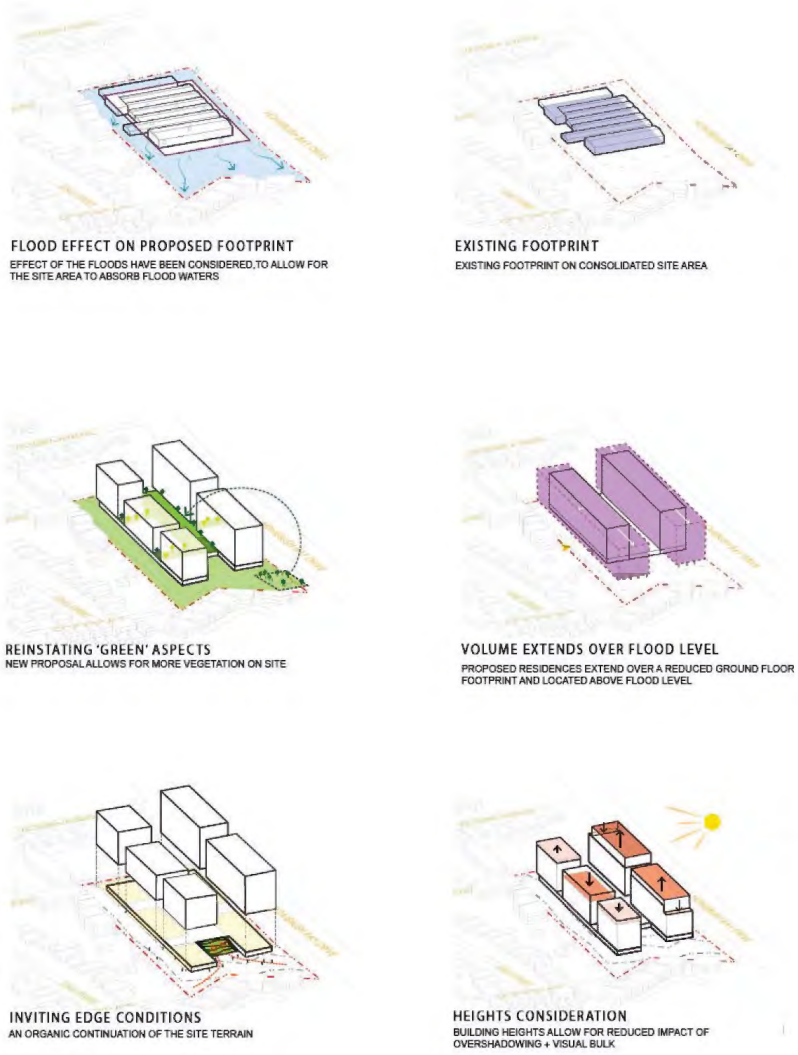
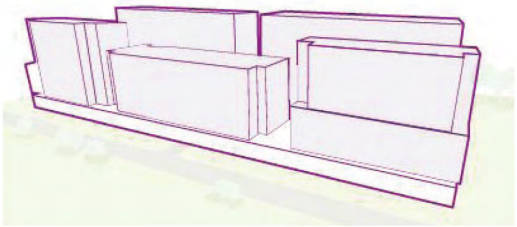
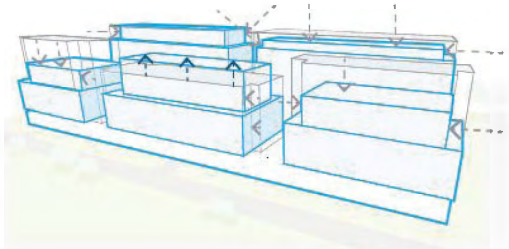


Figure 56. Design principles applied in formulating the massing strategy (Source: Antoniades Architects).





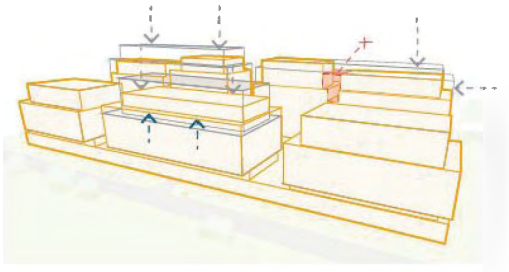


Figure 57. Massing principles (Source: Antoniades Architects).

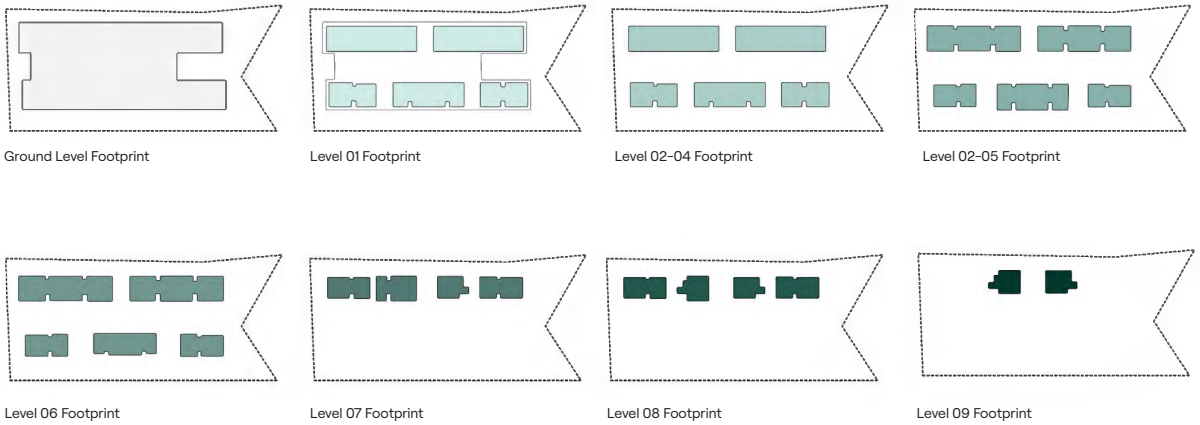


Figure 58. Building footprints proportions per level

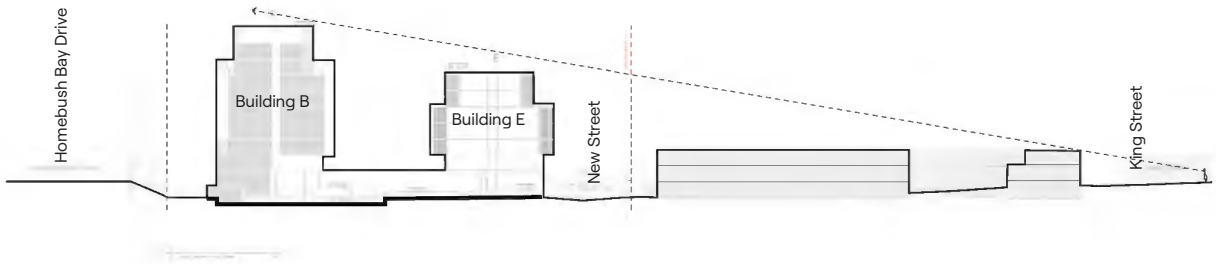


Figure 59. Diagram indicating the view line analysis which informed the massing strategy (Adapted from section by Antoniades Architects).

7 Preferred Master Plan

7.1 The preferred master plan

The preferred master plan seeks to deliver a vibrant high amenity residential development typology which is not currently offered in the area, and to contribute to the general renewal of the precinct.

The indicative scheme demonstrates the capacity to redevelop the consolidated site for residential uses, mitigating flood constraints through sleeved car parking levels and innovative landscape interface solutions.

The preferred master plan strengthens the landscape outcomes within the Site, as well as along site interfaces, with a range of open space typologies and landscape 'rooms' offered across the development.

The plan expands the existing movement network, enhancing permeability, passive surveillance and the general activation of the area.

The distribution of built form provided by the indicative scheme responds to environmental site constraints and the site layout ensures generous separation to the lower scale areas to the north and east.

Built forms are orientated to minimise overshadowing to neighbouring sites, transitioning from taller forms along the western boundary, to 7-5 residential storeys near the eastern edge which are separated from adjoining properties by the new shared path.

A single storey form defines the new street by providing containment and an engaging residential interface along the western street edge.

Capacity for deep soil plantings is provided along eastern site edge to visually screen the development to existing and likely future deportment to the east, while improving the 'green' aspect exposed to neighbouring streets.

Building envelopes are carefully modulated in response to the grain and texture of surrounding fabric to reduce perceived bulk and scale to neighbouring areas.

The Site is largely visually screened from surrounding streets however, despite the increased development scale, the indicative scheme demonstrates the capacity to provide a sympathetic presentation to the public domain interface.

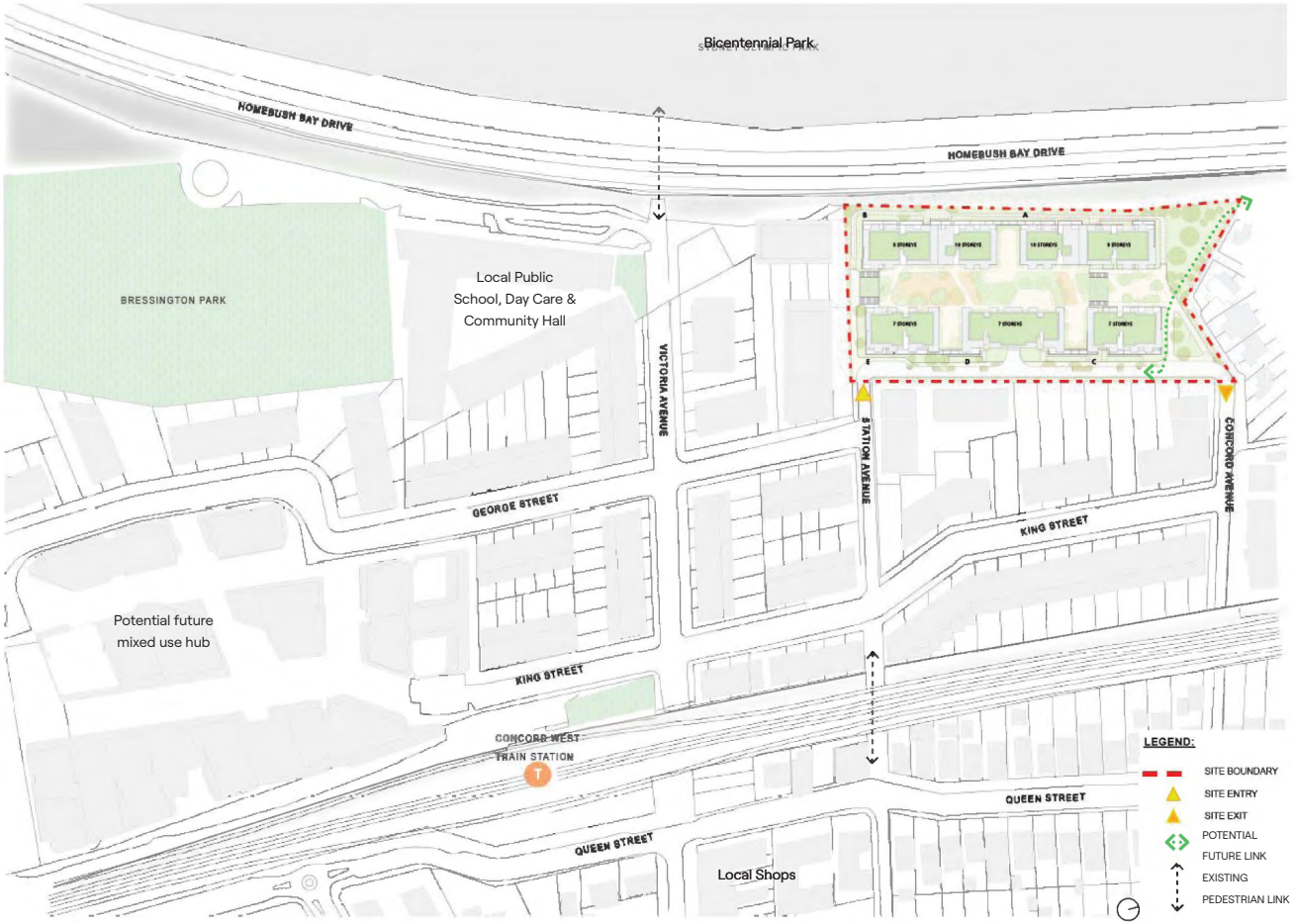


Figure 60. Indicative Master Plan within the likely future development context (Adapted from drawings by Antoniades Architects).

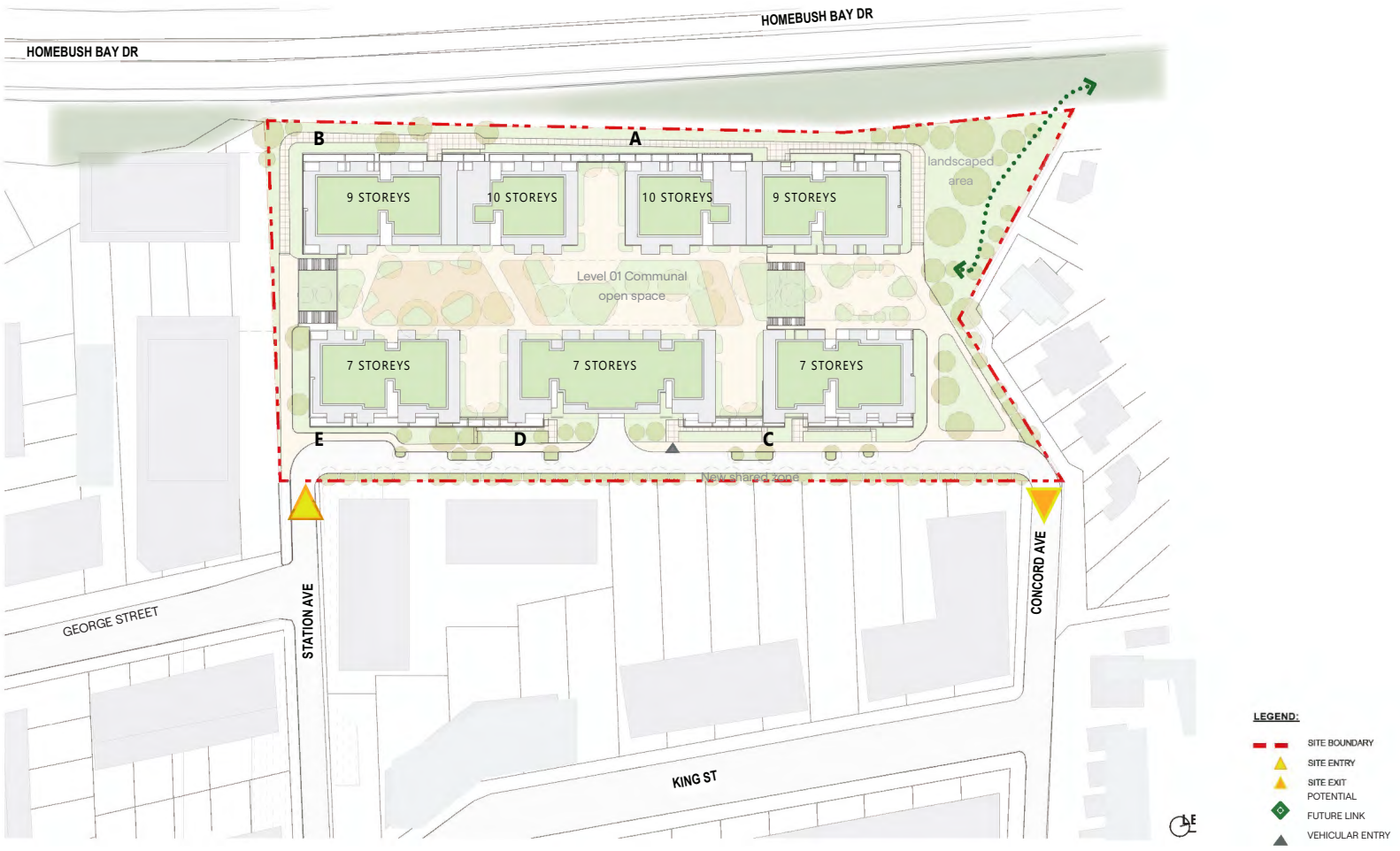


Figure 61. Preferred master plan (Source: Antoniades Architects).

7.1.1 Setbacks and building separation

To achieve the desired development outcomes, setback principles were developed as follows:

The podium setbacks must:

- Maximise building separation to the northern and eastern interfaces.
- Allow for deep soil and permeable surfaces along the site perimeter areas.
- Enable the delivery of a new shared access way along the eastern boundary, to allow for vehicles, bicycles and pedestrians to move through the Site and connect to the wider street network.
- Allow for a harmonious transition between the landscaped areas on the Ground Level and on Level 1.
- Deliver improvements to the existing landscape treatment along all site edges.
- Respond to the unique setting of the Site and specific flood constraints.

Building setbacks must:

- Ensure the upper building levels are visually recessive.
- Contribute to the sculpting of built forms, to achieve well proportioned building envelopes.
- Allow for built form relief and sky view between built forms on the upper levels.
- Minimise visual bulk exposure.
- Allow for adequate building separation to meet ADG design guidelines.
- Minimise overshadowing to neighbouring sites.
- Contribute to slender and varied proportions in the building frontages presented to site edges.

Basement 2 Carpark Level

Based on these principles, the indicative scheme provides the following Basement 2 Carpark Level setbacks:

North

The northern setback is tapered due to the irregular alignment of the northern boundary.

According to the Basement 2 Car Park Plan prepared by Antionades Architects, the minimum setback is 52.3m.

South

The northern setback is tapered due to the irregular geometry of the site. According to the Basement 2 Car Park Plan prepared by Antionades Architects, the minimum setback is 17.1m

East

47.1m setback is provided.

West

The western setback is tapered due to the irregular alignment of the northern boundary.

According to the architectural plans, the minimum setback is 8.7m.

Ground Level

The indicative scheme provides the following Ground Level setbacks:

North

Northern setbacks are tapered ranging from 14m - 26m at the eastern part of the site.

At the central part of the site, northern setbacks range from approximately 48m to 56m.

At the western part of the site, northern setbacks range from approximately 26.9m to 36.3m.

South

Minimum 8.5m at the eastern and western part of the site.

16.4metback is provided at the centre of the site.

East

Minimum 15.8 m setback is provided to the eastern boundary with an increased setback of 22m at the centre of the site.

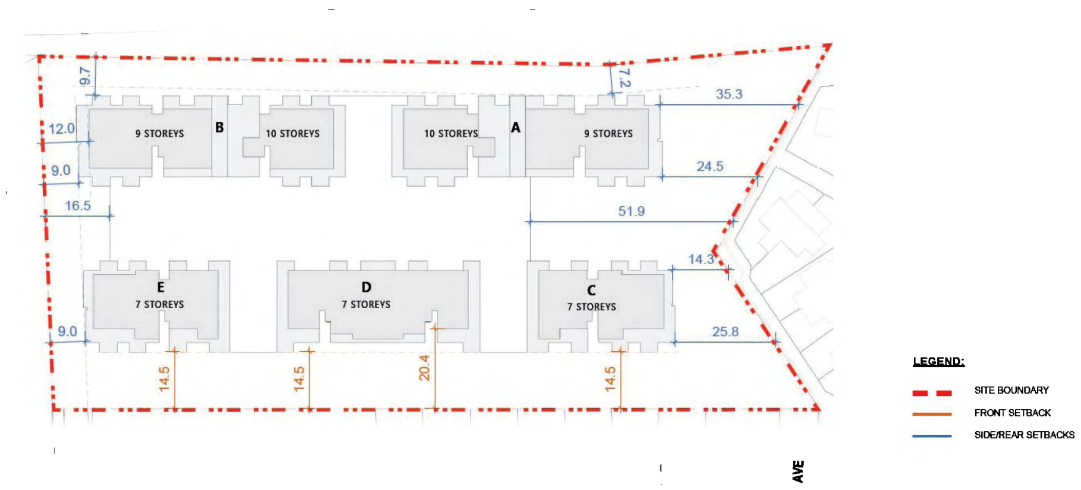


Figure 62. Setback diagram (Source: Antoniades Architects).

West

Minimum 6m to 8m setback is provided to the west.

Due to flood constraints, perimeter areas on Basement Level 1 are enclosed by permeable screens.

Levels 01 - 04

On Levels 01-04, the scheme provides the following setbacks:

North

Minimum 14.5m

South

Minimum 9.1m

East

According to the architectural plans, the general setback is 16.9m with some balcony encroachments to 14.5m.

West

According to the architectural plans, the setbacks range from 7.3m to 12.2m.

Levels 05 - 09

On Levels 05, additional setbacks are provided on Buildings C and E. Secondary setbacks vary but are generally 3m with some encroachments to 2.3m.

On Levels 06, additional setbacks are provided on Buildings C, D and E. Secondary setbacks vary but are generally 3m with minor encroachments to 2.3m.

On Level 07-09, a variety of secondary setbacks are provided for Buildings A and B as indicated on the layout plans included in chapter 7.3.4 of this report.

Building separation

Building separation distances are consistent with ADG requirements as indicated in **Figure 63.**

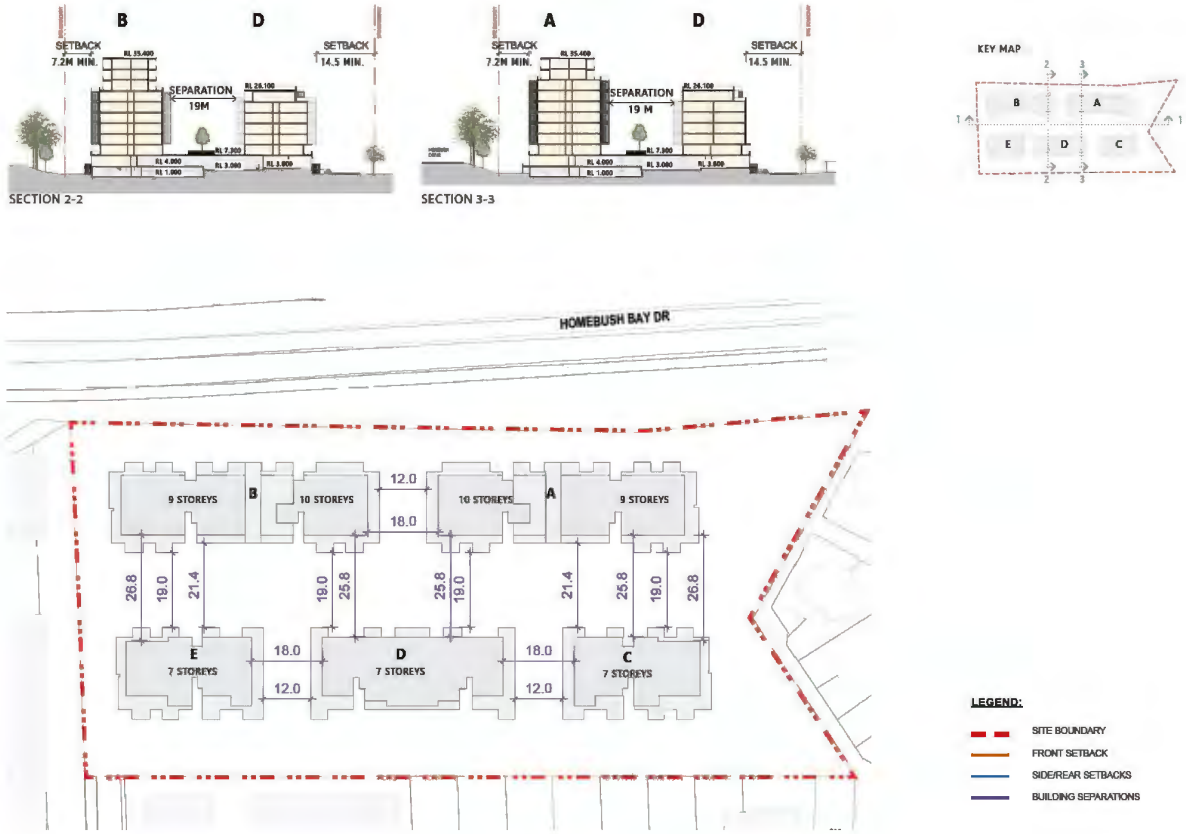


Figure 63. Building separation diagrams (Source: Antoniades Architects).

7.2 Urban form responses

Along the eastern perimeter, the preferred massing strategy delivers building forms arranged in a parallel formation above a 1-2 storey podium. The podium level accommodates basement car parking sleeved with residential apartments.

Residential uses on the ground floor are raised above natural ground in response to flood constraints, as discussed in previous chapters of this report.

Within the western part of the Site, maximum building heights range from 7 to 10 storeys with the upper building levels recessed from the building alignment below, to reduce perceived bulk and ensure the taller forms present with a defined 'top' terminating the building envelope.

The project architects have carefully tailored the scheme to ensure taller forms, above the 1-2 storey podium, are expressed as pavillion components, separated by visual corridors allowing for relief and outlook to areas further east.

The eastern perimeter form provide approximately 15m setback to the eastern boundary adjoining lower density areas. The current controls for the neighbouring R2 and R3 zoned areas allow for building heights from 8.5m to 10m (2-3 storeys).

To the south of the Site, current controls for the industrial lands allow for maximum 12m Height of Buildings. However, as discussed in previous chapters of this report, our context analysis assumes the neighbouring site will be rezoned for residential use and building heights of 4 - 6 storeys.

The 3D testing prepared by Antionades Architects, demonstrates that the proposed distribution of heights complements the likely future development context.

The massing strategy is responsive to the emerging mid range height spine distributed along Homebush Bay Drive and the railway, as discussed in Chapter 4.1.10 of this report.

The proposal contributes to the rhythm of 7-12 storeys cluster 'peaks' occurring, from Liberty Grove to the north (10 storeys), to the 9-12 forms proposed as part of the Planning Proposal for the 1 King Street near Concord West Train Station, as indicated in **Figure 66.**

Only a limited number of amalgamated sites within the western precinct, have the capacity and the site specific circumstances, to accommodate additional housing density within taller forms expressed as staggered tower heights, to visually integrate with the layered skyline of the area.

The location, topographical level and geometry of the site makes it well suited to accommodate taller form along the western part boundary.

According to the architectural drawings prepared by Antoniades Architects, the indicative scheme provides the following maximum building heights (number of habitable storeys):

Building A - Up to 10 storeys (Roof level RL 35.400)

Building B - Up to 10 storeys (Roof level RL 35.400)

Building C - Up to 7 storeys (Roof level RL 26.100)

Building D - Up to 7 storeys (Roof level RL 26.100)

Building E - Up to 7 storeys (Roof level RL 26.100)

The proposed amendments to CBLEP are detailed in the Planning Proposal report prepared by Gyde Consulting.

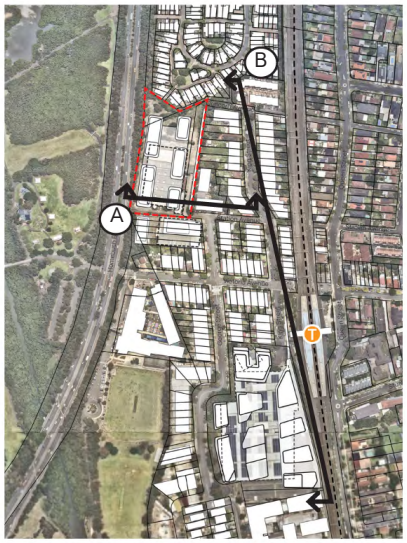


Figure 64. Aerial diagram (adapted from NearMap).

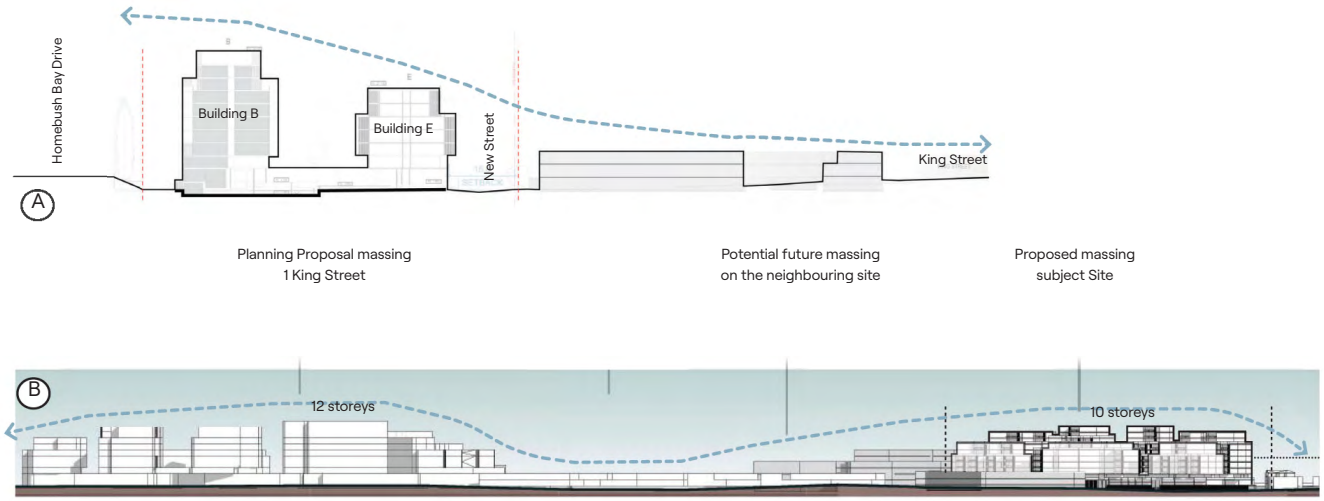


Figure 65. Diagrams illustrating the proposal's response to the evolving urban skyline (Adapted from drawings by Antoniades Architects).

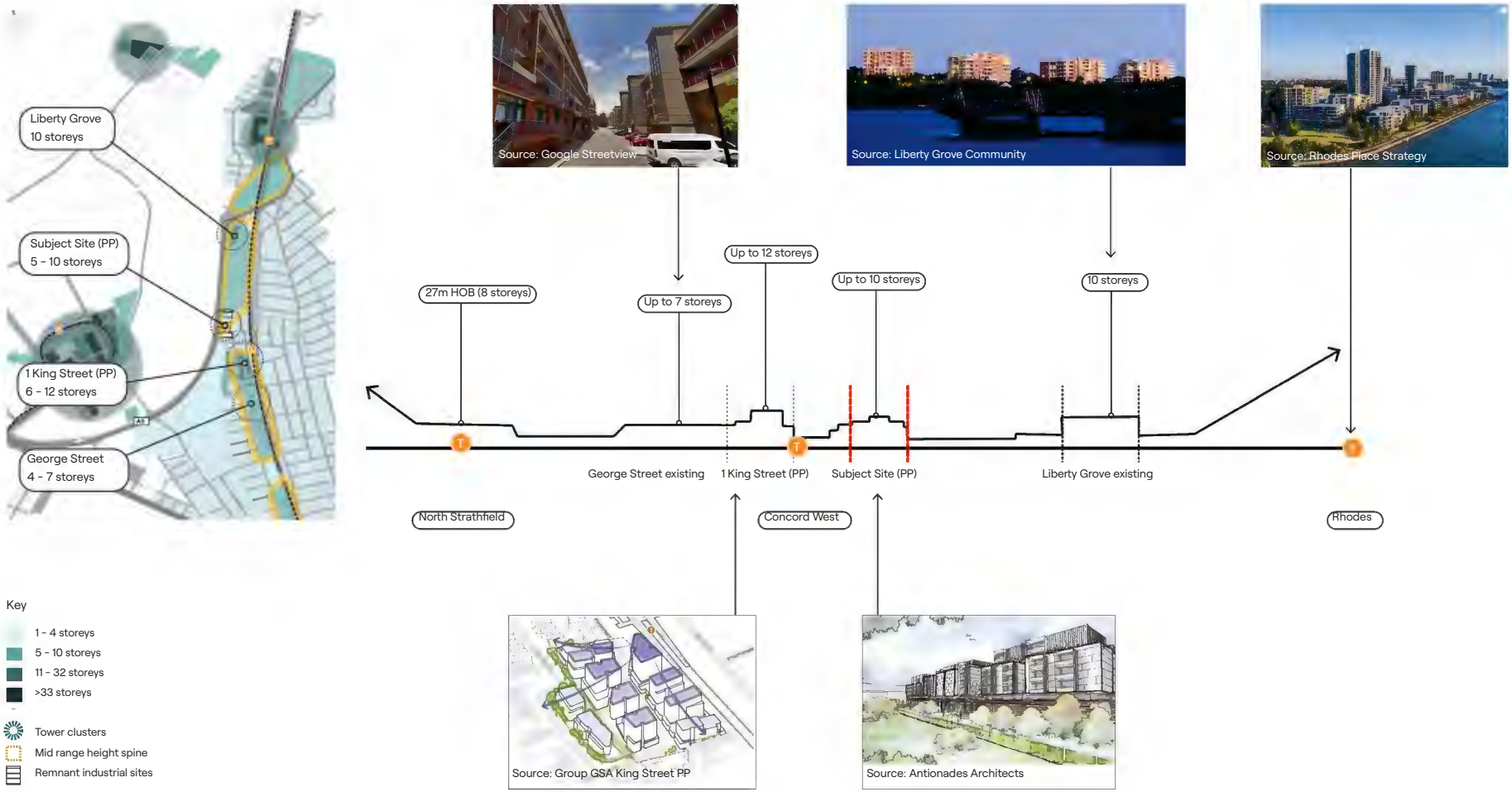


Figure 66. Diagrams illustrating the emerging urban form outcome around Concord West.

7.3 Visual bulk

The indicative scheme has been designed to allow for visual corridors between building forms to provide relief and outlook to neighbouring sites.

The proposed distribution of height is arranged to concentrate taller built forms along Homebush Bay Drive, as discussed in Chapters 4.3 and 7.2 of this report.

Equally, the distribution of massing was informed by 3D view testing, to determine the level of visual bulk exposure from surrounding streets.

Longer building footprints are proposed along the western perimeter of the new open space spine, providing containment and acoustic screening to the communal outdoor areas on Level 01.

At 68.8m in length, Buildings A and B exceed the maximum building length of 60m sought by the precinct DCP (K22.5). However, given the site specific circumstances, the elongated building forms provide a better outcome than an alternative layout with reduced building lengths.

Vertical indentations ensure Buildings A and B present as a composition of individual 'bays' rather than continuous forms which reduces the perceived length and bulk of the forms as indicated in **Figure 67.**

Buildings A and B have no immediate interface to surrounding sites excepts to Homebush Bay Drive, from where the buildings are screened by dense vegetation. The upper portion of Buildings A and B will be visible from Homebush Bay Drive above the canopy line.

Building C, D and E present to the new street along the eastern site edge. These buildings range from 37.5m to 52.1m in length. The three (3) built forms establish a well balanced rhythm along the eastern frontage where upper level forms are separated by visual corridors to landscaped areas on Level 01.

Vertical indentations and recessed upper levels introduce grain and a finer grain texture to the perimeter façades as indicated in **Figure 69.**

Building modulation and facade grain is discussed in chapter 7.3.1 of this report.

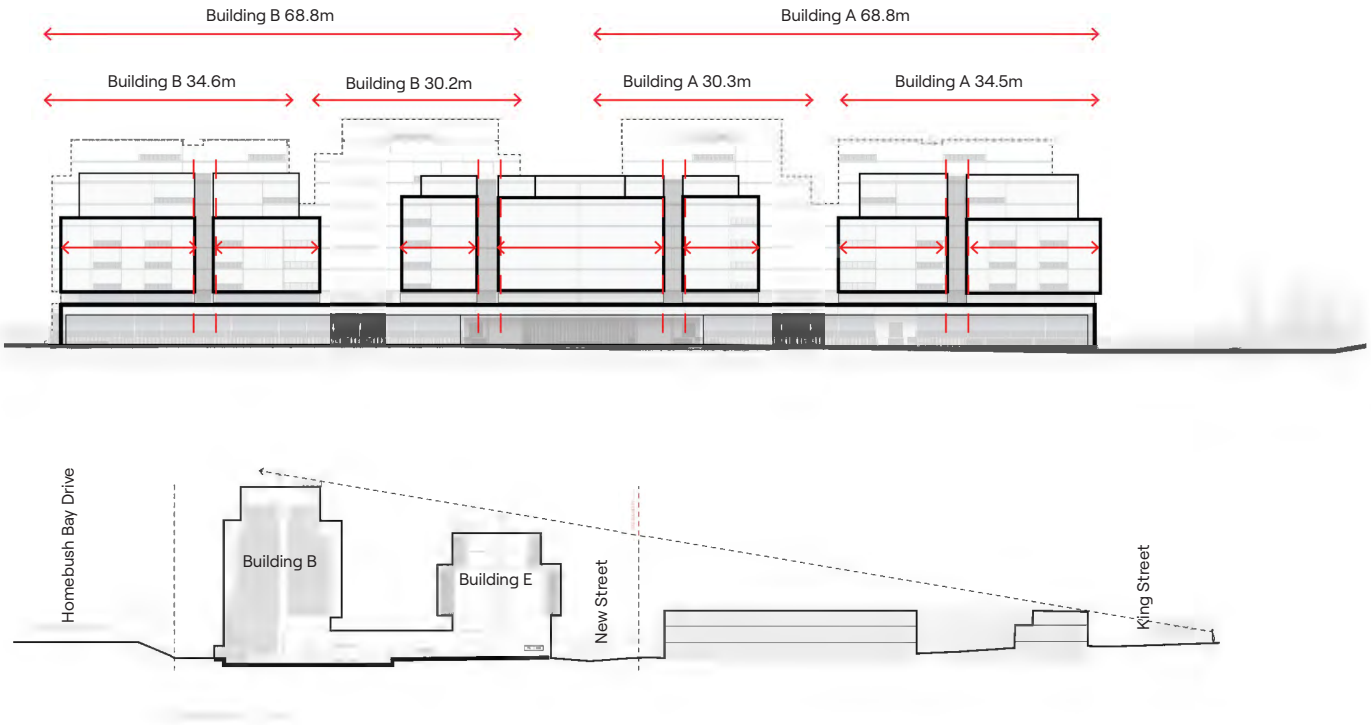
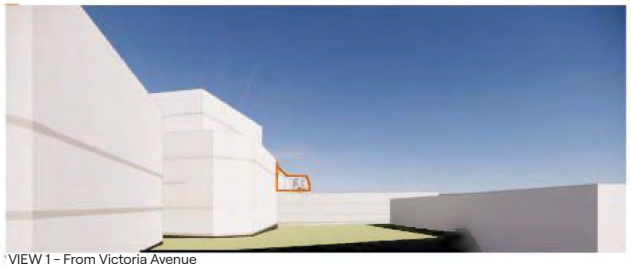
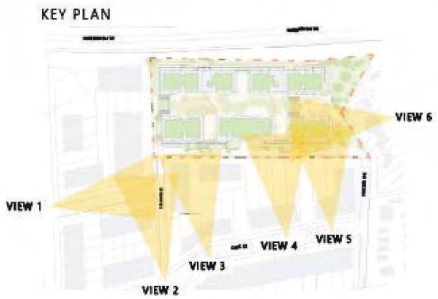


Figure 67. Sight-line analysis was used to distribute built form, reduce visual bulk exposure to surrounding areas (Adapted from sections prepared by Antoniades Architects).



VIEW 1 - From Victoria Avenue

VIEW 4 - From King Street



VIEW 2 - From King Street looking west along Station Avenue

VIEW 2 - From King Street

VIEW 3 - From King Street

VIEW 3 - From Liberty Grove

KEY PLAN - View 7

VIEW 7 - From King Street. The proposal is visually obstructed by lower scale development fronting King Street but the King Street PP near the Train Station terminates south bound views.

Figure 68. Visual bulk analysis/pedestrian eye level views (Source: Antoniades Architects).

7.3.1 Modulation and facade grain

The indicative scheme provides modulated built forms responding to the grain and evolving character of the area.

A single storey linear residential interface forms the 'base' of the massing as presented to the eastern interface and the lower density zone.

To manage flood constraints, the residential floor levels are elevated slightly above natural ground level whereby the scale of the brick podium reads as a 1-2 storey scale. The raised floor level reduce privacy impacts to ground floor apartments where terraced landscaped area provide screening between the shared zone and the residential interface.

The outcomes promotes passive surveillance and engagement with the pedestrian environment as sought in accordance with the intended outcomes of the DCP.

On Level 01, a recessed building line creates a 'waist component' along the eastern facade to visually separate the upper levels from the 'base' of the building.

The eastern built forms are modulated to break up the massing when viewed from public places and neighbouring properties as sought by the precinct DCP (K22.10)

The project architects have designed the upper floor levels as recessive form elements which, in combination with generous vertical articulation, provides for well-proportioned facade compositions with a grain and texture which is responsive to the residential context.

The indicative scheme achieves a visually layered roof profile, transitioning in height to the northern and eastern site edges.

The material palette envisages darker roof cladding for the upper levels to ensure the upper levels appear as recessive when viewed from the public domain as per the precinct DCP controls.

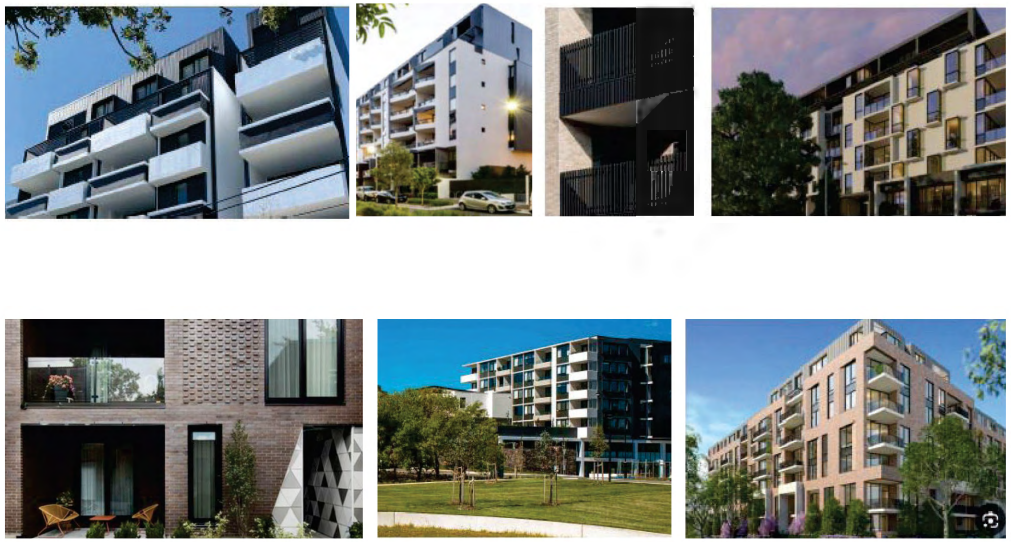


Figure 69. Examples of facade modulation (Source: Antoniades Architects).)

7.3.2 Sectional studies

The project architects have developed typical sections demonstrating how the indicative scheme responds to surrounding site levels and adjoining areas. Gyde understands the sections were developed in conjunction with the Landscape Concept prepared by Turf.

Antoniades Architects and Turf have explored sectional analysis to maximise deep soil zones along site boundaries while responding to the challenging interfaces responses associated with the flood constraints.

The project architects have developed a strategy to sleeve the raised car parking levels with habitable interfaces to maximise the residential uses to all Ground Level interfaces. Principles for how landscape solutions may soften the building interfaces to minimise 'blank wall conditions' to communal areas.

Sectional analysis was used as a tool to develop the proportions of the built form and how the terraced levels interrelate across the site.

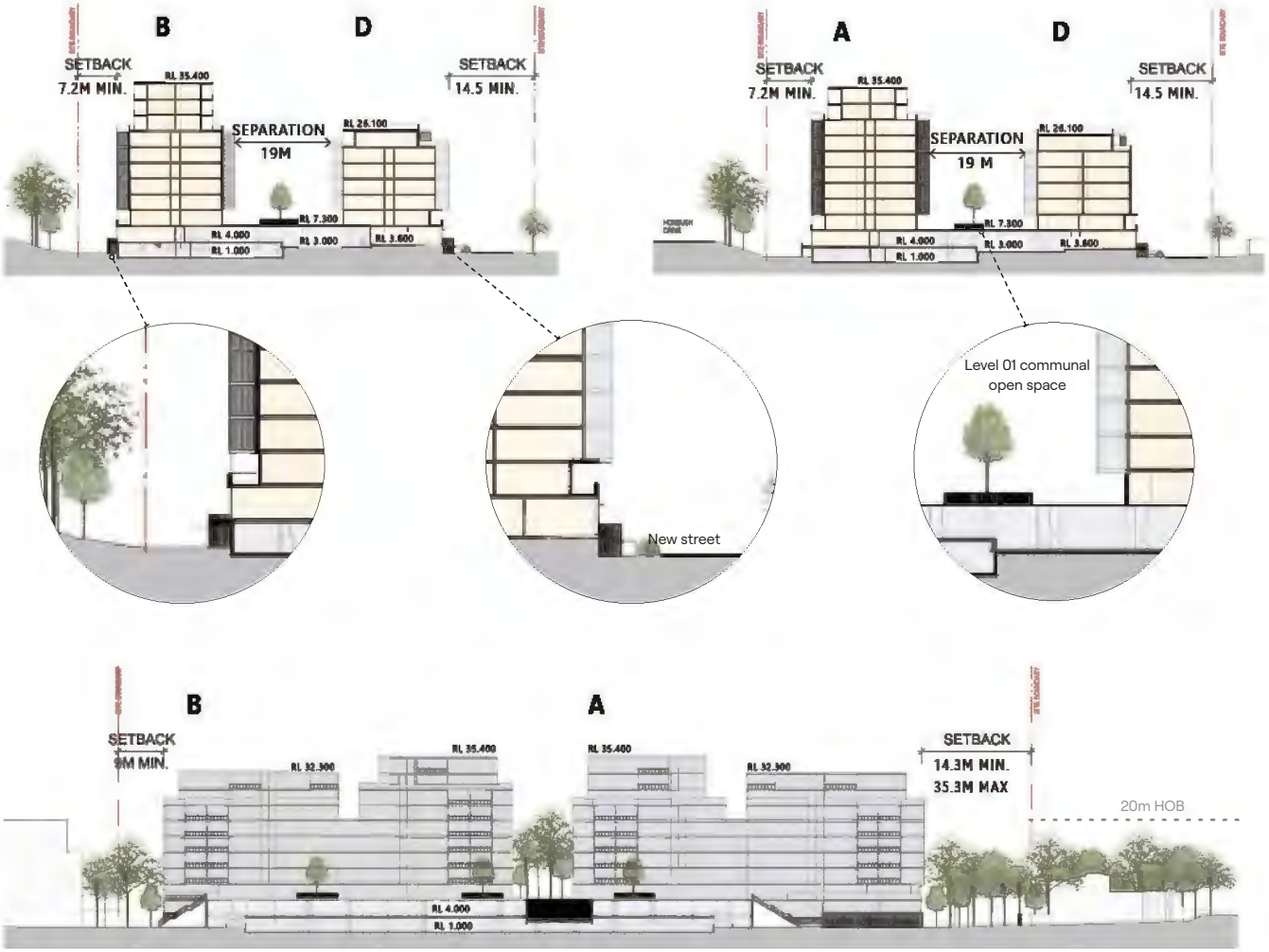


Figure 70. Sections prepared by (Source: Antoniades Architects).)

7.3.3 Landscape strategy

The landscape and open space concept prepared by Turf draws inspiration from the local landscape character, water movements across the Site and the opportunities to promote active transport networks.

A series of new landscaped areas are arranged sequentially across the Site to encourage movements through the open spaces, while providing improved landscape interface to all perimeter areas.

The landscape concept demonstrates the capacity for the proposal to strengthen the landscape presence by retaining and expanding deep soil areas along all site edges.

The landscape concept complements the Site Vision to transform a remnant industrial site, dominated by handstand areas, into a contemporary residential development with unique lifestyle amenity.

Principle concept sketches prepared by Turf demonstrate the capacity to enhance landscape screening along the eastern site edge. The concept allows the new street layout to integrate a swale with grasses or native vegetation along the eastern building edge, to soften the interface between the raised floor levels and the shared zone.

The landscape concept introduces a palette of innovative landscape solutions and open spaces typologies to encourage the 'sense of journey' for residents and visitors moving through the site. The landscape design complements the vision for a active and diverse communal areas to meet the future lifestyle expectations of various types of households.

Landscaped 'rooms' are designed to enhance the landscape character and the site's contribution to the 'greening' of the area. The landscape concept will improve the aesthetic quality and amenity outcomes of the site by:

- Improving site permeability, introducing through site access and ensure passive surveillance to landscaped areas.
- Improving landscape screening to all site edges.
- Introducing deep soil landscaping along the eastern boundary which is currently largely dominated by handstand areas.
- Provide deep soil zones dimensioned to accommodate screening plants, shrubs and small native trees.
- Providing a diverse range of outdoor spaces on Level 01 to complement, and extend, communal facilities.
- Landscaped areas on Level 01 have the capacity to accommodate a diverse program of outdoor uses including:
  - Communal BBQ facilities and areas with dining areas.
  - Outdoor gym and yoga lawns.
  - Pet amenities.
  - Play areas near the 'Kids Zone' indoor facilities.
  - Quiet areas with seating adjacent to meeting and co-work facilities.
  - 'Landscape rooms' where families or smaller groups of residents can gather and entertain guests.
  - A range of landscape spaces to suit different time and seasons (i.e. areas with shade, shelter or evening lighting etc.).
- Facilitating a new publicly accessible street, expanding the existing network by linking Station Avenue (south) to Concord Avenue (north). The new links will draw pedestrians into and through the subject site, enhancing activation and a sense of community.
- Provide integrated on-street visitor parking as part of the landscape concept design for the new street.
- Maximise permeable areas along the site perimeter to mitigate flood constraints and allow for deep soil landscaping to enhance visual screening.

The landscape concept adopts innovative solutions to mitigate the flood constraints, facilitating an engaging pedestrian experience to benefit future residents and the emerging character of the area.

Figure 71. Landscape reference images (Source: TURF).)

Figure 72. Principle sketch, Level 01 program (Source: TURF).

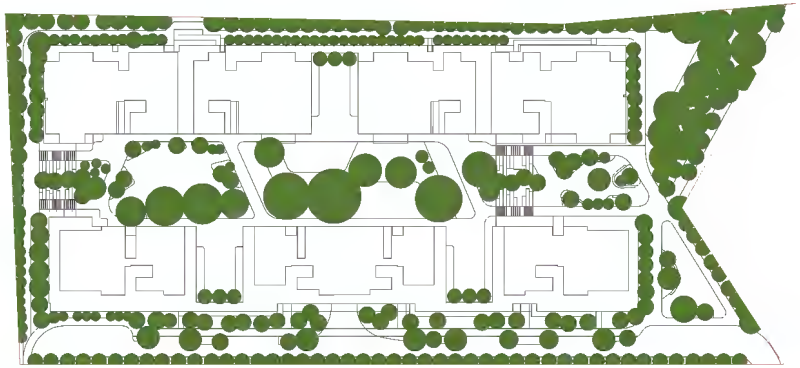


Figure 73. Canopy Cover Plan (Source: TURF).)

Site Plan

Ground Floor Plan

Level 01 Plan (podium level)

Roof Plan

Key

1. Level change and passive recreation
2. Green central plaza
3. Retained swale
4. Bio retention
5. Entrance ramp to carpark
6. Footpath
7. Raised mesh pathway
8. Passive recreation lawn
9. Verge planting
10. Shared street
11. Outdoor BBQ and dining
12. Outdoor Gym
13. Outdoor play zone
14. Breakout space
15. Outdoor working space
16. Rooftop planting
17. Arbor with climbers above BBQ areas
18. Future through-site link

Scale 1:500 @ A3 N

Figure 74. Concept Landscape Plans (Source: TURF).

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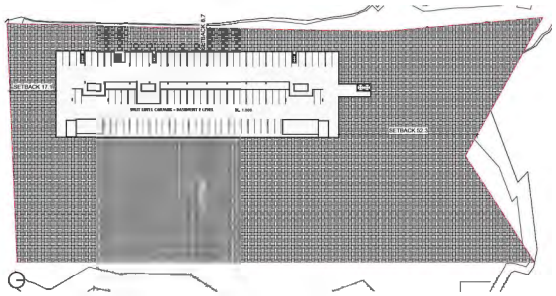
7.3.4 Indicative Floor Plan Layouts

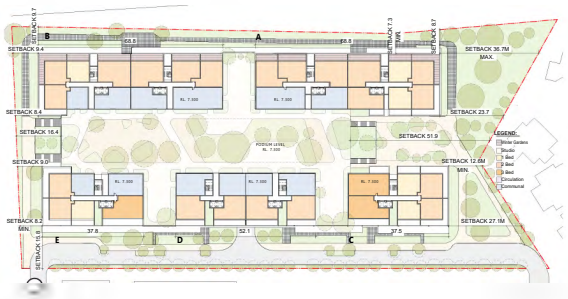
The indicative scheme demonstrates the capacity for the site to deliver the vision for a high quality residential development as follows:

- Basement 2 Car Park Level at RL 1.000 includes 85 car parking spaces.
- Basement Level 1 is not a full floor level but a plan indicating the undercroft areas.
- Ground Level Plan (split level) at RL 3.000 and RL 4.000 is the car park entry level. The level includes 121 car parking spaces, plant facilities, residential apartments and lobbies.
- Level 01 Plan at RL 7.300 includes residential apartments and a centralised communal open space. Communal indoor facilities are provided adjacent to the open space areas.
- Levels 02-04 are typical floor levels at RL 10.400, RL 13.500 and RL 16.6000 include residential uses.
- Level 05 at RL 19.700 Includes residential uses.
- Level 06 at RL 22.800 Includes residential uses.
- Level 07 at RL 25.900 Includes residential uses.
- Level 08 at RL 29.000 Includes residential uses.
- Level 09 at RL 32.100 Includes residential uses.
- Roof Level at RL 35.400 (top of slab)

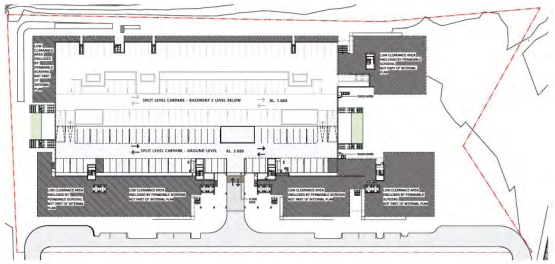
The indicative scheme provides an indication of the potential floor plan arrangements. Nevertheless, the regular building footprints and the rectangular geometry and orientation of the building footprints are flexible with the capacity to accommodate a range of unit configurations as part of the future redevelopment of the Site.



Basement 2 Level Plan

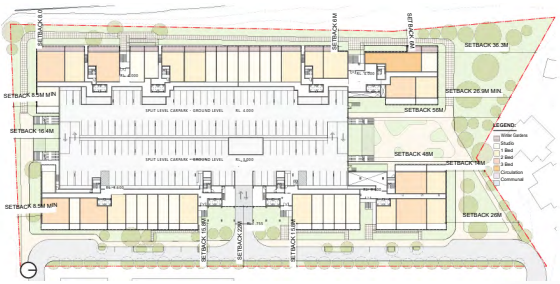


Level 01



Basement Level 01 Plan

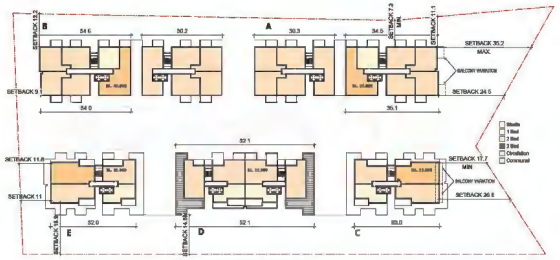
Level 02 - 04 Typical Plan



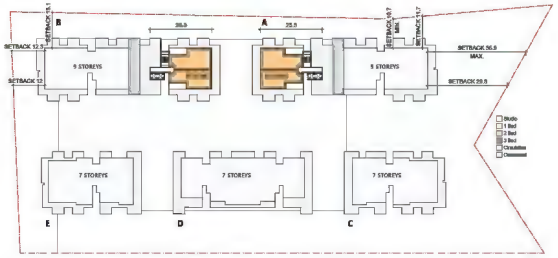
Ground Level

Level 05 Plan

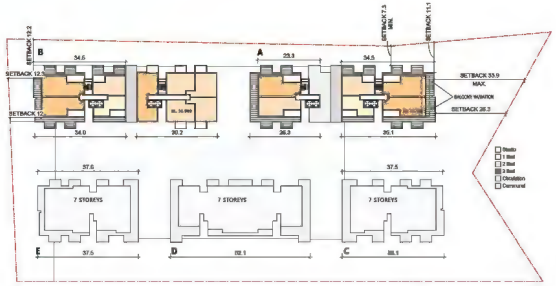
Figure 75. Indicative Floor Plans (Source: Antoniades Architects).



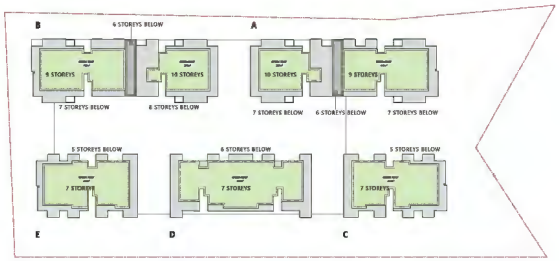
Level 06 Plan



Level 09 Plan



Level 07 Plan



Roof Plan

Level 08 Plan

Figure 76. Indicative Floor Plans (Source:Antoniades Architects).

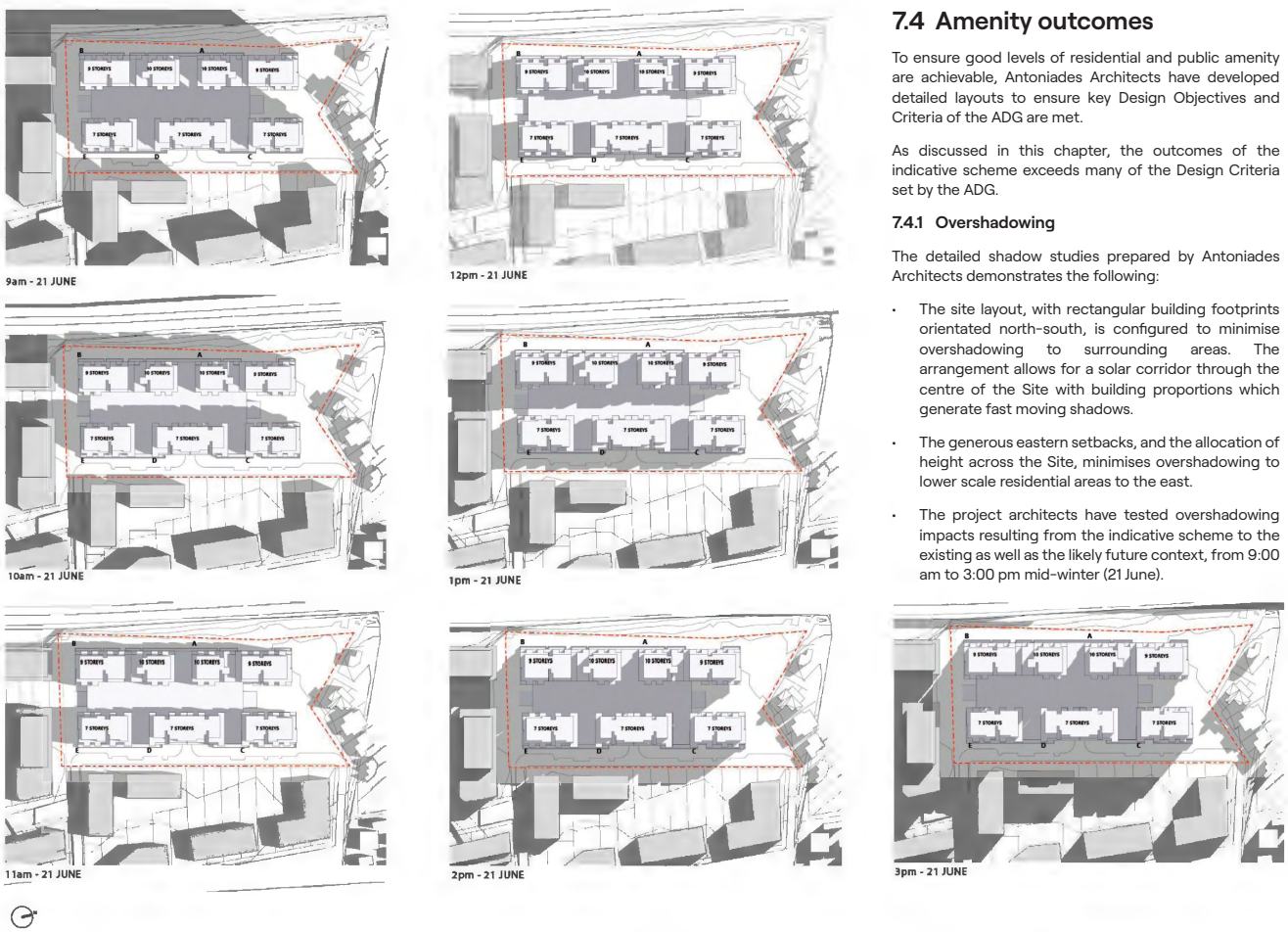


Figure 77. Overshadowing diagrams – Likely future context (Source: Antoniades Architects).

7.4 Amenity outcomes

To ensure good levels of residential and public amenity are achievable, Antoniades Architects have developed detailed layouts to ensure key Design Objectives and Criteria of the ADG are met.

As discussed in this chapter, the outcomes of the indicative scheme exceeds many of the Design Criteria set by the ADG.

7.4.1 Overshadowing

The detailed shadow studies prepared by Antoniades Architects demonstrates the following:

- The site layout, with rectangular building footprints orientated north-south, is configured to minimise overshadowing to surrounding areas. The arrangement allows for a solar corridor through the centre of the Site with building proportions which generate fast moving shadows.
- The generous eastern setbacks, and the allocation of height across the Site, minimises overshadowing to lower scale residential areas to the east.
- The project architects have tested overshadowing impacts resulting from the indicative scheme to the existing as well as the likely future context, from 9:00 am to 3:00 pm mid-winter (21 June).
- The findings include that the adjacent properties fronting Station Avenue will not be impacted by additional overshadowing until approximately 2:00pm during mid winter, which is considered a an acceptable outcome.
- The preferred massing strategy facilitates solar access to the adjoining site to the south which is currently occupied by industrial uses. Overshadowing studies undertaken by the project architects examines overshadowing impacts to potential future development on the neighbouring site, as discussed previous chapters of this report.
- Gyde understands testing has demonstrated the capacity for a potential future massing scenario on the neighbouring site to the south, to achieve adequate solar access to meet Design Criteria under Objective 4A-1 of the ADG. Overshadowing impacts to potential future development is illustrated in the 'Sun eye views' in **Figure 81.**
- Testing demonstrates the indicative scheme will not result in noticeable additional overshadowing to public domain areas, except for a limited area of impact at the northern end of George Street. The impact to the public domain will occur from approximately 2:00pm mid winter and will not substantially detract from the streetscape amenity along George Street.

7.4.2 Solar amenity to communal open spaces

The indicative scheme demonstrates the capacity to incorporate high amenity common outdoor areas within the preferred massing strategy, to benefit future residents by providing high quality common landscaped areas with good solar amenity.

Minimum 65.3% of the principal usable part of the communal open space receives minimum of 2 hours of direct sunlight between 9:00 am and 3:00 pm during mid winter. The outcome exceeds the requirements of Design Criteria 2 under Objective 3D-1 of the ADG as indicated in **Figure 79.**

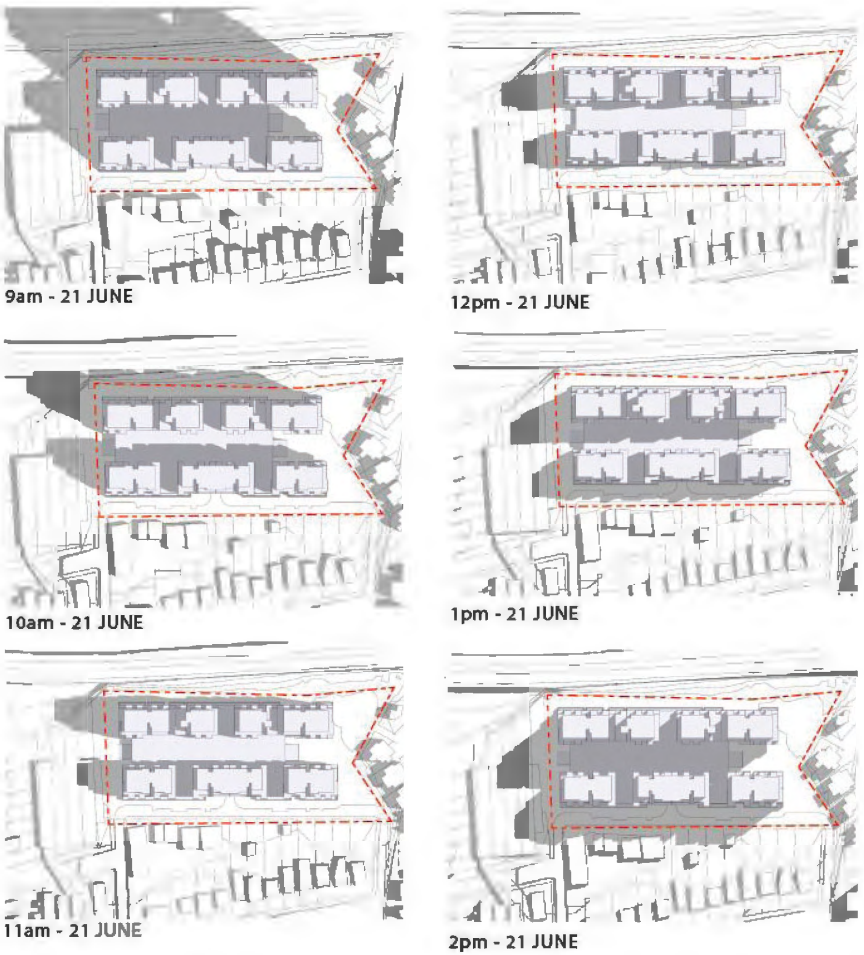


Figure 78. Overshadowing diagrams – Existing context (Source: Antoniades Architects).

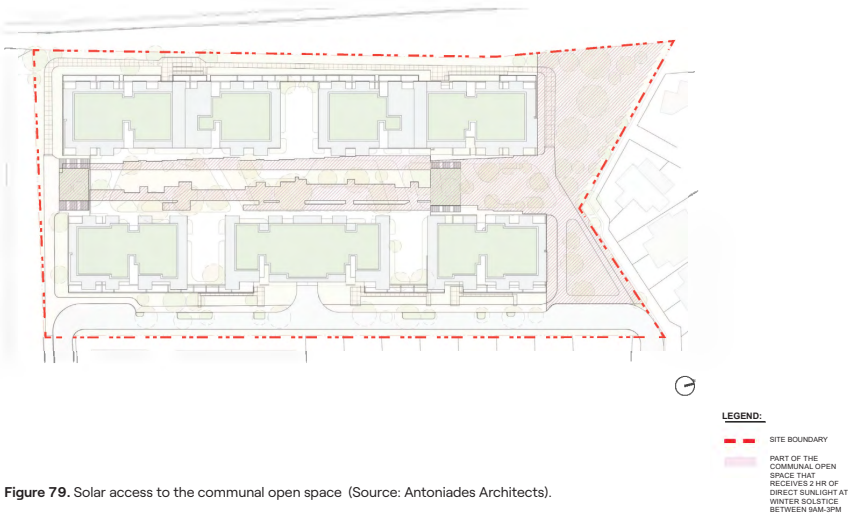


Figure 79. Solar access to the communal open space (Source: Antoniades Architects).

7.4.3 Solar access

Typical floor plan layouts have been developed to demonstrate the capacity for the indicative scheme to achieve good amenity outcomes for future occupants.

The residential layouts are designed to ensure ADG Design Criteria for solar access are met as demonstrated in **Figure 80.**

Apartments achieving minimum 2 hours direct sunlight between 9 am and 3 pm at mid winter are highlighted in yellow.

According to the information provided, 259 of 324 apartments receive minimum 2 hours solar access during mid winter which equates to 80%. The outcomes exceeds the minimum requirements of Design Criteria 1 of ADG Objective 4A-1 .

According to the testing undertaken by Antionades Architects, only 65 units receive less than 2 hours direct solar access of which only 4 units receive no solar access or less than 15 minutes. The outcome meets Design Criteria No 3 under ADG Objective 4A-1, requiring maximum 15% of apartments in a building to receive no direct sunlight between 9 am.

The indicative scheme demonstrates the capacity to deliver good solar amenity to apartments, exceeding the requirements of the ADG.

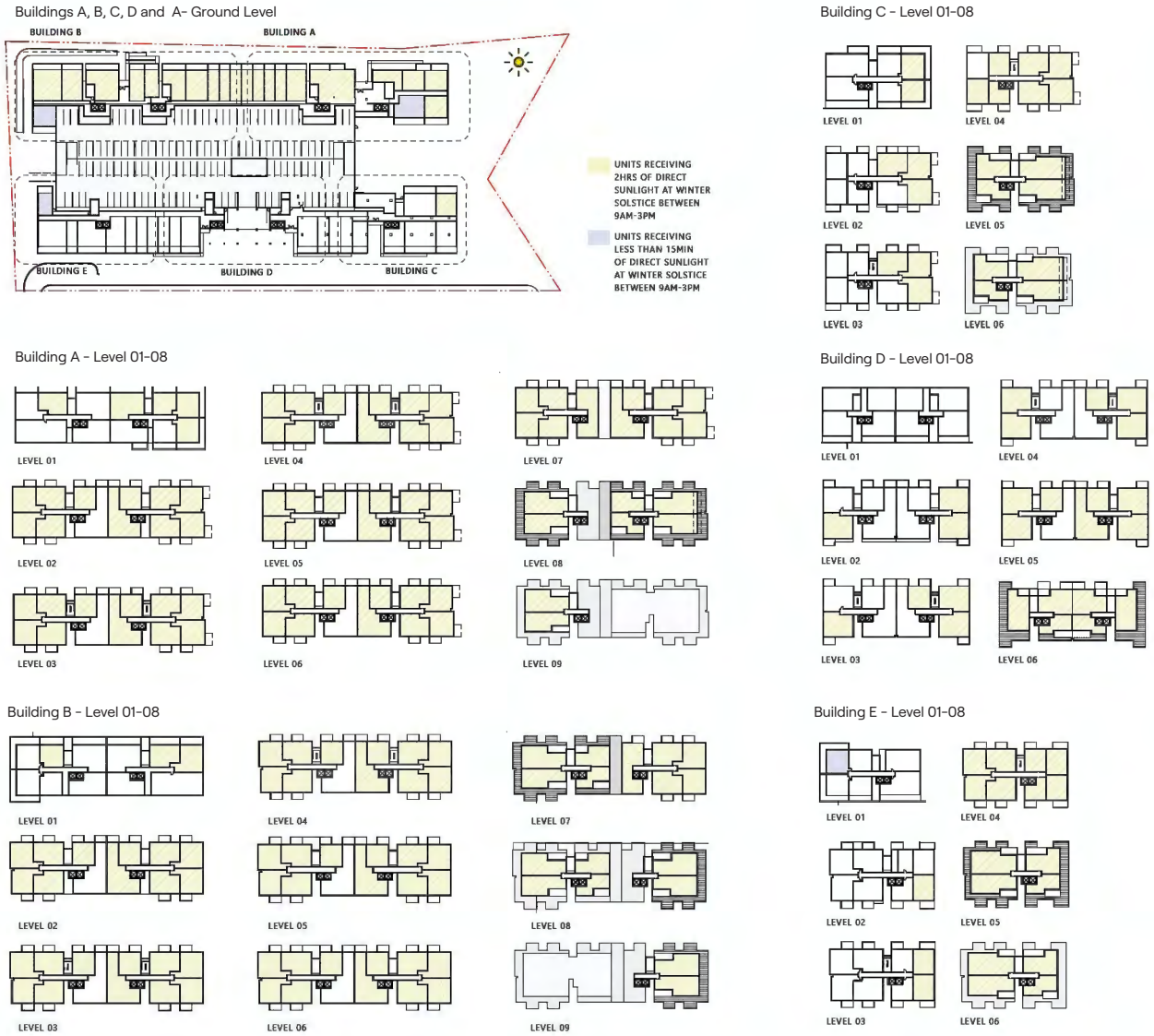


Figure 80. Solar access diagrams (Source: Antoniades Architects).

Figure 81. Sun eye diagrams (Source: Antoniades Architects).

7.4.4 Natural Cross Ventilation

Apartments counted as being naturally cross ventilated in the first nine storeys of the building are highlighted in blue in Figure 82.

The indicative scheme was designed to maximise dual aspect apartments and according to the information prepared by Antionades Architects, 241 of 320 apartments in the first 9 storeys are naturally cross ventilated which equates to 75%.

The outcome exceeds the Design Guidance provided under Design Criteria 1 of ADG Objective 4B-3 which requires At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.

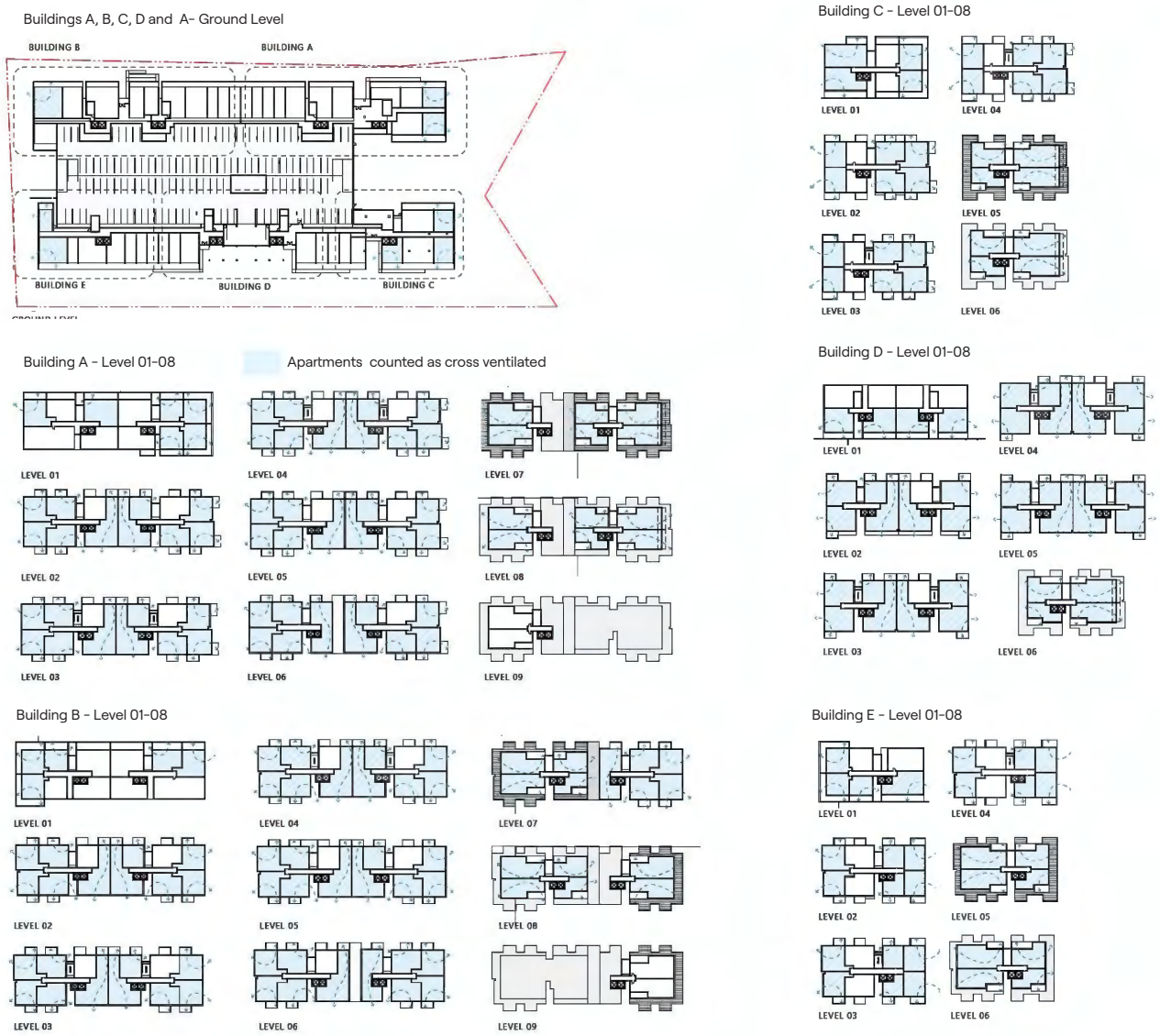


Figure 82. Natural ventilation diagrams (Source: Antoniades Architects).

7.4.5 Open space

The proposal demonstrates the capacity to provide a range of good quality communal open spaces to benefit future residential occupants, which is consistent with outcomes sought by Design Criteria No. 2 under Objective 3D-1 of the ADG.

The ADG requires communal open space to have a minimum area equal to 25% of the site.

The proposal provides a combination of communal open spaces on the Ground Level as well as on Level 01.

The total area of communal open space equates to 33.5 % of the total site area which meets with the ADG requirement, noting the ADG definition of communal open space includes open space areas accessible to the public.

The communal open spaces on Level 01 equates 17.1% of the site area and the new publicly accessible areas on the Ground level equates to 16.4%.

As discussed in Chapter 7.3.4 of this report, the communal open spaces on Level have been carefully designed to complement, and relate to, the communal indoor areas on Level 01 as indicated in **Figure 83.**

In addition to the designated communal open spaces provided within the development, the adjacent Bicentennial Parkland offers unique open space amenity within a short walking distance from the site. The public parkland includes landscaped areas, playgrounds, picnic areas and a range of outdoor recreational areas as discussed in Chapter 4.1.3 of this report.

The total landscaped area including green roof areas equates to 54% of the total site area. According to the landscape concept developed by Turf, deep soil zones along the site perimeters have the capacity to accommodate landscape screening.

7.4.6 Deep soil

The proposal provides 3,450sqm deep soil on ground which equates to 20.9% of the total site area site area, as deep soil zone with minimum 6m dimension.

The outcome greatly exceeds the minimum deep soil requirement of 15% for sites greater than 1,500sqm as sought by Design Criteria No 1 of Objective 3E-1 of the ADG.

Additional deep soil areas with less than 6m minimum dimension are provided elsewhere within the Site, to allow for generous landscape treatment. The total deep soil area inclusive of areas with a minimum dimension of less than 6m is 4,690sqm which equates to 28.4%.

The deep soil zone along the eastern boundary is minimum 2m wide which, according to the landscape architects, allows for landscape screening including native tree species.

The generous deep soil zone enables the capacity to deliver high quality, place-based landscape outcomes to complement the existing landscape character of the area.

As part of the flood mitigation strategy, the main communal open space areas are provided on Level 01, above sleeved car parking areas. These areas do not include deep soil yet the areas contribute significantly to the landscape amenity offered by the indicative scheme.

7.4.7 Ground floor apartments

Design Criteria No. 2 under Objective 4E-1 of the ADG requires a private open space is provided instead of a balcony with a minimum area of 15m2.

The indicative scheme provides generous private open spaces to all ground floor apartments. However, due to the raised floor levels, apartments at the ground level cannot be provided with direct and equitable access to a courtyard space at the ground level.

7.4.8 Ceiling heights

The indicative scheme provides 3.1m floor to floor height for residential levels which has the capacity to meet ADG design guidance under Criteria 1 of Objective 4C-1.

7.4.9 Apartment layouts

According to the architectural drawings prepared by the project architects, internal layouts are designed to meet the design guidance provided under Part 4D of the ADG.

7.4.10 Acoustic amenity

West facing units are designed to incorporate winter gardens to mitigate acoustic and odour impacts associated with traffic movements along Homebush Bay Drive.

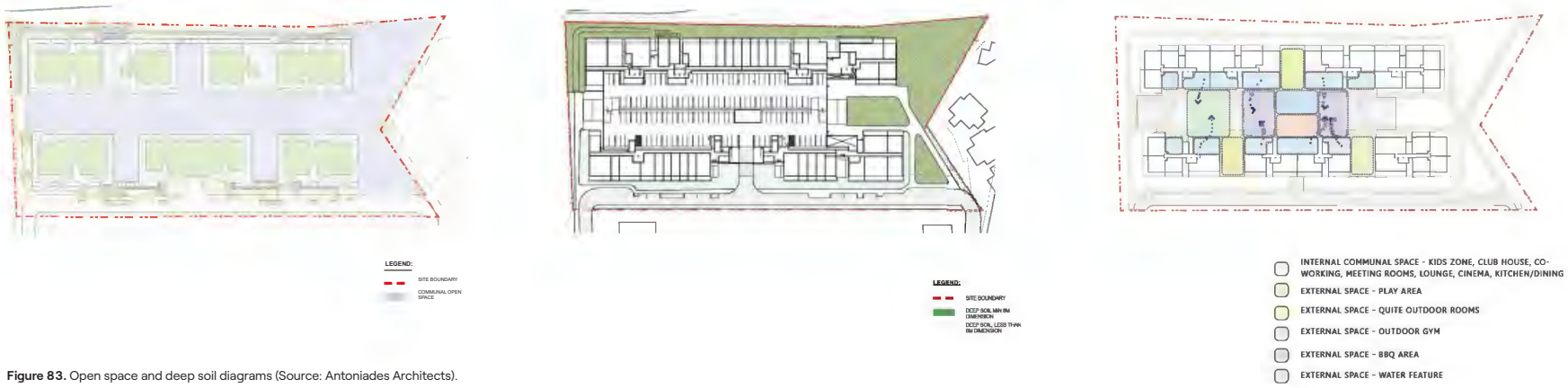


Figure 83. Open space and deep soil diagrams (Source: Antoniades Architects).

8 Development Outcomes

8.1 Key development outcomes

The indicative scheme provides 324 new high amenity apartments within short walking distance of the Concord West Train Station and Bicentennial Park including:

- A Basement 02 Level with 85 car parking spaces.
- A Ground Level podium form including 3,501 sqm residential GFA and 121 car parking spaces.
- Level 01 distributed across five (5) pavillion building forms including 2,706sqm residential GFA and 1,197sqm GFA provided for communal indoor facilities.
- Level 02 distributed across five (5) buildings including 4,143sqm residential GFA.
- Level 03 distributed across five (5) buildings including 4,143sqm residential GFA.
- Level 04 distributed across five (5) buildings including 4,143sqm residential GFA.
- Level 05 distributed across five (5) buildings including 3,721sqm residential GFA.
- Level 06 distributed across five (5) buildings including 3,287sqm residential GFA.
- Level 07 distributed across two (2) buildings including 1,024sqm residential GFA.
- Level 08 distributed across two (2) buildings including 1,149sqm residential GFA.
- Level 09 distributed across two (2) buildings including 428sqm residential GFA.
- A new shared way with on-street parking.
- A diverse range of engaging communal outdoor areas on Level 01 connecting to the indoor common facilities.
- Significant improvements to all site edges, including deep soil zones to improve landscape screening.
- 54% sqm of landscaped area including green roof treatment.
- 20.9% of the site area as deep soil zones with a minimum dimension of 6m. 28.4% of the site area as deep soil zone (including areas with a minimum dimension of less than 6m).
- 5,540sqm of communal open space distributed across Ground Level and Level 01 equating to 33.5% of the site area.

Gyde understands the GFA calculations exclude winter gardens for west facing apartments.

A breakdown of the indicative development outcomes is provided in **Figure 84.**

PROJECT 7 CONCORD AVE, CONCORD WEST

AA.MPN.1202

Council CANADA BAY
Lot & DP DP 270137, DP219742
Zoning
Site Area 18520m²

AMENITY

	Solar Access	Cross Ventilation	Building depth	Private Open Space (m2)	Communal open space	Landscaping	Deep Soil
Controls & Guidelines	70%	60%	18m	Studio 4m2. 1Bed 8m2. 2Bed 10m2. 3Bed 12m2 Ground floor 15m2	25%	30% site area	15% site area (2480 sq.m)
Proposed	80%	75%	10.5m-18.5m	Studio > 4m2 1Bed > 8m2 2Bed 10m2 3Bed 12m2	33.5%	54% (incl.green roofs)	28.4% site area (4690 sq.m.)

* In accordance with NSW Apartment Design Guide June 2015

* All figures presented in this chart are preliminary and refer to schematic design prepared by Antoniades Architects Pty. Ltd.

APARTMENT MIX

	Studio Apartment	1 Bed Apartment	2 Bed Apartment	3 Bed Apartment	Total	ComOS	ComIS	Carpark
Basement 02								85
Basement 01								
Ground Level	22	13	7	1	43			121
Level 01		6	21	3	30	5540 m²	1197m²	
Level 02		14	28	6	48			
Level 03		14	28	6	48			
Level 04		14	28	6	48			
Level 05		8	24	8	40			
Level 06		6	25	5	36			
Level 07		2	7	6	15			
Level 08		2	2	8	12			
Level 09				4	4			
Total	22	79	170	53	324	5540	1197	206
%	7%	24%	52%	16%	100%			

GFA, GBA CALCULATION

Level	GFA: Residential + Corridors	GFA: Communal Internal Space	GFA: Total
Lower Ground Level	0m²		0m²
Ground Level	3501m²		3501m²
Level 01	2706m²	1197m²	3903m²
Level 02	4143m²		4143m²
Level 03	4143m²		4143m²
Level 04	4143m²		4143m²
Level 05	3721m²		3721m²
Level 06	3287m²		3287m²
Level 07	1024m²		1024m²
Level 08	1149m²		1149m²
Level 09	428m²		428m²
Level 10			
Total	28245m²	1197m²	29442m²
FSR	1.8:1		

TYPICAL 1 BEDROOM TYPICAL 2 BEDROOM TYPICAL 3 BEDROOM

Figure 84. Summary of development outcomes and typical unit layouts (Source: Antoniades Architects).

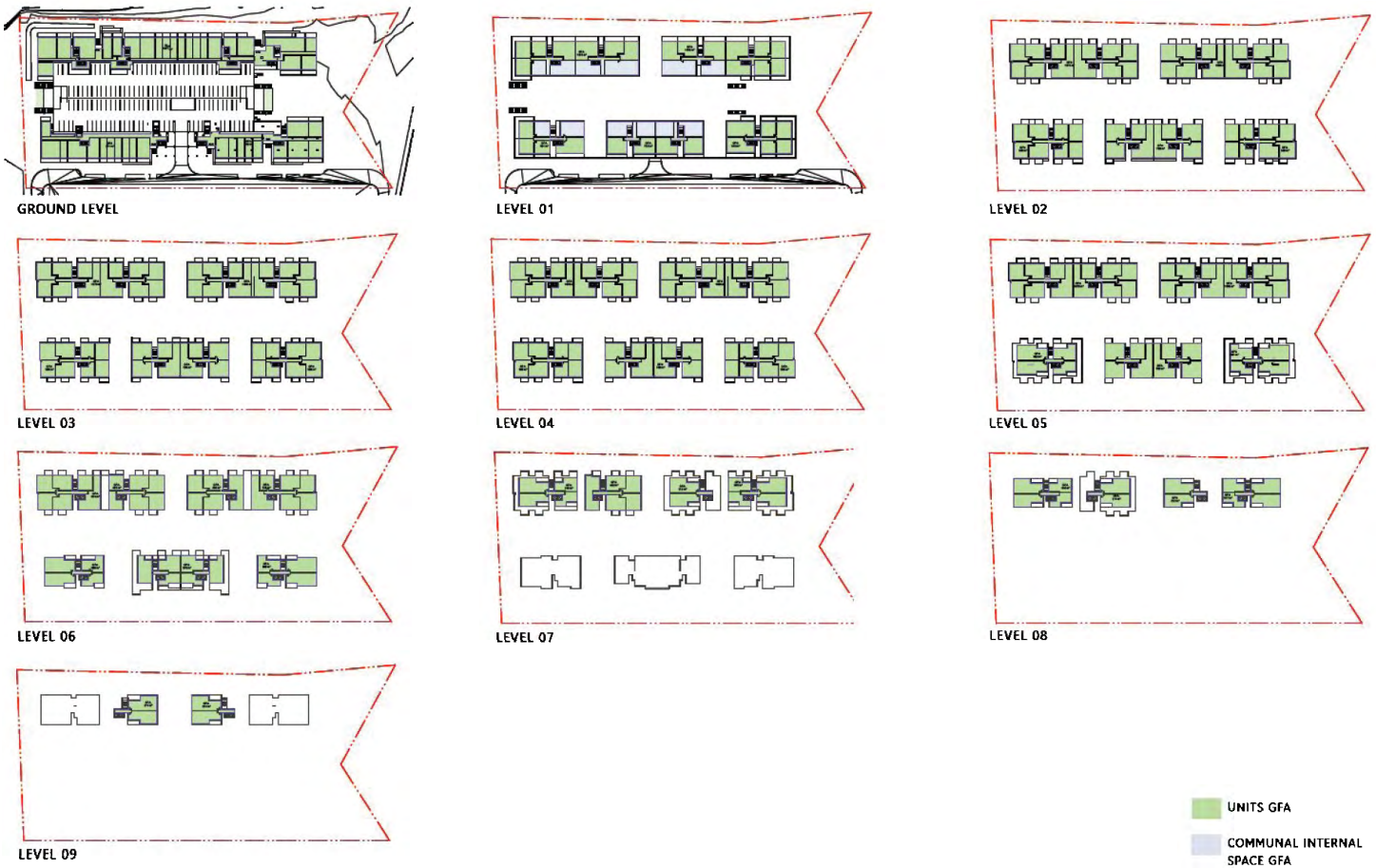


Figure 85. Gross Floor Area Diagrams (Source: Antoniades Architects).

9 Recommendation and Conclusion

9.1 Proposed amendments to the statutory controls

Based on findings of this study and the indicative scheme, Gyde recommends the statutory controls in the Canada Bay Local Environmental Plan 2013 be amended as detailed in the Planning Proposal report prepared by Gyde Consulting including:

Land Use

The proposal seeks to amend the zoning to R3 Medium Density Residential across the entire Site.

Height of Buildings

The proposal seeks to amend the maximum Height of Buildings control to 36m.

Floor Space Ratio

The proposal seeks to amend the maximum Floor Space Ratio to 1.8:1.

Gyde recommends a site specific DCP be prepared for the site in consultation with Council.

Figure 86. Indicative facade composition (Source: Antoniades Architects).

Figure 87. Photo montage of the proposed massing (Source: Antoniades Architects).

Figure 88. Landscape Concept Plan (Source: TURF).

9.2 Conclusion

This study concludes that the Site is located in an area well suited to additional housing, within a walkable neighbourhood with good access to community services, unique outdoor amenity, retail centres and public transport connections.

Under the Stage 1 PRCUTS Planning Proposal, the subject site was among areas in Homebush North deferred for changes to land use, subject to further flood investigations. Following the release of the Powells Creek Flood Study (2023), the Proponent identified the large consolidated Site as an opportunity to contribute to the growth and renewal of the residential offerings in the Concord West.

An indicative scheme was developed for the Site, demonstrating the capacity to adequately mitigate flood constraints, while achieving the vision to provide high amenity apartment typologies to meet the needs of household types with greater activation and lifestyle expectations than what is typically offered by residential apartment buildings in the local neighbourhood.

The approach developed by the project architects, relies on a series on interconnected levels and sleeved car park areas, creating a diverse range of engaging landscape spaces around and between the built forms.

Informed by site and context analysis, the vision seeks to transform a remnant industrial site into a vibrant high amenity residential development which will significantly improve the landscape amenity and character of the site and interface areas.

The preferred master plan captures opportunities to enhance local connectivity by expanding the existing pedestrian and bicycle network, which will improve pedestrian activation and the level of passive surveillance to the public domain.

The site layout arrangement is responsive to the existing and emerging development pattern of Concord West, with Built form positioned for optimal access to daylight for adjoining public and private land as sought by the precinct controls.

The local topography and the Site's limited level of visual exposure to the public domain, allows for the allocation of heights along the western site perimeter, where visual bulk and impacts to neighbouring sites and the public domain are minimised.

The indicative scheme provides building heights that are compatible with the scale of existing and emerging height nodes along Homebush Bay Drive and the railway corridor, and the scheme provides for modulated built forms with a contemporary residential facade grain which is sympathetic to the emerging character of the area.

Gyde is satisfied the indicative scheme demonstrates the capacity to provide appropriate built form responses and acceptable amenity outcomes, in a location well suited to support liveability and high amenity living needs of a growing population.

infrastructure & development consulting

7 Concord Avenue, Concord West

Utilities Servicing Strategy

November 2023

Infrastructure planning master planning civil engineering project management contract administration

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Project Number	21-021	**Date**	28 November 2023
Project Name	7 Concord Avenue	**Status**	Draft
Client	Concord West Partnership	**Revision**	A
Author	R. Higgisson	**Reviewed**	C. Avis

1 Introduction

Infrastructure & Development Consulting Pty Ltd (IDC) have been engaged by the Concord West Partnership to prepare technical inputs to support the Planning Proposal for 7 Concord Avenue, Concord West. This report outlines a potential strategy for the provision of utility services for the site. Specifically, this report will outline:

- Existing services within the vicinity of the site
- Current and planned utility projects
- Implications of the above and potential servicing strategies for the proposed development of the site

1.1 The Site

The site is located within the Canada Bay Local Government Area (LGA) and covers an area of approximately 1.7 hectares. The site is bound by residential properties to the north and east, warehousing to the south and Homebush Bay Drive to the west. The site is predominantly zoned E4 General Industrial, with a small portion in the north west corner zoned R3 Medium Density Residential. The site is shown in Figure 1 below.

Figure 1 - Site Boundary

1.2 Proposed Development

The subject site will be rezoned to provide 400 build-to-rent apartments. A new road will be constructed within the site boundary, connecting Concord Avenue at the northern boundary to Station Avenue at the southern boundary. The proposed development layout is shown in Figure 2 below.

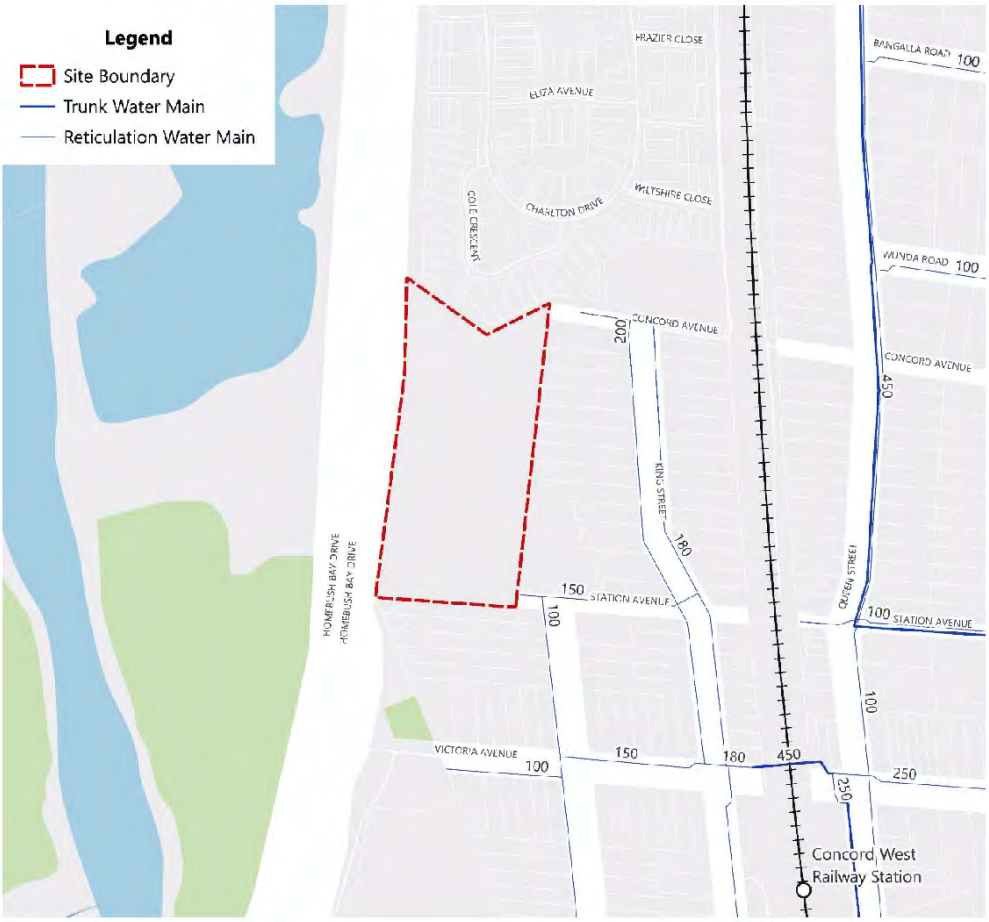
Figure 2 - Proposed Development Layout

2 Water

2.1 Existing Infrastructure

Water is supplied to the site and surrounding area by Sydney Water's Potts Hill Delivery System. Trunk mains extend along Queen Street, on the eastern side of the rail corridor. Smaller reticulation mains extend from trunk mains to supply existing development within the vicinity of the site. Existing uses on the site are supplied via a 150mm main on Station Avenue. The existing potable water infrastructure is shown in Figure 3.

Figure 3 - Existing Water Infrastructure



2.2 Sydney Water Growth Servicing Plan

Sydney Water's Growth Servicing Plan (GSP) outlines the servicing strategy to support planned growth in Greater Sydney from 2022-2027. The subject site is located within the Homebush North Strathfield Precinct within the Greater Parramatta to Olympic Park (GPOP) corridor. The GSP indicates that there is adequate existing trunk potable water capacity to support future development in most precincts within the GPOP corridor. The provision of trunk potable water services is therefore not expected to pose a constraint to development.

2.3 Proposed Servicing Strategy

A high-level assessment was undertaken using the Water Supply Code of Australia (WSA) to determine the trunk infrastructure requirements to support the proposed development. This involved calculating the peak-hour demand to estimate the likely main size required.

The maximum water demand rates were extracted from the WSA, and these rates were used to determine the peak hour demand for the site. The results are provided in Table 1.

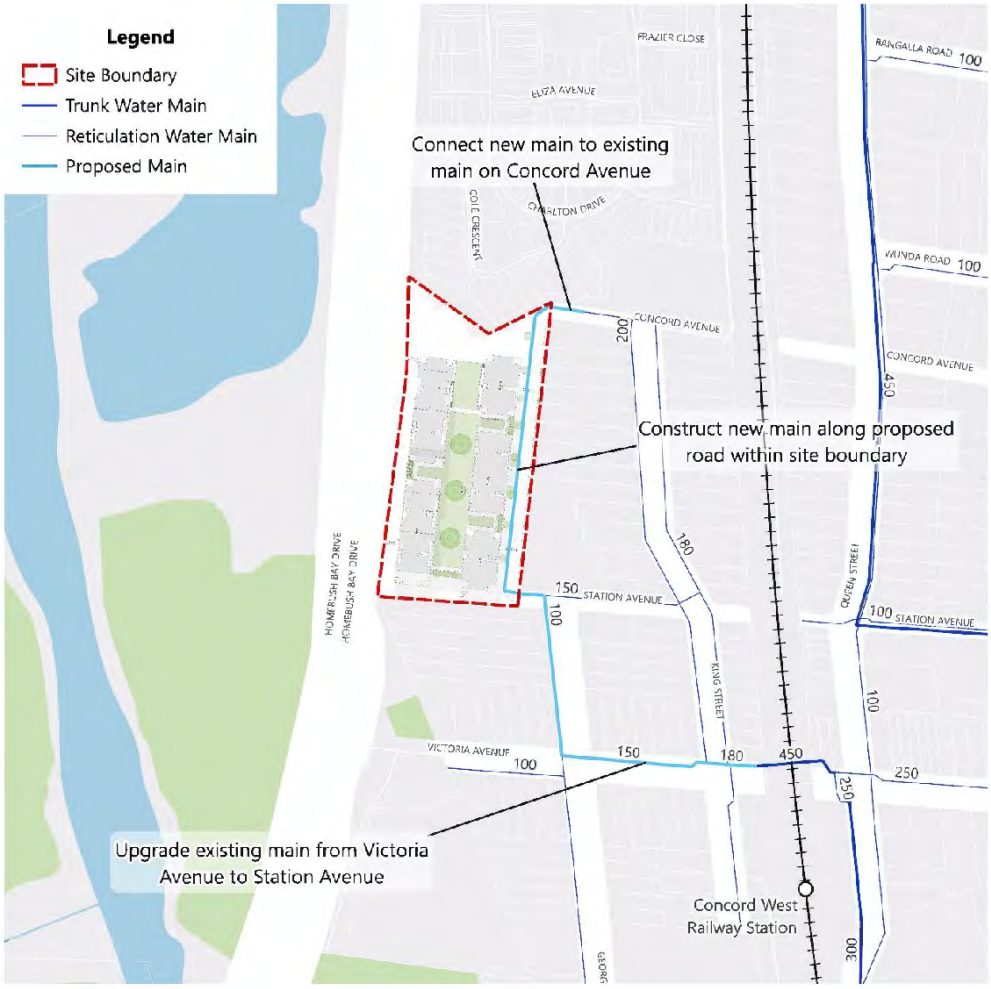
Table 1 - Calculated Water Demand

Land Use	Demand Rate (kL/Dwelling/Day)	Max Day Demand (kL/Day)	Peak Hour Demand (L/s)
High Density Residential	0.8	320	7.4

Based on the above assessment, a main of approximately 60mm diameter could support the proposed development, however Sydney Water require a minimum 200mm diameter main to be provided for all high-density residential development with buildings of 8 or more storeys.

To supply the proposed development, existing reticulation mains along Victoria Avenue and George Street will be upgraded to a 200mm diameter main. This main will then extend along the proposed road on the site, and connect back to an existing 180mm diameter main on Concord Avenue. The proposed servicing strategy is shown in Figure 4.

Figure 4 - Proposed Water Infrastructure

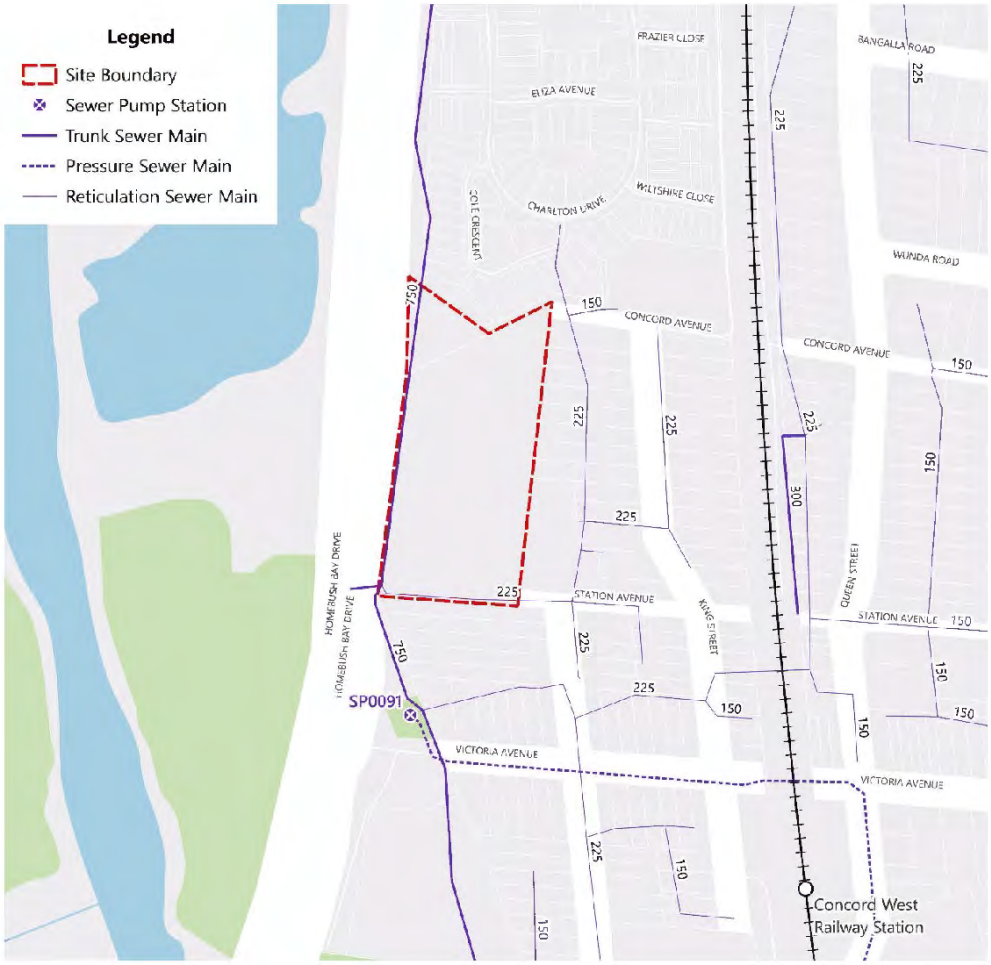


3 Sewer

3.1 Existing Infrastructure

The site and surrounding area are serviced by the Sydney Water sewer network. A 225mm main traverses the southern site boundary, draining to a 750mm diameter trunk main. This trunk main transfers flows to a sewer pump station located on Victoria Avenue. From the pump station, flows are transferred eastwards and are ultimately treated at the Malabar Water Resource Recovery Facility (WRRF), located 20km south east of the site. The existing infrastructure within the vicinity of the site is shown in Figure 5.

Figure 5 - Existing Sewer Infrastructure



3.2 Sydney Water Growth Servicing Plan

Sydney Water's GSP indicates that there is limited existing trunk capacity within the Homebush North Strathfield Precinct. New trunk infrastructure is currently in the design and delivery phase and is expected to be completed in the 2026 financial year.

3.3 Proposed Servicing Strategy

The proposed development will utilise the existing infrastructure located within the site boundary to supply future uses. Reticulation mains will be constructed from new buildings and connect to the existing 225mm reticulation main on the southern site boundary. From the 225mm main, flows will be transferred to the existing pump station on Victoria Avenue via a 750mm diameter trunk main. The proposed servicing strategy is shown in Figure 6.

Figure 6 - Proposed Sewer Infrastructure

4 Electricity

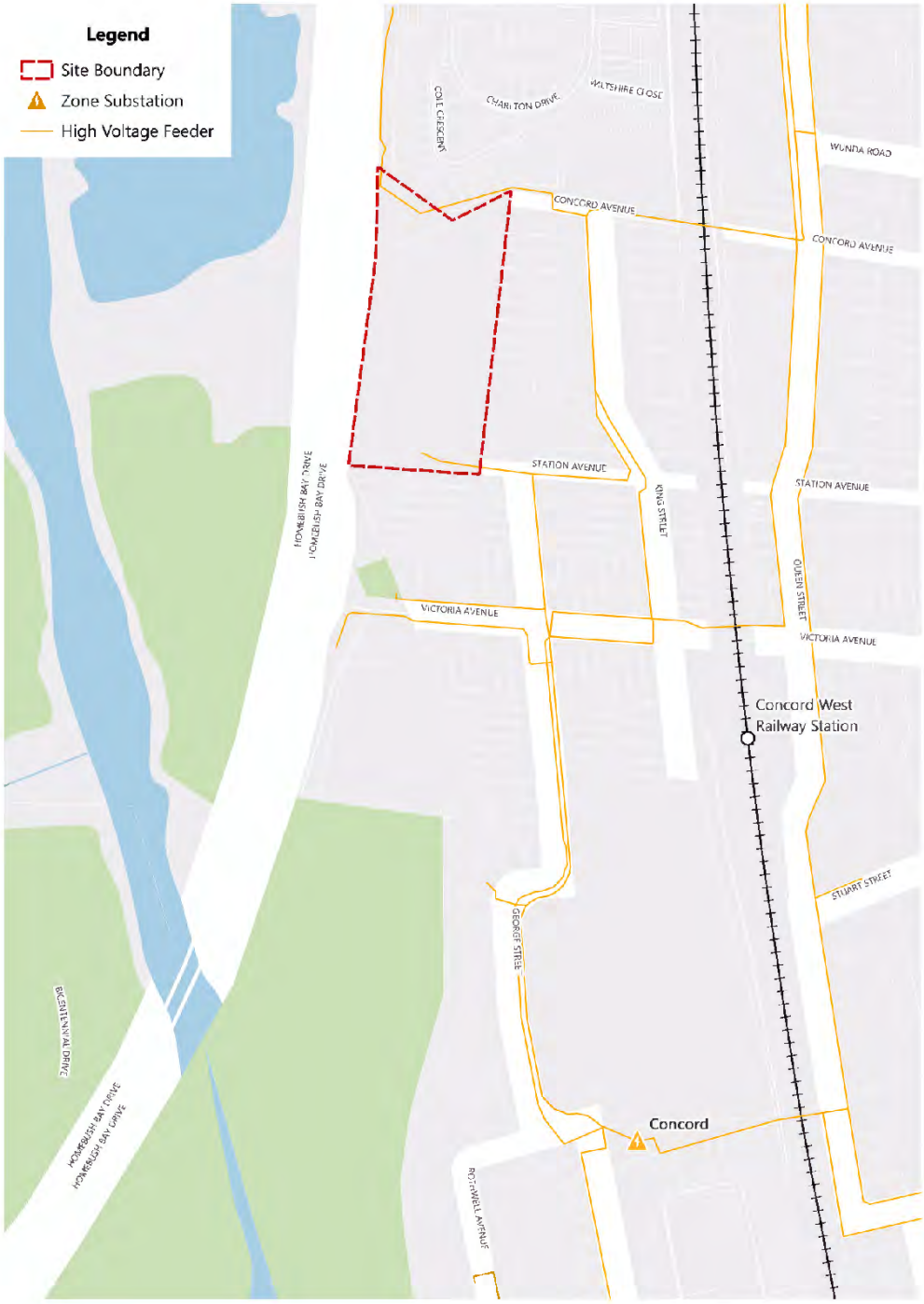
4.1 Existing Infrastructure

The site is located within the Ausgrid electrical supply zone. The closest zone substations (ZS) to the site are the Concord ZS and the Olympic Park ZS, located approximately 500m south and 800m south west of the site respectively. The Concord ZS has a firm capacity of 54.4MVA, while the Olympic Park ZS has a firm capacity of 56.8MVA.

Ausgrid's Distribution Annual Planning Report (DAPR) includes utilisation data for all zone substations. The Concord ZS is forecast to have 1.6MVA of spare capacity in 2025/26, while Ausgrid estimate the Olympic Park ZS will have 15MVA of spare capacity over the same timeframe.

Underground high voltage feeders originating from the Concord ZS extend down George Street and Station Avenue to supply existing uses on the site. The existing electrical infrastructure within the vicinity of the site is shown in Figure 7.

Figure 7 - Existing Electrical Infrastructure



4.2 Proposed Servicing Strategy

A high-level assessment was undertaken to determine the electrical servicing requirements for the site. The electrical demand generated by the proposed development was calculated using electrical demand rates provided by Endeavour Energy. The results of this assessment are tabulated below.

Table 2 - Proposed Electricity Demand

Land Use	Quantity (dwellings)	Demand Rate (VA/dwelling)	Diversified Load (MVA)
High density residential	400	4,000	1.38

It is expected that the site can be serviced using available capacity of existing high voltage feeders within the vicinity of the site. The high voltage feeder on Station Avenue will be extended along the proposed road within the site boundary to supply future uses on the site. The availability of spare capacity will be confirmed with Ausgrid. Should a new feeder be required, this would originate from either the Concord or Olympic Park ZS. An indicative servicing strategy is shown in Figure 8.

Figure 8 - Proposed Electrical Infrastructure

5 Telecommunications

5.1 NBN

NBN Co. are the wholesale provider for new broadband connections. NBN Co. provides services on its local access network on equivalent terms to retail phone and internet providers, to provision for end users.

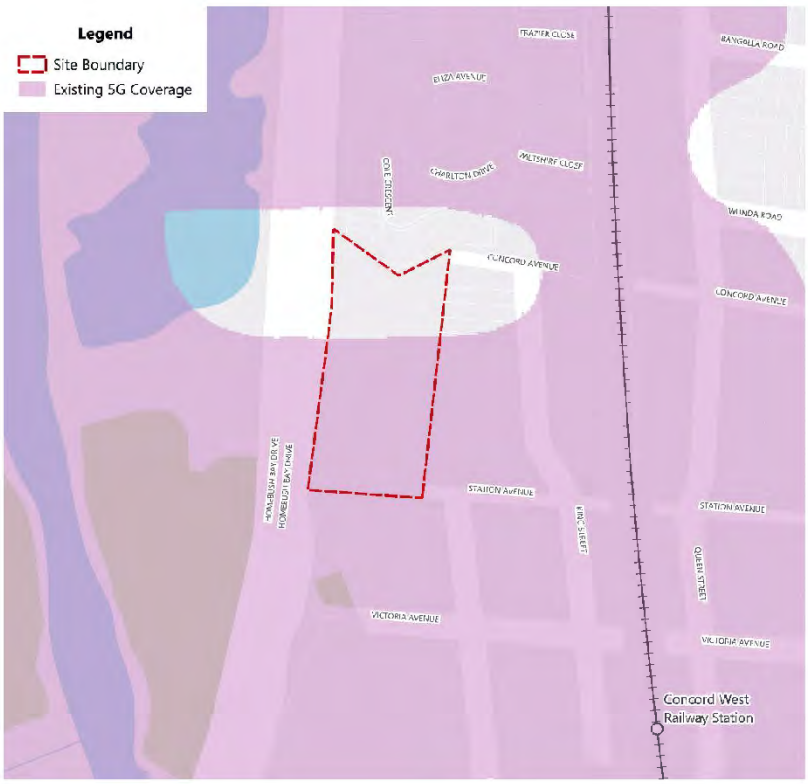
The site is serviced via fixed line technology, where a physical line connects to each property to provide a connection. Future uses on the site will be able to connect to this fixed line network to receive telecommunications servicing. New infrastructure will be extended along the proposed road within the site boundary.

5.2 Telstra 5G

Telstra have existing blanket 4G coverage across the site. The progressive rollout of Telstra's 5G network has commenced across Sydney. The southern areas of the site can already access 5G coverage will areas in the north are not currently serviced by the network.

The existing 5G coverage is shown in Figure 9. It is expected that 5G coverage will extend across the entire site over time.

Figure 9 - Telstra 5G Coverage



6 Gas

6.1 Existing Infrastructure

The site is not currently serviced by the Jemena natural gas network. Reticulation gas infrastructure supplies dwellings to surrounding the site.

Trunk gas infrastructure located within the vicinity of the site includes 3500kPa and 1050kPa high pressure gas mains which traverse the western side of Homebush Bay Drive and extend along Victoria Avenue, to the south of the site. No easements associated with this infrastructure are located within the site boundary. The existing gas infrastructure is shown in Figure 10.

Figure 10 - Existing Gas Infrastructure

6.2 Proposed Infrastructure

Gas is not considered an essential service, however if desired, serviced could be brought to the site by extending the existing medium pressure main on George Street. Jemena will support the demand for gas where required.

7 Summary

The 7 Concord Avenue, Concord West site is well serviced by existing utilities infrastructure. It is expected that this infrastructure can be extended to support future uses proposed on the site. A summary of the existing and planned infrastructure is provided below.

7.1 Water

Water is supplied to the site and surrounding area by Sydney Water's Potts Hill Delivery System. Trunk mains extend along Queen Street, on the eastern side of the rail corridor. Smaller reticulation mains extend from trunk mains to supply existing development within the vicinity of the site. Existing uses on the site are supplied via a 150mm main on Station Avenue.

To supply the proposed development, existing reticulation mains along Victoria Avenue and George Street will be upgraded to a 200mm diameter main. This main will then extend along the proposed road on the site, and connect back to an existing 180mm diameter main on Concord Avenue.

7.2 Sewer

The site and surrounding area are serviced by the Sydney Water sewer network. A 225mm main traverses the southern site boundary, draining to a 750mm diameter trunk main. This trunk main transfers flows to a sewer pump station located on Victoria Avenue. From the pump station, flows are transferred eastwards and are ultimately treated at the Malabar Water Resource Recovery Facility (WRRF), located 20km south east of the site.

The proposed development will utilise the existing infrastructure located within the site boundary to supply future uses. Reticulation mains will be constructed from new buildings and connect to the existing 225mm reticulation main on the southern site boundary.

7.3 Electricity

The site is located within the Ausgrid electrical supply zone. The closest zone substations (ZS) to the site are the Concord ZS and the Olympic Park ZS, located approximately 500m south and 800m south west of the site respectively. Underground high voltage feeders originating from the Concord ZS extend down George Street and Station Avenue to supply existing uses on the site.

It is expected that the site can be serviced using available capacity of existing high voltage feeders within the vicinity of the site. The high voltage feeder on Station Avenue will be extended along the proposed road within the site boundary to supply future uses on the site. The availability of spare capacity will be confirmed with Ausgrid. Should a new feeder be required, this would originate from either the Concord or Olympic Park ZS.

7.4 NBN

The site is serviced via NBN Co. fixed line technology, where a physical line connects to each property to provide a connection. Future uses on the site will be able to connect to this fixed line

network to receive telecommunications servicing. New infrastructure will be extended along the proposed road within the site boundary.

7.5 Telstra 5G

Telstra have existing blanket 4G coverage across the site. The progressive rollout of Telstra's 5G network has commenced across Sydney. The southern areas of the site can already access 5G coverage will areas in the north are not currently serviced by the network. It is expected that 5G coverage will extend across the entire site over time.

7.6 Gas

The site is not currently serviced by the Jemena natural gas network. Reticulation gas infrastructure supplies dwellings to surrounding the site.

Gas is not considered an essential service, however if desired, serviced could be brought to the site by extending the existing medium pressure main on George Street. Jemena will support the demand for gas where required.

Our Ref: JD:LT:22466

2 May 2024

City of Canada Bay
1A Marlborough Street,
Drummoyne NSW 2047

Dear Sir/ Madam,

RE: F.T.D. HOLDINGS (CONCORD WEST) PTY LTD AND CONCORD WEST PARTNERSHIP PTY LTD LEASE TO COMMUNITY ASSOCIATION DP270137
PROPERTY: 212 GEORGE STREET, CONCORD WEST NSW 2138

We refer to the abovementioned matter and confirm we are the solicitors instructed to act on behalf of F.T.D Holdings (Concord West) Pty Ltd and Floridana Pty Ltd trading as Concord West Partnership Pty Ltd.

We confirm that our client has entered into a Put and Call Option Deed dated 19 April 2024 to purchase Lot 355 being part of the land at 212 George Street, Concord West NSW 2138, as better particularised in the attached draft plan.

Yours faithfully,
D'AGOSTINO SOLICITORS

Jessica Ferreri

D'Agostino Solicitors ABN 35 649 173 877
Suite 101, Level 1, 203-209 Northumberland Street, Liverpool NSW 2170
All Correspondence to: PO Box 470, Liverpool NSW 1871
P. +61 2 9602 1888 F. +61 2 9602 7800 E. mail@dagostinosolicitors.com.au www.dagostinosolicitors.com.au

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PLAN FORM 2 (A2) | WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION | SHEET 1 OF 5 SHEETS

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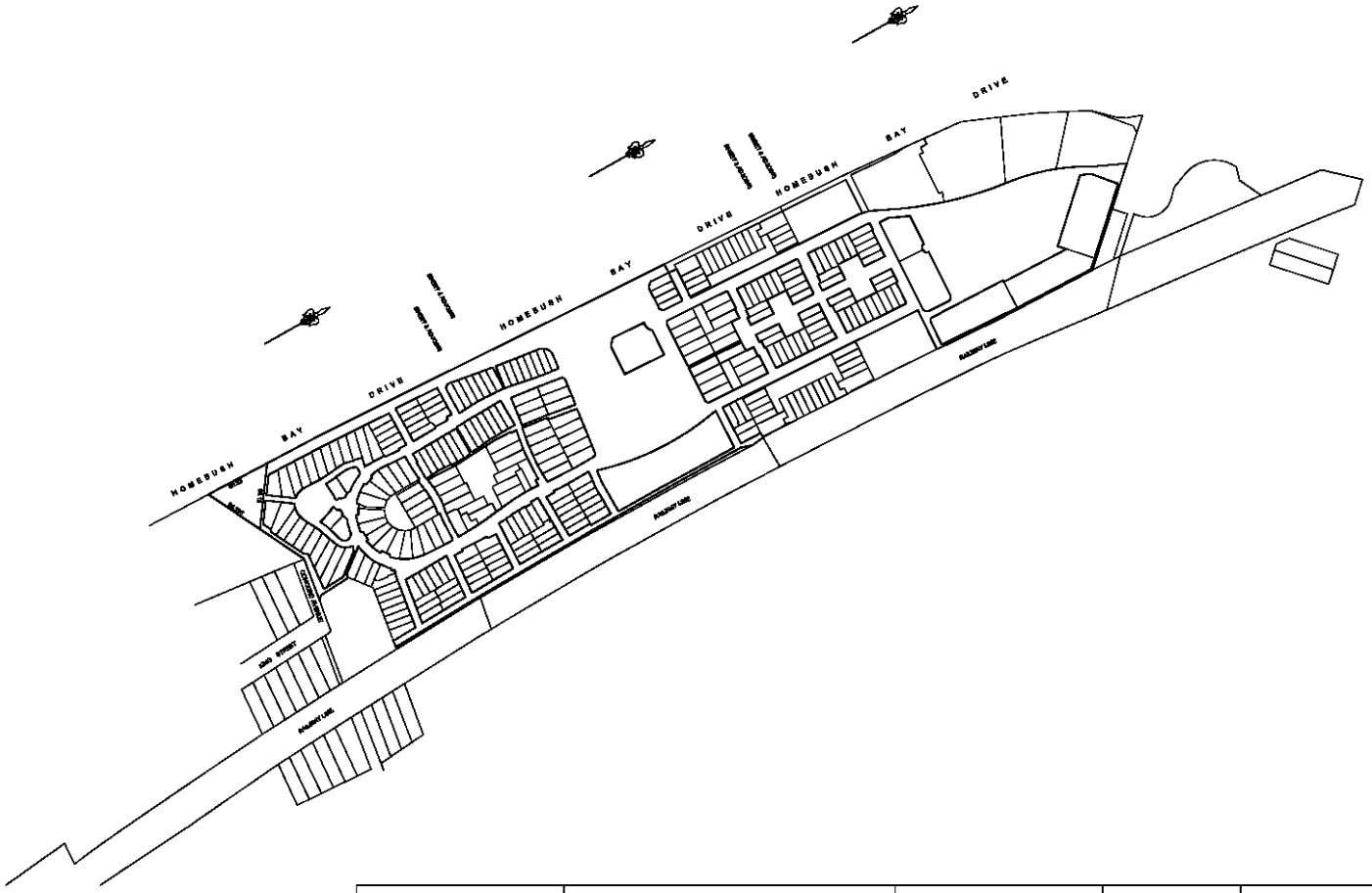
THIS PLAN IS A DRAFT AND ALL DIMENSIONS ARE SUBJECT TO FINAL SURVEY

PROPOSED LOT 353 IS INTENDED TO BE CONSOLIDATED WITH LOT 1 IN DP219742 ADJOINING

COMMUNITY PROPERTY PLAN



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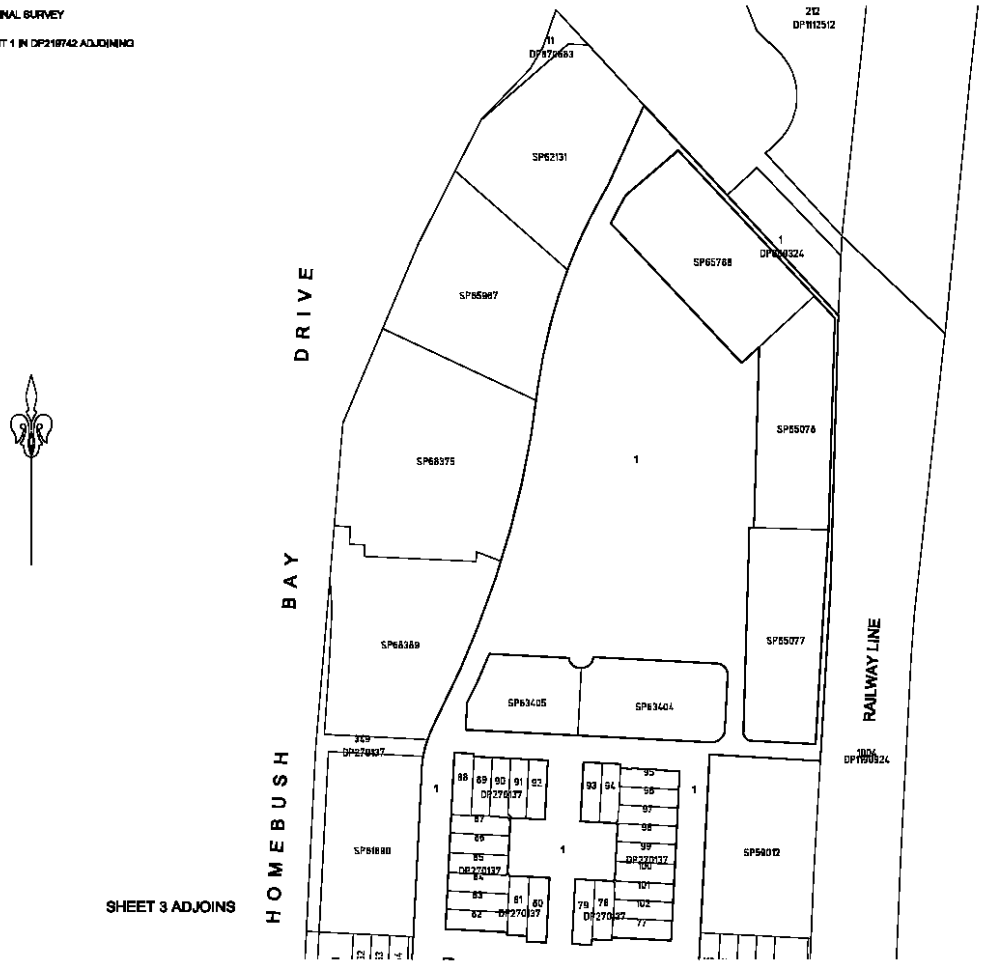

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(F) EASEMENT TO DRAIN WATER 2 WIDE & VARIABLE
(G) EASEMENT TO DRAIN WATER 3 WIDE
VIDE K592659
(H) EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE & VARIABLE VIDE DP1013692
(J) EASEMENT FOR SEWER 6 WIDE & VARIABLE VIDE DP1013695
(K) EASEMENT FOR SUPPORT 1 WIDE
(L) RIGHT OF ACCESS 1 WIDE

PROPOSED LOT 355 IS INTENDED TO BE CONSOLIDATED WITH LOT 1 IN DP216742 ADJOINING

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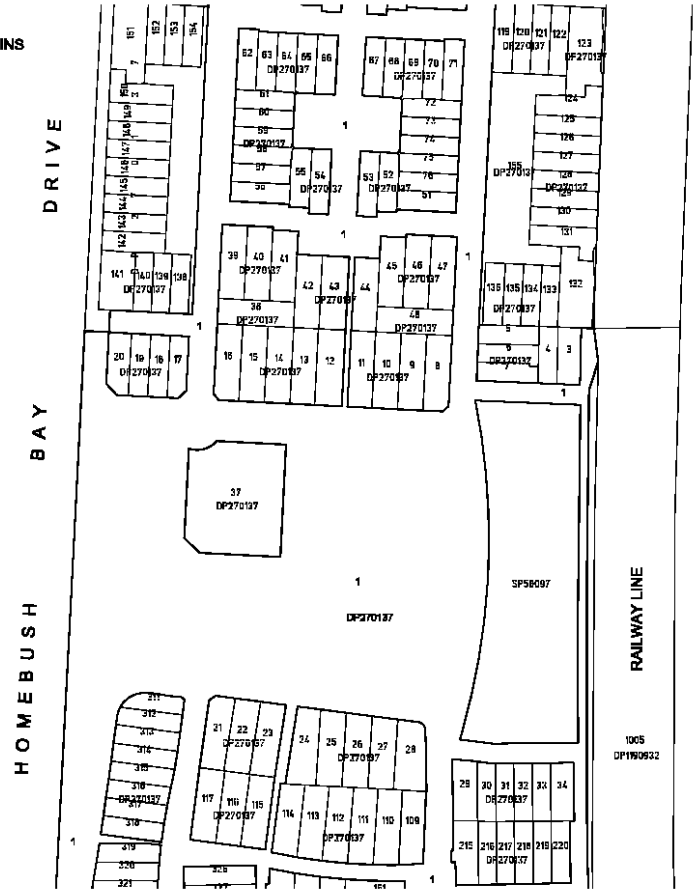
SHEET 2 ADJOINS



SURVEYOR Name: JONATHAN BAXON Date: 20.11.2023 Reference: 20930-PROP SUB	PLAN OF COMMUNITY SUBDIVISION OF LOT 1 IN DP 270137	L.G.A.: CANADA BAY Locality: CONCORD WEST Reduction Ratio: 1:1500 Lengths are in metres	REGISTERED	DRAFT DP

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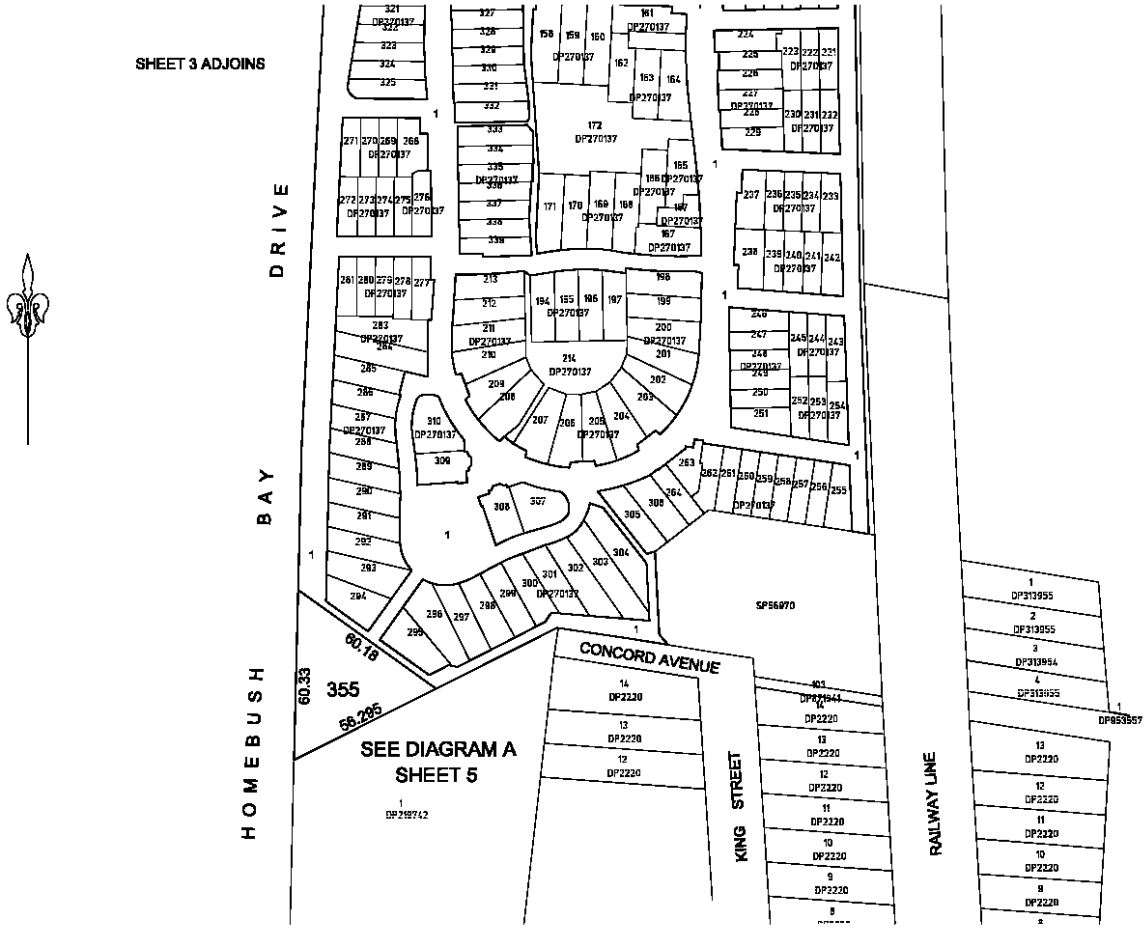
PROPOSED LOT 355 IS INTENDED TO BE CONSOLIDATED WITH LOT 1 IN DP219742 ADJOINING

COMMUNITY PROPERTY PLAN



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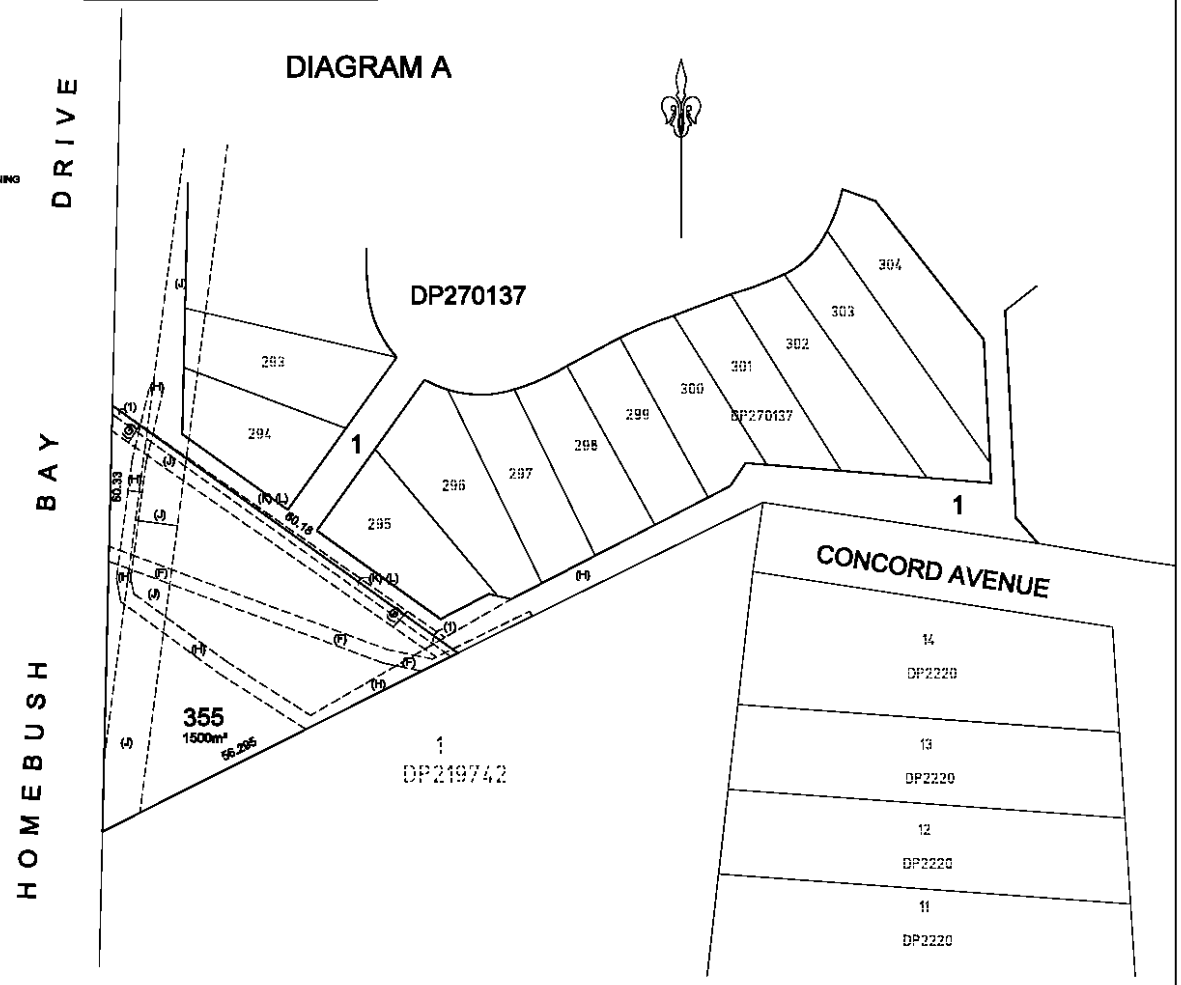

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* THE BOUNDARIES OF THE TITLE ARE LOT 1 IN DP 270137 & SSM 114419
* TOTAL SITE AREA IS 1.502 Ha
CALCULATED FROM TITLE INFORMATION
* TOTAL SITE AREA IS 1.502 Ha
BY SURVEY
* THE POSITION OF IMPROVEMENTS IN RELATION TO BOUNDARIES IS DIAGRAMMATIC ONLY
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* NOT ALL SERVICES ARE SHOWN
* THE LOCATION OF UNDERGROUND SERVICES HAS NOT BEEN ESTABLISHED. IF THESE ARE CRITICAL IT IS ESSENTIAL THEY BE LOCATED BY APPROPRIATE AUTHORITIES
* EXISTENCE OF SERVICES MUST BE VERIFIED BY CONTACTING DIAL BEFORE YOU DIG (1100) OR PH 1100. CRITICAL SERVICES MUST BE EXPOSED AND LOCATED. (NOT ALL SERVICE PROVIDERS PARTICIPATE IN DIAL 1100)
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www.dialbeforeyoudig.com.au
DIAL 1100 BEFORE YOU DIG
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HYD - HYDRANT
LI - STORMWATER LINTEL
MH - MANHOLE
PC - PRAM CROSSING
PP - POWER POLE
SHV - STORMWATER MANHOLE
SP - SIGN POST
TEL - TELEPHONE
TL - TRAFFIC LIGHT
SW - STORMWATER
WM - WATER METER
TG - TOP GUTTER
RDG - ROOF RIDGE
TK - TOP KERB
HW - HEAD WALL
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E 22.05.2023 UPDATE & ADDITIONAL DETAIL
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C 29.3.2010 FINAL DRAFT ISSUE - GENERAL DETAIL
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A 24.3.2010 DRAFT SHOWING EASEMENTS
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SURVEYOR : SCOTT B
CERTIFICATE : ACCREDITED SURVEYOR
SURVEY REF. : 114420 PL S48
JOB NO. : 30636
COMPUTER REF. : 30636.dwg
DRAWING No. : 30636-1
CHECKED by :
DATE OF SURVEY : MARCH 2010
REDUCTION RATIO : 1:500
PLAN OF : CONCORD WEST
CONCORD WEST
BEING : LOT 1 IN DP270137
SITUATED : GEORGE STREET, BELLA VISTA NSW 2153
PURPOSE : ARCHITECTURAL DESIGN
CONTEXT : SUBMISSION
BELLA VISTA
PO BOX 7419 GALADINO HILLS NSW 2153
1/18 LUDGATE DRIVE, BELLA VISTA NSW 2153
PHONE : 0419 433 997
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(A) EASEMENT FOR SEWER VARIABLE WIDTH VIDE Q 933817
(B) DRAINAGE EASEMENT 3.05 WIDE VIDE J 966646
(C) RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES VIDE I 398440
(D) EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE VIDE I 398440
(E) RIGHT OF WAY 4 WIDE AND VARIABLE WIDTH VIDE I 398440
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(G) EASEMENT TO DRAIN WATER 3 WIDE
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(J) EASEMENT FOR SEWER 6 WIDE & VARIABLE VIDE DP1013065

KING STREET
CONCORD AVENUE
TOP 0.15 HIGH CONCRETE KERB
WEATHER BOARD HOUSE METAL ROOF No. 42
BRICK HOUSE TILE ROOF No. 40
METAL ROOF
BRICK HOUSE TILE ROOF No. 38
2 STOREY BRICK HOUSE TILE ROOF No. 36
F/C HOUSE TILE ROOF No. 34
BRICK GARAGE TILE ROOF
METAL SHED
TWO STOREY BRICK TOWNHOUSES TILE ROOF
CONCRETE PANEL BUILDING
METAL ROOF
D. P. 219742
63° 19' 25"
104.325
196.365
7° 18' 25"
PROJECT SURVEYORS
BELLA VISTA
SHEET 2 OF 6

PROJECT SURVEYORS
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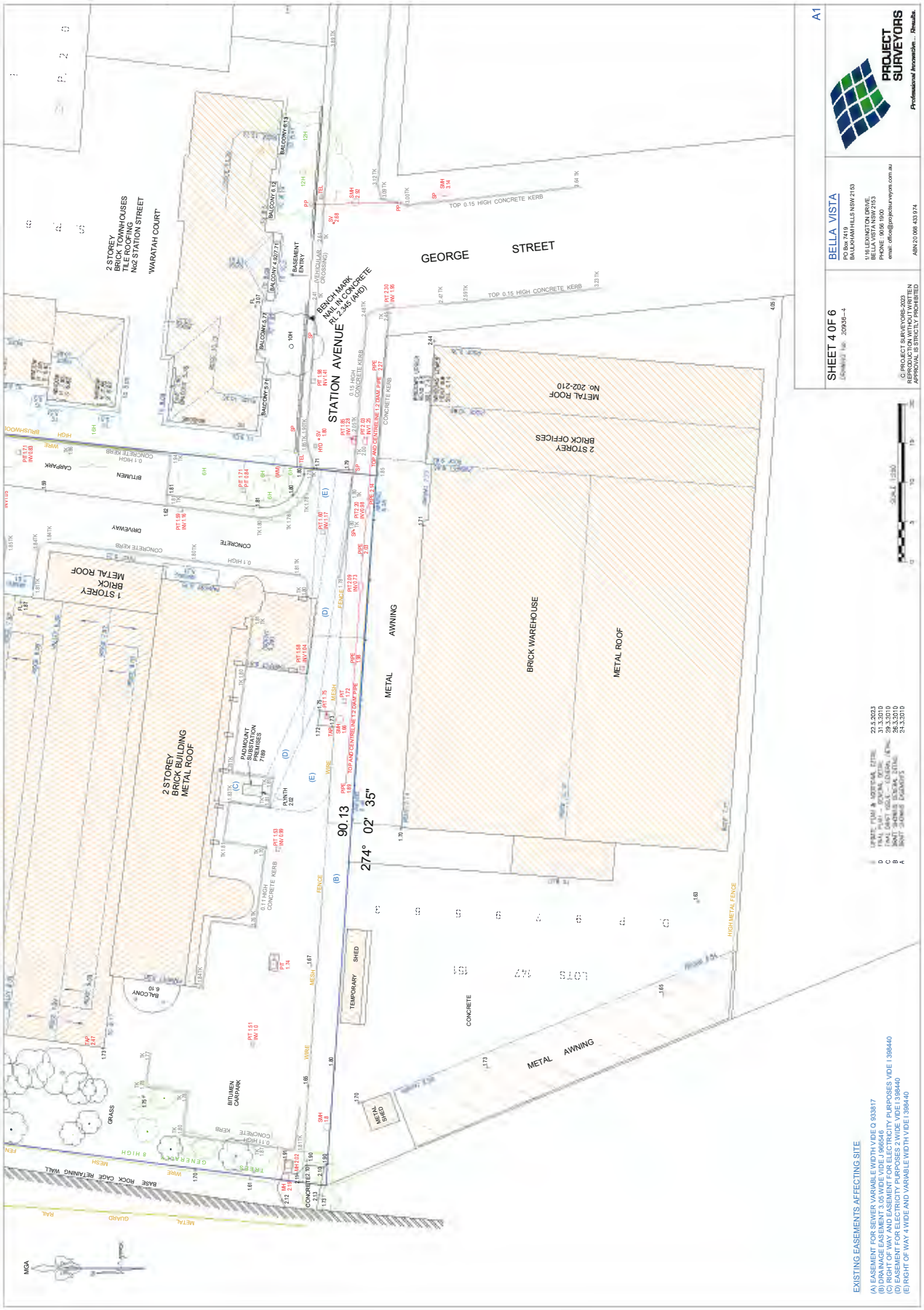
BELLA VISTA
SHEET 3 OF 6
2 STOREY BRICK TOWNHOUSES TILE ROOFING No2 STATION STREET
CONCRETE PANEL BUILDING
METAL ROOF
BRICK WAREHOUSE FIBROUS CEMENT ROOF
2 STOREY BRICK BUILDING METAL ROOF
1 STOREY BRICK METAL ROOF
FIBROUS CEMENT
AWNING
HOMEBUSHBAY DRIVE
D. P. 2 1 9 7 4 2
196.365
143.16
7° 28' 50"
186°
25'
05"


A1
PROJECT SURVEYORS
Professional Innovation... Results.
BELLA VISTA
PO Box 7419
BAULKHAM HILLS NSW 2153
1/16 LEXINGTON DRIVE,
BELLA VISTA NSW 2153
PHONE 9729 1900
email: office@projectsurveyors.com.au
ABN 20 088 433 974
SHEET 4 OF 6
Drawing No. 20935-4
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GEORGE STREET
STATION AVENUE
TOP 0.15 HIGH CONCRETE KERB
BENCH MARK NAIL IN CONCRETE RL 2.345 (AHD)
2 STOREY BRICK TOWNHOUSES TILE ROOFING No2 STATION STREET
'WARATAH COURT'
BALCONY 6.13
BALCONY 6.12
BALCONY 4.9/7.71
BALCONY 5.77
BALCONY 5.71
EASEMENT ENTRY
METAL ROOF No. 202-210
2 STOREY BRICK OFFICES
BRICK WAREHOUSE
METAL ROOF
METAL AWNING
1 STOREY BRICK METAL ROOF
2 STOREY BRICK BUILDING METAL ROOF
RADIOMONT SUBSTATION PREMISES 7189
PLINTH 2.82
BALCONY 6.10
TEMPORARY SHED
METAL SHED
BITUMEN CARPARK
CONCRETE
DRIVEWAY
GRASS
BASE ROCK CAGE RETAINING WALL
HIGH METAL FENCE
LOTS 147 151
90.13
274° 02' 35"
MGA
EXISTING EASEMENTS AFFECTING SITE
(A) EASEMENT FOR SEWER VARIABLE WIDTH VIDE Q 933817
(B) DRAINAGE EASEMENT 3.05 WIDE VIDE J 966546
(C) RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES VIDE I 398440
(D) EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE VIDE I 398440
(E) RIGHT OF WAY 4 WIDE AND VARIABLE WIDTH VIDE I 398440

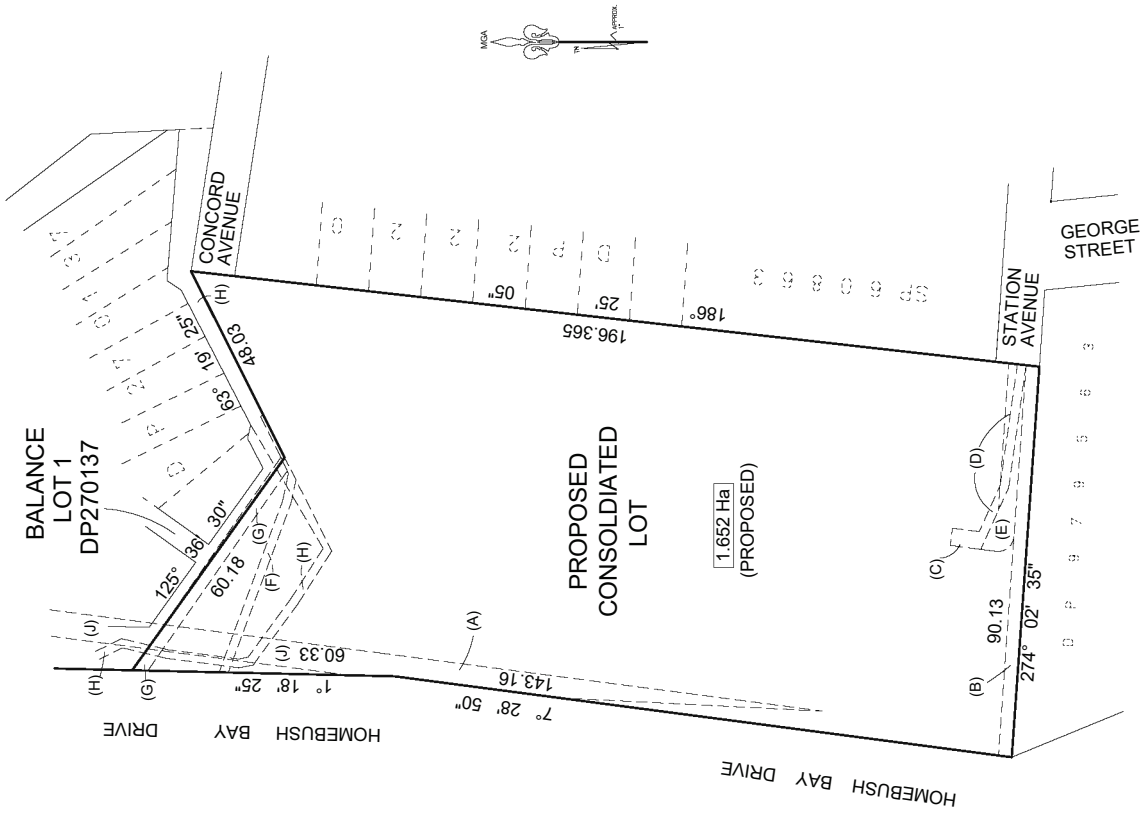
DIAGRAM OF PROPOSED CONSOLIDATION OF
LOT 1 IN DP219742 & PART LOT 1 IN DP 270137

EXISTING EASEMENTS AFFECTING LOT IN DP 219742

(A) EASEMENT FOR SEWER VARIABLE WIDTH VIDE Q 933817
(B) DRAINAGE EASEMENT 3.05 WIDE VIDE J 966546
(C) RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES VIDE I 398440
(D) EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE VIDE I 398440
(E) RIGHT OF WAY 4 WIDE AND VARIABLE WIDTH VIDE I 398440

EXISTING EASEMENTS AFFECTING PART OF LOT 1 IN DP 270137

(F) EASEMENT TO DRAIN WATER 2 WIDE & VARIABLE
(G) EASEMENT TO DRAIN WATER 3 WIDE
VIDE I692659
(H) EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE & VARIABLE VIDE DP1013892
(J) EASEMENT FOR SEWER 6 WIDE & VARIABLE VIDE DP1013065



DATE OF SURVEY: 25.05.2023
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BELLA VISTA
PO Box 7419
BAULKHAM HILLS NSW 2153

1/16 LEXINGTON DRIVE
BELLA VISTA NSW 2153

PHONE : 9056 1900
email: office@projectsurveyors.com.au
www.projectsurveyors.com.au
ABN 20 068 433 974

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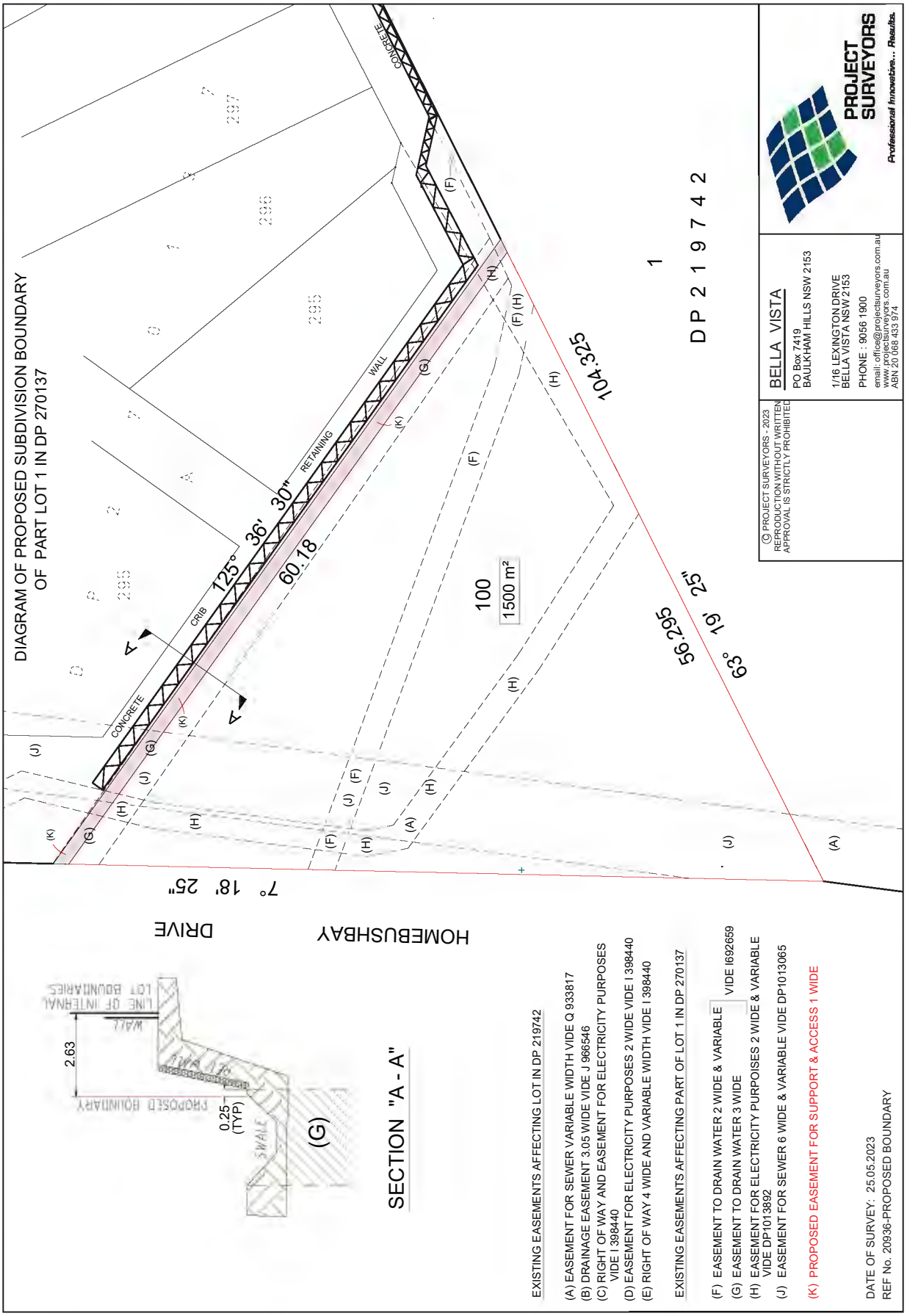
DIAGRAM OF PROPOSED SUBDIVISION BOUNDARY
OF PART LOT 1 IN DP 270137
CONCRETE
CRIB
RETAINING
WALL
125° 36' 30"
60.18
100
1500 m²
104.325
56.295
63° 19' 25"
DP 219742
1
HOMEBUSHBAY
DRIVE
7° 18' 25"
SECTION "A - A"
2.63
0.25 (TYP)
PROPOSED BOUNDARY
LINE OF INTERNAL LOT BOUNDARIES
WALL
SWALE
(G)
EXISTING EASEMENTS AFFECTING LOT IN DP 219742
(A) EASEMENT FOR SEWER VARIABLE WIDTH VIDE Q 933817
(B) DRAINAGE EASEMENT 3.05 WIDE VIDE J 966546
(C) RIGHT OF WAY AND EASEMENT FOR ELECTRICITY PURPOSES VIDE I 398440
(D) EASEMENT FOR ELECTRICITY PURPOSES 2 WIDE VIDE I 398440
(E) RIGHT OF WAY 4 WIDE AND VARIABLE WIDTH VIDE I 398440
EXISTING EASEMENTS AFFECTING PART OF LOT 1 IN DP 270137
(F) EASEMENT TO DRAIN WATER 2 WIDE & VARIABLE VIDE I692659
(G) EASEMENT TO DRAIN WATER 3 WIDE
(H) EASEMENT FOR ELECTRICITY PURPOISES 2 WIDE & VARIABLE VIDE DP1013892
(J) EASEMENT FOR SEWER 6 WIDE & VARIABLE VIDE DP1013065
(K) PROPOSED EASEMENT FOR SUPPORT & ACCESS 1 WIDE
DATE OF SURVEY: 25.05.2023
REF No. 20936-PROPOSED BOUNDARY
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BELLA VISTA
PO Box 7419
BAULKHAM HILLS NSW 2153
1/16 LEXINGTON DRIVE
BELLA VISTA NSW 2153
PHONE : 9056 1900
email: office@projectsurveyors.com.au
www.projectsurveyors.com.au
ABN 20 068 433 974
PROJECT SURVEYORS
Professional Innovative... Results.

City of Canada Bay Council
1a Marlborough Street
Drummoyne NSW 2047

C:\Users\dewar\Desktop\Work\PowellsCkCanadaBay120079\7ConcordAve\Report_7Concord_Ave.docx

3 June 2024

Attention: **Mr. Anthony Wynen**
Senior Strategic Planner

Dear Anthony,

Re: Planning Proposal for 7 Concord Avenue, Concord West
Review of Flood Impact and Risk Assessment, February 2024 by Worley

1 Introduction

Concord West Partnership proposes to re-develop 7 Concord Avenue, Concord West, (the Site) for the purposes of constructing a multi-storey residential development and has prepared a Planning Proposal. Flood modelling and mapping, completed as part of the WMAwater 2022 Powells Creek Flood Study, indicates that the Site is flood prone. Accordingly, Worley Consulting Pty Ltd (Worley) was engaged by the proponent to prepare a Flood Impact and Risk Assessment (FIRA) to accompany the Planning Proposal. This Site has previously been investigated for potential re-development circa 2018 and prior flood investigations were undertaken at that time.

WMAwater was engaged by Canada Bay Council to provide a report for the current planning proposal detailing the following.

- An opinion on the suitability of the Site for the proposed development considering known flood issues.
- A review of the proposal against NSW Local Planning Direction 4.1 – Flooding.
- A peer review of the February 2024 FIRA prepared by Worley.

2 Background to WMAwater

This letter report was written by Richard Dewar (Technical Director) who has over 40 years of experience in floodplain management across NSW. Richard was responsible for preparation of the WMAwater 2022 Powells Creek Flood Study for Canada Bay Council, which formed the basis for the hydraulic modelling work reported by Worley.

WMAwater are currently engaged by Canada Bay Council to undertake the Powells Creek Floodplain Risk Management Study and Plan. A Draft of which is under review by Council.

3 Review of the Proposed Development in Regard to Flooding

Worley has provided a comprehensive and professional report describing the proposed design approach to satisfy the relevant State Government's and Council's flood planning controls. The proposed design is outlined below together with our review.

WMAwater Pty Ltd
DIRECTORS
M K Babister, RPEQ M E Retallick
F L N Ling, RPEQ E J Askew

ABN 14 600 315 053
Level 2, 160 Clarence St, SYDNEY NSW 2000
Phone: 02 9299 2855 Fax: 02 9262 6208
Email: enquiry@wmawater.com.au
WebSite: wmawater.com.au

3.1 Outline of Worley's Design Approach

The design approach has been:

1. To achieve no nett loss of temporary floodplain storage (up to the PMF) through purchase of a triangular shaped piece of land to the north west of the Site and lowering the existing ground levels within by up to 1m. It is unclear if the excavated material is used on the Site or is removed to another location.

2. To achieve minimal reduction in the flood conveyance capacity across the Site resulting in minimal flood impacts outside the Site. The footprints of the proposed structures retain an "undercroft area" which permits the through flow of floodwaters.

3. To negate above floor flood damages in all design events by raising the lowest habitable floors to above the PMF peak level and providing a "flood gate" on the entrance to the basement car parking.

4. To satisfy the "risk to life" issues to the residents of the building by proposing a "Shelter in Place (SIP)" strategy rather than evacuation of the residents from the building during flood times.

3.2 Comments on Worley's Design Approach

The four points in Section 3.1 do achieve the following generally accepted criteria for development on the floodplain.

- no loss of temporary floodplain storage,
- no significant increase in flood levels outside the Site,
- negating above floor and basement parking flood damages in the PMF,
- minimising "risk to life" issues to the residents during a flood.

However they do raise a number of potential issues as outlined below.

- The typical strategy for negating the loss of temporary floodplain storage is to undertake cut and fill within the development Site. In this way the fill can be used to raise land within the Site (for the building footprint, driveway or similar) and the lowered land is used for recreation or similar flood compatible purposes.

  The approach undertaken by Worley is to acquire additional lands for this purpose which raises the following questions:
  - Is this strategy compatible with current best practice in floodplain management? If accepted this approach of purchasing additional lands outside the development site might be applied elsewhere?
  - What is the environmental impact of lowering the adjoining land and does this impact on the use of this land?
  - Is the increase in the areal extent of the local floodplain acceptable?
  - Is this approach compatible with the principles of ecological sustainable development, namely: using, conserving and enhancing the community's resources so that

ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased?
  - Will creating a large "storage area" for flood waters introduce risk to life issues for children or others which were not present before?
  - There may also be other issues but this aspect would need to be investigated by relevant experts as they are outside the current scope of work.

- The development is proposed on land which is effectively 100% inundated in the 20% AEP flood or possibly in more frequent events. This raises the question whether this frequency of inundation of the entire property is compatible with current best practice in floodplain management. For example, owners may not realise this issue when they purchase a unit. When residents do become aware of the frequent affectation on the use of their grounds, they may question why Council approved this type of development. There is also significant risk to life issues for people in the yard at the time of the flood, as there is minimal warning time, a rapid rate of rise and the depth of inundation is significant (up to 0.7m in the 1% AEP and up to 2m in the PMF events).

- It is agreed that evacuation, under the existing conditions, is not a suitable approach to manage the risk to life issues for any development upstream of the George Street low point. Worley propose the SIP approach, but this raises several issues including the following.

  - The SIP approach indicates that the Strata Committee (SC) members can be trained "*in the actions in case of a flood*". This is a completely unrealistic proposal as the SC members are generally elderly, unqualified and with likely minimal (if any) experience in this role and may not wish to be involved in this type of responsibility (closing flood gates, monitoring floodwaters or providing instruction). The SC is re-elected each year meaning that there will likely be minimal continuity of service. There is also no certainty that the SC members would be available to act as they may be asleep, unaware of the event or may not be on Site at the time. Finally, there is no certainty that the residents would obey instructions from the SC members.
  - A water level trigger point is proposed to advise residents when it is safe or not to evacuate. In theory this approach is viable, but history has shown that poor maintenance is likely to mean that the reliability of these triggers will be poor. Also, the very fast rise in flood waters will mean that the value of a trigger point providing a warning is limited.
  - In an emergency, such as a bush fire or a flood, if people act in a logical manner in accordance with recommended guidelines (such as not driving through flood warnings or evacuating when asked) the risk to life is minimised or hopefully eliminated. However, history has shown that not all people react in a logical manner or obey recommended guidelines in floods and thus SIP will likely not eliminate the risk to life issues. In rural areas but much less so in urban areas, the main loss of life in floods occurs when people drive through floodwaters. Whilst residents in the building at the time of the event may comply with the SIP approach, it is likely that some residents or visitors will attempt to drive to the building along George Street to see their children or for some other reason they consider critical. These people may

therefore experience risk to life issues. Regardless of SIP, residents may also attempt to drive out along George Street.

- In a flood it is possible that emergency services will be required at the Site for non-flood related issues (doctor, NSW Fire and Rescue, ambulance and / or SES for a road accident or a tree falling on a house etc.). In shallow depths of floodwaters these services would be able to access the Site but in events greater than the 1% AEP, the depth of floodwaters (1m in the 20% AEP, 1.6m in the 1% AEP and 2.6m in the PMF) at the George Street low point may make access impossible, even for emergency vehicles.

- Flood gates are proposed to prevent inundation of the basement up to the PMF. As a retro-fit measure to protect an existing basement or other entry to an existing building, flood gates (manual or "pop up" ones which rely on floatage) are in most cases the only viable measure. For this reason, over the last 20+ years they have become an appropriate retro-fit flood mitigation measure. The main issue with their use is that there is a risk of failure due to inadequate maintenance or for some other reason as they will only be used say (depending on their design) on average once every 10 years. The limited timeframe of their use in Sydney provides little guidance on their long-term reliability. For this reason, many Sydney Councils do not approve flood gates on new developments and require the driveway crest and all basement entry points to be raised to the PMF, and this is the view of WMAwater. Worley might consider if the use of flood gates can be eliminated from the design.

- The access to the basement car parking is on the eastern boundary and comprises a raised driveway with 15 * 0.3m high x 3.6m wide openings beneath. Investigation of the TUFLOW model indicates that these openings are modelled as "openings" in the 2D grid and not as a 1D culvert element with a roadway above. A similar 2D rather than a 1D structure is modelled in the immediate access road to the basement. These structures need to be modelled as 1D culvert elements, otherwise the obvert structure is not accounted for.

  Another issue is that the proposed roadway structure replaces an area of open space exhibiting minimal likelihood of blockage. Thus the proposed roadway structure will result in an increase in blockage compared to existing conditions. A further issue is that as the height of the culvert openings is only 0.3m, it is likely that in time, with inadequate maintenance, these structures may become completely blocked by vegetative debris. Further investigation should be undertaken to evaluate if there is an alternative approach which will more closely replicate the existing minimal likelihood of blockage overland flow scenario.

- Flood hazard in the 2005 Floodplain Development Manual required evacuation and other issues to be assessed to determine the "true" flood hazard, with the "preliminary" hazard based on depth and velocity criteria. The WMAwater 2022 Powells Creek Flood Study and Worley have both adopted the updated H1 to H6 classification (based solely on depth and velocity criteria) as given in the 2023 Flood Risk Management Guideline FB03, to define flood hazard. Whilst this is the current correct approach to determine flood hazard, the evaluation of flood risk must still include an assessment of evacuation and other relevant issues.

The assessment of evacuation is included in the City of Canada Bay DCP 2023 Flood Risk Precinct (FRP) three tier classification. The criteria are based on whether the land is inundated or not in the 1% AEP event, whether the land is high hazard (according to the FB03 guideline) in the 1% AEP and the potential evacuation difficulties. The WMAwater 2022 Powells Creek Flood Study and Worley's Report (Figure A 13) interpreted FRPs based solely on the inundation and depth criteria, but the Flood Study did include figures for Preliminary Flood Emergency Response Classification of Communities. It is expected that in the upcoming FRMS&P the FRP classification would be updated to include the issue of evacuation. The 2022 Flood Study was also unaware of the current planning proposal for the Site.

WMAwater consider that Worley's should have included an assessment of the evacuation difficulties in their detailed assessment of the FRP for the Site (Figure A 13). As the proposed use of the Site is residential development, this represents a significant increase in evacuation difficulties compared to the existing commercial non habitable use. Worley should therefore consider whether this change of land use makes the Site High Flood Risk (presents significant evacuation difficulties) rather than the existing Medium Flood Risk (presents less than significant evacuation difficulties) as shown in Worley's report.

- Worley's report adopts the flood categorisation (now known as flood function) based on the same criteria adopted in the WMAwater 2022 Powells Creek Flood Study (i.e using a function of depth and velocity of floodwater taken from Howells L, McLuckie D, Collings G and Lawson N (2003) 'Defining the floodway – can one size fit all?', *Floodplain Management Authorities of NSW 43rd Annual Conference*, Forbes, February 2003). Using this criteria, Worley does not define a floodway within the Site in the 1% AEP event (Figure A11).

  In June 2023 the Department of Planning and Environment released the *Flood Function - Flood risk management guideline FB02*. This document was not referenced in Worley's report. The FB02 guideline states "*The identification of floodways and flood storage areas requires a performance-based approach to enable identification of these areas based on their function during a flood and the potential impact of changes in these areas. This involves a combination of qualitative assessment based on the characteristics of the areas, and quantitative assessment relating to the degree of change to flood behaviour and impacts to the community that are acceptable*". Reassessment of flood function within the Site should be undertaken for the existing and design scenarios based on guideline FB02.

3.3 Review of the Proposal against NSW Local Planning Direction 4.1 – Flooding

Local Planning Direction 4.1 Flooding was previously referred to as Direction 4.3. Worley's Report refers to it as Direction 4.3 and tabulates each flooding requirement. The following provides comments on issues where further review by Worley is required.

- **4 a).** Contrary to that provided in the Worley Report, the 2022 WMAwater Flood Study was prepared in accordance with the 2005 Floodplain Development Manual not the recently completed June 2023 Flood Risk Management Manual.

- **6 a) permit development in floodway areas.** This issue is documented above with the recommendation that reassessment of flood function within the Site be undertaken for the

existing and design scenarios based on the June 2023 *Flood Function - Flood risk management guideline FB02*.

- **6 c) permit development for the purpose of residential accommodation in high hazard areas.** As discussed above, determination of flood hazard has changed from the 2005 to the 2023 manual and now omits consideration of evacuation issues. It is assumed that Direction 4.1 refers to the 2005 manual classification of flood hazard (which included assessment of evacuation difficulties) but Worley has responded assuming the 2023 Flood Risk Management Guideline FB03 classification (which omits consideration of evacuation issues).

  As the proposed use of the Site is residential development, this likely represents a significant increase in evacuation difficulties compared to the existing commercial non habitable use. The assessment of hazard must be interpretated in accordance with the June 2023 manual (particularly the associated Flood risk management guideline LU01) and the City of Canada Bay DCP 2023 adoption of a three tier FRP classification which includes consideration of evacuation issues.

- **6 d) permit a significant increase in the development and/or dwelling density of that land.** Worley's report agrees that there will be an increase (it does not mention if the increase is significant or not) in development density at the Site. The report concludes that the proposed design (outlined in Section 3.1 above) "*are expected to be effective in managing the flood risk to future residents and visitors to the Site such that the risk to life associated with flooding is negligible. Accordingly, the increase in development density is considered to be of minor significance*.

  WMAwater's view is that the planning proposal represents a significant increase in dwelling density. This is based on the existing floor space ratio increasing from 1:1 to 1:8:1 with 324 dwellings and a residential population of greater than 700 compared to nil current dwellings or overnight occupiers on the Site. Introducing significant residential density to an existing overland flood area is not of a "minor significance" as the development is significantly increasing the population at risk on this Site.

- **6 e) permit development for the purpose of centre-based childcare facilities, hostels, boarding houses, group homes, hospitals, residential care facilities, respite day care centres and seniors housing in areas where the occupants of the development cannot effectively evacuate.** The planning proposal is to amend the LEP to change the existing land use zone of E4 – General Industrial to R3 – Medium Density Residential. This issue would need to be addressed by planners as if the rezoning is approved, it may be that all development permitted with a R3 zoning without consent may not be a suitable use for flood liable land.

- **6 g) are likely to result in a significantly increased requirement for government spending on emergency management services, flood mitigation and emergency response measures.** Worley consider that the proposed measures will be "*effective in managing the flood risk to future residents and visitors while avoiding any additional burden on emergency management services or any requirement for flood mitigation works*".

WMAwater's view is that there is a significant existing overland flow problem in the local area, as demonstrated in the 2022 Flood Study. In addition, there is currently no effective vehicle access path for evacuation or entry by emergency services during a flood, due to the George Street low point. There are an estimated 100 existing dwellings, a school and several commercial operations between Homebush Bay Drive to the west, the railway to the east and south of the unit development on Concord Avenue and north of the George Street low point. An increase of 324 dwellings is therefore a significant increase in population density and it is reasonable to expect that public pressure will require the state government or Council to significantly reduce the flood liability within the area. At a minimum elimination of the George Street low point is required.

9 c) the planning proposal is supported by a flood and risk impact assessment accepted by the relevant planning authority and is prepared in accordance with the principles of the Floodplain Development Manual 2005 and consistent with the relevant planning authorities' requirements, or d) the provisions of the planning proposal that are inconsistent are of minor significance as determined by the relevant planning authority. Worley's report considers that "*the planning proposal is consistent with the provisions of the Flood Risk Management Manual 2023, the City of Canada Bay DCP 2023 and Ministerial Direction 4.3 Flooding*" and that the identified "*inconsistency is considered to be of minor significance*".

WMAwater has identified several issues above in the Worley report that need to be updated to conform with the June 2023 Flood Risk Management Manual and associated toolkit. Without wishing to pre-empt the outcomes of this update, WMAwater is of the view that the inconsistencies are likely to be of greater than minor significance.

4 Conclusions

Worley's report is a well written comprehensive and professional report. However, reference is largely made to the 2005 Floodplain Development Manual rather than the June 2023 Flood risk management manual and toolkit. Application of the June 2023 DPE Flood risk documentation is required as it is likely that this may change some of the outcomes of Worley's assessment. Also the modelling of the driveway should be revised as described in Section 3.2 Comments on Worley's Design Approach above.

Application of the June 2023 DPE Flood risk documentation is also required to provide a conclusive review of the planning proposal against NSW Local Planning Direction 4.1 – Flooding, as this may change Worley's assessment. Taking into consideration the above limitations our opinions on compliance with Direction 4.1 are:

1. It is likely that application of the *Flood risk management guideline FB02* will identify floodways within the Site (Requirement 6 a).
2. The Site is likely to be classified as being in a High Flood Risk Precinct due to the evacuation difficulties at the George Street low point (Requirement 6 c).
3. The planning proposal represents a significant increase in dwelling density (Requirement 6 d).

4. The existing overland flow problem and access issues during floods will need to be addressed and will require significant funding (Requirement 6 g). The planning proposal cannot be supported unless the George Street low point issue is resolved.
5. It is likely, based on this preliminary assessment and without the required updating of the report to the June 2023 DPE documentation, the proposal will result in significant inconsistencies with the relevant flooding requirements (Requirement 9 c).

Generally, there are no viable means of resolving overland flow issues in an urban area, but re-development of the broader precinct wide area opens up possibilities that might be viable. However, this can only be undertaken if re-development is undertaken across the entire precinct and not on an individual basis. 7 Concord Avenue is a critical element in the overland flow floodplain as the majority of the upstream flow crosses the site. Re-development of this Site, in isolation, may therefore jeopardise a viable solution for the entire precinct. WMAwater's view, based on the available information to date, is therefore that the Site is not suitable for the proposed development.

Should you have any questions or require further clarification regarding the above please do not hesitate to contact the undersigned.

Yours Sincerely,
WMAwater

R W Dewar
Technical Director

LOCAL PLANNING PANEL

PLANNING PROPOSAL

MINUTES

Halliday Room
City of Canada Bay Council
1A Marlborough Street
Drummoyne

5 June 2024

Panel:	Jason Perica (Chair) Garry Chapman (Expert Panel Member) Ruth Frettingham (Community Member)
Council staff:	Paul Dewar, Manager Strategic Planning Anthony Wynen, Senior Strategic Planner Dimity Maike, Panels Coordinator

A meeting of the Local Planning Panel was held in the Halliday Room, Canada Bay Civic Centre, Drummoyne on 5 June 2024 in relation to a Planning Proposal at 7 Concord Avenue, Concord West. Please note Planning Proposal meetings are not public meetings and therefore are not open to the public.

A site inspection was conducted by Panel members and Council staff from 9.00am to 10.00am.

The applicant and their representatives addressed the Panel from 11.00am to 12.00pm.

The planning proposal meeting concluded at 12.45pm.

1. Apologies:

   Toney Hallahan (Expert Panel Member) did not attend this meeting due to illness. Three Panel members constitutes a quorum, therefore the Panel meeting proceeded.

2. Disclosures of Pecuniary and Non-Pecuniary Interest:

   No conflicts of interest.

3. Reports:

   Planning Proposal PP2024/0003 – 7 Concord Avenue, Concord West.

Jason Perica
Panel Chairperson:

5 June 2024

ITEM 1 PLANNING PROPOSAL; PP2024/0003; 7 CONCORD AVENUE, CONCORD WEST

This proponent-initiated Planning Proposal seeks to amend the Canada Bay Local Environmental Plan 2013 (CBLEP) for zoning, height and FSR.

The Panel's role is to provide advice to Council for their consideration. In providing advice, the Panel considers the strategic merit and site-specific merit of the Planning Proposal.

The Panel has considered the information and material presented by Council, the applicant and representatives in their address to the Panel, together with matters observed during the site inspection.

RESOLVED

The Panel:

1. Agrees with the conclusions and recommendations within the Council staff assessment that the Planning Proposal not be supported, and not proceed to a Gateway determination, due to site-specific concerns, noting that there is an argument that the Ministerial Directions and precinct-wide flooding constraints are strategic in nature.

2. Notes a number of key issues related to the Planning Proposal, including:

    a. Flooding, and a lack of support after an expert peer review by a firm responsible for the recent precinct-wide flood modelling. Given concerns expressed relate to potential threat to life safety, a precautionary approach is warranted;

    b. Inconsistency with Section 9.1 Ministerial Direction 4.3 - Flood Prone Land, with such inconsistency not being minor;

    c. The background and implications of incorporating part of the adjoining Liberty Grove site into the subject site needs to be clearer, and this area should be excluded from FSR calculations if it has been utilised in FSR calculations previously for the adjoining site;

    d. Inconsistency with planning controls and Urban Design Guidelines associated with Parramatta Road Corridor Urban Transformation Strategy ("PRCUTS"), and thereby inconsistency with an associated Ministerial Direction, and the proposal to increase FSR/density not being appropriate in an area with such flooding, traffic, access and emergency constraints. The Panel was also not convinced about proposed height in the local context.

e. Traffic impacts including some key intersections at very low levels of service and long vehicle delay times, exacerbated by the proposal and FSR exceeding existing controls and those within PRCUTS;

f. The proposed affordable housing component of 4% as a monetary contribution is not leading practice, nor consistent with the current strategic framework, and such housing should also be provided in kind and on site; and

g. The proposal to develop a DCP separate to and after the Planning Proposal and LEP changes, which is not supported.

3. Advise that the flooding issues need to be resolved satisfactorily before considering or resolving the other issues listed above.

4. The history and situation gives rise to a need for a more holistic precinct-wide review of flooding and evacuation, as well as attributable funding as reasonable, all of which would provide greater certainty around a future appropriate use of this and surrounding sites, commensurate with their constraints.

VOTING
The voting in respect of this matter was 3/0.

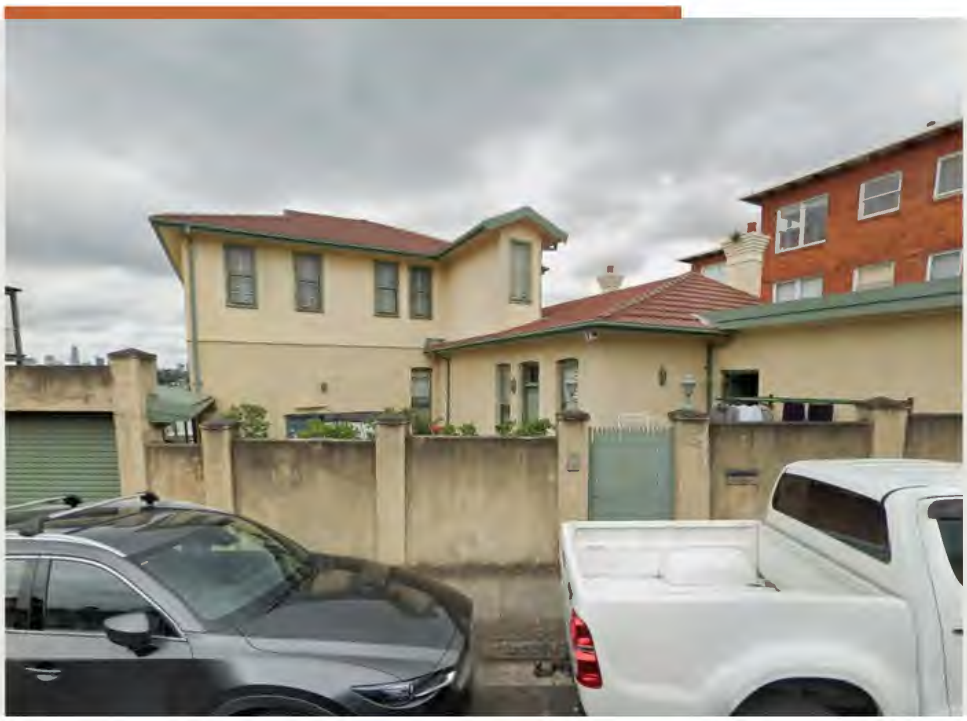
For: Perica, Chapman, Frettingham.

Against: Nil.

ADOPTION OF MINUTES:
We, the undersigned members of the Canada Bay Local Planning Panel, certify that these Minutes are an accurate record of the Planning Proposal Meeting of 5 June 2024.

PANEL MEMBERS	
Jason Perica	Garry Chapman
Ruth Frettingham	

PLANNING PROPOSAL



3 Wolseley Street, DrummoyneNSW

Removal of Site from Schedule 5 of Canada Bay LEP 2013

10 November 2023 | P797

Weir Phillips Heritage and Planning

Level 19, 100 William Street, Sydney, NSW 2011
Phone: (02) 8076 5317

Report Preparation	
Director	Philip North, BAppSc(EnvDes), BArch, MURP, GradCertHeritCons, RAIA MPIA CPP
Senior Planner	SAKK, BTP, DipCH, MCH

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1.0 INTRODUCTION

1.1 Overview

This Planning Proposal seeks to facilitate amendments to the *Canada Bay Local Environmental Plan 2013* (CBLEP 2013) to remove 3 Wolseley Street, Drummoyne from Schedule 5 (Heritage Conservation) and the corresponding heritage map.

The proposed amendments are in response to a heritage assessment undertaken by Weir Philips Heritage and Planning on behalf of the property owner, which has determined that the subject site does not meet the threshold for heritage listing under any of the NSW Heritage Division criterion.

This Planning Proposal has been prepared in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979), and the Department of Planning and Environment's "*Local Environmental Plan Making Guideline"* (August 2023).

1.2 Site and Property Description

The subject site is located at 3 Wolseley Street, Drummoyne (Lot 37, Section 5, D.P. 964) on the south-eastern side of the street. It comprises an irregular shaped allotment with a highly modified 2 storey Federation period and style dwelling house. The site has dual frontages to both Wolseley Street and St Georges Crescent. The subject dwelling house is L-shaped with a 2 storey principal building form and attached single storey wing on the southern side. The building is constructed from rendered brick with a hipped roof clad in terracotta tiles.

The site is:

- Listed as a heritage item under Schedule 5, Part 1 of the CBLEP 2013 (Item No.I505);
- Is not listed on the State Heritage Register under the NSW Heritage Act 1977;
- Is not located within a Heritage Conservation Area under Schedule 5, Part 2 of the CBLEP 2013;
- Is located in the vicinity of the following heritage items:
  - 1 Wolseley Street, Drummoyne (I504); and
  - 4 Wolseley Street, Drummoyne (I506); and
- Zoned R3 Medium Density Residential under the CBLEP 2013.

1.3 Site Location

Figure 1: Site location (SIX Maps).

1.4 Surrounding Context

The site is located in a medium density residential zoned area in Drummoyne that is undergoing transition from a low density to a medium density environment. It is surrounded by 2-4 storey residential flat buildings and some large 1 and 2 storey Federation and Victorian dwelling houses.

As a result of the transition in urban character, the subject dwelling house at 3 Wolseley Street is isolated from its original context of single dwelling houses.

Figure 2: General locality surrounding the site (SIX Maps).

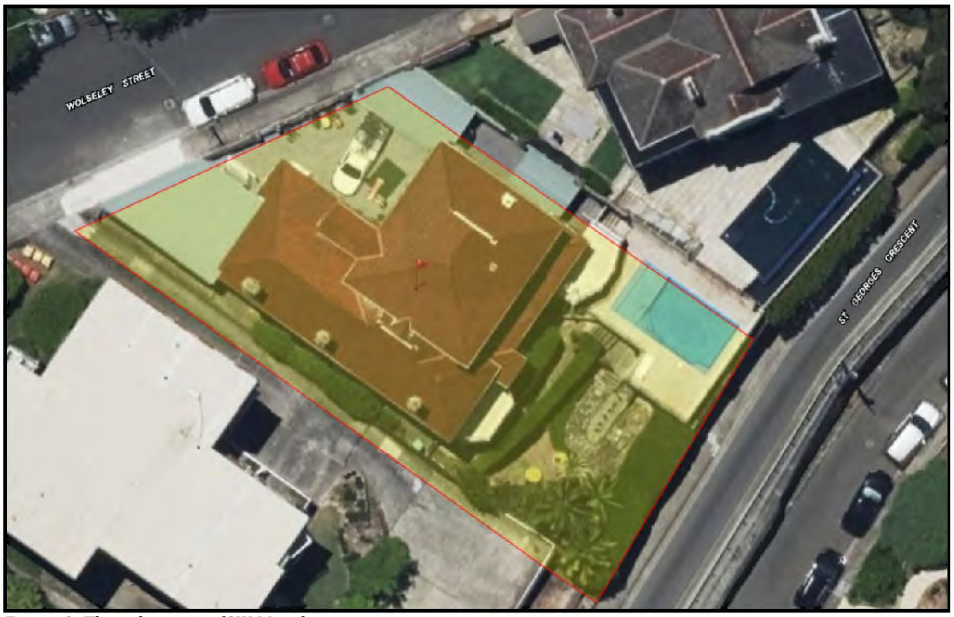

Figure 3: The subject site (SIX Maps).

Figure 4: Front of the subject site as viewed from Wolseley Street.

Figure 5: Rear of the site showing the rear wing.

Figure 6: Rear garages on St Georges Crescent.

Figure 7: 5 Wolseley Street, a 3 storey residential flat building which neighbours the subject site to the south.

Figure 8: 1 Wolseley Street, a 2 storey dwelling house located to the east of the site.

Figure 9: 10 Wolseley Street, a 3 storey residential flat building located directly across from the subject site.

Figure 10: No. 12 Wolseley Street, a 3 residential flat building to the northwest of the subject site.

Figure 11: 6 Wolseley Street, 4 storey residential flat building located across the road.

Figure 12. 5 Raglan Street, a 3 storey residential flat building located further east of the site.

1.5 Heritage Assessment

A heritage assessment report of the subject property was undertaken by Weir Phillips Heritage and Planning in September 2020 (**Appendix A**). The report has identified that 3 Wolseley Street, Drummoyne does not meet the threshold for local heritage listing under any of the NSW Heritage Division criterion for the following reasons:

- The building is not a fine example of a Federation period and style dwelling, but rather a highly modified typology that has lost its integrity;
- The building has limited historic significance as part of a pattern of substantial dwellings being constructed in this part of Drummoyne during the late 19th and early 20th centuries;
- The building is not associated with any persons or cultural groups determined to be of importance in New South Wales' cultural or natural history (or the cultural or natural history of the local area);
- The building has not been attributed to any prominent designer or architect;
- The building has been altered so extensively that it can no longer be considered a good example of its type. There are other better examples to be found throughout the City of Canada Bay that would provide this type of information.
- The building does not display any aesthetically distinctive or landmark qualities. The building is of limited aesthetic merit;
- The setting of the item has been irreparably damaged by the construction of medium density development around the site;
- The building is isolated and separated from similar building types and no longer forms part of a larger cohesive group; and
- The context, character and amenity of the subject site has been diminished by redevelopment of sites nearby into residential flat buildings.

2.0 PART ONE: OBJECTIVES AND INTENDED OUTCOMES

A statement of the objectives and intended outcomes of the proposed instrument

The objective of this Planning Proposal is to amend Schedule 5 and the associated heritage map of the CBLEP 2013 to remove the local heritage listing of 3 Wolseley Street, Drummoyne.

The current heritage listing requires a development application for development on the site as well as additional matters to be taken into consideration under the heritage provisions of Clause 5.10 of the CBLEP 2013.

The proposed removal of the heritage listing would help maintain the integrity of Canada Bay's heritage listings to ensure that only those items with demonstrated heritage significance are retained and appropriately protected. It would also allow for the appropriate development of the site under the existing zoning and local planning provisions.

3.0 PART TWO: EXPLANATION OF PROVISIONS

An explanation of the provisions that are to be included in the proposed instrument

The proposed outcome will be achieved by making the following amendments to the CBLEP 2013:

- Removing Lot 37, Section 5, DP964 from Item No I505 in Schedule 5- Environmental Heritage; and
- Amending the Heritage Map to remove Lot 37, Section 5, DP964.

The current and proposed Heritage Maps for CBLEP 2013 are shown in Part Four (Mapping) of this Planning Proposal.

4.0 PART THREE: JUSTIFICATION OF STRATEGIC AND SITE SPECIFIC MERIT

4.1 Section A – Need for the Planning Proposal

Q1: Is the Planning Proposal a result of an endorsed local strategic planning statement study or report?

Yes. As noted above, a comprehensive heritage assessment of the site was undertaken by Weir Phillips Heritage and Planning in September 2020. The detailed report is attached as **Attachment A**. The site was assessed for significance under the New South Wales Heritage Division Guidelines for Inclusion / Exclusion

Assessing Heritage Significance, NSW Heritage Manual Update. The assessment has identified that the site does not have merit for local heritage listing under the CBLEP 2013 as summarised as follows:

Criterion	Comments
(a) An item is important in the course, or pattern, of New South Wales' cultural or natural history (or the cultural of natural history of the local area).	No. 3 Wolseley Street was constructed c. 1900-1901 during one of the key periods of subdivision in Drummoyne. It has limited historic significance as part of a pattern of substantial dwellings being constructed in this part of Drummoyne during the late 19th and early 20th centuries.
(b) An item has strong or special association with the life or works of a person, or group of persons, of importance in New South Wales' cultural or natural history (or the cultural or natural history of the local area)	The building was constructed c. 1900-1901 by Stephen Vale, an assayer and mineralogist. Neither he, nor subsequent owners including the Read and Moubarak families, have been identified to have any prominence that is more than incidental to them having lived in the area.
(c) An item is important in demonstrating aesthetic characteristics and/or a high degree of technical achievement in New South Wales (or the local area)	The site has not been identified as being the work of an important architect. It has undergone significant alterations which has impacted on the integrity of the building including, but not limited to the following: • The original face brick is now rendered. • The principal roof structure has been replaced with the first-floor addition. • The original front elevation has been enclosed and the front entry relocation to Wolseley Street. • The fireplaces have all been removed or replaced. • The ceilings, plasterwork and joinery has all been replaced. The heritage assessment identifies better examples of the type to be found throughout the City of Canada Bay that demonstrate the style.
(d) An item has strong or special association with a particular community or cultural group in New South Wales (or the local area) for social, cultural or spiritual reasons	The site does not have a strong or special association with a particular community or cultural group in New South Wales (or the local area) for social, cultural or spiritual reasons that has been identified.
(e)An item has potential to yield information that will contribute to an understanding of New South Wales' cultural or natural history (or the cultural or natural history of the local area)	• The site does not provide any additional information to further the understanding of Drummoyne; • The site has not been identified by Canada Bay Council as having potential archaeological significance; and • The dwelling house is a modest example of a Federation era style dwelling that has been substantially modified internally and externally to the extent that it can no longer be considered to be a good example of its type. • There are better examples that more fully reflect the period and architectural style within Canada Bay.
(f) An item possesses uncommon, rare or endangered aspects of New South Wales' cultural or natural history (of the cultural or natural history of the local area)	The building has been highly altered. There are better examples of the style to be found within the local area.
(g)An item is important in demonstrating the principal characteristics of a class of New South Wales (or a class of the local areas)	No. 3 Wolseley Street is part of a group which collectively illustrate Federation dwellings, however, it has lost many of the range of characteristics that make up the type and no longer presents as a Federation style dwelling.

In summary, the assessment has identified that 3 Wolseley Street is an early example of a Federation dwelling and was built as one of several substantial dwellings overlooking Sydney Harbour, forming part of an uninterrupted row. The aesthetic and historic continuity of the original row no longer exists as many of the original dwellings have been replaced by residential flat buildings which has impacted the setting of the subject site. Furthermore, the subject building has undergone extensive alterations externally and internally

which have resulted in the loss of significant fabric, architectural details, and overall integrity to such an extent that it is no longer worthy of heritage listing.

On the basis of this assessment, the heritage study recommends the removal of 3 Wolseley Street, Drummoyne from Schedule 5 of the CBLEP 2013 and the accompanying heritage map, due to erroneous listing information and degree of change from the original.

Q2. Is the Planning Proposal the best means of achieving the objectives or intended outcomes, or is there a better way?
Yes. A local heritage listing under the CBLEP 2013 conserves and protects sites that have been assessed as satisfying the NSW Heritage Council's Criteria for heritage significance. As demonstrated in the accompanying Heritage Report, the subject site does not satisfy the NSW Heritage Office Criterion for local heritage listing.

A Planning Proposal, therefore, is the only means of removing the listing of the site from Schedule 5 and the accompanying heritage map of the CBLEP 2013.

4.2 Section B – Relationship to the Strategic Planning Framework

Q3: Will the Planning Proposal give effect to the objectives and actions of the applicable regional, district plan, or strategy (including any exhibited draft strategies)?

The relevant regional and district strategies are:

- "A Metropolis of Three Cities" – Greater Sydney Regional Plan (2018) and
- "Connecting Communities" - The Eastern City District Plan (2018).

The Planning Proposal is assessed below against the relevant goals contained within those strategies:

- Objective 13 of the Regional Plan, that "*Environmental heritage is identified conserved and enhanced*", requires relevant planning authorities to protect "*aboriginal, cultural and natural heritage and places, spaces and qualities valued by the local community*".

This Planning Proposal will not adversely impact on the directions and actions identified in Objective 13, as the building does not satisfy the criteria for inclusion in Schedule 5 of the CBLEP 2013 as a local heritage item. Rather, as demonstrated in the accompanying heritage study, the site meets the criteria for de-listing.

- Planning Priority E6 under the Eastern City District Plan "*Creating and renewing great places and local centres, and respecting the District's heritage*" requires relevant planning authorities to "*Identify, conserve and enhance environmental heritage".*

The Planning Proposal is not inconsistent with this action as the subject site is not considered to have merit for heritage listing. In relation to both strategies, removal of the site from Schedule 5 and the accompanying heritage map would have the effect of maintaining the integrity of the heritage listings in the CBLEP 2013 by limiting them only to those of true local heritage significance, as assessed against criteria in the NSW Heritage Council publication "Assessing Heritage Significance'.

Q4: Does the Planning Proposal give effect to Council's endorsed local, strategic planning statement or other endorsed local strategies or strategic plan?

The relevant local instruments (including drafts) are:

- The City of Canada Bay Local Strategic Planning Statement (LSPS) (2020);
- The City of Canada Bay Housing Strategy: Vision 2040 (2020); and
- The City of Canada Bay Strategic Plan: Our Future 2036..

The following priority within the LSPS is relevant:

- Priority 7: Create vibrant places which respect local heritage and character

The Planning Proposal is not inconsistent with Priority 4 of the LSPS, as a heritage asset is only valuable if the integrity of the qualities that contribute to its heritage significance are retained. As demonstrated in the accompanying Heritage Study, the site does have merit for local heritage listing as it has been substantially modified and it is not a rare example of the architectural period or style of building.

With regards to the Canada Bay Housing Strategy, the NSW Government requires councils to plan for population growth and changing demographics by delivering additional housing. The Planning Proposal is not inconsistent with the Housing Strategy as the removal of the heritage listing would provide increased opportunities for redevelopment of the site including potential intensification under the current controls.

In regards to Canada Bay's Strategic Plan: Our Future 2036, there are no specific objectives or directions specific to protecting cultural heritage. Regardless, it is reiterated that the removal of the subject site from the Schedule 5 of the CBLEP 2013 will have the effect of maintaining the accuracy of heritage content so that only those items with demonstrated heritage significance are identified, retained and protected.

Q5. Is the planning proposal consistent with any other applicable State and regional studies or strategies?
No other applicable state or regional studies or strategies apply to the proposal.

Q6. Is the planning proposal consistent with applicable State Environmental Planning Policies?
Yes. The following table identifies how this Planning Proposal is consistent with relevant SEPPs:

State Environmental Planning Policy	Comments
Housing SEPP (2021)	Consistent. • The subject property is not known to contain affordable housing. • The removal of the heritage listing would allow potential redevelopment of the site into alternative housing forms permissible under the SEPP and/or the local planning framework, including some types of affordable/diverse housing.
Transport and Infrastructure SEPP (2021)	Not relevant.
Primary Production SEPP (2021)	Not relevant.
Biodiversity and Conservation SEPP (2021)	Not relevant.
Resilience and Hazards SEPP (2021)	Not relevant. • Given the historical use of the site for residential purposes it is unlikely that site remediation would be required. • The subject site is not located within the coastal areas identified by this SEPP.
Industry and Employment SEPP (2021)	Not relevant.
Resources and Energy SEPP (2021)	Not relevant.
Planning Systems SEPP (2021)	Not relevant.
Exempt and Complying Development Codes (2008)	Consistent. The proposed heritage de-listing would expand on the types of development that could be carried out on the site under the Code.

State Regional Environmental Policy	Comments
SYDNEY REP 20 Hawkesbury-Nepean River	The Planning Proposal is consistent with the aims of the policy and will have no adverse impacts on the Hawkesbury-Nepean River System.
SYDNEY REP (Sydney Harbour Catchment) 2005	The Planning Proposal is consistent with the aims of the policy and will have no adverse impacts on the Sydney Harbour Catchment.

Q7. Is the Planning Proposal consistent with applicable Ministerial Directions (s.9.1 directions) or key Government priorities?
The following table identifies applicable Section 9.1 Directions and outlines this Planning Proposal's consistency with those Directions:

Ministerial Direction	Objective	Comments
1.1 Implementation of Regional Plans	The objective of this direction is to give legal effect to the vision, land use strategy, goals, directions and actions contained in Regional Plans.	Consistent. The Planning Proposal will not adversely affect the directions and actions outlined in the strategy to achieve the four goals relating to economy, housing, environment and community.
1.3 Approval and referral requirements	The objective of this direction is to ensure that LEP provisions encourage the efficient and appropriate assessment of development.	Consistent. The Planning Proposal will not contain provisions which require the concurrence, referral or consultation of other public authorities, nor identify any use as designated development.
3.2 Heritage Conservation	The objective of this direction is to conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance.	Consistent. The Planning Proposal will maintain the integrity of the heritage listings in Schedule 5 to be those only of true local heritage significance assessed against criteria from the NSW Heritage Council.
6.1 Residential Zones	(a) encourage a variety and choice of housing types to provide for existing and future housing needs, (b) make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and (c) minimise the impact of residential development on the environment and resource lands.	Consistent. • The Planning Proposal relates to an existing dwelling house, and as such will have no effect on housing availability, choice, infrastructure, or environment; • The Planning Proposal does not contain provisions that would reduce the permissible residential density on the land. Rather, the proposed de-listing would facilitate redevelopment of the land within the existing zoning and planning controls.

The Planning Proposal relates to the removal of the heritage listing of an established building. It is not considered to be inconsistent with any Government priorities.

4.3 Section C – Environmental, Social and Economic Impact

Q8. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?
The Planning Proposal will not adversely impact any critical habitat, threatened species, populations or ecological communities, or their habitats as a result of the removal of the heritage listing.

Q9. Are there any other likely environmental effects as a result of the Planning Proposal and how are they proposed to be managed?
There are no environmental effects envisaged because of the removal of heritage listings proposed by the Planning Proposal.

Q10. Has the Planning Proposal adequately addressed any social and economic effects?
The Planning Proposal would offer positive social and economic effects by:

- Ensuring the heritage listings under the CBLEP 2013 are up to date and protect items and places of heritage significance for the community;
- Potentially increasing intensification of the site for residential purposes within the current zoning and controls; and
- Providing increased building activity and jobs during any construction phases.

4.4 Section D – State and Commonwealth Interests

Q10. Is there adequate public infrastructure for the Planning Proposal?

The Planning Proposal relates to the removal of the heritage listing of an established building. No additional demand for public infrastructure is anticipated.

Q11. What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway Determination?
Council will consultant with public authorities nominated by the Department of Planning and Environment as per requirements of the Gateway Determination.

5.0 PART FOUR- MAPPING

Maps, where relevant, to identify the intent of the Planning Proposal and the area to which it applies
This Planning Proposal will result in the following amendment to the following CBLEP 2013 heritage map sheet:

- **Canada Bay Local Environmental Plan 2013 – Heritage Map:** by removing the colouring indicating the heritage listing from the subject property at 3 Wolseley Street, Drummoyne.

Figure 13: Existing CBLEP 2013 Heritage Map

PART FIVE- COMMUNITY CONSULATION
Details of the community consultation that is to be undertaken on the Planning Proposal
Community Consultation for this Planning Proposal will be consistent with the requirements of:

- The Environmental Planning and Assessment Act 1979
- The Environmental Planning and Assessment Regulations 2000
- The Gateway Determination; and
- The consultation guidelines contained in the Department of Planning and Environments "*Local Environmental Plan Making Guideline"* (August 2023).

Public exhibition of the Planning Proposal would be generally undertaken in the following manner:

- Notification in a newspaper that circulates the area affected by the Planning Proposal;
- Notification on Council's website;
- Notification in writing to the affected and adjoining landowners;
- Making available the following material for viewing during the exhibition period:
  - Planning Proposal;
  - Gateway Determination; and
  - Information relied upon by the Planning Proposal (e.g. the Heritage Study, Council report and resolution)

At the conclusion of the public exhibition, a report will be prepared and reported back to Council to allow for the consideration of any submissions received from the community

6.0 PART SIX- PROJECT TIMELINE

Stage	Timing
Consideration by Local Planning Panel	January 2024
Consideration and Decision by Council	February 2024
Submission for Gateway Determination	March 2024
Gateway determination	May 2024
Pre-exhibition	July 2024
Commencement and completion dates for public exhibition period	July/August 2024 (20 days)
Consideration of submissions	September 2024
Report back to Council	September 2024
Submission to the Department for finalisation	October 2024
Gazettal of LEP amendment	December 2024

HERITAGE ASSESSMENT

3 Wolseley Road, Drummoyne

September 2020 | J4421

Weir Phillips Heritage and Planning

Level 19, 100 William Street Woolloomooloo NSW 2011
Phone: (02) 8076 5317

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1 INTRODUCTION

1.1 Preamble

This Heritage Assessment (HA) has been prepared for an existing dwelling at No. 3 Wolseley Road, Drummoyne, New South Wales.

The site is located within the City of Canada Bay Council. The principal planning control for the site is the *Canada Bay Local Environmental Plan 2013* (*LEP 2013*). The site is listed and lies adjacent to and within the vicinity of heritage item under Schedule 5, Part 1 of the *LEP 2013*.

This statement has been prepared at the request of the owners of the site.

1.2 Authorship and Acknowledgements

This HA was prepared by Elliot Nolan, B.A. (Anc.Hist.Hons), M. Mus.Herit.Stud. M.Herit.Cons (cand.), and James Phillips, B.Sc. (Arch.), B.Arch., M.Herit.Cons. (Hons.), of Weir Phillips Heritage and Planning.

1.3 Limitations

The history contained in this statement was prepared using readily available resources.

No Aboriginal or historical archaeology was carried out on the site.

1.4 Methodology

This assessment has been prepared with reference to the *NSW Heritage Manual* update *Statements of Heritage Impact* (2002) and with reference to the Council planning controls listed under Section 1.6.

1.5 Physical Evidence

A site visit was carried out in August 2020. Unless otherwise stated, the photographs contained in this statement were taken by the author on this occasion.

1.6 Documentary Evidence

1.6.1 General References

- Australian Dictionary of Biography, 'Lyons, Samuel (1791-1851)', http://adb.anu.edu.au/biography/lyons-samuel-2384', accessed 2 September, 2020.
- *Brisbane Courier*, 'Advertising', 23 August, 1924.
- *Byron Bay Record*, 'Local and General', 9 March, 1912.
- *Daily Telegraph*, 'For Sale', 5 September, 1998.
- *Grafton Argus and Clarence River General Advertiser*, 'Personal', 22 August, 1913.
- *Grafton Argus and Clarence River General Advertiser*, 'Chatsworth', 11 October, 1918.
- *Newcastle Morning Herald and Miners' Advocate*, 'News of the Day', 27 March, 1919.
- Russell, E., *Drummoyne: A Western Suburbs' History 1794, 1871, 1971* (Council of the Municipality of Drummoyne, 1971).
- *Sydney Morning Herald*, 'Death Notice', 2 November, 1906.
- *Sydney Morning Herald*, 'Death Notice', 12 November, 1964.
- *Sydney Morning Herald*, 'Drummoyne – V.P. Residence', 31 July, 1965.
- *Truth*, 'Woman Dies After Accident', 19 August, 1951.

1.6.2 Historic Plans and Photographs

- Aerial Photograph of No. 3 Wolseley Street (c. 1940s). NSW Spatial Imagery.
- Aerial Photograph of No. 3 Wolseley Street (c. 1990s). NSW Spatial Imagery.

- Photograph of Wolseley Street Wharf (c. 1920s). City of Canada Bay Local Studies Collection.
- Plan of the Five Dock Farm Estate (c. 1840s). National Library of Australia.
- Plan of the Parish of Concord, County of Cumberland, New South Wales (n.d.). NSW LPI.
- Sheet 23, Water Board Map of Drummoyne (1932). Sydney Water.
- Subdivision Plan for Drummoyne Park (1882). State Library of New South Wales.

1.6.3 Heritage Listing Sheets

- 'House', 54 Lyons Road, Drummoyne. *Canada Bay LEP 2013* Item No. I315.
- 'House', 41 St Georges Crescent, Drummoyne. *Canada Bay LEP 2013* Item No. I415.
- 'House', 1 Wolseley Street, Drummoyne. *Canada Bay LEP 2013* Item No. I504.
- 'House', 3 Wolseley Street, Drummoyne. *Canada Bay LEP 2013* Item No. I505.
- 'House', 4 Wolseley Street, Drummoyne. *Canada Bay LEP 2013* Item No. 506.
- 'House', 9 Wolseley Street, Drummoyne. *Canada Bay LEP 2013* Item No. 507.
- 'House', 45 Wrights Road, Drummoyne. *Canada Bay LEP 2013* Item No. 514.

1.6.4 NSW LPI Records

- NSW LPI, Certificate of Title, Volume 4-Folio 75.
- NSW LPI, Certificate of Title, Volume 159-Folio 42.
- NSW LPI, Certificate of Title, Volume 744-Folio 235.
- NSW LPI, Certificate of Title, Volume 932-Folio 185.
- NSW LPI, Certificate of Title, Volume 5828-Folio 31.

1.6.5 Planning Documents

- *Canada Bay Development Control Plan 2013*.
- *Canada Bay Local Environmental Plan 2017.*

1.7 Site Location

No. 3 Wolseley Road is located on the southern side of Wolseley Street between Raglan Street to the west and St Georges Crescent to the east (Figure 1). The site is identified as Lot 37, Section 5, D.P. 964.

Figure 1: Site location.
SIX Maps, 2020

2 BRIEF OUTLINE OF THE HISTORICAL DEVELOPMENT

2.1 Aboriginal History

While an Aboriginal history is not provided for, it is acknowledged that the original inhabitants of the Canada Bay area were the Wangal of the Dharug language group.

2.2 Early European History

The Colony of New South Wales was formally established on 26 January, 1788 at Sydney Cove. Exploration of Sydney Harbour and its surrounds began soon after. The first recorded contact between the European colonists and the Wangal occurred as the colonists explored the Parramatta River. In November 1788, Governor Phillip established a second settlement, Rose Hill (later Parramatta); the Parramatta River provided the first major link between the two settlements.

All land in the Colony was declared to be Crown land. From 16 January 1793, successive colonial governors granted land outside the official boundaries of the township of Sydney in order to open up the land and augment the colony's food supplies. The present-day City of Canada Bay is located well outside these boundaries. Several grants were made to Royal Marines on the western side of Iron Cove in 1794. These grants proved unsuccessful and later reverted to the Crown. A number of these grants were later included in a substantial grant of 1,500 acres made to Surgeon John Harris on 1 January, 1806, under the hand of Governor Philip Gidley King. This grant, known as 'Five Dock Farm,' comprises the present-day suburb of Drummoyne (Figure 2).

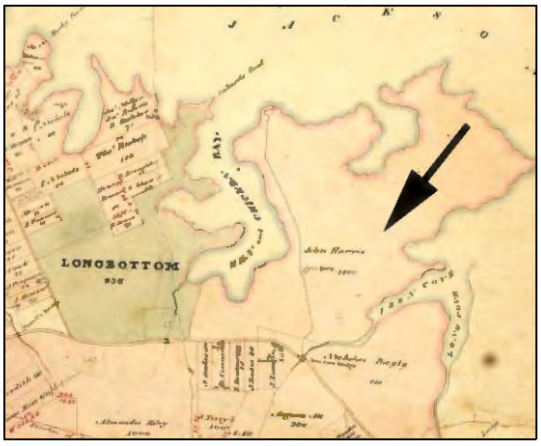


Figure 2: Detail of a Plan of the Parish of Concord, County of Cumberland, New South Wales (n.d.).
NSW LPI

The Irish born John Harris, surgeon and public servant, arrived in Sydney in 1790 as a surgeon's mate to the New South Wales Corps and was soon appointed surgeon to the Corps. Harris' many and varied duties often brought him into conflict with his fellow officers and traders. Although notably loyal to Governor King, he was involved in the deposition of Governor Bligh; he later gave evidence at Colonel Johnson's court martial in London in 1811.

Harris resigned his commission and returned to the Colony as a private settler in 1814. Although he continued to play an active role in public affairs, he primarily devoted himself to farming and stock raising. By 1826, he had amassed 3,824 acres by grant, 590 acres by purchase and 700 acres by exchange, the whole of which, he claimed, was fenced and divided into paddocks and enclosures, with 1,550 cleared or under 'Tillage.' 'Five Dock Farm' appears to have been among the least developed of Harris holdings; the only improvements listed in 1826 were 'One Dwelling House and Fencing', valued at £200. When Harris died in 1838, he left an estate reputed to be worth £150,000.[1]

2.3 Samuel Lyons and the Subdivision of Five Dock Farm

In March 1828, the *Sydney Gazette* reported that emancipist Joseph Nettleton had leased the entire 'Five Dock Farm' from Harris. In September 1836, most of the grant, including the subject site, was sold to the merchant and auctioneer, Samuel Lyons.

Samuel Lyons had arrived in Sydney in 1815 as a convict, serving a life sentence for theft. Lyons received a conditional pardon in 1825 and an absolute pardon in 1832. Upon obtaining his freedom, he established himself as a successful auctioneer, becoming the owner of one of Sydney's largest auction houses. Lyon's business interests were diverse and included property development, money lending and banking; he was also active in public affairs, later becoming a prominent member of Sydney's Jewish community.[2]

Lyons wasted little time in seeking to profit from 'Five Dock Farm.' In September 1836, he advertised his intent to sell the whole of the grant in lots of a 'convenient size', directing his

[1] Eric Russell, *Drummoyne: A Western Suburbs' History 1794, 1871, 1971*, (Council of the Municipality of Drummoyne, 1971), p. 33.

[2] Australian Dictionary of Biography, 'Lyons, Samuel (1791-1851)', http://adb.anu.edu.au/biography/lyons-samuel-2384, accessed 2 September, 2020.

notices in several Sydney newspapers 'To Capitalists, Gentlemen in Private or Public Offices, Tradesmen and Others.' The picturesque qualities of the estate and its proximity to Sydney Township were particularly noted. Trespassers were evidently a problem for Lyons at this time. In late 1836, he issued notices that those found cutting timber, quarrying stone or de-pasturing cattle on 'Five Dock Farm' would be prosecuted.

Lyons sale of 1836 divided 'Five Dock Farm' into 133 lots, varying in size from two to sixty nine acres 'so as to suit the means of all classes of buyers.' The lots had frontage to the three principal means of access into the area at this time: the Parramatta River, the Parramatta Road and the Great North Road.

Figure 3 provides a near contemporary plan of 'Five Dock Farm Estate.' The subject site forms part of the large lot marked 'Lot 104' on this plan. The Estate sold well at the initial sale and at subsequent sales. Who purchased the land now part of the subject site at this time has not been ascertained for the purposes of this statement.

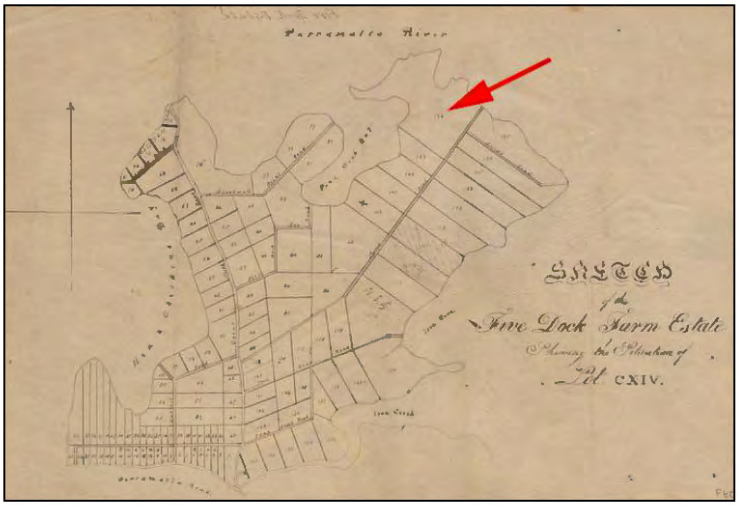


Figure 3: Sketch of the Five Dock Farm Estate (c. 1840s).
National Library of Australia

2.4 William Wright and the Drummoyne Park Estate

Around 1853, William Wright, merchant and Island trader, purchased an extensive area of land fronting the Parramatta River, which he called 'Drummoyne Park,' reputedly for a place he knew in Scotland. The subject property formed part of a parcel of 61 acres brought under the provisions of the *Real Property Act* by Wright, with the first Certificate of Title being dated 4 April, 1864.[3] A second Certificate of Title was issued for 70 acres 2 roods and 37 perches soon after.[4]

The English born William Wright, merchant and island trader, arrived with his wife, Bethia, in Australia in 1838, having recently inherited his uncle's foreign commission agency in Glasgow. Wright travelled to the colonies to investigate the business' existing agency in Sydney. During a trading expedition to the Kaipari River in Auckland in 1837, he purchased extensive land from the Maori people. Wright went on to establish a general commission and shipping agency in Auckland and became an early figure in the Kauri timber trade. Ill health forced his early

[3] NSW LPI, Certificate of Title, Volume 4-Folio 75.

[4] NSW LPI, Certificate of Title, Volume 159-Folio 42.

retirement to his Five Dock estate, upon which he constructed the villa mansion 'Drummoyne House'. While the name 'Drummoyne' would eventually be adopted for the Peninsula, the area was generally known at this time as Five Dock; it was under this name that residents were first listed in *John Sands' Sydney and Suburban Directory* in 1870.

As the population of Five Dock began to increase, the first moves were made to incorporate the area and establish local government. In 1870, the petitioners who sought the creation of a Municipality claimed that they represented a population of more than 500 people within boundaries roughly comparable to the original 'Five Dock Farm.' Wright was among those who signed an unsuccessful counter petition against incorporation. When the Municipality of Five Dock was declared on 25 July 1871, the population was given as 850 people, in 101 houses.[5]

The new Municipality of Five Dock was short-lived. By the late 1880s, there was a strong movement to separate the North Ward, in which the subject property was located, on the basis that the area generally known as 'Drummoyne' was more heavily populated than Five Dock. William Wright was among those supporting separation, which was achieved when the Municipality of Drummoyne came into being on 18 January, 1890.

The 'Drummoyne Park Estate,' on which the subject property now stands, was subdivided from the early 1880s. The sale was later described as one of the most successful in the area, resulting in the disposal of the majority of the Estate for around £35,000.[6]

2.5 Development of the Subject Site

The subject site is situated on Lot 37 of Section 5 of the 'Drummoyne Park Estate' subdivision which was purchased in 1885 by John Purnell, described in the title record as a plumber from Leichhardt (Figure 4).[7] The allotment was transferred to Edward Purnell in 1889 and then Stephen Vale in 1899.[8] The subject dwelling first appears in the 1901 *Sands' Directories* where it was occupied by Vale. At this time, the address was given as St. Georges Crescent, rather than Wolseley Street. Subsequent editions also give the dwelling the name 'Kubara'. It was not until 1915 that the subject dwelling was assigned the address No. 137 St. Georges Crescent.

[5] Russell, *Drummoyne*, pp. 99-102.

[6] Russell, *Drummoyne,* p. 125.

[7] NSW LPI, Certificate of Title, Volume 744-Folio 235.

[8] NSW LPI, Certificate of Title, Volume 932-Folio 185.

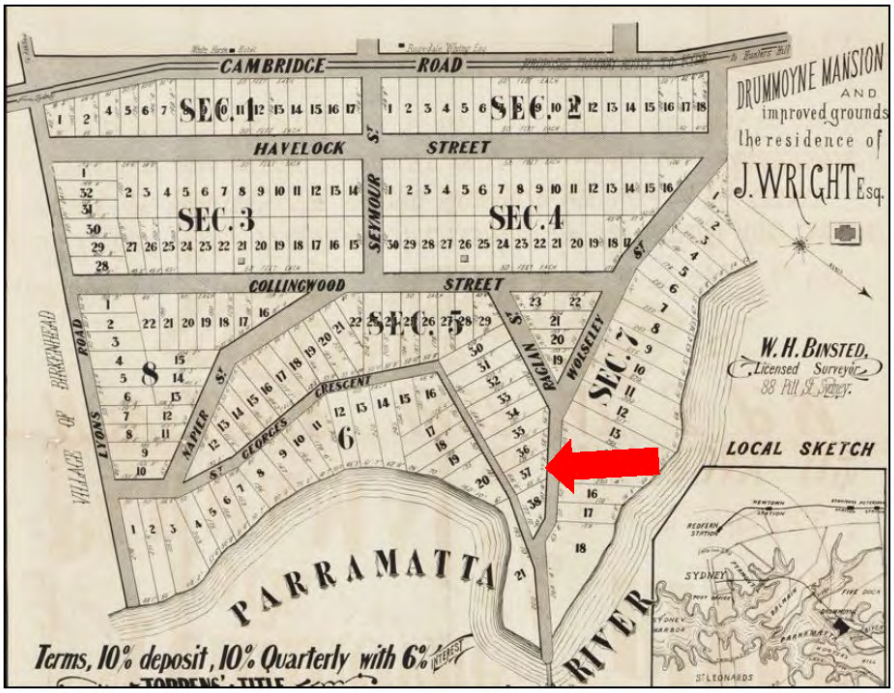


Figure 4: Drummoyne Park subdivision (1882).
State Library of New South Wales

Vale was an assayer and mineraologist and was employed by the English and Australian Copper Company from at least the 1870s up to his death in 1906.[9] Following this the title was transferred to his widow Charlotte, who continued to live at the dwelling until 1911, when it was briefly tenanted, and then sold to John Read. Read formerly lived at Chatsworth Island to the northeast of Grafton, however, retired to Drummoyne in 1912.[10] Read had been an alderman on Harwood Shire Council in 1906, however, little else is known about him; he died at 'Kubara' in 1918, leaving behind an estate worth £16,691.[11] The estate was transferred to, and lived in by, Mary Read, who appears to have been John Read's daughter; his wife having passed away some years earlier.[12]

There are no clear photographs of the subject dwelling. Figure 5 shows No. 1 Wolseley Street (indicated by the red arrow). Behind, or possibly the building to the left, is the subject dwelling. The streetscape has changed significantly since the time the photograph was taken, with many of these mansions having been demolished.

[9] *Sydney Morning Herald*, 'Death Notice', 2 November, 1906.

[10] *Byron Bay Record*, 'Local and General', 9 March, 1912.

[11] *Grafton Argus and Clarence River General Advertiser*, 'Chatsworth', 11 October, 1918; and *Newcastle Morning Herald and Miners' Advocate*, 'News of the Day', 27 March, 1919.

[12] *Grafton Argus and Clarence River General Advertiser*, 'Personal', 22 August, 1913.

Figure 5: Wolseley Street Wharf (c. 1920s).
City of Canada Bay Local Studies Collection

Figure 6, a Water Board Map of the area from 1932, shows the footprint and significant site features of dwellings. The map indicates the existence of a set of stairs from St Georges Crescent that led to what was likely a verandah and entry to the subject dwelling. Other features of note is that the Wolseley Street elevation appears to have had a verandah as well.

Figure 6: Sheet 23, Water Board Map of Drummoyne (1932).
Sydney Water

Mary Read is recorded as living continuously at the subject dwelling at least until the last edition of the *Sands' Directories* in 1932-33. Advertisements show an attempt in the intervening years to lease the dwelling:

> Drummoyne, Sydney, to let, a gentleman's residence, fully furnished, 3 reception rooms, 3 bedrooms, sleeping-out balcony and all offices, magnificent harbour views, e. l., gas, bath heater, piano, 'phone.[13]

Read is listed as living in St. Georges Crescent in 1951, when she was fatally struck by a car on Victoria Road.[14] The subject site was subsequently transferred to Rachel Read; the relationship between the two has yet to be determined; Mary was a 'spinster' which means it is unlikely Rachel was her daughter.

Rachel Read lived at the dwelling until 1964 when she passed away.[15] The estate was put up for sale and advertised as follows:

> Solid well built Brick/Tile Residence in fashionable area. Well elevated with excellent views over River and Reserve. Comprises: Enclosed verandah, 4 beds. Interconnecting lounge and dining rooms, utility-room (5th bed.), rear entrance room, bathroom, toilet, kitchen, laundry, outside toilet, storeroom, garage.[16]

The last known owner prior to computerisation of records was Ursula Moubarak. Ursula was married to Joseph who had also purchased what is now No. 1 Wolseley Street in 1958.[17] The two dwellings were retained under the ownership of the Moubaraks and were put up jointly for sale in 1998, however, were sold separately. Both dwellings were noted for having retained 'many of their original features such as pressed metal ceilings, fireplaces'.[18] No. 3 Wolseley Street was then purchased and renovated to its existing condition by the present owner.

[13] *Brisbane Courier*, 'Advertising', 23 August, 1924.

[14] *Truth*, 'Woman Dies After Accident', 19 August, 1951.

[15] *Sydney Morning Herald*, 'Death Notice', 12 November, 1964.

[16] *Sydney Morning Herald*, 'Drummoyne – V.P. Residence', 31 July, 1965.

[17] NSW LPI, Certificate of Title, Volume 5828-Folio 31.

[18] *Daily Telegraph*, 'For Sale', 5 September, 1998.

3 SITE ASSESSMENT

3.1 The Site

For the following, refer to Figure 7, an aerial photograph over the site, and to the survey that accompanies this application.

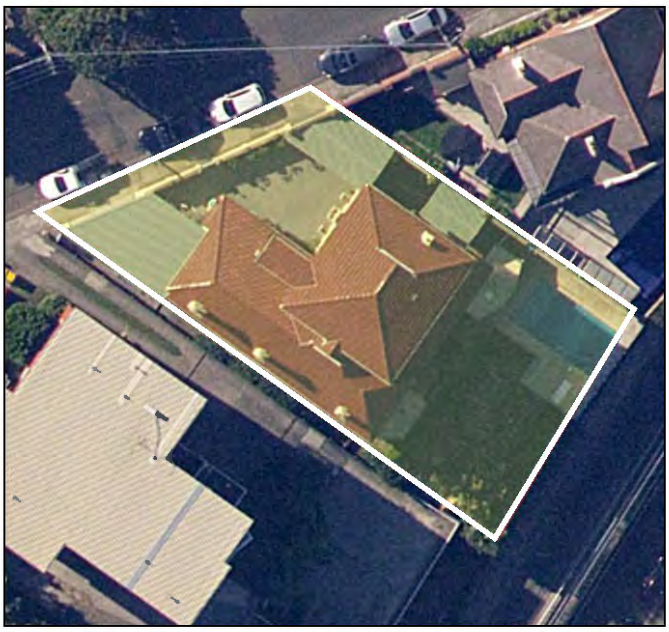


Figure 7: Aerial photograph of subject site.
SIX Maps, 2020

The subject site comprises an irregular shaped allotment with frontage to Wolseley Street and St Georges Crescent. The site is terraced into several levels on the east side by means of cutting into the rockface. The garden addressing St Georges Crescent has small plantings and a hedge along the southeastern side. There is a swimming pool raised above the garden to the northeast. A sandstone fence with piers and a timber gate borders the eastern side of the property. There is a garage constructed from sandstone with two openings on this side. A second garage constructed from rendered brick with a metal roof is attached to the northwest side of the dwelling, while there is a timber carport with metal roof on the northern side. The western side of the garden addressing Wolseley Street is paved with small plantings in pots. The total site area is approximately 720m^2.

Refer to Figures 8 to 11 which illustrate the site.

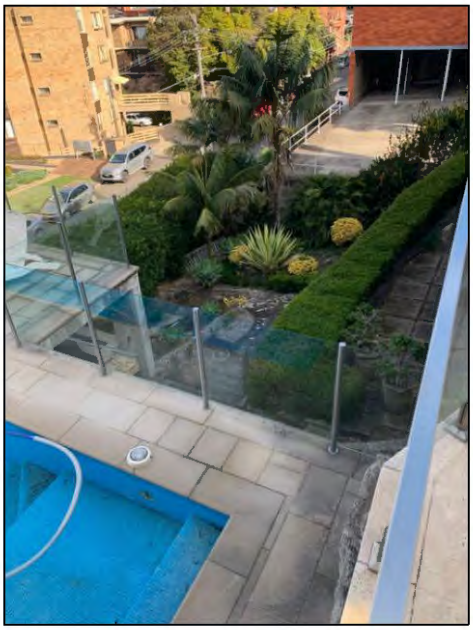


Figure 8: Rear garden.

Figure 9: Swimming pool.

Figure 10: Rear garages.

Figure 11: Carport.

3.2 Exterior

No. 3 Wolseley Street presents as a two-storey highly modified Federation dwelling. The dwelling is L-shaped and comprises a two-storey square principal building form with an attached single-storey rectangular wing on the southern side. Both the principal building form and wing are constructed from rendered brick and have hipped roofs clad in terracotta tiles. The wing has three masonry chimneys with terracotta pots along the

southern side of the roof. To the western side of the wing has an attached garage constructed from rendered brick with a flat metal roof and metal roller door.

The front elevation (addressing Wolseley Street) has vertically proportioned, timber-framed sash windows along the ground and first-floors. The front entrance is via a timber door with leadlight top light. It has two timber-framed sash windows to either side. There is a gabled bay on the first-floor with wide overhanging eaves and a single timber-framed window.

The northern and southern elevations are plain in detailing and have timber-framed window openings. There is one window on the northern elevation (Figure 17) which is original to the dwelling.

The rear elevation (addressing St Georges Crescent) is elevated on a sandstone bed with a lower ground-floor comprising two timber-framed sash windows. The first-floor to the principal building form has a verandah with a tiled floor and timber balustrade and timber posts. It has a timber-framed French door to either side with a small timber-framed window opening in between.

Below, on the ground-floor to the principal building form, is an enclosed verandah with a roof clad in terracotta tiles. It has timber-framed window openings with top lights and bottom lights. There is a panelled timber entry door with side lights on the left side which has a semi-enclosed porch with timber posts and a gabled roof clad in terracotta tiles. The rear elevation to the single-storey wing has two timber-framed door openings with top lights. To either side of the dwelling are balconies with tiled floors and glass balustrades supported by sandstone columns. Beneath the western balcony is a small lower ground-floor which has two timber-framed sash windows.

Refer to Figures 12 to 19 which illustrate the exterior.

Figure 12: Front elevation of the principal building form.

Figure 13: The gable to the first-floor.

Figure 14: The main entry door.

Figure 15: Southern elevation.

Figure 16: Northern elevation.

Figure 17: The only original window to the dwelling.

Figure 18: Rear elevation.

Figure 19: Rear elevation showing single-storey wing.

3.3 Interior

The main entry door leads into a T-shaped hallway with a set of timber stairs with balustrade immediately on the left that leads to the first-floor. The ground-floor to the wing is generally characterised by plaster walls and plain plaster ceilings with roses and cornices, timber floors, skirting boards and architraves. There are door openings throughout which have stained glass leadlight top lights. The bathrooms all have modern fit-outs with tiled floors and walls. There are arched openings at the rear of the hallway which have decorative moulded plasterwork.

There is a formal living room and dining room contained within the wing. These two rooms are separated by a wide arched opening. The living room has a fireplace with cast iron insert and timber mantlepiece (a later modern addition). There is a kitchen within the principal building form. It has a plain plaster ceiling with cornices, timber floors and architraves and a modern fit-out. Adjacent and separated by an arched opening is the sunroom which has a timber ceiling and otherwise the same finishes as the kitchen.

The first-floor is accessed via a set of timber stairs with a timber balustrade. It comprises additional bedrooms, bathroom and a large family room with access to the rear balcony. The rooms are carpeted with plaster walls and plain plaster ceilings with cornices. The bathroom has a modern fit-out with tiled floor and walls.

Refer to Figures 20 to 32 which illustrate the interior.

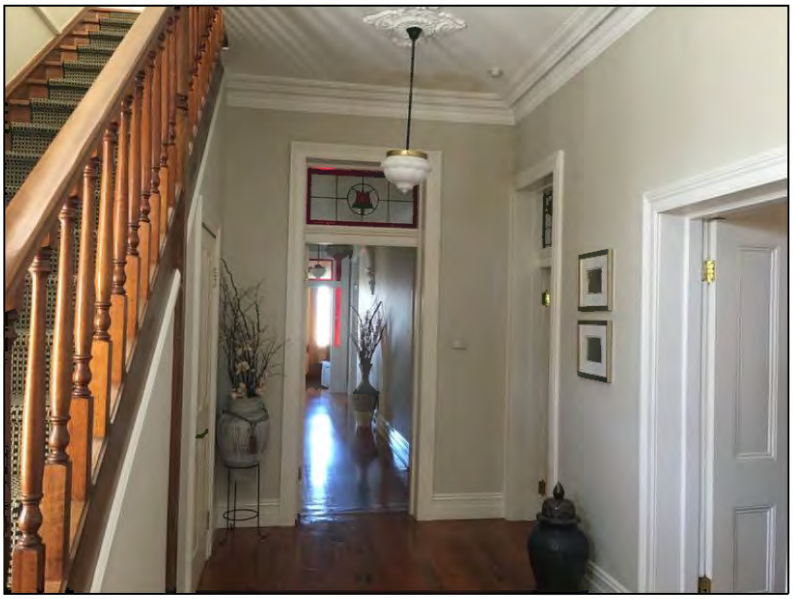


Figure 20: Hallway looking towards the rear of the dwelling.

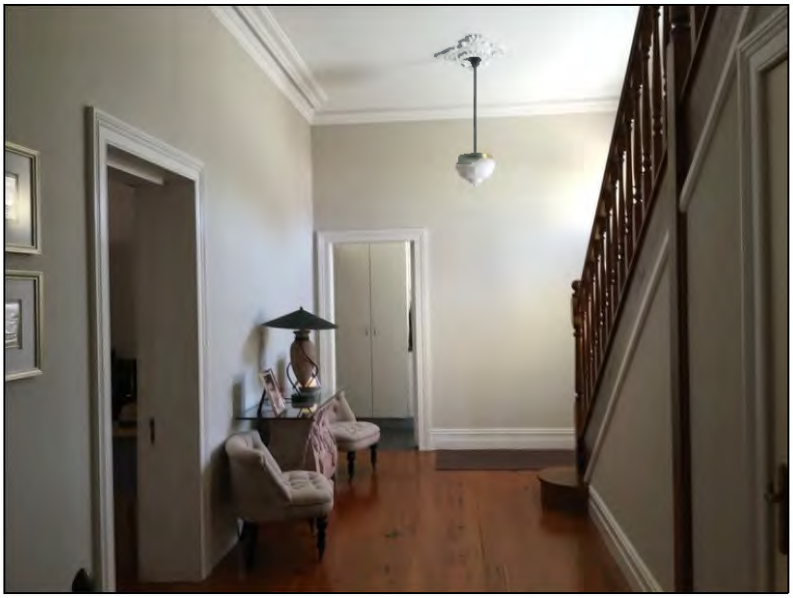


Figure 21: Hallway looking towards the front of the dwelling.

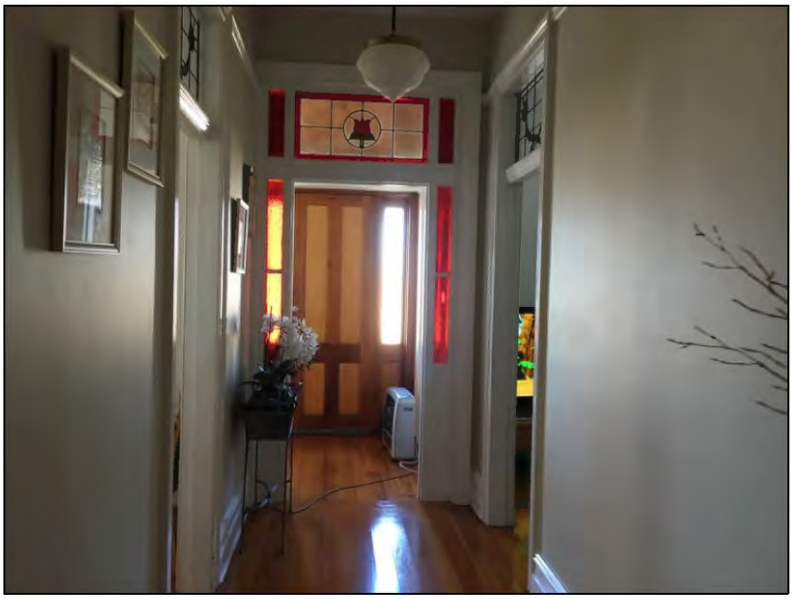


Figure 22: The rear of the hallway looking towards the rear entry door.

Figure 23: A bedroom on the ground-floor.

Figure 24: A bathroom on the ground-floor.

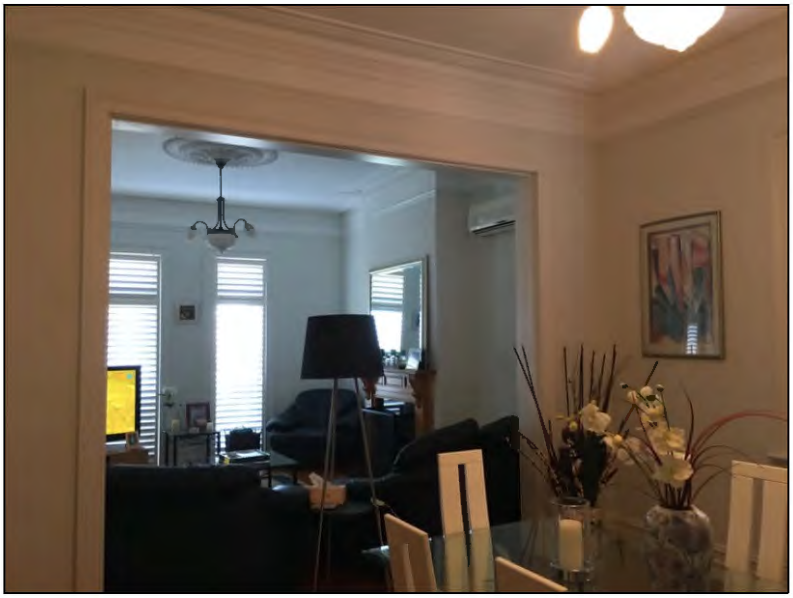


Figure 25: Living room and dining room.

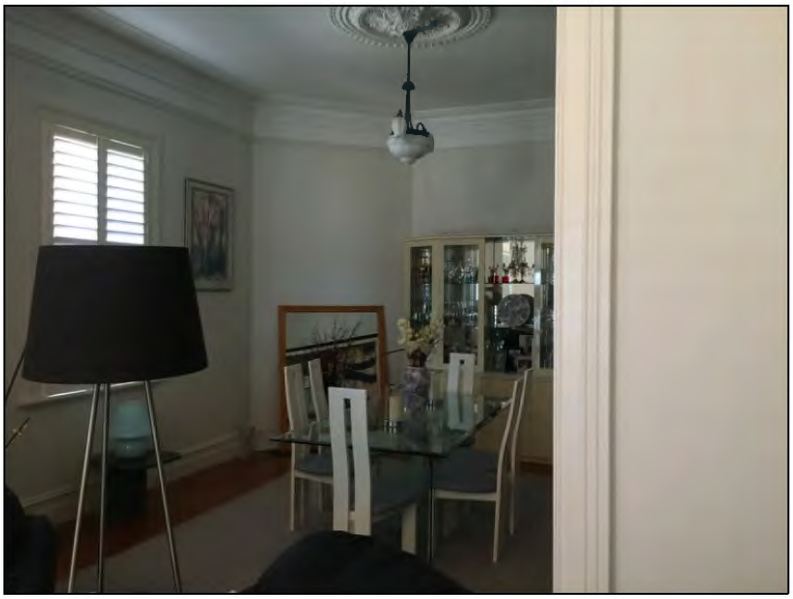


Figure 26: Dining room.

Figure 27: Living room showing fireplace.

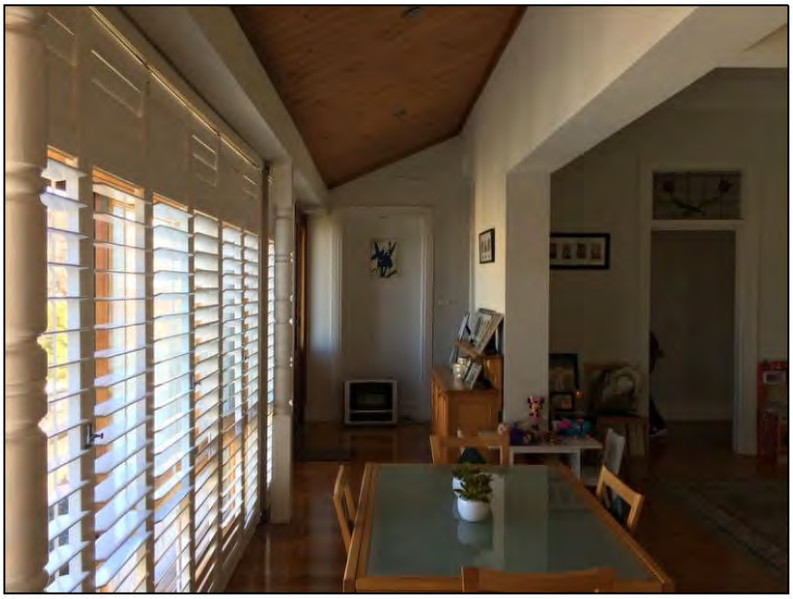


Figure 28: Sunroom.

Figure 29: Kitchen.

Figure 30: Bedroom on first-floor.

Figure 31: Bathroom on first-floor.

Figure 32: Family room on first-floor.

3.4 The Surrounding Area

3.4.1 The General Area

For the following, refer to Figure 33, an aerial photograph of the site and its surrounds.

Figure 33: Aerial photograph of surrounding area.
SIX Maps, 2020

3.4.2 Wolseley Street

Wolseley Street runs east-west from Victoria Road to terminate at Drummoyne Wharf. It is residential in character with large one and two-storey Victorian and Federation freestanding dwellings on substantial allotments and modern infill characterised by two-storey dwellings and two to four-storey residential flat buildings.

The road carries two-way traffic with parking on both sides and concrete footpaths. The adjacent dwelling to the east is No. 1 Wolseley Street, a two-storey Federation style dwelling. To the west is No. 5 Wolseley Street, a two-storey modern residential flat building. Opposite the site to the north are four separate modern residential flat buildings between three and four-storeys.

Refer to Figures 34 to 37 which illustrate the character of Wolseley Street.

Figure 34: No. 3 Wolseley Street adjacent to the west of the subject site.

Figure 35: No. 1 Wolseley Street adjacent to the east of the subject site.

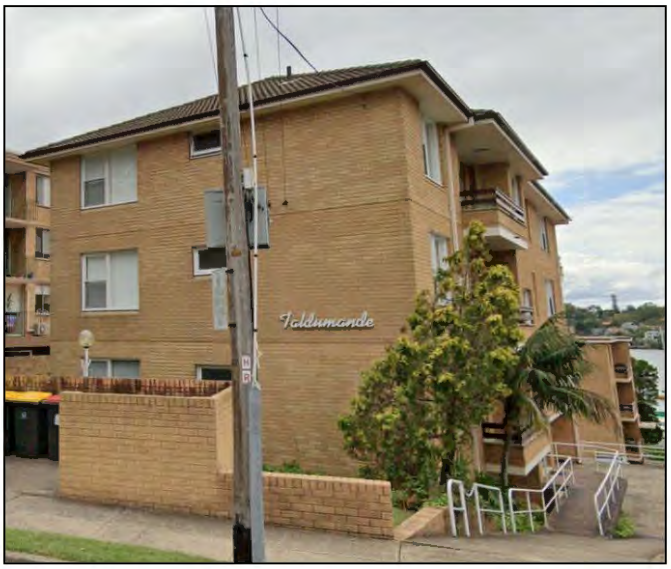


Figure 36: No. 12 Wolseley Street to the northwest of the subject site.

Figure 37: No. 6 Wolseley Street opposite the subject site to the north.

3.4.3 St Georges Crescent

St Georges Crescent runs north-south, then north-east between Park Avenue and Wolseley Street. It is residential in character with large one and two-storey Victorian and Federation freestanding dwellings on substantial allotments and modern infill characterised by two-storey dwellings and two to four-storey residential flat buildings.

The road carries two-way traffic with parking mainly on the eastern side. Opposite the site are several four-storey modern residential flat buildings and two-storey Victorian and Federation style dwellings.

Refer to Figures 38 to 40 which illustrate the character of St Georges Crescent.

Figure 38: No. 106 St Georges Crescent opposite the subject site.

Figure 39: The rear elevation of No. 1 Raglan Street to the south of the subject site.

Figure 40: No. 102A St Georges Crescent to the south of the subject site.

4 ASSESSMENT OF SIGNIFICANCE

4.1 Summary of Statutory Heritage Listings

No. 3 Wolseley Street, Drummoyne:

- Is listed as a heritage item under Schedule 5, Part 1 of the *LEP 2013* (Item No. I505).
- Is not listed on the State Heritage Register under the auspices of the *NSW Heritage Act 1977*.

- Is not located within a Heritage Conservation Area under Schedule 5, Part 2 of the *LEP 2013*.

The State Heritage Inventory provides the following Statement of Significance for this item:

> The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.[19]

4.2 Heritage Items Within the Vicinity of the Site

Refer to Figure 41 below, which shows a heritage map from the *LEP 2013*. In this plan, heritage items are coloured brown and numbered and Conservation Areas are hatched red. The subject site is coloured brown and numbered 'I505'.

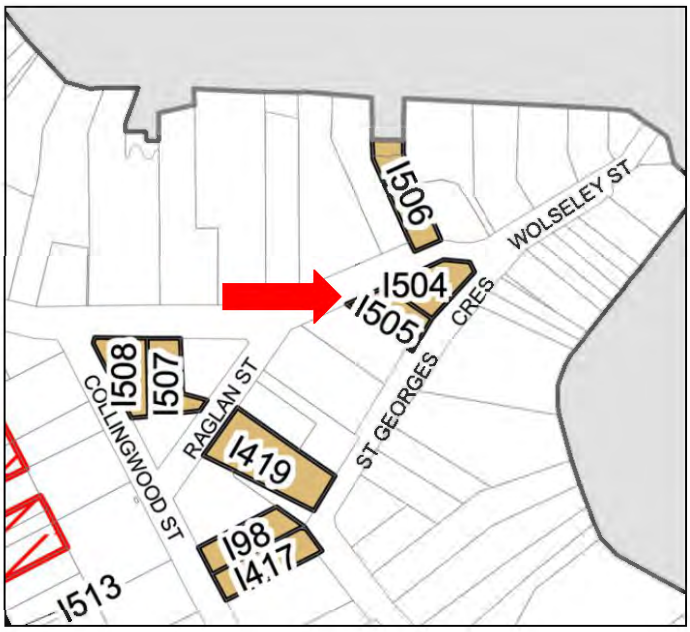


Figure 41: HER_006 showing heritage items in relation to the subject site.
Canada Bay LEP 2013

For the following, 'within the vicinity' has been determined with reference to physical proximity, existing and potential view corridors and the nature of the proposed works.

4.2.1 State Listings

There are no State heritage items within the vicinity of the site under the auspices of the *NSW Heritage Act 1977*.

[19] Office of Environment & Heritage, 'House', http://apps.environment.nsw.gov.au/dpcheritgeapp/ViewHeritageItemDetails.aspx?ID=2891173, accessed 10 August, 2020.

4.2.2 Local Listings

There are two heritage items within the vicinity of the site under Schedule 5, Part 1 of the *Canada Bay LEP 2013*.

- **'House', 1 Wolseley Street, Drummoyne**

This item is adjacent to the northeast of the subject site. It is marked 'I504' in Figure 41 above.

The State Heritage Inventory provides the following Statement of Significance for this item:

> The house is of high significance as part of a group at the end of St Georges Crescent which forms a very fine streetscape and the house is largely intact. It is one of a group of Federation/Edwardian houses that typified development around the waterfront of Drummoyne.
>
> The remnant Eucalyptus Pilularis is a rare survivor in the council area.[20]

Refer to Figure 42.

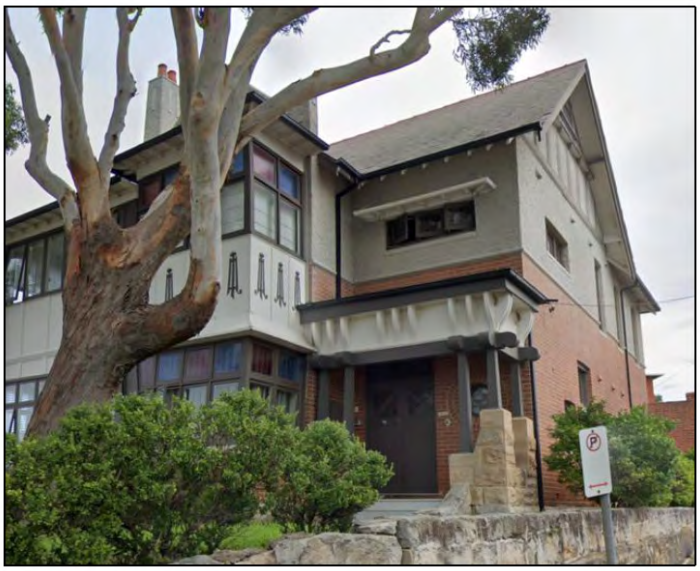


Figure 42: No. 1 Wolseley Street.

- **'House', 4 Wolseley Street, Drummoyne**

This item is located to the northeast of the subject site. It is marked 'I506' in Figure 41 above.

The State Heritage Inventory provides the following Statement of Significance for this item:

[20] Office of Environment & Heritage, 'House', https://apps.environment.nsw.gov.au/dpcheritageapp/ViewHeritageItemDetails.aspx?ID=2891172, accessed 10 August, 2020.

> A very fine example of the later Federation Arts and Crafts style residence with excellent detailing and an imposing waterfront location. One of the finest surviving waterfront houses in the area.[21]

Refer to Figure 43.

Figure 43: No. 4 Wolseley Street.

[21] Office of Environment & Heritage, 'House', https://apps.environment.nsw.gov.au/dpcheritageapp/ViewHeritageItemDetails.aspx?ID=2891174, accessed 1 September, 2020.

4.3 Integrity

For the following, refer to Figure 44, an aerial photograph of the subject site from the 1940s and to Figure 45, an aerial photograph from the 1990s, prior to the alterations and additions.

Figure 44: Aerial photograph of subject site (c. 1940s).
NSW Spatial Imagery

Figure 45: Aerial photograph of subject site (c. 1990s).

No. 3 Wolseley Street demonstrates a low degree of integrity and has undergone significant alterations and additions over time. This is analysed in detail below. For a more comprehensive fabric survey of the interior, refer to Appendices 1 and 2 at the end of this report.

Site

The following is noted:

- There is no original landscaping or vegetation.
- The boundary fences have been replaced with the existing.
- The front garage is not original.
- The rear garage is not original, however, the sandstone likely is.
- The garages at the rear and front of the site are not original.
- It is unclear whether the stairs visible in the 1940s aerial photograph are the same as exist now, notwithstanding, they appear to terminate further from the subject dwelling than they originally did. The historic entry from St Georges Crescent has been obscured by the existing garden arrangement.

Exterior

The following is noted:

- The original face brickwork has been rendered.
- The dwelling appears originally to have been single-storey. The existing first-floor to the principal building form is a modern addition, however, the chimney on the northern side is original.
- A dormer window has been added to the north-western elevation.
- The roof cladding has been replaced with the existing glazed terracotta tiles.
- The existing entry door and top light to the front elevation addressing Wolseley Street is a later addition.
- There may have been a verandah adjacent to the existing entry which is now removed.
- The original entry was from the rear elevation addressing St Georges Crescent. The relocation of the front entry door has fundamentally changed how the dwelling should be entered and the rooms used.
- The rear elevation has been enclosed and would have been a verandah.
- The twin balconies are later additions.
- The existing rear entry door may not be original; the Water Board Map shows the garden stairs ended adjacent to the north-eastern elevation. A niche in the southern wall of the sun room appears to have been the original entry. This relocation of the rear door further alters an understanding of the original configuration.
- All but one of the windows to the ground-floor northern elevation and two to the lower ground-floor rear elevation has been replaced.

Interior

The following is noted:

- Most of the ceilings and cornices have been replaced with plain plasterboard ceilings with modern reproduction roses which are uncharacteristic of the period and style.
- Most of the joinery including skirting boards and architraves have been replaced. The picture rails where noted may be original.
- The leadlight top lights are later additions.
- The moulded plasterwork in the hallway is a later addition.
- A staircase has been added.
- The kitchen and bathrooms have modern fit-outs with modern finishes.

- The fireplaces have all been removed. The existing fireplace and mantlepiece in the living room is a later addition.

Overall, these changes have had a significant and detrimental impact on the dwelling and has meant the loss of detailing normally associated with dwellings of this style and period. There is little remaining original fabric to the interior of the house.

4.4 View Corridors

The principal view corridor towards the subject dwelling is either from directly outside on Wolseley Street or on St Georges Crescent. Due to its elevated position, the dwelling has limited visibility from the latter, with the lower half of the site obscured by vegetation and the high boundary fence.

It can be seen on approach from the west along Wolseley Street, while it is blocked from view on approach from the east due to No. 1 Wolseley Street. From St Georges Crescent, it is not visible on approach from the southwest as No. 3 Wolseley Street blocks views, while the rear elevation has limited visibility from the northeast.

The main view corridor is to the southeast and east, which overlooks Parramatta River. Secondary views along Wolseley Street are limited.

Refer to Figures 47 to 53 which illustrate view corridors.

Figure 46: Looking towards the subject dwelling from the west along Wolseley Street.

Figure 47: Looking towards the subject dwelling from the east along Wolseley Street.

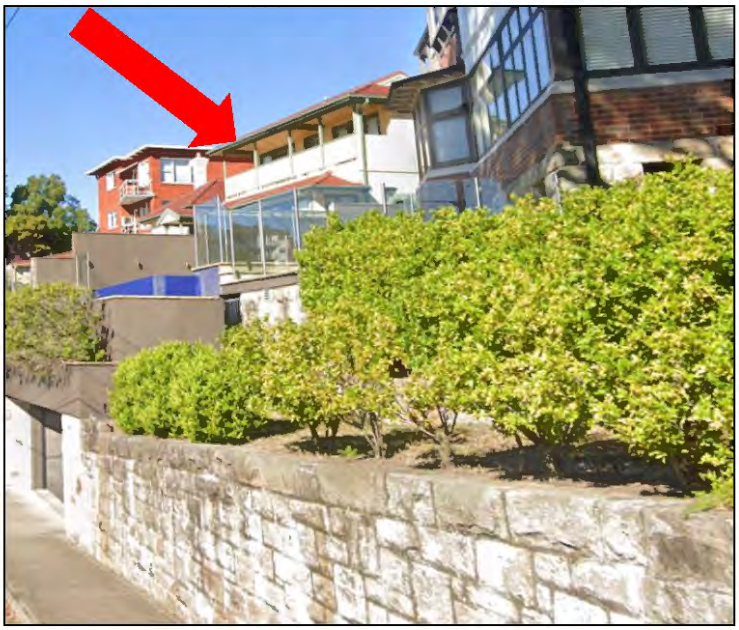


Figure 48: Looking towards the subject dwelling from the northeast along St Georges Crescent.

Figure 49: Looking towards the subject dwelling from the southwest along St Georges Crescent.

Figure 50: Looking southeast from the subject dwelling towards Sydney Harbour.

Figure 51: Looking west from the subject site along Wolseley Street.

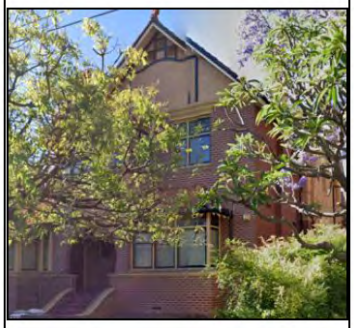
Figure 52: Looking southwest from the subject site along St Georges Crescent.

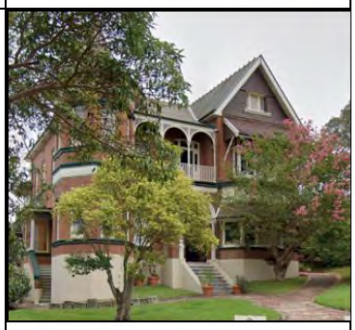
4.5 Comparative Analysis

The subject dwelling was constructed c. 1900-1901 and would originally have demonstrated many of the attributes now associated with the Federation style. This style dominated domestic architecture in Sydney during the late 19th and early 20th century.

Characteristics included the use of face brick, stone foundations, timber-framed double hung windows, gables, bay windows, leadlight windows, etc.

The following is a list of Federation period dwellings listed as local heritage items in Drummoyne.

Item	Description	Photograph
1 Wolseley Street, Drummoyne *LEP 2013* Item No. 504.	Two-storey sandstone base red face brick and roughcast rendered dwelling with hipped and gabled roof clad in tiles. A verandah on the eastern elevation has been enclosed.	
4 Wolseley Street, Drummoyne *LEP 2013* Item No. 506.	Two-storey dwelling constructed from brick clad in roughcast render with high pitched gabled roof clad in tiles. Unsympathetic additions to the front elevation.	
9 Wolseley Street, Drummoyne *LEP 2013* Item No. 507.	Two-storey dwelling constructed from face brick with gabled roof clad in terracotta tiles. Front elevation has decorative timberwork.	

41 St Georges Crescent, Drummoyne *LEP 2013* Item No. 415.	Single-storey dwelling constructed from face brick with gabled roof clad in slate. Bay windows with leadlight detailing.	
45 Wrights Road, Drummoyne *LEP 2013* Item No. 514.	Two-storey dwelling constructed from face brick with hipped and gabled roof clad in tiles. Features octagonal tower and oriel windows as well as decorative timberwork. Now split into flats.	
54 Lyons Road, Drummoyne *LEP 2013* Item No. 315.	Single-storey dwelling constructed from face brick with hipped and gabled roof clad in slate. The front verandah has been enclosed, otherwise most original detailing is intact.	

As the above Comparative Analysis shows, there are numerous other dwellings dating from the Federation period that are located in Drummoyne. These show varying degrees of integrity. For instance, No. 4 Wolseley Street has undergone unsympathetic alterations to the front elevation with the construction of a garage, while No. 45 Wrights Road has been converted into a residential flat building.

Notwithstanding, they all retain architectural details that characterise Federation style dwellings. These include face brick facades, half-timbering, leadlight windows, bay or oriel windows, unglazed terracotta roof tiles or slate. While the character of their interiors is unknown, it can be assumed that most would retain their decorative plaster ceilings and original joinery and fretwork.

The retention of these finishes allows the items to continue to present as belonging to the Federation style, which the subject dwelling is unable to do so because all these details have been removed or replaced. For these reasons, the subject dwelling is a poor representation of the style, while these others are superior examples.

4.6 Assessment under NSW Heritage Division Criteria

4.6.1 Criterion (a)

An item is important in the course, or pattern, of New South Wales' cultural or natural history (or the cultural of natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
• shows evidence of a significant human activity	• has incidental or unsubstantiated connections with historically important activities or processes
• is associated with a significant activity or historical phase	• provides evidence of activities or processes that are of dubious historical importance
• maintains or shows continuity of a historical process or activity	• has been altered so that it can no longer provide evidence of a particular association

No. 3 Wolseley Street was constructed c. 1900-1901 during one of the key periods of subdivision in Drummoyne. It was originally known as 'Kubara' and has limited historic significance as part of a pattern of substantial dwellings being constructed in this part of Drummoyne during the late 19th and early 20th centuries.

The subject site does fulfil this criterion for listing.

4.6.2 Criterion (b)

An item has strong or special association with the life or works of a person, or group of persons, of importance in New South Wales' cultural or natural history (or the cultural or natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
• shows evidence of a significant human occupation	• has incidental or unsubstantiated connections with historically important people or events
• is associated with a significant event, person, or group of persons	• provides evidence of people or events that are of dubious historical importance
• maintains or shows continuity of a historical process or activity	• has been altered so that it can no longer provide evidence of a particular association

No. 3 Wolseley Street was constructed c. 1900-1901 by Stephen Vale, an assayer and mineralogist. Neither he, nor subsequent owners including the Read and Moubarak families, have been determined to be of any more than local prominence.

The subject site does not fulfil the criterion for listing.

4.6.3 Criterion (c)

An item is important in demonstrating aesthetic characteristics and/or a high degree of technical achievement in New South Wales (or the local area)

Guidelines for Inclusion	Guidelines for Exclusion
• shows or is associated with, creative or technical innovation or achievement	• is not a major work by an important designer or artist
• is the inspiration for creative or technical innovation or achievement	• has lost its design or technical integrity

• is aesthetically distinctive or has landmark qualities	• its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded
• exemplifies a particular taste, style or technology	• has only a loose association with a creative or technical achievement

No. 3 Wolseley Street was an example of a Federation dwelling. It has, however, not been identified as the work of an important architect and has undergone significant alterations which mean it is more than temporarily degraded.

This has included but is not limited to the following:

- The original face brick is now rendered.
- The principal roof structure has been replaced with the first-floor addition.
- The original front elevation has been enclosed and the front entry relocation to Wolseley Street.
- The fireplaces have all been removed or replaced.
- The ceilings, plasterwork and joinery has all been replaced.

As this assessment has shown, there are other better examples of the type to be found throughout the City of Canada Bay that better demonstrate the style.

The subject site does not fulfil the criterion for listing.

4.6.4 Criterion (d)

An item has strong or special association with a particular community or cultural group in New South Wales (or the local area) for social, cultural or spiritual reasons

Guidelines for Inclusion	Guidelines for Exclusion
• is important for its association with an identifiable group	• is only important to the community for amenity reasons
• is important to a community's sense of place	• is retained only in preference to a proposed alternative

No. 3 Wolseley Street has not been found to have any association with a particular community or cultural group.

The subject site does not fulfil this criterion for listing.

4.6.5 Criterion (e)

An item has potential to yield information that will contribute to an understanding of New South Wales' cultural or natural history (or the cultural or natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
• has the potential to yield new or further substantial scientific and/or archaeological information	• has little archaeological or research potential
• is an important benchmark or reference site or type	• only contains information that is readily available from other resources of archaeological sites
• provides evidence of past human cultures that is unavailable elsewhere	• the knowledge gained would be irrelevant to research on science, human history of culture

No. 3 Wolseley Street is an example of a Federation style dwelling, however, it has been so altered externally and internally that it can no longer be considered a good example of its type. There are other better examples to be found throughout the City of Canada Bay that would provide this type of information.

The subject site does not fulfil the criterion for listing.

4.6.6 Criterion (f)

An item possesses uncommon, rare or endangered aspects of New South Wales' cultural or natural history (of the cultural or natural history of the local area)

Guidelines for Inclusion	Guidelines for Exclusion
• provides evidence of a defunct custom, way of life or process	• is not rare
• demonstrate a process, custom or other human activity that is in danger of being lost	• is numerous but under threat
• shown unusually accurate evidence of a significant human activity	
• is the only example of its type	
• demonstrate designs or techniques of exceptional interest	
• shown rare evidence of a significant human activity important to a community	

No. 3 Wolseley Street is a highly altered example of a substantial Federation dwelling that once characterised this part of Drummoyne, however, while not as numerous as they once were, there are better examples of this type of dwelling.

The subject site does not fulfil the criterion for listing.

4.6.7 Criterion (g)

An item is important in demonstrating the principal characteristics of a class of New South Wales (or a class of the local areas):

- Cultural or natural places; or
- Cultural or natural environments

Guidelines for Inclusion	Guidelines for Exclusion
• is a fine example of its type	• is a poor example of its type
• has the potential characteristics of an important class or group of items	• does not include or has lost the range of characteristics of a type
• has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique of activity	• does not represent well the characteristics that make up a significant variation of type
• is a significant variation to a class of items	
• is part of a group which collectively illustrates a representative type	
• is outstanding because of its setting, condition or size	
• is outstanding because of its integrity or the esteem in which it is held	

No. 3 Wolseley Street is part of a group which collectively illustrate Federation dwellings, however, it has lost many of the range of characteristics that make up the type and no longer presents as a Federation style dwelling.

The subject site does not fulfil the criterion for listing.

4.7 Discussion

No. 3 Wolseley Street was constructed c. 1900-1901 and thus stands out as an early example of a Federation dwelling in the area. It was built as one of several substantial dwellings overlooking Sydney Harbour and once formed part of an uninterrupted row. This aesthetic and historic continuity no longer exists with many of these dwellings replaced by residential flat buildings, for instance, No. 5 Wolseley Street.

Unlike remaining dwellings from this period, the subject dwelling has undergone alterations and additions over time. These include but are not limited to the following:

- The face brick has been rendered.
- The principal roof structure was removed when the first-floor addition was constructed.
- Nearly all of the original openings have been replaced.
- The original front elevation has been enclosed and the entry relocated to Wolseley Street. This has obscured an understanding of the original configuration and the use of the rooms.
- All of the ceilings have been replaced with uncharacteristic plain plaster ceilings.
- Nearly all of the original joinery including skirting boards and architraves have been replaced.
- The plasterwork in the hallway is not original.
- Nearly all of the leadlight top lights are new.
- The fireplaces have either been removed or replaced.
- All site structures including the boundary fencing, garden stairs, vegetation and so on have been replaced or removed.

These alterations are significant and irreparable and have resulted in the loss of important detail that characterises the style. The removal of the subject dwelling would thus have an acceptable impact on the Heritage Conservation Area. The changes mean that removal of the dwelling to replace it with a new dwelling would be subject to scrutiny by Council as it is located adjacent to and within the vicinity of other heritage items. Any proposal would be assessed to identify the implications of the removal of the dwelling on these items.

5 APPENDIX 1

Exterior Fabric Survey

Building:		
Address: 3 Wolseley Street	**Elevation**: Front	**Date:** August 2020

Element	Materials/ Comments	Integrity
Roof	Glazed terracotta tiles.	Not original. Inappropriate replacement.
Walls	Rendered and painted.	Not original.
Windows	Ground Floor: 3 x timber-framed sash windows. First Floor: 4 x timber-framed sash windows.	None are original.
Doors	1 x solid timber door.	Not original.
Other Features	1 x timber-framed dormer window to first-floor. 2 x wall lamps.	None are original.

Photographs

Building:		
Address: 3 Wolseley Street	**Elevation**: Rear	**Date:** August 2020

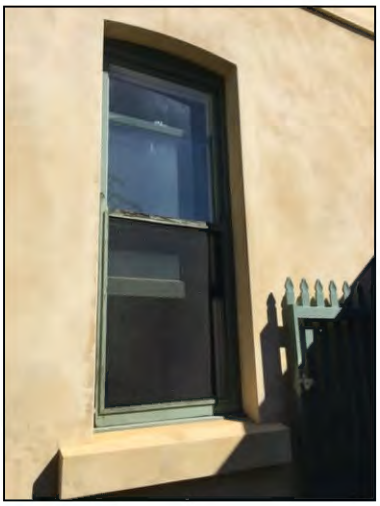
Element	Materials/ Comments	Integrity
Roof	Glazed terracotta tiles.	Not original. Inappropriate replacement.
Walls	Rendered and painted. Lower half is on sandstone base.	Walls not original, nor appropriate. Sandstone base is original, however, the columns supporting the projecting balconies are not.
Windows	Ground Floor: 6 x timber-framed glazed windows with top lights and bottom lights. First Floor: 1 x timber-framed window.	None are original.
Doors	Lower Ground Floor: 2 x timber-framed sash windows. Ground Floor: 2 x timber-framed doors with top lights. 1 x timber-framed door with side lights. 1 x timber-framed door with glazing. First Floor: 2 x timber-framed French doors.	Lower ground floor windows likely original. The others are not.
Other Features	Lower Ground Floor: 1 x sandstone stair to rear entry door. Ground Floor: 2 x balconies with glazed balustrade and sandstone floors. First Floor: 1 x verandah with timber balustrade and tiled floor.	None are original.

Photographs

Building:		
Address: 3 Wolseley Street	**Elevation**: Northern	**Date:** August 2020

Element	Materials/ Comments	Integrity
Roof	Glazed terracotta tiles.	Not original. Inappropriate replacement.
Walls	Rendered and painted. Shallow sandstone base.	Walls not original, nor appropriate. Sandstone base is original.
Windows	Ground Floor: 3 x timber-framed sash windows.	Only one is original (as noted elsewhere). The others are replacements.
Doors		
Other Features		

Photographs



Building:		
Address: 3 Wolseley Street	**Elevation**: Southern	**Date:** August 2020

Element	Materials/ Comments	Integrity
Roof	Glazed terracotta tiles.	Not original. Inappropriate replacement.
Walls	Rendered and painted. Shallow sandstone base.	Walls not original, nor appropriate. Sandstone base is original.
Windows	Ground Floor: 3 x timber-framed sash windows.	None are original.
Doors		
Other Features		

Photographs

6 APPENDIX 2

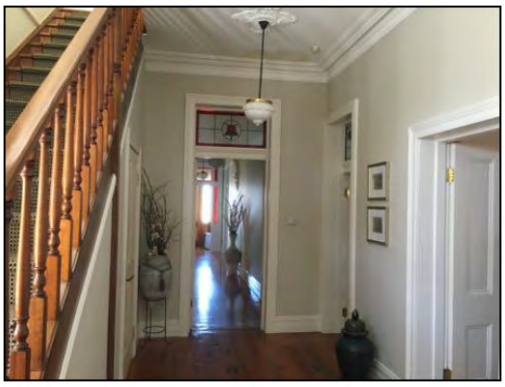
Interior Fabric Survey

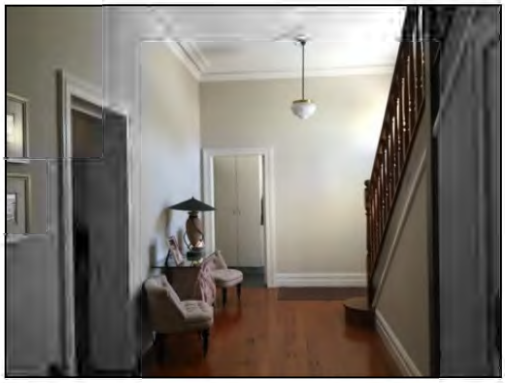
Ground Floor

Building:		
Address: 3 Wolseley Street	**Room:** Foyer	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber floor.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted.	Original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Detailed	Not original.
Ceiling	Plain plaster with rose.	Not original.
Stairs	Timber with timber balustrade.	Not original.
Fireplace	None.	
Other Features	Leadlight top lights.	Not original.

Photographs

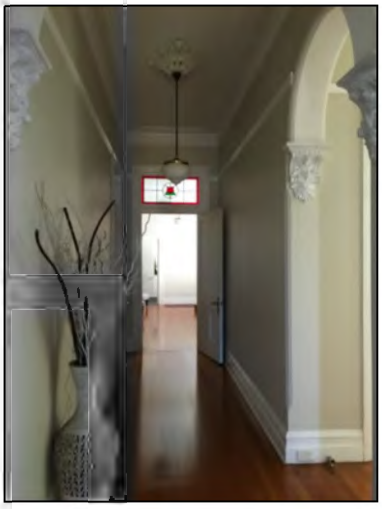


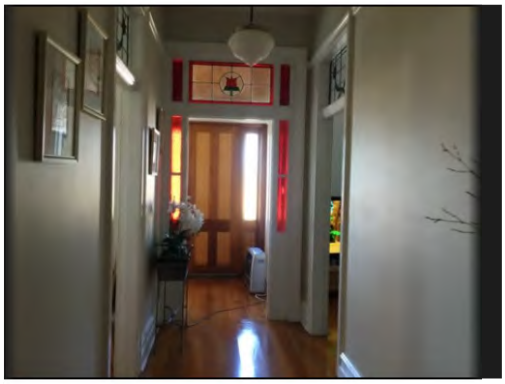


Building:		
Address: 3 Wolseley Street	**Room:** Main Hallway	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber floor.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted with elaborate moulded plasterwork.	Walls are original. Plasterwork is a later addition.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Detailed	Not original.
Ceiling	Plain plaster with rose.	Not original.
Fireplace	None.	
Other Features	Leadlight top lights.	Not original.

Photographs

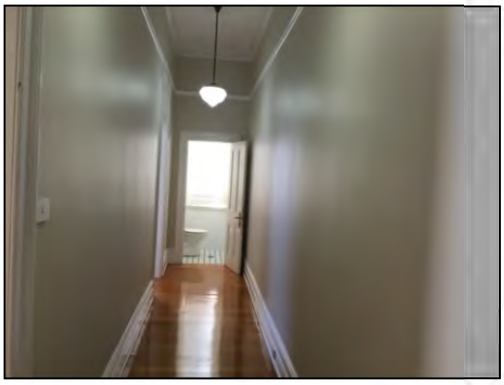




Building:		
Address: 3 Wolseley Street	**Room:** North-east Hallway	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber floor.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	Original or appropriate replacement.
Walls	Rendered and painted.	Original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Detailed	Not original.
Ceiling	Plain plaster with rose.	Not original.
Fireplace	None.	
Other Features	Leadlight top lights. Picture rails: timber; simple moulded profile; painted.	Top lights not original. Picture rails original or appropriate replacement.

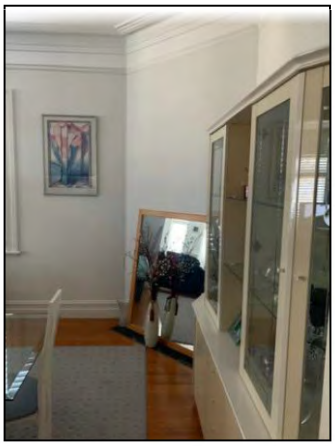
Photographs



Building:		
Address: 3 Wolseley Street	**Room:** Dining Room	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber floor.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted.	Original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Detailed	Not original.
Ceiling	Plain plaster with rose.	Not original.
Fireplace	None.	
Other Features	None.	

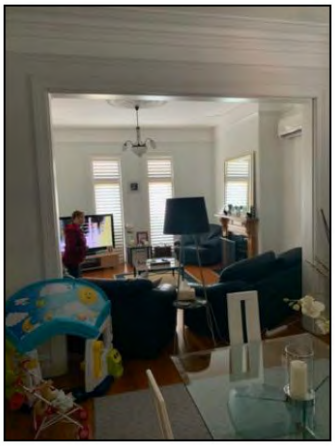
Photographs



Building:		
Address: 3 Wolseley Street	**Room:** Living Room	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber floor.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted.	Original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Detailed	Not original.
Ceiling	Plain plaster with rose.	Not original.
Fireplace	Cast iron fireplace with timber mantlepiece and tiled floor.	Not original.
Other Features	None.	

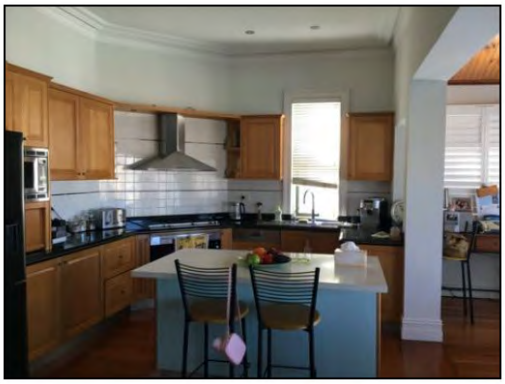
Photographs



Building:		
Address: 3 Wolseley Street	**Room:** Kitchen	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber floor.	Not original.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted with tiles.	Original with later openings.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	Not original.
Ceiling	Plain plaster.	Not original.
Fireplace	None.	
Other Features	Modern fit-out with timber cabinetry.	Not original.

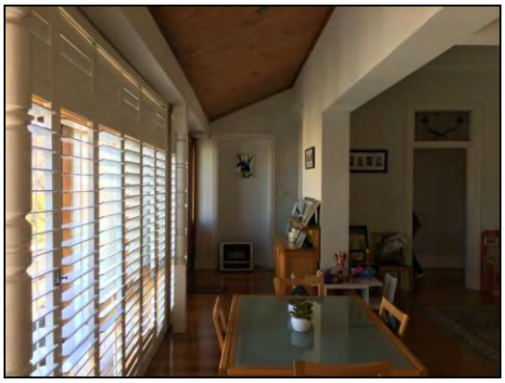
Photographs



Building:		
Address: 3 Wolseley Street	**Room:** Sun Room	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber floor.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted with tiles.	Original with later openings.
Doors	Timber with profiled architrave and glazed openings.	Not original.
Cornice	None.	
Ceiling	Timber	Not original.
Fireplace	None.	
Other Features	Timber columns.	Not original.

Photographs



Building:		
Address: 3 Wolseley Street	**Room:** Study	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted.	Original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	Not original.
Ceiling	Plain plaster with rose.	Not original.
Fireplace	None.	
Other Features	None.	

Photographs

Building:		
Address: 3 Wolseley Street	**Room:** Bedroom 1	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Timber.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	May be original.
Walls	Rendered and painted.	Original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	Not original.
Ceiling	Plain plaster with rose.	Not original.
Fireplace	None.	
Other Features	Picture rail: timber; simple moulded profile; painted.	Original or appropriate replacement.

Photographs

Building:		
Address: 3 Wolseley Street	**Room:** Bedroom 2	**Date:** August 2020

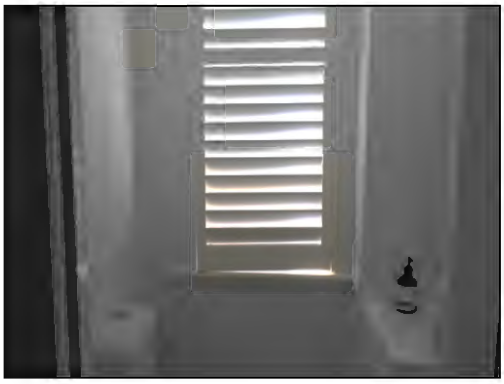
Element	Materials/ Comments	Integrity
Floor	Timber.	Original or appropriate replacement.
Skirting	Timber; simple moulded profile; painted.	May be original.
Walls	Rendered and painted.	Original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	Not original.
Ceiling	Plain plaster with rose.	Not original.
Other Features	Picture rail: timber; simple moulded profile; painted.	Original or appropriate replacement.

Photographs

Building:		
Address: 3 Wolseley Street	**Room:** WC	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Tiled.	Not original.
Skirting	None.	
Walls	Tiled then rendered and painted.	Original with later tiling.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	May be original.
Ceiling	Plain plaster.	May be original.
Fireplace	None.	
Other Features	Modern fit-out with toilet.	Not original.

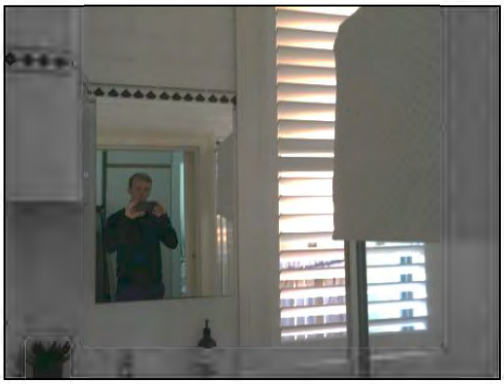
Photographs

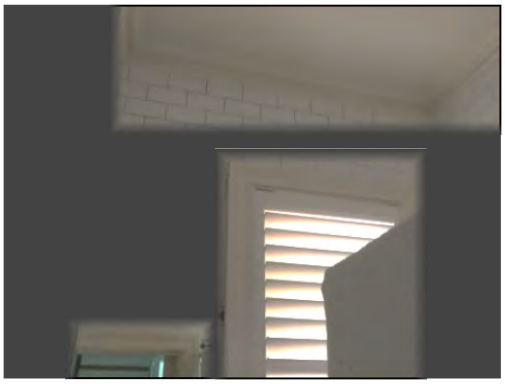


Building:		
Address: 3 Wolseley Street	**Room:** Bathroom 1	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Tiled.	Not original.
Skirting	None.	
Walls	Tiled.	Original with later tiling.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	May be original.
Ceiling	Plain plaster.	May be original.
Fireplace	None.	
Other Features	Modern fit-out with timber cabinetry and shower.	Not original.

Photographs

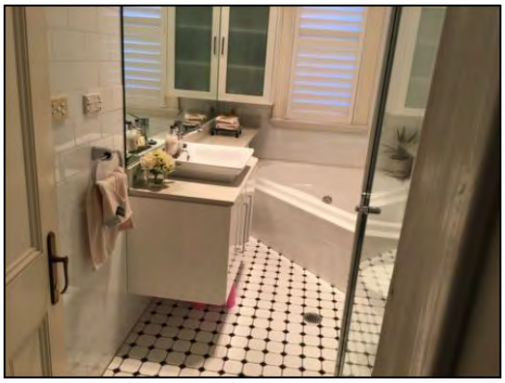


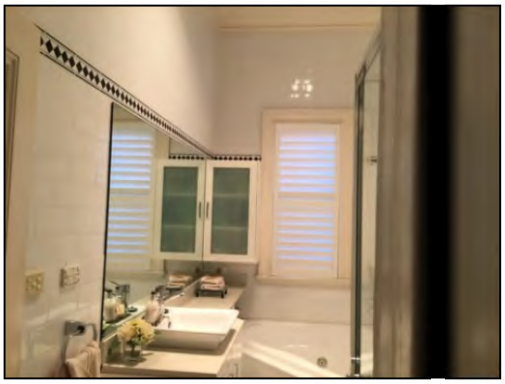


Building:		
Address: 3 Wolseley Street	**Room:** Bathroom 2	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Tiled.	Not original.
Skirting	None.	
Walls	Tiled, then rendered and painted.	Original with later tiling.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	May be original.
Ceiling	Plain plaster.	May be original.
Fireplace	None.	
Other Features	Modern fit-out with timber cabinetry and shower and bath.	Not original.

Photographs





Building:		
Address: 3 Wolseley Street	**Room:** Laundry	**Date:** August 2020

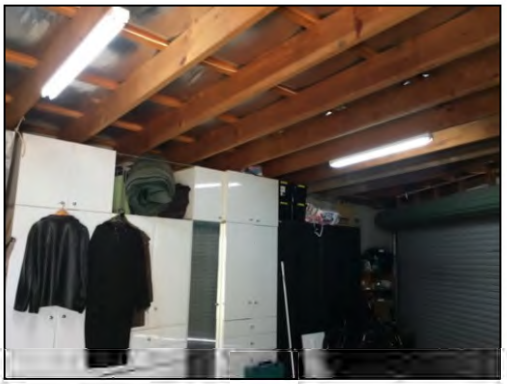
Element	Materials/ Comments	Integrity
Floor	Tiled.	Not original.
Skirting	None.	
Walls	Rendered and painted.	Not original.
Doors	Timber panelled with timber profiled architraves; painted.	Doors are original or appropriate replacement.
Cornice	Simple.	May be original.
Ceiling	Plain plaster.	May be original.
Fireplace	None.	
Other Features	Modern fit-out with timber cabinetry.	Not original.

Photographs

Building:		
Address: 3 Wolseley Street	**Room:** Garage	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Concrete.	Not original.
Skirting	None.	
Walls	Concrete.	Not original.
Doors	Metal roller door.	Not original.
Cornice	None.	Not original.
Ceiling	Timber rafters.	Not original.
Fireplace	None.	
Other Features	None.	

Photographs



First-Floor

Building:		
Address: 3 Wolseley Street	**Room:** Bedroom 1	**Date:** August 2020

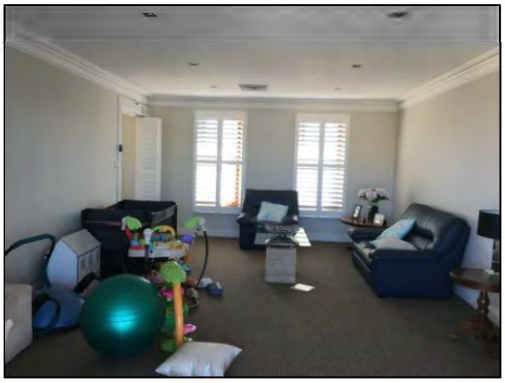
Element	Materials/ Comments	Integrity
Floor	Carpet, likely timber below.	Not original.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted.	Not original.
Doors	Timber panelled with timber profiled architraves; painted.	Not original.
Cornice	Simple.	Not original.
Ceiling	Plain plaster with metal vent.	Not original.
Fireplace	None.	
Other Features	None.	

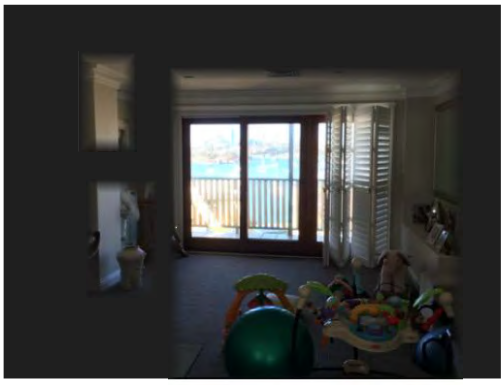
Photographs

Building:		
Address: 3 Wolseley Street	**Room:** Family Room	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Carpet, likely timber below.	Not original.
Skirting	Timber; simple moulded profile; painted.	Not original.
Walls	Rendered and painted.	Not original.
Doors	Timber panelled with timber profiled architraves; painted.	Not original.
Cornice	Simple.	Not original.
Ceiling	Plain plaster with metal vent.	Not original.
Fireplace	None.	
Other Features	None.	

Photographs





Building:		
Address: 3 Wolseley Street	**Room:** Bathroom 1	**Date:** August 2020

Element	Materials/ Comments	Integrity
Floor	Tiled.	Not original.
Skirting	None.	Not original.
Walls	Tiled.	Not original.
Doors	Timber panelled with timber profiled architraves; painted.	Not original.
Cornice	Simple.	Not original.
Ceiling	Plain plaster.	Not original.
Fireplace	None.	
Other Features	Modern fit-out with timber cabinetry and shower.	Not original.

Photographs

7 APPENDIX 3

Heritage Listing Sheet for No. 3 Wolseley Street, Drummoyne

Heritage NSW

Search for NSW Heritage

Item details

Name of item:
House
Type of item:
Built
Group/Collection:
Residential buildings (private)
Category:
House
Primary address:
3 Wolseley Street, Drummoyne, NSW 2047
Parish:
Concord
County:
Cumberland
Local govt. area:
Canada Bay
All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
3 Wolseley Street	Drummoyne	Canada Bay	Concord	Cumberland	Primary Address
Lower St Georges Crescent	Drummoyne	Canada Bay	Concord	Cumberland	Alternate Address

Statement of significance:

The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.
Date significance updated: 09 Nov 07
Note: The State Heritage Inventory provides information about heritage items listed by local and State government agencies. The State Heritage Inventory is continually being updated by local and State agencies as new information becomes available. Read the Department of Premier and Cabinet copyright and disclaimer.

Description

Physical description:
A relatively intact Federation house on a terraced site, in poor overall condition but retaining its original features. The front verandah is enclosed and there are several additions to the rear including a garage. The front garden is terraced in stone and the house sits on a stone base with stone stairs to the verandah.
Physical condition and/or
Archaeological potential:
Deteriorated
Date condition updated:09 Nov 07
Current use:
Residence
Former use:
Residence

Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
4. Settlement-Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	suburbanisation-

Assessment of significance

SHR Criteria c)
[Aesthetic significance]
The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.
SHR Criteria g)
[Representativeness]
It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.
Integrity/Intactness:
Altered, extended unsympathetically
Assessment criteria:
Items are assessed against the State Heritage Register (SHR) Criteria to determine the level of significance. Refer to the Listings below for the level of statutory protection.

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan	House	505	07 Mar 08	30	1464
Heritage study					

Study details

Title	Year	Number	Author	Inspected by	Guidelines used
Drummoyne Heritage Study Review	1996		Paul Davies & Associates		Yes

References, internet links & images

None

Note: internet links may be to web pages, documents or images.

Data source

The information for this entry comes from the following source:
Name:
Local Government
Database number:
2891173

Return to previous page

Every effort has been made to ensure that information contained in the State Heritage Inventory is correct. If you find any errors or omissions please send your comments to the Database Manager.

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3 WOLSELEY STREET
DRUMMOYNE, NSW

HERITAGE ASSESSMENT

Prepared by:

John Oultram Heritage & Design
Level 2, 386 New South Head Road,
Double Bay, NSW 2028

T: (02) 9327 2748
E: heritagedesign@bigpond.com

Prepared for:

The City of Canada Bay

November 2020

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1.0 INTRODUCTION

1.1 THE BRIEF

The following report has been prepared to provide a heritage assessment of the existing house at 3 Wolseley Street Drummoyne, NSW. The owner of the property has requested removal of the property from the heritage schedule in Part 5 Schedule 1 of the *Canada Bay Local Environmental Plan 2013*.

The report has been prepared on behalf of the City of Canada Bay.

1.2 THE STUDY AREA

The study area is Lot 37 in Section 5 in DP 964 at Drummoyne, Parish of Concord and County of Cumberland (Figure 1.1).

Figure 1.1 The Study Area shaded

Source: Six Maps

1.3 Heritage Assessment

The owners have commissioned a heritage assessment on the property.

Weir Phillips Heritage & Planning, *Heritage Assessment, 3 Wolseley Road* (sic) *Drummoyne*, dated September 2020 (WPHA)

The assessment contained a history of the place that is included below.

1.4 Limitations and Terms

The report only addresses the European significance of the place. The terms *fabric, conservation, maintenance, preservation, restoration, reconstruction, adaptation, compatible use and cultural significance* used in this report are as defined in the Australia ICOMOS *Burra Charter.*

1.5 Methodology

This report was prepared in accordance with the *NSW Heritage Manual* "Statements of Heritage Impact", "Assessing Heritage Significance Guidelines" and the Canada Bay Council guidelines for the preparation of heritage impact statements. The philosophy adopted is that guided by the Australia ICOMOS Burra Charter 2013.

1.6 Authors and Acknowledgments

This report, including all diagrams and photographs, was prepared by John Oultram of John Oultram Heritage & Design, unless otherwise noted. John Oultram Heritage & Design was established in 1998 and is on the NSW Heritage Office list of heritage consultants.

2.0 HISTORICAL DEVELOPMENT

The following history is taken from the WPHA.

2.1 ABORIGINAL HISTORY

While an Aboriginal history is not provided for, it is acknowledged that the original inhabitants of the Canada Bay area were the Wangal of the Dharug language group.

2.2 EARLY EUROPEAN HISTORY

The Colony of New South Wales was formally established on 26 January 1788 at Sydney Cove. Exploration of Sydney Harbour and its surrounds began soon after. The first recorded contact between the European colonists and the Wangal occurred as the colonists explored the Parramatta River. In November 1788, Governor Phillip established a second settlement, Rose Hill (later Parramatta); the Parramatta River provided the first major link between the two settlements.

All land in the Colony was declared to be Crown land. From 16 January 1793, successive colonial governors granted land outside the official boundaries of the township of Sydney in order to open up the land and augment the colony's food supplies. The present-day City of Canada Bay is located well outside these boundaries. Several grants were made to Royal Marines on the western side of Iron Cove in 1794. These grants proved unsuccessful and later reverted to the Crown. A number of these grants were later included in a substantial grant of 1,500 acres made to Surgeon John Harris on 1 January, 1806, under the hand of Governor Philip Gidley King. This grant, known as 'Five Dock Farm,' comprises the present day suburb of Drummoyne (Figure 2).

Figure 2.1 Detail of a Plan of the Parish of Concord, County of Cumberland, New South Wales (n.d.)

Source: NSW Land and Property Information

The Irish born John Harris, surgeon and public servant, arrived in Sydney in 1790 as a surgeon's mate to the New South Wales Corps and was soon appointed surgeon to the Corps. Harris' many and varied duties often brought him into conflict with his fellow officers and traders. Although notably loyal to Governor King, he was involved in the deposition of Governor Bligh; he later gave evidence at Colonel Johnson's court martial in London in 1811.

Harris resigned his commission and returned to the Colony as a private settler in 1814. Although he continued to play an active role in public affairs, he primarily devoted himself to farming and stock raising. By 1826, he had amassed 3,824 acres by grant, 590 acres by purchase and 700 acres by exchange, the whole of which, he claimed, was fenced and divided into paddocks and enclosures, with 1,550 cleared or under 'Tillage.' 'Five Dock Farm' appears to have been among the [1] least developed of Harris holdings; the only improvements listed in 1826 were 'One Dwelling House and Fencing', valued at £200. When Harris died in 1838, he left an estate reputed to be worth £150,000.

2.3 Samuel Lyons and the Subdivision of Five Dock Farm

In March 1828, the *Sydney Gazette* reported that emancipist Joseph Nettleton had leased the entire 'Five Dock Farm' from Harris. In September 1836, most of the grant, including the subject site, was sold to the merchant and auctioneer, Samuel Lyons.

Samuel Lyons had arrived in Sydney in 1815 as a convict, serving a life sentence for theft. Lyons received a conditional pardon in 1825 and an absolute pardon in 1832. Upon obtaining his freedom, he established himself as a successful auctioneer, becoming the owner of one of Sydney's largest auction houses. Lyon's business interests were diverse and included property development, money lending and banking; he was also active in public affairs, later becoming a prominent member of Sydney's Jewish community.

Lyons wasted little time in seeking to profit from 'Five Dock Farm.' In September 1836, he advertised his intent to sell the whole of the grant in lots of a 'convenient size', directing his notices in several Sydney newspapers 'To Capitalists, Gentlemen in Private or Public Offices, Tradesmen and Others.' The picturesque qualities of the estate and its proximity to Sydney Township were particularly noted. Trespassers were evidently a problem for Lyons at this time. In late 1836, he issued notices that those found cutting timber, quarrying stone or de pasturing cattle on 'Five Dock Farm' would be prosecuted.

Lyons sale of 1836 divided 'Five Dock Farm' into 133 lots, varying in size from two to sixty nine acres 'so as to suit the means of all classes of buyers.' The lots had frontage to the three principal means of access into the area at this time: the Parramatta River, the Parramatta Road and the Great North Road.

Figure 3 provides a near contemporary plan of 'Five Dock Farm Estate.' The subject site forms part of the large lot marked 'Lot 104' on this plan. The Estate sold well at the initial sale and at subsequent sales.

Figure 2.2 Sketch of the Five Dock Farm Estate (c. 1840s)

Source: National Library of Australia

2.4 William Wright and the Drummoyne Park Estate

Around 1853, William Wright, merchant and Island trader, purchased an extensive area of land fronting the Parramatta River, which he called 'Drummoyne Park,' reputedly for a place he knew in Scotland. The subject property formed part of a parcel of 61 acres brought under the provisions of the *Real Property Act* by Wright, with the first Certificate of Title being dated 4 April 1864. A second Certificate of Title was issued for 70 acres 2 roods and 37 perches soon after.

The English born William Wright, merchant and island trader, arrived with his wife, Bethia, in Australia in 1838, having recently inherited his uncle's foreign commission agency in Glasgow. Wright travelled to the colonies to investigate the business' existing agency in Sydney. During a trading expedition to the Kaipari River in Auckland in 1837, he purchased extensive land from the Maori people. Wright went on to establish a general commission and shipping agency in Auckland and became an early figure in the Kauri timber trade. Ill health forced his early retirement to his Five Dock estate, upon which he constructed the villa mansion 'Drummoyne House'. While the name 'Drummoyne' would eventually be adopted for the Peninsula, the area was generally known at this time as Five Dock; it was under this name that residents were first listed in *John Sands' Sydney and Suburban Directory* in 1870.

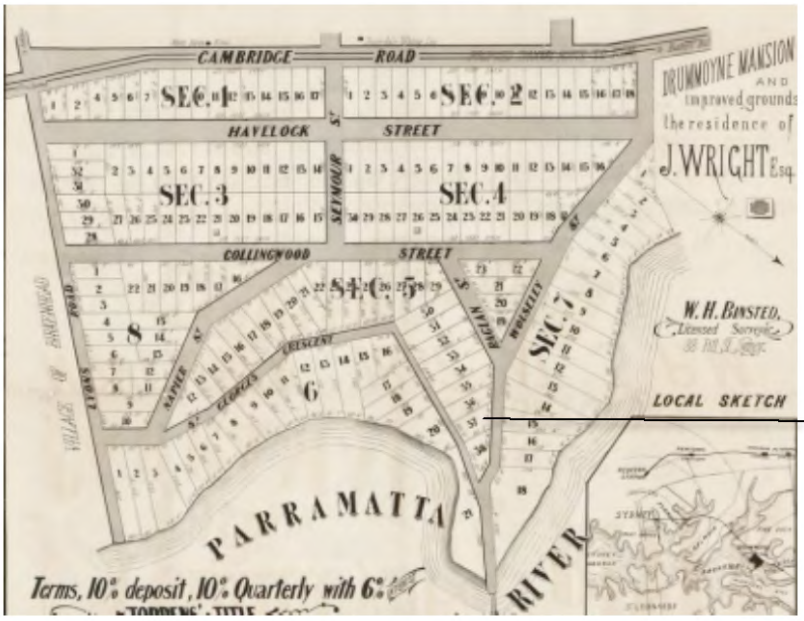
As the population of Five Dock began to increase, the first moves were made to incorporate the area and establish local government. In 1870, the petitioners who sought the creation of a Municipality claimed that they represented a population of more than 500 people within boundaries roughly comparable to the original 'Five Dock Farm.' Wright was among those who signed an unsuccessful counter petition against incorporation. When the Municipality of Five Dock was declared on 25 July 1871, the population was given as 850 people, in 101 houses.

The new Municipality of Five Dock was short-lived. By the late 1880s, there was a strong movement to separate the North Ward, in which the subject property was located, on the basis that the area generally known as 'Drummoyne' was more heavily populated than Five Dock. William Wright was among those supporting separation, which was achieved when the Municipality of Drummoyne came into being on 18 January 1890.

The 'Drummoyne Park Estate,' on which the subject property now stands, was subdivided from the early 1880s. The sale was later described as one of the most successful in the area, resulting in the disposal of the majority of the Estate for around £35,000.

2.5 Development of the Subject Site

The subject site is situated on Lot 37 of Section 5 of the 'Drummoyne Park Estate' subdivision that was purchased in 1885 by John Purnell, described in the title record as a plumber from Leichhardt (Figure 4). The allotment was transferred to Edward Purnell in 1889 and then Stephen Vale in 1899. The subject dwelling first appears in the 1901 *Sands' Directories* where it was occupied by Vale. At this time, the address was given as St. Georges Crescent, rather than Wolseley Street. Subsequent editions also give the dwelling the name 'Kubara'. It was not until 1915 that the subject dwelling was assigned the address No. 137 St. Georges Crescent.



SUBJECT SITE

Figure 2.3 Drummoyne Park subdivision (1882) The subject site is Lot 37 in Section 5

Source: State Library of New South Wales

Vale was an assayer and mineralogist and was employed by the English and Australian Copper Company from at least the 1870s up to his death in 1906.[9] Following this the title was transferred to his widow Charlotte, who continued to live at the dwelling until 1911, when it was briefly tenanted, and then sold to John Read. Read formerly lived at Chatsworth Island to the northeast of Grafton, however, retired to Drummoyne in 1912. Read had been an alderman on Harwood Shire Council in 1906, however, little else is known about him; he died at 'Kubara' in 1918, leaving behind an estate worth £16,691. The estate was transferred to, and lived in by, Mary Read, who appears to have been John Read's daughter; his wife having passed away some years earlier.[12]

There are no clear photographs of the subject dwelling. Figure 2.4 shows No. 1 Wolseley Street (indicated by the red arrow). Behind, or possibly the building to the left, is the subject dwelling. The streetscape has changed significantly since the time the photograph was taken, with many of these mansions having been demolished.

Figure 2.4 Wolseley Street Wharf (c. 1920s)

Source: City of Canada Bay Local Studies Collection

A Water Board Map of the area from 1932 shows the footprint and significant site features of dwellings. The map indicates the existence of a set of stairs from St Georges Crescent that led to what was likely a verandah and entry to the subject dwelling. Another feature of note is that the Wolseley Street elevation appears to have had a verandah as well.

Figure 2.5 Sheet 23, Water Board Map of Drummoyne (1932). Note the large number of substantial houses in the area many now demolished

Source: Sydney Water

Mary Read is recorded as living continuously at the subject dwelling at least until the last edition of the *Sands' Directories* in 1932-33. Advertisements show an attempt in the intervening years to lease the dwelling:

Drummoyne, Sydney, to let, a gentleman's residence, fully furnished, 3 reception rooms, 3 bedrooms, sleeping-out balcony and all offices, magnificent harbour views, e. l., gas, bath heater, piano, 'phone.

Read is listed as living in St. Georges Crescent in 1951, when she was fatally struck by a car on Victoria Road. The subject site was subsequently transferred to Rachel Read; the relationship between the two has yet to be determined; Mary was a 'spinster' that means it is unlikely Rachel was her daughter.

Rachel Read lived at the dwelling until 1964 when she passed away. The estate was put up for sale and advertised as follows:

Solid well built Brick/Tile Residence in fashionable area. Well elevated with excellent views over River and Reserve. Comprises: Enclosed verandah, 4 beds. Interconnecting lounge and dining rooms, utility-room (5th bed.), rear entrance room, bathroom, toilet, kitchen, laundry, outside toilet, storeroom, garage.

The last known owner prior to computerisation of records was Ursula Moubarak. Ursula was married to Joseph who had also purchased what is now No. 1 Wolseley Street in 1958. The two dwellings were retained under the ownership of the Moubaraks and were put up jointly for sale in 1998, however, were sold separately. Both dwellings were noted for having retained 'many of their original features such as pressed metal ceilings, fireplaces'. No. 3 Wolseley Street was then purchased and renovated to its existing condition by the present owner.

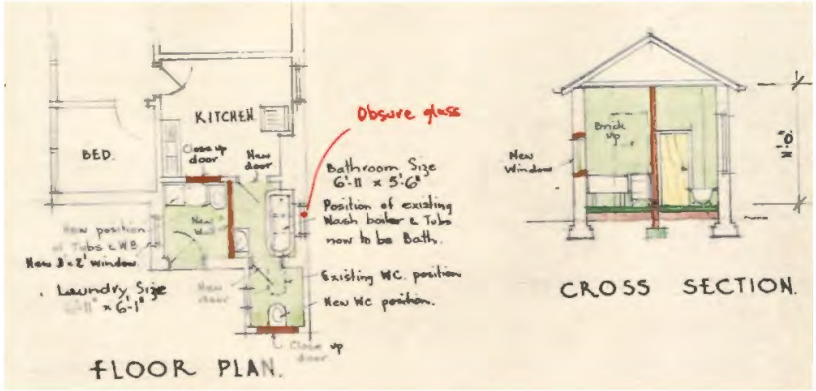


Figure 2.6 Rearrangement of Laundry Bathroom to Residence for Mrs U Moubarak, 3 Wolseley Street, Drummoyne. Original drawing by Stan J Nichols architect dated November 1965

Source: City of Canada Bay DA 367/65

2.6 Later Alterations

The house was altered around 2002 for the current owners. The works were extensive and included a first floor addition, a double garage and pool. The following plans have been supplied by the City of Canada Bay archives.

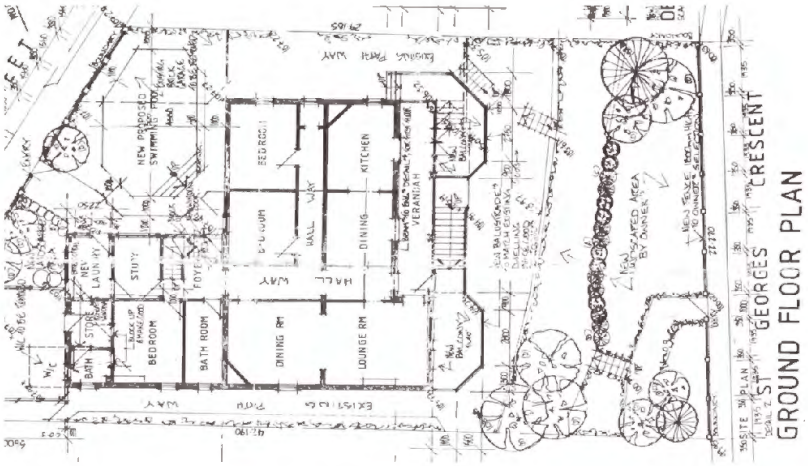


Figure 2.7 Proposed Alterations and Additions for Mr and Mrs CL, Macri No. 3 Wolseley Street, Drummoyne dated 1998. Original drawing by KM Sale Designs

Source: City of Canada Bay DA 5/03

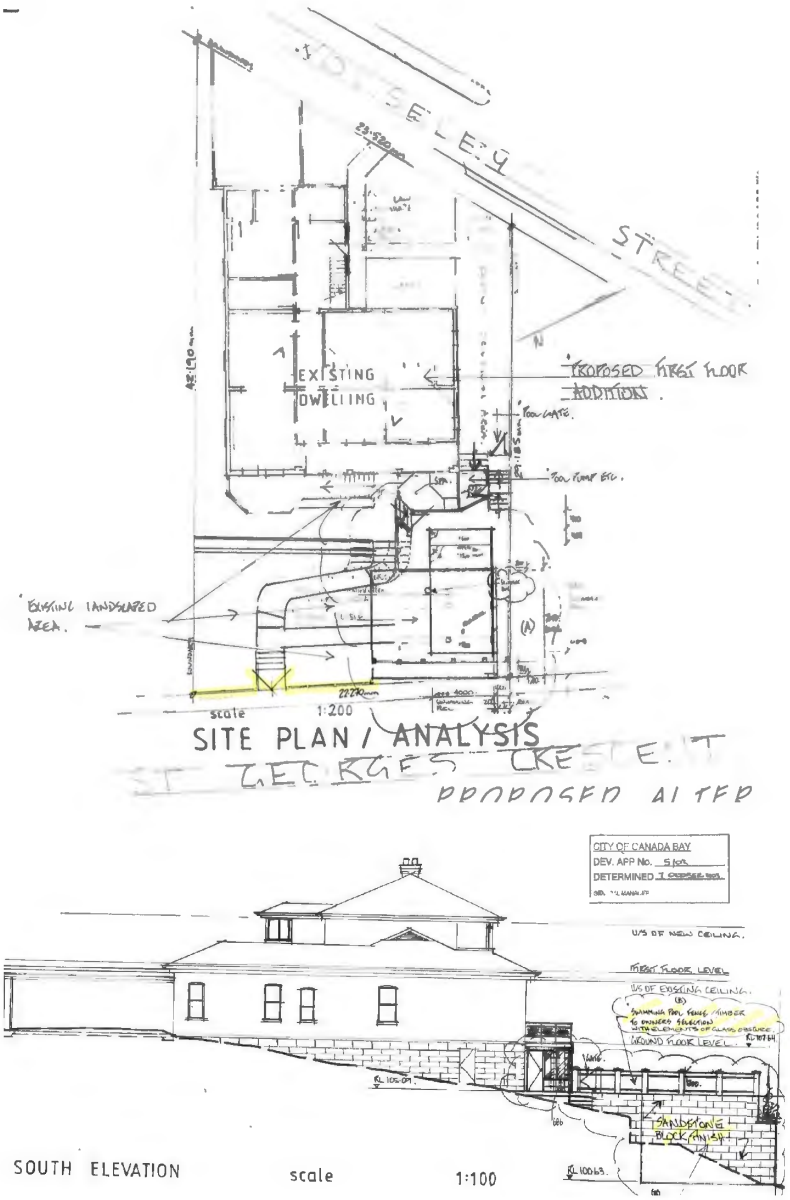


Figure 2.7 Proposed Alterations and additions for Mr and Mrs CL Macri dated 2002. Original drawing by KM Sale Designs

Source: City of Canada Bay DA 5/03

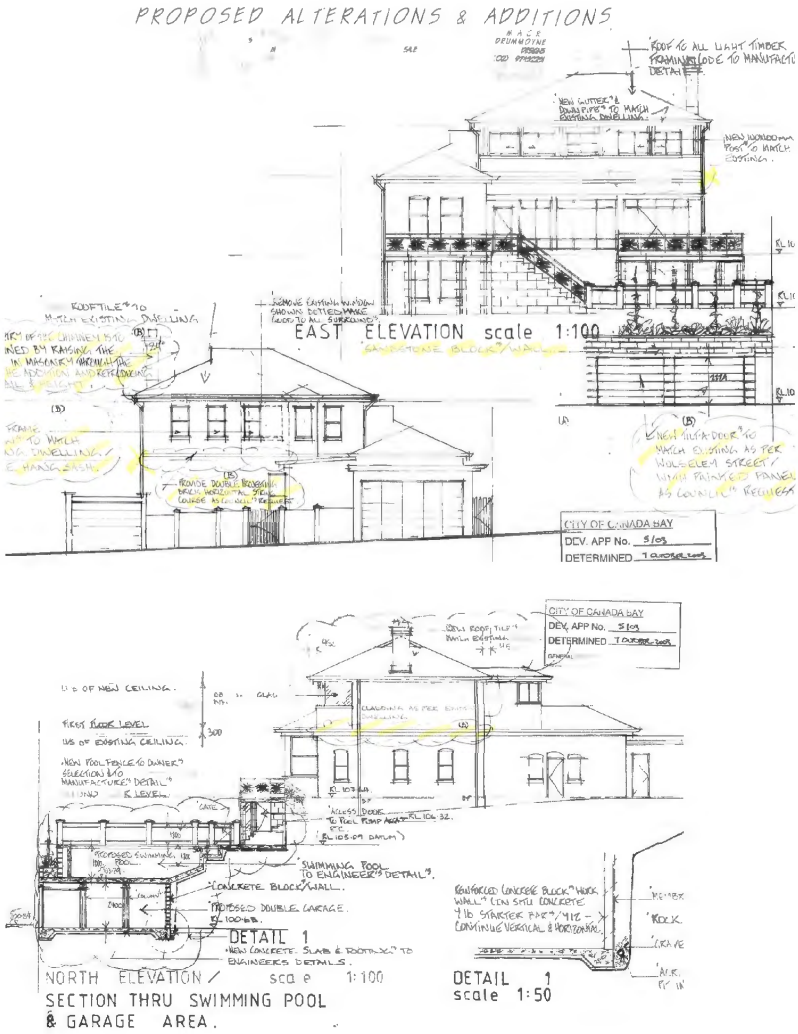


Figure 2.8 Proposed Alterations and additions for Mr and Mrs CL Macri dated 2002. Original drawing by KM Sale Designs

The first floor extension now carries across the former verandah

Source: City of Canada Bay DA 5/03

3.0 PHYSICAL INSPECTION

An inspection of the property was carried out by John Oultram in October 2020 to ascertain its layout condition and intactness from original construction.

3.1 GENERALLY

3 Wolseley Street is an example of a heavily modified, Edwardian House originally in the Federation style set on a terraced lot to the east side the street. The house is set on the upper level of the site and has a terraced garden to St. Georges Crescent. The house has extensions to the west and the eastern verandah has been rebuilt and enclosed. There is a first floor addition over part of the ground floor

3.2 EXTERNAL

The house is in rendered masonry (originally face brick) with a hipped and gabled, terracotta tile roof. There is a single storey section to the southwest that has three brick chimneys on a hipped, terracotta tile roof. There is a single storey, flat roof garage to Wolseley Street also in rendered masonry.

To the water, the house is two storeys over an undercroft with steps up to the former entry door. The ground floor verandah sits over an uncoursed sandstone base and has been infilled with timber framed glazing. The single storey section to the south extends to the side but above the verandah is an open balcony under the main roof and supported on timber columns.

There is a small pergola structure to the north with steps up to a small terrace and down to the garden, pool and lower garage. There is a second, concrete terrace off the single storey section set on stone piers. The pool is set on an elevated concrete base with a glass balustrade. The lower, double garage is in coursed rockface sandstone and there is a rendered masonry fence to St. Georges Crescent.

3.3 INTERNAL

3.3.1 Ground Floor

The ground floor is partly intact in layout and detail but has been extended to the west, the verandah infilled. The house has a central hall with service areas off and stair with a secondary hall with rooms arrange off. The two major rooms to the ground floor are connected by a large opening (M) and the hall opens to a modern kitchen that is open to the enclosed verandah (front wall removed).

Floors are in polished timber (O &M). Walls are largely in plastered masonry (O) with moulded timber skirtings (O & M) with some plasterboard walls to the later services areas. Original ceilings are in plaster and lath with moulded plaster cornices and roses (O) but many have been replaced in plasterboard with reproduction cornices and roses.

Doors are four panel timber with moulded timber architraves (O & M) with leadlight fanlights (M) (some removed). Windows are largely two pane, double hung, timber sashes (O) though there are modern windows to the infilled verandah (M). The stair is in polished timber with turned timber newel posts and balusters (M).

There is a polished timber fireplace to the living room that is modern reproduction. Other fireplaces have been removed.

3.3.2 First Floor

The first floor has bedrooms off a stair landing and is modern throughout.

3.4 GARDENS

The house has paved yard to the west that wraps around the side of the house with a timber pergola structure to the side.

The eastern garden is terraced with stone retaining walls on a rock outcrop and has stone steps and paths to the street with perimeter shrub plantings and hedges.

O	ORGINAL
L	LATER
M	MODERN

Figure 3.1 - 3.17

Figure 3.1 3 Wolseley Street, Drummoyne

Elevation to Wolseley Street

Figure 3.2 3 Wolseley Street, Drummoyne

Rear wing

Figure 3.3 3 Wolseley Street, Drummoyne

First floor extension

Figure 3.4 3 Wolseley Street, Drummoyne

Southeast elevation

Figure 3.5 3 Wolseley Street, Drummoyne

Garden retaining walls

Figure 3.6 3 Wolseley Street, Drummoyne

Garden

Figure 3.7 3 Wolseley Street, Drummoyne

View from King Georges Crescent

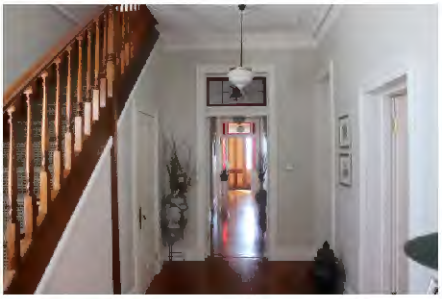


Figure 3.8 3 Wolseley Street, Drummoyne

Stair hall

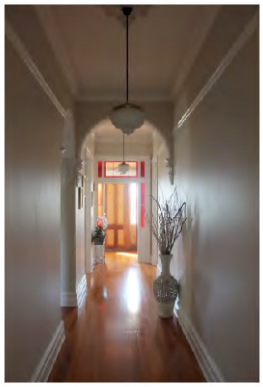


Figure 3.9 3 Wolseley Street, Drummoyne

Hall

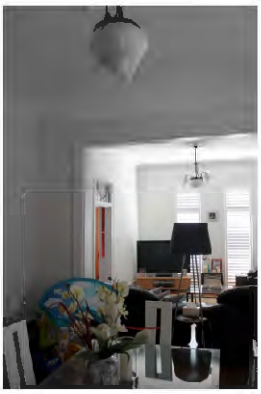


Figure 3.10 3 Wolseley Street, Drummoyne

Living/dining room

Figure 3.11 3 Wolseley Street, Drummoyne

Living room ceiling

Figure 3.12 3 Wolseley Street, Drummoyne

Living room fireplace

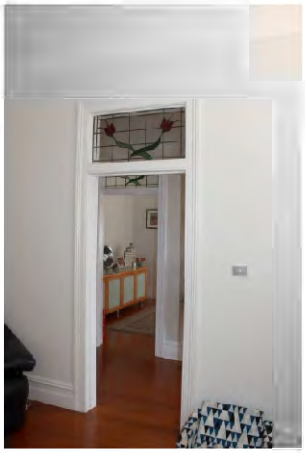


Figure 3.13 3 Wolseley Street, Drummoyne

Typical door set

Figure 3.14 3 Wolseley Street, Drummoyne

Kitchen

Figure 3.15 3 Wolseley Street, Drummoyne

Infilled verandah – the columns are later replacements

Figure 3.16 3 Wolseley Street, Drummoyne

Secondary hall

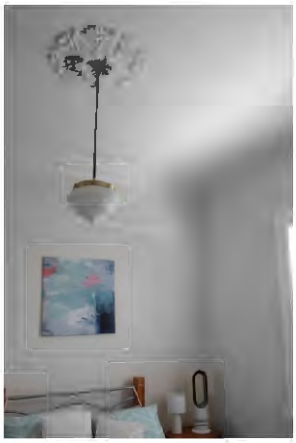


Figure 3.17 3 Wolseley Street, Drummoyne

Ground floor bedroom

4.0 HERITAGE LISTINGS & CONTROLS

4.1 NATIONAL TRUST OF AUSTRALIA (NSW)

The property is not listed on the Register of National Trust of Australia (NSW).

4.2 HERITAGE NSW OF THE NSW DEPARTMENT OF PREMIER AND CABINET

4.2.1 State Heritage Register

Under the Heritage Act 1977 the NSW Heritage Council, administered by Heritage NSW of the NSW Department of Premier and Cabinet, maintains the State Heritage Register (SHR), a register of items and places that are considered to have heritage significance at a state level. The subject property is not listed on the Register.

4.2.2 State Heritage Inventory

Heritage NSW also compiles the State Heritage Inventory (SHI), a collated database of all places listed on statutory heritage lists, including Local Environmental Plans. The property is listed on the Inventory and the listing sheet (SHI 2891173) is attached as Appendix A.

4.3 LOCAL AUTHORITY

The local authority for the area is the City of Canada Bay. The property is listed as a heritage item in Schedule 5 of the *City of Canada Bay Local Environment Plan 2013* (as amended) (LEP)

REF	ADDRESS	ITEM	RANKING
I505	3 Wolseley Street	House	Local

The property is not within a Heritage Conservation Area but is in the vicinity of heritage items at:

REF	ADDRESS	ITEM	RANKING
I504	1 Wolseley Street	House	Local
I506	4 Wolseley Street	House	Local

The heritage provisions in the LEP relating to development of a heritage item and in the vicinity of a heritage item would apply.

Council may also take into consideration the heritage provisions of the *City of Canada Bay Development Control Plan 2013* (DCP) that contains detailed objectives and controls for development of heritage items and in conservation areas.

Figure 4.1 City of Canada Bay Local Environment Plan 2013 Heritage Map HER_006

Heritage items are coloured brown

5.0 ASSESSMENT OF SIGNIFICANCE

5.1 CRITERIA FOR ASSESSMENT

The Heritage NSW has issued guidelines as part of the NSW Heritage Manual regarding the assessment of heritage significance. The Manual is a well-regarded methodology for the assessment of cultural significance and is appropriate for application to the subject property. The Heritage Manual also has inclusion and exclusion guidelines that are noted below each criterion.

The Heritage Manual criteria place emphasis on heritage items being **important**, having **strong** or **special** associations with persons of **importance**, having a **high** degree of creative or technical **achievement** and these wordings carry through as a theme.

An item will be considered to be of State (or) local significance if, in the opinion of the Heritage Council of NSW, it meets one or more of the following criteria.

5.2 HISTORIC SIGNIFICANCE

5.2.1 Historical Development

Criterion (a)	*An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area)*

3 Wolseley Street is an example of an Edwardian period house built c. 1900 for Stephen Vale, an assayer and mineralogist. After his death in 1906, the house was transferred to his widow, Charlotte who lived at the house till 1911. Vale had purchased the property in 1899.

The property was part of the Drummoyne Park Estate that had been subdivided from the early 1880s on land purchased by William Wright in 1853.

The house was part the early development of the area following the break up of the early grants, in this instance the grant of 1806 to Surgeon John Harris that encompassed a large parcel of land around Five Dock and Drummoyne.

The house was sold to John Read in 1912 and remained in the Read family till 1964. The house was altered to its current condition by the current owners c. 1999.

The house has connections with historically important activities as the subdivision laid out the northern section of Drummoyne and led to the construction of a number of large houses that gave the area much of its early character. However, in its current state of intactness, the house does not signal its early origins apart from some remnant sections and the lower garden

Guidelines for inclusion		Guidelines for exclusion	
shows evidence of a significant human activity		*has incidental or unsubstantiated connections with historically important activities or processes*	X
is associated with a significant activity or historical phase	X	*provides evidence of activities or processes that are of dubious historical importance*	
maintains or shows the continuity of a historical process or activity		*has been so altered that it can no longer provide evidence of a particular association*	X

Does not meet the criterion.

5.2.2 Historical Associations

Criterion (b)	*An item has strong or special associations with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area)*

The place is most closely associated with Stephen Vale, an assayer and mineralogist who worked for the English and Australian Copper Company. Vale is not noted in the Australia Dictionary of Biography that records persons of note and little biographical information was available.

The place is also associated with John Read who purchased the property in 1912 and he died at the property in 1918. Little biographical information was available though, as noted in his obituary, he was apparently *well known in Masonic circles* and came to Sydney from the Clarence region[2].

The associations with earlier owners of the surrounding land are incidental.

Guidelines for inclusion		Guidelines for exclusion	
shows evidence of a significant human occupation		*has incidental or unsubstantiated connections with historically important people or events*	X
is associated with a significant event, person, or group of persons		*provides evidence of people or events that are of dubious historical importance*	X
maintains or shows the continuity of a historical process or activity		*has been so altered that it can no longer provide evidence of a particular association*	X

Does not meet the criterion.

5.3 AESTHETIC SIGNIFICANCE

Criterion (c)	*An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)*

The house is a very heavily altered example of an Edwardian house that appears to have been in the Federation style. The level of change is extensive with alterations to the west and first floor that have distorted the original form of the house. The water facing verandah has been rebuilt and enclosed and is now part of the modern kitchen.

The interiors retain parts of their original layout and some of the original fabric but much of this has been replaced to a period detail.

The garden to he west has been paved and there is a modern garage to the street. The waterside garden retains parts of its original form and stone walls, steps and pathways but has also altered and there is a large garage to the northeast with an elevated pool over.

No architect has been identified for the work. The house has some landmark qualities (but these are less than attractive) and its distinctive, terraced garden setting is now altered.

[2] *Death of Mr John Read, The Byron Bay Record*, 12 October 1918, p. 8

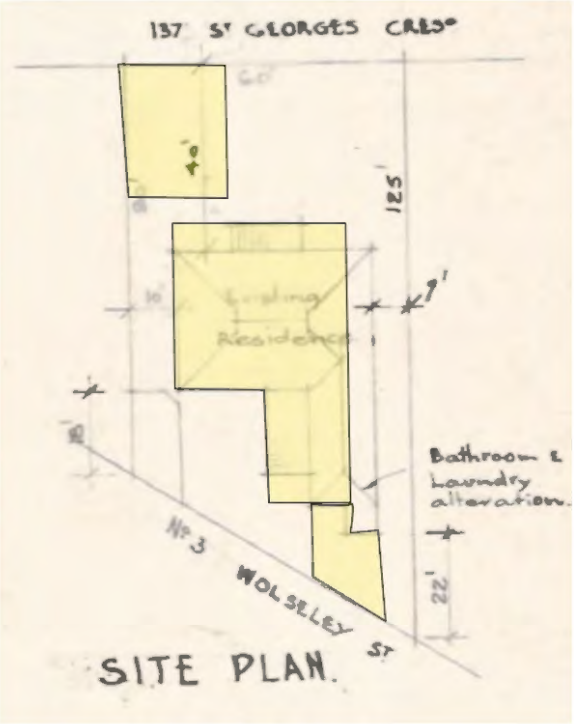


Figure 5.1 Extract from Rearrangement of Laundry Bathroom to Residence for Mrs U Moubarak, 3 Wolseley Street, Drummoyne. Original drawing by Stan J Nichols architect dated November 1965 showing the plan and roof form of the single storey house at that date. Note the form of the roof, the rear wing and waterside verandah. Additions highlighted in yellow

Source: City of Canada Bay DA 367/65

Guidelines for inclusion		Guidelines for exclusion	
shows or is associated with, creative or technical innovation or achievement		*is not a major work by an important designer or artist*	X
is the inspiration for a creative or technical innovation or achievement		*has lost its design or technical integrity*	X
is aesthetically distinctive		*its positive visual or sensory appeal or landmark and scenic qualities have been more than temporarily degraded*	X
has landmark qualities		*has only a loose association with a creative or technical achievement*	X
exemplifies a particular taste, style or technology			

Does not meet the criterion.

5.4 SOCIAL SIGNIFICANCE

Criterion (d)	*The item has strong or special association with a particular community or cultural group in NSW (or the local area) for social or spiritual reasons*

The social significance of the house has not been investigated but the house is unlikely to have special associations with any particular group.

Guidelines for inclusion		Guidelines for exclusion	
is important for its associations with an identifiable group		*is only important to the community for amenity reasons*	
is important to a community's sense of place		*is retained only in preference to a proposed alternative*	X

Does not meet the criterion.

5.5 TECHNICAL/SCIENTIFIC SIGNIFICANCE

Criterion (e)	*An item has the potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)*

There is no evidence of previous buildings on the site and the place is unlikely to have any archaeological potential. The house is of no technical significance.

Guidelines for inclusion		Guidelines for exclusion	
has the potential to yield new or further substantial scientific and/or archaeological information		*the knowledge gained would be irrelevant to research on science, human history or culture*	X
is an important benchmark or reference site or type		*has little archaeological or research potential*	X
provides evidence of past human cultures that is unavailable elsewhere		*only contains information that is readily available from other resources or archaeological sites*	X

Does not meet the criterion.

5.6 RARITY

Criterion (f)	*An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)*

The house type is reasonably common in the area and wider LGA. Not rare.

Guidelines for inclusion		Guidelines for exclusion	
provides evidence of a defunct custom, way of life or process		*is not rare*	X
demonstrates a process, custom or other human activity that is in danger of being lost		*is numerous but under threat*	
shows unusually accurate evidence of a significant human activity			
is the only example of its type			
demonstrates designs or techniques of exceptional interest			
shows rare evidence of a significant human activity important to a community			

Does not meet the criterion.

5.7 REPRESENTATIVENESS

Criterion (g)	*An item is important in demonstrating the principal characteristics of a class of NSW's* *Cultural or natural places; or* *Cultural or natural environments*
	(or a class of the local area's: *Cultural or natural places; or* *Cultural or natural environments)*

The house is a poor, representative example of its type and has few features of note.

Guidelines for inclusion		Guidelines for exclusion	
is a fine example of its type		*is a poor example of its type*	X
has the principal characteristics of an important class or group of items	*X*	*does not include or has lost the range of characteristics of a type*	X
has attributes typical of a particular way of life, philosophy, custom, significant process, design, technique or activity		*does not represent well the characteristics that make up a significant variation of a type*	X
is a significant variation to a class of items			
is part of a group which collectively illustrates a representative type			
is outstanding because of its setting, condition or size			
is outstanding because of its integrity or the esteem in which it is held			

Does not meet the criterion.

5.8 INTACTNESS

The house has been very heavily altered and its form distorted by the later additions. It has lost much of its original characteristics and external detail and much of the interiors detail has been replaced. The garden setting to the water has also been altered.

5.9 SUMMARY OF SIGNIFICANCE

Based on the above we consider that the house would not meet any of the Heritage Manual criteria for identification as a place of local significance.

6.0 COUNCIL ASSESSMENT

The SHI Listing Sheet for the property (SHI 2890173) contains an assessment of significance.

SHR Criteria c *[Aesthetic significance]*

The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.

The house does not read as part (in any meaningful sense) of the group of houses at the end of St Georges Crescent. Reversal of the later works would be a heroic task.

SHR Criteria g) *[Representativeness]*

It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.

The house does not read as part (in any meaningful sense) of the group of houses at the end of St Georges Crescent.

Integrity/Intactness: *Altered, extended unsympathetically*

The extent of alteration is very considerable and is unlikely to be reversed.

6.1 STATEMENT OF SIGNIFICANCE

The listing sheet also contains a statement of significance:

The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.

We consider that the house is of low significance due to the level of change and does not read as part (in any meaningful sense of the group) of houses at the end of St Georges Crescent. Reversal of the later works would be a heroic task.

Figure 6.1 3 Wolseley Street at the time of listing, undated but prior to the 2002 alterations

Source: Canada Bay Council.

7.0 SUMMARY

7.1 SUMMARY

Overall we consider that:

- 3 Wolseley Street is a poor example of a heavily modified Edwardian house that has lost much its original form and external detail
- The property would not meet any of the Heritage Manual criteria for identification as a place of local significance

7.2 RECOMMENDATION

We would recommend that the listing be removed.

JOHN OULTRAM

8.0 APPENDIX B – HERITAGE LISTING SHEET

Heritage NSW - State Heritage Inventory Listing Sheet for 3 Wolseley Street, Drummoyne (SHI 2890173)

House

Item details

Name of item:
House
Type of item:
Built
Group/Collection:
Residential buildings (private)
Category:
House
Primary address:
3 Wolseley Street, Drummoyne, NSW 2047
Parish:
Concord
County:
Cumberland
Local govt. area:
Canada Bay
All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
3 Wolseley Street	Drummoyne	Canada Bay	Concord	Cumberland	Primary Address
Lower St Georges Crescent	Drummoyne	Canada Bay	Concord	Cumberland	Alternate Address

Statement of significance:

The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.
Date significance updated: 09 Nov 07
Note: The State Heritage Inventory provides information about heritage items listed by local and State government agencies. The State Heritage Inventory is continually being updated by local and State agencies as new information becomes available. Read the Department of Premier and Cabinet copyright and disclaimer.

Description

Physical description:
A relatively intact Federation house on a terraced site, in poor overall condition but retaining its original features. The front verandah is enclosed and there are several additions to the rear including a garage. The front garden is terraced in stone and the house sits on a stone base with stone stairs to the verandah.
Physical condition and/or Archaeological potential:
Deteriorated
Date condition updated:09 Nov 07
Current use:
Residence
Former use:
Residence

Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
4. Settlement-Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	Suburbanisation-

Assessment of significance

SHR Criteria c)
(Aesthetic significance)
The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.
SHR Criteria g)
(Representativeness)
It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.
Integrity/Intactness:
Altered, extended unsympathetically
Assessment criteria:
Items are assessed against the State Heritage Register (SHR) Criteria to determine the level of significance. Refer to the Listings below for the level of statutory protection.

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan	Canada Bay Local Environmental Plan 2013	1505	07 Mar 08	30	1464
Heritage study					

Study details

Title	Year	Number	Author	Inspected by	Guidelines used
Drummoyne Heritage Study Review	1996		Paul Davies & Associates		Yes

References, internet links & images

None

Note: internet links may be to web pages, documents or images.

Data source

The information for this entry comes from the following source:
Name:
Local Government
Database number:
2891173

HERITAGE REFERRAL RESPONSE

To:	Jacqueline Tyrrell, Strategic Planner		
From:	Kate Higgins, Heritage Advisor		
Subject:	3 Wolseley Street, Drummoyne		
Date:	20 December 2023	**File No:**	PP2023/0004

Jacqui

Comments made with regard to the heritage aspects of the planning proposal follow. If you have any questions or would like clarification please feel free to contact me.

Documentation
From applicant
Heritage Assessment 3 Wolseley Road, Drummoyne, Weir Phillips, September 2020.

From Council
Council had an assessment of significance prepared by the heritage consultant John Oultram: *3 Wolseley Street Drummoyne NSW Heritage Assessment*, John Oultram Heritage & Design, November 2020.

Purpose of Planning Proposal
The purpose of the planning proposal is to remove 3 Wolseley Road, Drummoyne, from Schedule 5 (the heritage schedule) of *Canada Bay Local Environmental Plan 2013*.

Current Heritage Listing
Item no.I505 – House

Background to listing
The house was not identified as a potential heritage item in the 1989 Drummoyne Heritage Study undertaken by Perumal Murphy.

The Drummoyne Heritage Study Review - Paul Davies, 1995 – did however identify the property as a potential heritage item. The current heritage inventory sheet was prepared as part of this study.

In 2000 the house was subsequently listed as a heritage item in *Drummoyne Local Environmental Plan 1986* by Amendment No. 44 to the LEP.

Heritage Significance
The following statement of significance for the house at 3 Wolseley Street as set out in its heritage inventory sheet is:

> *The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.*

Comments
The original house was constructed c.1900 on a residential subdivision of 1882 (the Drummoyne Park Estate).

Extensive alterations and additions to the house were made to the house following development approval in 1999 (DA269/1998). The modifications included a first floor addition, ground floor balcony added to the original front verandah, double garage on Wolseley Street, swimming pool, laundry, new Wolseley Street fence, and rendering of the original face brick walls. The Council planner who assessed the development application appears not to have referred the application to Council's heritage advisor, but nevertheless included the following assessment of heritage impact in his report:

The following aspects of the proposal respect or enhance the heritage significance of the item:

- *The existing dwelling is preserved and not demolished.*
- *The existing dwelling is in poor condition+*
- *and is repaired buy the proposal maintaining its significance as a remnant part of a significant group at the end of St Georges Crescent.*
- *The original features of the Federation dwelling are maintained.*
- *The landscaping of the property – which is currently in a state of disrepair is maintained.*

Further alterations and additions on the subject site were approved in 2003. The approved work included: a new fence to St Georges Avenue, a new double garage to St Georges Crescent, new steps and path from St Georges Crescent, a swimming pool (different but not additional to the pool approved in 1999), and an addition to the northern end of the approved first floor addition. The heritage impact statement submitted with the development application stated that the heritage significance of the original house had already been severely eroded by works approved by Council in 1999, these approved works being sufficiently detrimental so as to render the house below the level of significance needed for local heritage listing. The heritage impact statement argued that due to the lack of heritage values the proposed further changes to the house were acceptable. Again, the development application appears not to have been referred to Council's Heritage Advisor for review and comment.

The heritage assessment report submitted with the planning proposal assesses the significance of the existing house. The Weir Phillips heritage assessment has been prepared in accordance with the Heritage NSW guideline *Assessing heritage significance*, which is appropriate. The Weir Phillips report concludes that the house has undergone extensive alterations that have degraded its heritage value, as the house can no longer be considered a good example of its type and no longer presents as a Federation style dwelling. The alterations mentioned include:

- The original face brick is now rendered.
- The principal roof structure has been replaced with the first-floor addition.
- The original front elevation has been enclosed and the front entry relocated to Wolseley Street.
- The fireplaces have all been removed or replaced.
- The ceilings, plasterwork and joinery have all been replaced.

The Weir Phillips heritage assessment report states that the alterations "are significant and irreparable".

Council commissioned an independent heritage assessment from John Oultram following representations from the owner in 2020 to remove the heritage listing. The Oultram report concludes that, based on an assessment of significance undertaken in accordance with the Heritage NSW guideline *Assessing heritage significance*, the house does not satisfy the guideline's criteria for local heritage significance. This conclusion is due to the lack of integrity of the original house, the report stating: "The house has been very heavily altered and its form distorted by the later additions. It has lost much of its original characteristics and external detail and much of the interiors detail has been replaced. The garden setting to the water has also been altered".

The assessments of heritage significance of 3 Wolseley Road undertaken by both Weir Phillips and John Oultram are consistent in their assessment, agreeing that the lack of integrity of the original house has permanently degraded the heritage values of the house to such an extent that it no longer warrants heritage listing.

Conclusion and recommendations

The planning proposal for the removal of the house at 3 Wolseley Road from Schedule 5 (the heritage schedule) of *Canada Bay Local Environmental Plan 2013* is supported as the lack of integrity of the original house greatly limits its ability to demonstrate the historical development of Drummoyne during the Federation period and the architectural characteristics of a Federation period house.

Kate Higgins
Heritage Advisor
20 December 2023

Department of Planning, Housing and Infrastructure

Gateway Determination

Planning proposal (Department Ref: PP-2023-2515)*: Delisting of Local Heritage Item – 3 Wolseley St, Drummoyne*

I, the A/Director Eastern and south Districts at the Department of Planning, Housing and Infrastructure, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Canada Bay Local Environmental Plan 2013 for the removal of heritage item I505 from Part 1 of Schedule 5 and the Heritage Map should proceed subject to the following.

The Council as planning proposal authority is authorised to exercise the functions of the local plan-making authority under section 3.36(2) of the Act subject to the following:

(a) the planning proposal authority has satisfied all the conditions of the gateway determination;

(b) the planning proposal is consistent with applicable directions of the Minister under section 9.1 of the Act or the Secretary has agreed that any inconsistencies are justified; and

(c) there are no outstanding written objections from public authorities.

The LEP should be completed on or before 31 January 2025.

Gateway Conditions

1. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:

   (a) the planning proposal is categorised as basic as described in the *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023) and must be made publicly available for a minimum of 20 working days; and

   (b) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023).

2. No consultation is required with public authorities or government agencies under section 3.34(2)(d) of the Act

3. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

Dated 5 April 2024

Kelly McKellar
A/Director, Eastern and South Districts
Planning, Land Use Strategy and Housing
Department of Planning, Housing and Infrastructure

Delegate of the Minister for Planning and Public Spaces

PP-2023-2515 (IRF24/696)

Department of Climate Change,
Energy, the Environment and Water

Our ref: DOC24/299670 Your ref: PP-2023-2515

Anthony Wynen, Strategic Planner,

City of Canada Bay Council, 1A Marlborough Street,

Drummoyne, NSW 1470

Email: anthony.wynen@canadabay.nsw.gov.au

Subject: Planning Proposal (PP-2023-2515) for the removal of Local Heritage listing to dwelling house at 3 Wolseley Street Drummoyne

Dear Mr Wynen,

Thank you for the opportunity to comment on the planning proposal. A Gateway determination was issued by the Department of Planning, Housing, and Infrastructure in regard to this proposal on 5th April 2024. It is noted that the Gateway conditions did not require consultation with Heritage NSW.

The planning proposal details the proposed removal of the Locally Listed Item known as '*3 Wolseley Street*' located at 3 Wolseley Street, Drummoyne from Schedule 5 of the *Canada Bay Local Environmental Plan 2013*.

The Statement of Significance for the Item describes it as:

'The house is of high significance as part of a group at the end of St Georges Crescent which form a very fine streetscape and the house is capable of refurbishment. It is one of a group of fine Federation houses that typified development around the waterfront of Drummoyne.', and the associated assessment of significance considers it to have '*Aesthetic*', '*Representative*' values.

The following comments are provided in response to the planning proposal documentation:

State and local heritage considerations under the *Heritage Act 1977*

Based on the information provided, we have reviewed the planning proposal against our records and do not believe that there are any identified impacts on items listed on the State Heritage Register.

In relation to historic archaeology, if the proponent has not already undertaken their own investigation to assess the likelihood of 'relics' and any subsequent management required under the *Heritage Act 1977,* they should do so.

Aboriginal cultural heritage considerations under the *National Parks and Wildlife Act 1974*

It is recommended that, while the European heritage values of this site have been changed over time due, in part, to unsympathetic works to the locally listed heritage item, further studies be carried out in regard to any potential aboriginal heritage to this site due to its proximity to the harbour foreshore and headland location.

Drummoyne is a very old suburb which was developed prior to the establishment of the National Parks and Wildlife Act and as a result has not been subject to previous Aboriginal cultural heritage assessment. It is also noted that an Aboriginal heritage site is recorded nearby. Post European contact disturbance does not negate the potential for cultural heritage and values, and it is recommended that Aboriginal Cultural Heritage Assessment be undertaken for the site.

While we recognise that the planning proposal will not in and of itself have an impact on Aboriginal cultural heritage values, it would allow for future development works. Any future development activities that the rezonings are intended to facilitate must be appropriately assessed in the planning proposal. All potential Aboriginal cultural heritage constraints should be identified as early as possible so that current/future proponents and Council are appropriately informed. This is intended to provide more certainty about future development across the subject site and about future requirements for any subsequent development applications should the rezoning proceed. These assessments need to identify any preliminary planning or design measures that could be employed to avoid or mitigate harm to Aboriginal cultural heritage if Aboriginal objects are identified.

The requirement for a full assessment to be prepared at the planning proposal stage is consistent with the Regional Plan. It is important that any management, mitigation and conservation mechanisms are developed at the planning proposal stage to help mitigate the cumulative impact of development in this region on Aboriginal cultural heritage.

If the planning proposal is approved and future development proceeds, the proponent would need to consider the Aboriginal cultural heritage impacts within their environmental assessments. Where harm to Aboriginal objects cannot be avoided the proponent would be required to obtain an Aboriginal Heritage Impact Permit (AHIP) before proceeding. Further information is available in the guide, *Applying for and Aboriginal Heritage Impact Permit: Guide for applicants*.

General Comments

Prior to finalisation of the proposal, Council should be satisfied that all necessary heritage assessments have been undertaken and that any impacts have been sufficiently addressed. Council's assessment should include, but not be limited to, a search of the State Heritage Inventory (https://www.heritage.nsw.gov.au/search-for-heritage/search-for-nsw-heritage/) and the Aboriginal Heritage Information Management System (https://www.heritage.nsw.gov.au/protecting-our-heritage/record-aboriginal-sites/).

If you have any questions, please contact Nancy Sample at nancy.sample@environment.nsw.gov.au or on (02) 8275 1521.

Yours sincerely,

Rajeev Maini
Rajeev Maini
Manager, South Assessments
Heritage NSW
as Delegate of the Heritage Council of NSW
6 May 2024

4PSQ, 12 Darcy Street, Parramatta NSW, 2150
Locked Bag 5022, Parramatta NSW 2124
www.environment.nsw.gov.au/topics/heritage

TRAFFIC COMMITTEE

30 May 2024

Via Email

MINUTES

Committee Members:

Mayor Michael Megna	Chair
Sergeant S Tohme	NSW Police
Mr Daniel Yip	Transport for NSW
Ms Stephanie Di Pasqua	Local Member of Parliament

Advisory Members:

Mr B MacGillicuddy	CCB Council
Mr L Huang	CCB Council
Mr A Karki	CCB Council
Ms S Tran	CCB Council
Mr M Takla	State Transit Authority, Sydney Buses
Mr A Clarke	Access Committee
Mr D Martin	BayBUG – Canada Bay Bicycle Users Group
Mr S Lumley	Busways

Minute Taker: Ms Christine Di Natale CCB Council

APOLOGIES

Nil

DECLARATIONS OF PECUNIARY INTEREST

Nil

CONFIRMATION OF MINUTES

Traffic Committee Meeting – 18 April 2024

COMMITTEE RECOMMENDATION

THAT the minutes of the Traffic Committee Meeting of 18 April 2024 be confirmed.

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Traffic Committee Meeting
30 May 2024

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ITEM 1 **BURWOOD ROAD, CONCORD – BUS ZONE**

Department **City Assets**

Author Initials: BM

REPORT

Council has received a request to formalise the 'Bus Zone' at the bus stop located outside 235 Burwood Road, Concord.

Concerns have been raised that drivers are unclear when they can park, resulting in frequent inadvertent illegal parking. This frequent illegal parking has been confirmed by Council staff. The request from the community highlighted that the 'Bus Zone' at the stop on the opposite side of the road is already signposted and as a result does not have the same inadvertent illegal parking issue.

To assist drivers in maintaining clear access for buses, as outlined in the attached plan it is proposed to signpost the statutory 'Bus Zone' applying 20m before, and 10 meters after, the bus stop.

STAFF RECOMMENDATION

THAT a 'Bus Zone' be signposted at the bus stop located outside 235 Burwood Road, applying 20m before, and 10 meters after, the bus stop.

DISCUSSION

Item is in order.

COMMITTEE RECOMMENDATION

THAT a 'Bus Zone' be signposted at the bus stop located outside 235 Burwood Road, applying 20m before, and 10 meters after, the bus stop.

Attachments:
1. Burwood Bus Zone

5

ITEM 2 **IANDRA STREET, CONCORD WEST – REMOVAL OF PARKING RESTRICTIONS**

Department **City Assets**

Author Initials: ST

REPORT

Council received correspondence from a resident of Iandra Street, Concord West, requesting the removal of a small section of the '3P' restricted parking.

At present, there is a mix of unrestricted and timed parking within Iandra Street, taking the form of '3P, 6am – 6pm Mon-Fri, Permit Holders Exempted'. This was implemented as part of the expansion of the Area 4 Permit Parking Scheme that occurred in 2019.

Council consulted with nearby residents from 23 April 2024 to 7 May 2024 on a proposal to return one space to unrestricted parking, as outlined in the attached plan.

During this period, Council received six responses from residents, four of which were objections. These objections were however largely a misunderstanding of what was being proposed, with residents thinking it related to more than just one parking space. One response supported the proposal, and another inquired about the origins of the proposal.

STAFF RECOMMENDATION

THAT a section of '3P' restricted parking be returned to unrestricted parking as outlined in the attached plan.

DISCUSSION

Item is in order.

COMMITTEE RECOMMENDATION

THAT a section of '3P' restricted parking be returned to unrestricted parking as outlined in the attached plan.

Attachments:
1. Iandra Street

IANDRA STREET
NULLAWARRA AVENUE
PROPOSED SIGN
EXISTING SIGN
3P
PERMIT HOLDERS EXCEPTED AREA 4
9.0N
50
N

7

ITEM 3 **SCOTT STREET, FIVE DOCK – NO PARKING SIGNAGE**

Department **City Assets**

Author Initials: ST

REPORT

Council received correspondence from residents in Scott Street, Five Dock, regarding vehicular access to and from their driveways being obstructed by vehicles parked on-street.

The matter was investigated, and it was found that due to the narrow width of the roadway, driveway access would be restricted if vehicles were to be parked opposite the driveway of 19 Scott Street and the side driveway to 509 Lyons Road West.

Council consulted with nearby residents from 23 April 2024 to 7 May 2024 on a proposal to install a section of 'No Parking' on the opposite side of the road to these driveways.

Council did not receive any objections to this proposal, however there was feedback received from a resident who raised access concerns at an additional driveway. They suggested the 'No Parking' zone be extended the entire way along the east side of Scott Street between Newcastle Street and Lyons Road West.

In consideration of this feedback, the proposed 'No Parking' has been extended further north. The resulting proposal is outlined on the attached plan and would result in the loss of three standard parking spaces.

It is not proposed to implement a longer length of 'No Parking' at this stage. The current proposal still provides some flexibility on which side of the road drivers would like to park.

STAFF RECOMMENDATION

THAT a section of 'No Parking' be installed in Scott Street as outlined in the attached plan.

DISCUSSION

Item is in order.

COMMITTEE RECOMMENDATION

THAT a section of 'No Parking' be installed in Scott Street as outlined in the attached plan.

Attachments:
1. Scott Street

N
PROPOSED SIGN
PROPOSED SIGN
NO STOPPING
No. 507
No. 509
No.36
SCOTT STREET
NEWCASTLE STREET
No. 15
No. 13
No. 17

10

ITEM 4 **HERBERT STREET, MORTLAKE– CONSTRUCTION WORKS ZONE**

Department **City Assets**

Author Initials: LH

REPORT

Council has received an application for a Construction Works Zone on Herbert Street, Mortlake on the frontage of St Patrick's Catholic Primary School. This zone is to be used to facilitate demolition and construction of one of the school buildings.

In consultation with the school and the applicant, it is noted both parties had strong preferences to locate the Works Zone directly adjoining the work site and operational for the full duration of standard construction hours. However, this location is in the middle of the existing school pick-up and drop-off zone.

The resulting loss of approximately 6 car spaces could create extra queueing issues in Herbert Street and into Adams Street, which already sees congestion, particularly in the afternoon peak pick-up period.

The school already has a traffic management plan which it has been utilising to manage pick-up and drop-off. The pick-up time of students is staggered over time and parents/carers display their family name on their dashboard. Teachers marshal students and assist in efficiently getting students into cars.

To address the reduction in available parking spaces, the School has extended the duration of the afternoon pick-up period. One of the student marshalling areas has also been relocated to separate it from the proposed Work Zone. The associated updated Traffic Management Plan is attached.

Notwithstanding these measures, Council staff have reiterated to the applicant that it will require ongoing monitoring to determine if the Works Zone is adversely affecting congestion and safety in the area. A condition reflecting this would be added to the final approval granted by Council staff.

The proposed 'Works Zone' is 35m long operating '7am-5pm Mon-Sat' with an initial operating period of 6 months requested to commence as soon as possible.

STAFF RECOMMENDATION

THAT the installation of the 'Works Zone 7am-5pm Mon-Sat' in Bibby Street in front of 9-13 Bibby Street, Chiswick, be approved.

DISCUSSION

The TfNSW representative queried how the Works Zone would operate during the pick-up/drop-off periods.

Council staff noted that the Works Zone would still be operational during pick-up/drop-off periods, utilised by construction related vehicles. This was the preferred approach by the school and the applicant. The applicant will however be asked to avoid truck arrivals/departures during those periods.

The Police representative supported the proposal but noted that the location will need to be monitored to see if the traffic management is working properly. It was noted pick-up/drop-off around the school is problematic at the best of times.

COMMITTEE RECOMMENDATION

THAT the installation of the 'Works Zone 7am-5pm Mon-Sat' in Bibby Street in front of 9-13 Bibby Street, Chiswick, be approved.

Attachments:
1. Herbert Street Works Zone.
2. St Patrick's Catholic Primary School Traffic Management Plan.

N
W
E
S
Existing: No Parking
2:30pm-4pm
School Days
Proposed Work Zone
Existing: No Parking
8am-9:30am
2:30pm-4pm
School Days
HERBERT ST
ADAMS LANE
ADAMS ST

13

St Patrick's Catholic Primary School Mortlake

TRAFFIC MANAGEMENT PLAN and ROAD SAFETY PROCEDURES

14

TRAFFIC MANAGEMENT PLAN

Context

St Patrick's Primary School is a 2-stream Parish school in the community of schools under the governance of the Sydney Catholic Schools system within the Archdiocese of Sydney. St Patrick's opened in 2017 with the first intake of enrolments into Kindergarten, Years 1 and 2. We are currently at 370 students from Kindy to Years 6. It is anticipated that the school will grow its enrolment to approximately 420 students in future years, in response to demand for primary education in the Canada Bay Local Government Area.

Purpose

The purpose of the Traffic Management Plan, ("The Plan") is to provide staff, parents, students and the local community with guiding principles and protocols that assure:

1. The students who attend St Patrick's are able to arrive and depart safely to and from school;
2. Adequate controls are in place to ensure local neighbourhood pedestrian and vehicular traffic amenity is maintained;
3. Adequate review mechanisms are implemented to ensure the plan is responsive to changing circumstances, including heeding directives from authorised traffic officers;
4. The plan will be amended as necessary to ensure purposes #1 and #2 are maintained.

Responsibility

The St Patrick's school Principal is the responsible person, who implements, reviews and amends as necessary the plan, with support of advice and the Safety team at St Patrick's At present that person is – Mrs Amanda Westgate, interested parents and the school WHS Team.

Implementation

The plan is currently in effect and will be reviewed every 12 months unless an urgent amendment needs to happen.

Other Strategies

Whilst The plan focuses on the safe and efficient movement of traffic associated with the drop-off and pick-up of students by private vehicle, it also complements other strategies

the school is implementing and promoting with respect to arrivals and departures, such as:

- Students, accompanied by parent(s)/carer(s) walking to school such as walk-to-school scheme; (Benefit: Health and wellbeing and community building through social interaction of parents during journey and on arrival);
- Students walking to school unaccompanied; (Benefit: Student health and wellbeing and building independence and resilience);
- Students riding bicycles to school; (Benefit: Student health and wellbeing; secure bike racks provided by school);
- Parents are encouraged to carpool; (Benefit: Community building and reduction in vehicle movements.)

Parent Orientation

When parent(s)/carer(s) enrol their children at St Patrick's Primary, they not only commit to supporting the ideals and principles of Catholic education, they also commit to supporting the policies and procedures of St Patrick's Primary and the Archdiocese of Sydney. To that effect they commit to supporting and abiding by the procedures and protocols of the Traffic Management Plan.

The Plan will be included in the Enrolment Pack, as well as public transport information, other travel options and safety information from the State Government.

Communication

To ensure The Plan remains viable and effective; the school will provide updates and changes to procedures through the following media:

- School fortnightly newsletters; (Note: the school will regularly publish articles relating to traffic safety at least once a term);
- The School App (COMPASS), whereby notification and alerts can be sent to parents at any time; (Note: the App will prove to be an effective tool in communicating given the speed and coverage). Push notifications are immediately sent out on the day;
- Emails to parents; (Note: important notifications will be sent via email to parent(s)/carer(s).

School Hours

Supervision of students on site commences at 08:25am and concludes at 3.35pm.

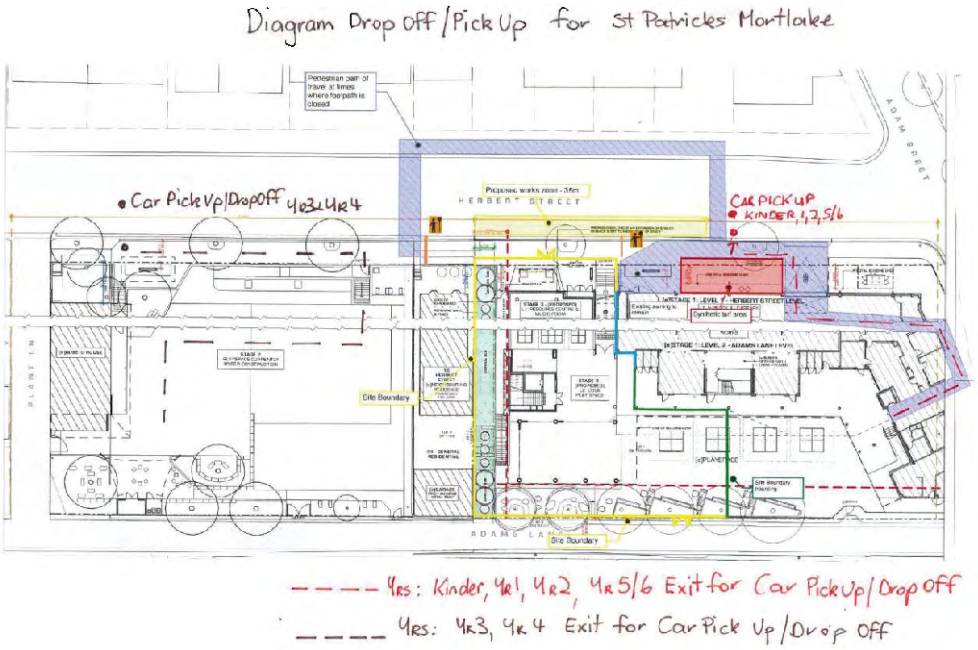
Teachers remain on duty till all children are picked up.

Drop-Off and Pick-Up General Principles

- The arrival of students travelling by car will be supervised between 08:25 and 08:55am;
- The departure of students travelling by car will be supervised between 3.10pm and 3:40pm. Students are dismissed at 3.15. Teachers remain on duty till all students are departed.

- Supervising staff will be required to wear high visibility vests and will be focused on student safety and monitoring of traffic flow.
- Students disembarking parent vehicles will do so via the passenger side so that direct access to the adjoining footpath is obtained to ensure pedestrian safety. (Rare exceptions occur when babies are also in the car)
- All vehicles entering the parking controlled zone (Herbert Street) for the purpose of picking up and setting down during term time will only approach from the East, proceed along the length of the zone, dropping off only at the designated area.
- Kindergarten, Year 1, Year 2, Year 5 and Year 6 are dismissed in first section of Herbert Street, closest to Adams Street (as per diagram) Year 3 and Year 4 are dismissed further up Herbert Street close to Plant Lane and In front of school playground called Roseto.

Drop-Off Protocols



The drop-off for students will be naturally staggered with cars arriving randomly over the supervised period from 08:25 to 08:55 with the peak expected between 08:40 – 08:55 given parents arrive at various times depending on their family's schedule. Parents when they reach the pick up/drop off zone, drive to the front of the queue (Pick up Zone Start Flag) so that the maximum number of cars can fit into the zone. SCECS, Before and after school care program operates each day of the school term to cater for parents that need to drop off their child(ren) prior to playground supervision

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(starting at 08:25).

Pick-up Protocols

The afternoon pick-up will be staggered by colour house groups . The school will implement a grouping system of students into 4 colour house groups. The following pick-up schedule will be followed:

Colour Group	*Time*
Usher (White) & Patrick (Green)	**3.15pm-3.25pm**
Charity (Blue) & Wangal (Gold)	**3.25pm-3.35pm**

Cars arriving before the allocated time will be required to drive through the pick-up zone and return at the appropriate time.

For those families participating in the staff-assisted pick-up arrangements, the following procedures shall be followed:

At the prescribed commencement time, staff will be positioned at the designated pick up spaces which will be identified by flags;

Senior leadership staff, experienced in drop-off and pick-up systems will oversee the process and provide troubleshooting; ALL Teachers are on Afternoon Duty.

- Classroom teachers will ensure all students are dismissed on time; Students will be marshalled on the school site into their pick-up groups according to their colour house, to prevent delays in accessing their car;
- All pick-up vehicles shall progress along Herbert Street from the east, travelling west. (Note: **No U-turns are permitted under this plan**.)
- All vehicles in the pick up/ drop off zone, drive to the front of the queue.(Pick up Zone Start Flag)
- The student's family name will be displayed on the passenger side sun visor or dashboard in the colour house background colour.
- A staff member will relay via microphone and megaphone the name of student, who will then be directed to a pick up point; Walkie Talkies are also used to communicate across spaces
- Once directed by staff the student will enter the car from the passenger side only at the pick-up point. Staff will assist only when needed..
- Parents will remain in their car and have control of their vehicle at all times. (Note: It is the driver's responsibility to ensure his/her passengers' seat belts are secured.)
- It is required that, should a vehicle arrive at the head of the pick-up queue and the student is not yet ready, then the vehicle will leave the vehicle pick-up queue, drive around the block and rejoin the queue.

St Patrick's
CATHOLIC PRIMARY SCHOOL MORTLAKE

Traffic Management Plan and Road Safety Procedures

Road safety is important to everyone, but it is particularly important around schools. This plan has been put in place:

- **to ensure the safety of students, staff, parents and the wider school community.**
- **To ensure that traffic and pedestrians in the wider community are not adversely affected.**

DO

- In the morning arrive after 8:25am. In the afternoon arrive at your child's allocated time:

  Usher (White) & Patrick (Green) 3.15pm-3.25
  Charity (Blue) & Wangal (Gold) 3.25pm-3.35pm

- Please display a clear sign with the family name.
- When you reach the pick up/drop off zone, drive to the front of the queue (where the St Patrick's flag is displayed)so that as many cars as possible can pull in behind you.
- Have your child enter and exit the vehicle from the passenger side doors
- Ensure your child's seatbelt is securely fastened before pulling away from the Kerb.
-

DON'T

- We encourage parents to stay in the car and students exit and enter the car independently
- **Do not do a U-Turn anywhere in the vicinity of the school**.
- Do not park on the opposite side of Herbert Street and walk your child through the Drop off/pick up Zone.
- Do not jump the queue of waiting traffic.
- Do not queue in Adam Street as this is a ' NO stopping' Zone, by law you can be booked.

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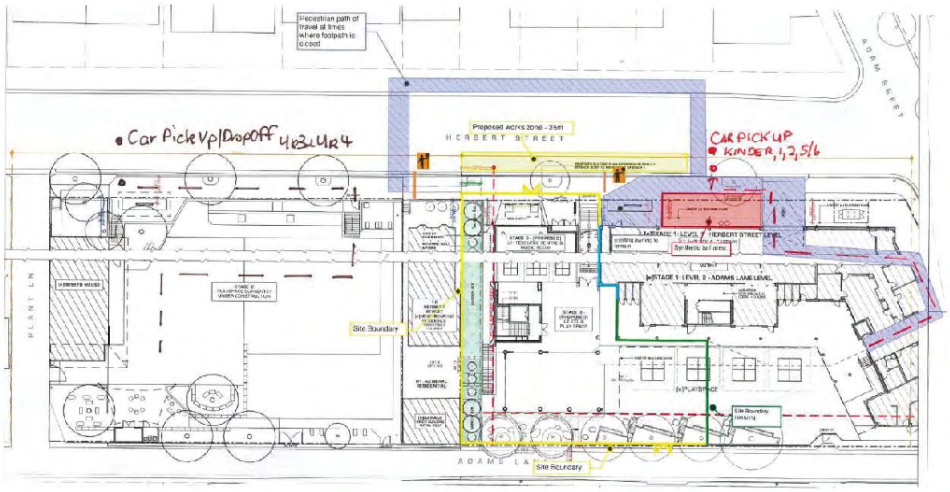
Diagram Drop Off / Pick Up for St Patricks Mortlake



---- YRS: Kinder, YR1, YR2, YR 5/6 Exit for Car Pick Up/Drop Off

____ YRS: YR3, YR 4 Exit for Car Pick Up/Drop Off

20

ITEM 5 **BIBBY STREET, CHISWICK – CONSTRUCTION WORKS ZONE**

Department **City Assets**

Author Initials: LH

REPORT

Council has received an application for a Construction Works Zone outside 9-13 Bibby Street, Chiswick. This zone is to be used to facilitate demolition and construction of multi-storey residential development.

Noting the proximity of the subject zone to the intersection of Bibby Street and Burns Crescent, it is proposed to formalise the statutory 10m 'No Stopping' zone directly adjoining the Works Zone.

The proposed 'Works Zone' is 15m long operating '7am-5pm Mon-Sat' with an initial operating period of 6 months requested to commence as soon as possible.

STAFF RECOMMENDATION

THAT the installation of the 'Works Zone 7am-5pm Mon-Sat' in Bibby Street in front of 9-13 Bibby Street, Chiswick, be approved.

DISCUSSION

Item is in order.

COMMITTEE RECOMMENDATION

THAT the installation of the 'Works Zone 7am-5pm Mon-Sat' in Bibby Street in front of 9-13 Bibby Street, Chiswick, be approved.

Attachments:
1. Bibby Street, Chiswick – Works Zone

Proposed No Stopping
Proposed Work Zone
BURNS CR
BIBBY ST
N
E
S
W

22

ITEM 6 MAJORS BAY ROAD, CONCORD – SPEED HUMPS

Department City Assets

Author Initials: BM

REPORT

Council has over time received feedback from the community regarding safety at the two pedestrian crossings on Majors Bay Road approximately 50m north and 100m south of Wellbank Street. Feedback has focused on the southern crossing near Coles, where recently a pedestrian was struck by a vehicle.

Several changes have previously been progressively made at this crossing to enhance pedestrian safety. This includes adjustments to fencing to improve sightlines, a terracotta colour on the pedestrian crossing platform to increase colour contrast to the zebra bars, and speed cushions on the approach to the crossing.

To further encourage driver caution, it is proposed that full width 75mm high watts profile speed humps be installed on the approaches to both pedestrian crossings as outlined in the attached plan. This will replace the existing speed cushions at the southern pedestrian crossing.

The speed hump in the northbound travel lane at the southern pedestrian crossing has been located in consideration of the bus stop. When a bus is at the stop, its wheelbase will straddle the speed hump. When bus wheels pass over the hump, they will be largely perpendicular to it, minimising passenger discomfort.

STAFF RECOMMENDATION

THAT speed humps be installed on the approach to the two pedestrian crossings on Majors Bay Road approximately 50m north and 100m south of Wellbank Street, as outlined in the attached plan.

DISCUSSION

The Member for Drummoyne welcomed safety improvements at the crossings and noted that constituents had suggested flashing lights to warn approaching traffic of the pedestrian crossing. It was also suggested to remove part of the hedging around the crossing to ensure the drivers line of sight is not limited.

Council staff noted that flashing lights at pedestrian crossings is not supported in NSW in accordance with TfNSW standards. It was also noted that hedging around the crossing is already regularly maintained to keep it at a low height to assist in ensuring it does not impact on sight lines.

The TfNSW representative queried if the bus operators had been notified and liaised with regarding the proposed speed hump changes. Council staff advised that Transit Systems is the only public bus operator utilising Majors Bay Road, and their

feedback has been received through this report.

Transit Systems requested additional information prior to construction regarding traffic control arrangements. Council staff confirmed that Transit Systems would be consulted if construction works are to be undertaken during bus operating times.

The BayBUG representative supported the installation of upgraded speed humps, however noted that the 75mm height presents an obstacle to bicyclists and potentially a hazard. This would be a disincentive to cycle on Majors Bay Road, which is a low speed, and otherwise less threatening, environment.

It was requested that the proposed design be modified so as not to impede the passage of bicycles, particularly in the southbound (uphill) direction. The speed cushions recently installed on Bevin Avenue, Five Dock, near the intersection with William St were referenced.

Council staff noted that currently there are speed cushions at the southern crossing on majors Bay Road. These are similar to the referenced example on Bevin Avenue, except they are constructed in asphalt as opposed to rubber. Whilst cyclists can bypass speed cushions, correspondingly it also means that they are less effective at slowing down some vehicles.

Noting factors including site constraints and relevant standards, Council staff have been unable to identify a feasible option that would allow cyclists through/around the speed hump without compromising their traffic calming effectiveness.

COMMITTEE RECOMMENDATION

THAT speed humps be installed on the approach to the two pedestrian crossings on Majors Bay Road approximately 50m north and 100m south of Wellbank Street, as outlined in the attached plan.

Attachments:
1. Majors Bay Road, Concord

SPEED HUMP 4
SPEED HUMP 3
WELLBANK ST
MAJORS BAY RD
ORGANICA
JELLICOE ST
COLES
SPEED HUMP 2
SPEED HUMP 1
KEY PLAN
SCALE 1:500 @ A1
REPLACE EXISTING SPEED CUSHION WITH A FULL WIDTH 75mm HIGH ASPHALT SPEEDHUMP IN EXISTING LOCATION AS PER CCBC STANDARD DETAIL.
JELLICOE ST PIAZZA
SPEED HUMP 2
SCALE 1:100 @ A1
CONSTRUCT FULL WIDTH 75mm HIGH ASPHALT SPEEDHUMP UPSTREAM OF EXISTING ZEBRA CROSSING AS PER CCBC STANDARD DETAIL.
No.89
SPEED HUMP 4
SCALE 1:100 @ A1
EXISTING ZEBRA CROSSING ADJACENT TO COLES
REMOVE EXISTING SPEED CUSHION
EXISTING BUS STOP
CONSTRUCT FULL WIDTH 75mm HIGH ASPHALT SPEEDHUMP ADJACENT TO BUS SHELTER AS PER CCBC STANDARD DETAIL.
SPEED HUMP 1
SCALE 1:100 @ A1
No.108 - 110
CONSTRUCT FULL WIDTH 75mm HIGH CONCRETE SPEEDHUMP UPSTREAM OF EXISTING DRIVEWAY AS PER CCBC STANDARD DETAIL.
SPEED HUMP 3
SCALE 1:100 @ A1
DIAL BEFORE YOU DIG
www.1100.com.au
FOR INFORMATION
A
22.05.2024
DESCRIPTION
REV.
DATE
UNITS ARE IN METERS SCALE 1: 100 @ A1
APPROVED:
SURVEYED BY:
DRAWN BY:
CHECKED BY:
City of Canada Bay
PROPOSED SPEED HUMPS MAJORS BAY RD
CONCORD, NSW - 2137
DESCRIPTION/LOCATION
GENERAL ARRANGEMENT PLAN SKETCH
DRAWING NO:
SKC18

25

ITEM 7 **BURWOOD ROAD, CONCORD – TIME RESTRICTED PARKING**

Department **City Assets**

Author Initials: BM

REPORT

Council has received requests to consider signposting a small section of time restricted parking on the west side of Burwood Road, Concord, just north of Gipps Street.

There is a small cluster of businesses in this area, including a Veterinary Hospital which provides an important service for the community. As the Vet has no off-street parking, visitors who may for example be carrying pets in distress, need to be able to find nearby on-street parking. Other surrounding businesses include a denture clinic and a physiotherapy, the latter of which has a small off-street carpark.

Parking on the west side of Burwood Road is currently unrestricted. During observations by Council staff at various times/days, it was found that at times it was difficult to find vacant parking in the area immediately around the businesses. Parking was however typically available within 100m. The east side of Burwood Road does provide a parking opportunity outside of the 'No Parking' times of '6:30am-9:30am, 3:30pm-6:30pm Mon-Fri'.

Original proposal
To improve the availability of short-term parking, community consultation was undertaken proposing to install a section of '1P 7am-6pm Mon-Fri' as outlined in the attached plan. Noting new driveways to be constructed as outlined on the plan, this restriction would cover four standard parking spaces. This restriction was proposed to apply to all vehicles, with no exceptions for residents or employees.

Community consultation
A letterbox drop was undertaken to approximately 64 surrounding properties, with responses received representing eight properties. Responses from four properties supported the proposal, with two of those suggesting it be expanded to include all the spaces along the subject section of Burwood Road.

Conversely, responses from three properties objected to the proposal, with two of those suggesting a longer time limit with exemptions for permit holders. There were concerns that it was already difficult to find parking and that the proposal would shift long term parking demand further north along Burwood Road. Feedback also anticipated that parking demand would increase in the future as a result of Metro West and redevelopment in the area.

The response from one property requested a 3-hour limit to better meet the needs of their customers, who they indicated had an average 1–2 hour attendance time.

Revised proposal
In consideration of community feedback, the proposal has been reduced in scale to only cover two parking spaces as outlined in the attached plan. This will provide an opportunity to monitor the demand for these spaces to determine if it is warranted to restrict additional spaces or vary the time limit in the future.

Providing an exemption for residents through a Permit Parking Scheme would need to be considered for the surrounding area more wholistically. This will be further considered in the future by Council staff as the timing and impacts of redevelopment and Metro West are better known.

STAFF RECOMMENDATION

THAT two parking spaces on Burwood Road be restricted to '1P 7am-6pm Mon-Fri' as outlined in the attached plan.

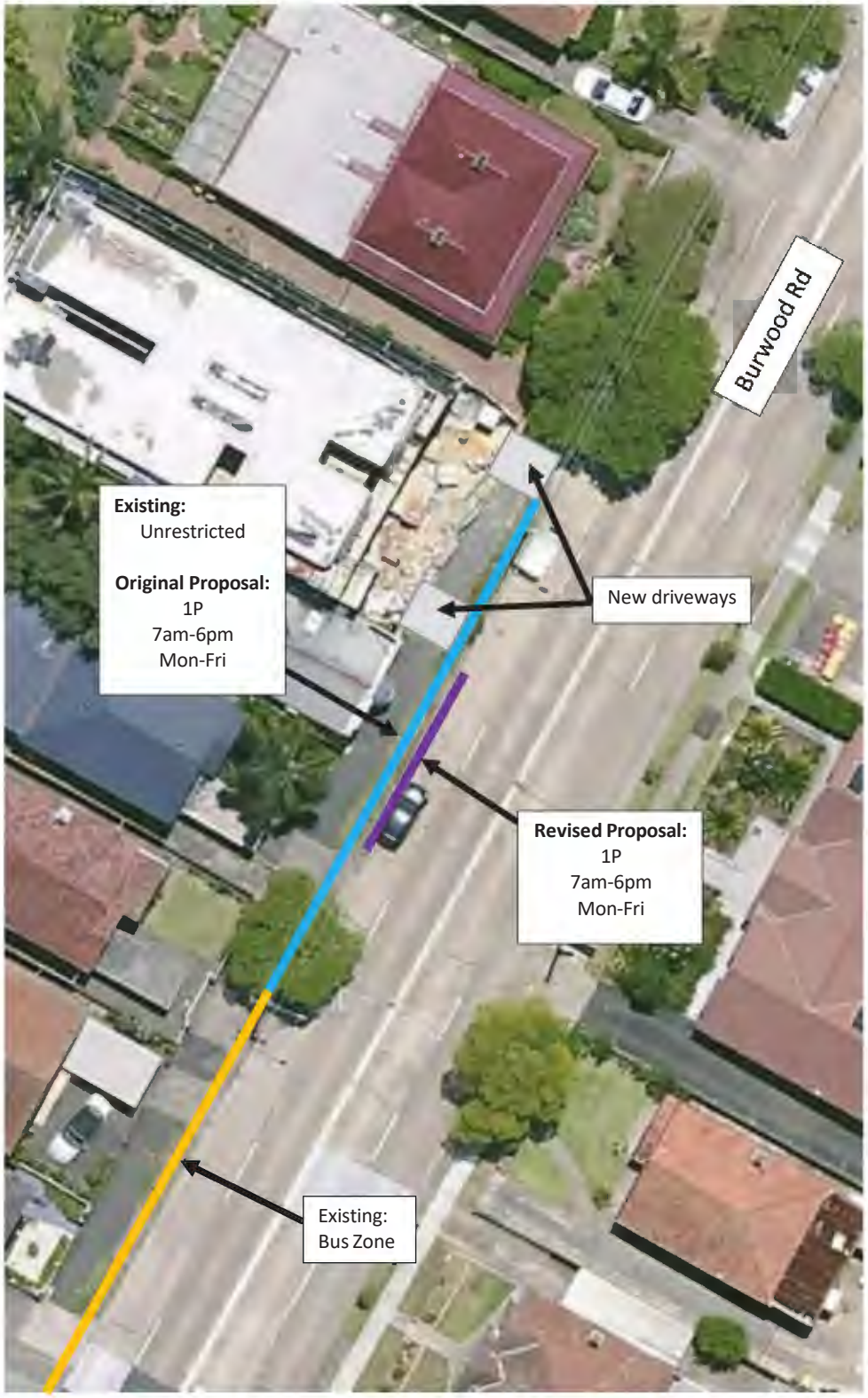
DISCUSSION

Item is in order.

COMMITTEE RECOMMENDATION

THAT two parking spaces on Burwood Road be restricted to '1P 7am-6pm Mon-Fri' as outlined in the attached plan.

Attachments:
1. Burwood Road, Concord


Burwood Rd
Existing:
Unrestricted
Original Proposal:
1P
7am-6pm
Mon-Fri
New driveways
Revised Proposal:
1P
7am-6pm
Mon-Fri
Existing:
Bus Zone

28

ITEM 8 ELECTRIC VEHICLE CHARGING SPACES

Department City Assets

Author Initials: BM

REPORT

Council is proposing to approve the installation of electric vehicle (EV) chargers in three carparks to support the uptake of EVs. These potential sites have been identified in line with Council's EV Charging Strategy and Action Plan. The chargers would be installed and managed by a private company under a 5-year contract.

These sites have been selected to locate chargers close to cafes, shops and services where people doing daily errands in the local area can wait for their cars to charge. The location of the proposed chargers within the car parks has been based on factors such as site constraints and being close to existing electricity infrastructure that the chargers will need to connect to.

The installation of EV chargers at each of these sites would require two parking spaces to be designated as EV charging spaces. It is proposed that they have the same time limit (e.g. '2P') as surrounding general parking spaces, but would apply 24/7, preventing vehicles from parking for extended periods. The surrounding existing parking restriction signs would be adjusted accordingly to start/stop either side of the new EV charging restriction.

- Brewer Street car park, Concord – '2P'
- Five Dock Leisure Centre car park, Five Dock – '3P'
- Formosa Street car park, Drummoyne – '1P'

Community consultation was undertaken via posters installed at each site, Council's Community engagement page Collaborate and an email to its members, as well as an email to the relevant Chambers of Commerce.

There were 405 unique visitors to the Collaborate page, with a total of 33 submissions received online and via email. The vast majority of the feedback supported the proposed EV chargers. There were many suggestions that additional and higher speed chargers be installed at the proposed locations, as well as at other locations.

There were some concerns that the '1P' time limit in the Fomosa Street Carpark would be too short for vehicles to charge a meaningful amount if it isn't a fast charger. Conversely there were also concerns that allowing EV's to park for longer periods would not be in line with the purpose of the parking i.e. high turnover.

Details such as charging capacity are yet to be finalised in consultation with the preferred supplier/s. There were suggestions such as the installation of CCTV and additional lighting. These suggestions will be separately further investigated.

STAFF RECOMMENDATION

1. THAT two parking spaces in the Brewer Street carpark be restricted to '2P Electric Vehicles Only While Charging' as outlined in the attached plan.

2. THAT two parking spaces in the Five Dock Leisure Centre carpark be restricted to '3P Electric Vehicles Only While Charging' as outlined in the attached plan.

3. THAT two parking spaces in the Formosa Street carpark be restricted to '1P Electric Vehicles Only While Charging' as outlined in the attached plan.

DISCUSSION

The Police representative supported the recommendation, however noted that further investigation will need to be undertaken in relation to the speed of the charging stations. It was noted that the 1 hour at the Formosa Street location would appear to be not enough time to fully charge a vehicle.

Council staff noted that the speed of charging would be further considered in consultation with the preferred supplier/s. The chargers aren't necessarily aimed at fully charging a vehicle. They will allow drivers to charge their vehicles in conjunction with their normal daily activities. Parking restrictions can in any case be reviewed in the future if they are not meeting user's needs.

COMMITTEE RECOMMENDATION

1. THAT two parking spaces in the Brewer Street carpark be restricted to '2P Electric Vehicles Only While Charging' as outlined in the attached plan.

2. THAT two parking spaces in the Five Dock Leisure Centre carpark be restricted to '3P Electric Vehicles Only While Charging' as outlined in the attached plan.

3. THAT two parking spaces in the Formosa Street carpark be restricted to '1P Electric Vehicles Only While Charging' as outlined in the attached plan.

Attachments:
1. EV Chargers

Bowman St
Formosa St
Proposed EV charging spaces

Majors Bay Rd
Brewer St
Proposed EV charging spaces

31

32

ITEM 9 **GAUTHORPE STREET, RHODES – LEFT-IN/LEFT-OUT DRIVEWAY RESTRICTION**

Department **City Assets**

Author Initials: BM

REPORT

A large mixed-use development is currently under construction at 34 Walker Street, Rhodes. Access to the commercial and residential carpark within this development will be via a new driveway in Gauthorpe Street. Loading access will be via a new driveway in Walker Street.

At the time the Development Application was approved for 34 Walker Street, a condition was imposed restricting the Gauthorpe Street driveway to left-in/left-out. This was noting the potential for conflict between various vehicle movements, as it will be directly opposite an existing driveway on the north side of the road and near the intersection of Gauthorpe Street and Marquet Street.

The existing driveway on the north side of the road provides retail, commercial and loading dock access. It was initially envisioned that a central median island would be constructed in Gauthorpe Street to physically restrict both the existing and new driveways to left-in/left-out.

During detailed design development it was however found that a central median island would prevent waste trucks and other large vehicles from using the northern driveway. As a result, as per attached it is proposed to install islands on the south side of the road to similarly assist in physically reinforcing the left-in/left-out restriction along with signage.

As there will be no impact on the existing development on the north side of the road, consultation with that development is not required.

STAFF RECOMMENDATION

THAT traffic islands, along with 'Left Only' and 'No Right Turn' signs be installed in Gauthorpe Street as outlined in the attached plan.

DISCUSSION

The BayBUG representative noted that Council's 2014 Bike Plan proposed a route SR17 using Gauthorpe St to allow safer cycling between Bennelong Bridge and Walker St. It was requested that a note be added to this report on the impact of the proposed driveway works on the proposed cycle route.

Council staff noted that the proposed driveway configuration will have no impact on a planned shared path along the north side of Gauthorpe Street. This path is to connect across to the east side of Walker Street, linking to Rhodes Station.

Construction works along this route are anticipated within the next 12 months, with plans the subject of a future Traffic Committee report.

The TfNSW representative raised concerns regarding the proposed island between the in/out sides of the driveway. There were no concerns raised with the island to the east of the driveway. It was suggested that the island between the in/out sides of the driveway not extend out onto the roadway.

This was noted that it is not a standard arrangement for the island to extend onto the roadway from a driveway and that TfNSW do not want a precedent set. It was also noted that this is only for driveway and not a side road, and the design needs to be appropriate for the situation.

Council staff noted the driveway is anticipated to be relatively busy, with over 200 vehicles exiting and 100 vehicles entering during the AM peak hour. These volumes are reversed in the PM peak hour. As a result, the driveway is being constructed in a similar form to a road intersection i.e. the footpath will dip down to road level with pram ramps either side of the driveway and a refuge area in the middle for pedestrians.

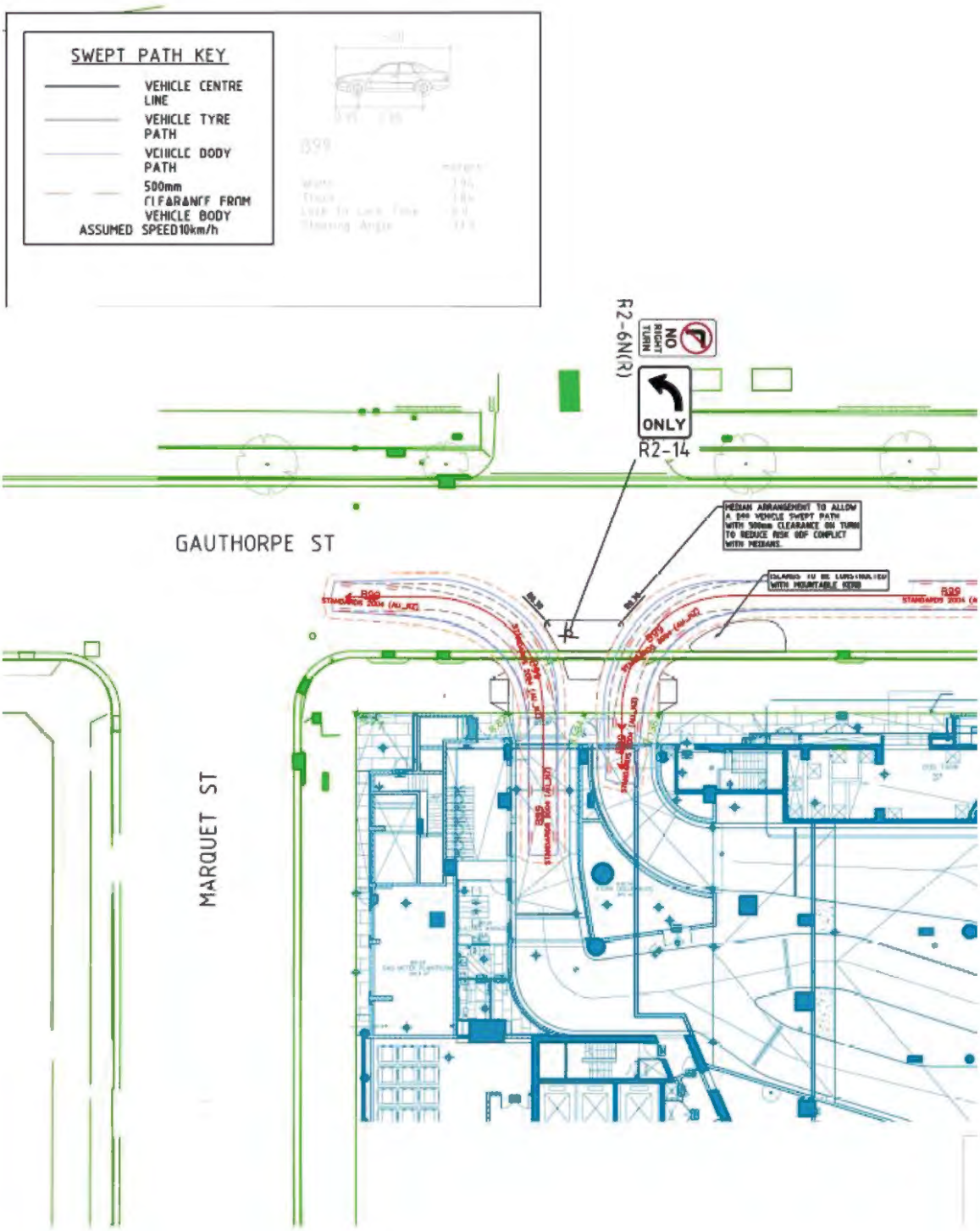
The configuration of the proposed island between the in/out sides of the driveway has been considered by Council staff and the developers traffic consultant in the context of it functioning like an intersection. It was also noted that the driveway configuration within the private property is fixed, and that this occurred though the Development Application process prior to the current proposal being developed.

Noting the configuration within the private property is fixed, and vehicle turning manoeuvre requirements, containing the island entirely within the footpath area would mean it provides no physical restriction on turning movements. Relying solely on signposted turn restriction would likely require impractical levels of police enforcement.

COMMITTEE RECOMMENDATION

THAT traffic islands, along with ‘Left Only’ and ‘No Right Turn’ signs be installed in Gauthorpe Street as outlined in the attached plan.

Attachments:
1. Gauthorpe Street, Rhodes


SWEPT PATH KEY
VEHICLE CENTRE LINE
VEHICLE TYRE PATH
VEHICLE BODY PATH
500mm CLEARANCE FROM VEHICLE BODY
ASSUMED SPEED 10km/h
R2-6N(R)
NO RIGHT TURN
ONLY
R2-14
GAUTHORPE ST
MARQUET ST

35

ITEM 10 ELPHINSTONE STREET & BISHOP STREET, CABARITA – DOUBLE CENTRELINE

Department City Assets

Author Initials: BM

REPORT

Council has received feedback from the community regarding the bend where Elphinstone Street and Bishop Street meet in Cabarita. There are concerns regarding vehicles travelling to fast and running off the road or into parked vehicles/trailers.

Whilst there are no recorded serious crashes in the most recently available 5-year period of data provided by TfNSW, it is noted that some unreported incidents may be occurring.

A review of the bend by Council staff noted that it may not be immediately obvious to approaching drivers and there is no linemarking to guide vehicles around it. Noting this, it is proposed to install double centreline marking as outlined in the attached plan. This is consistent with the treatment at similar bends in the area such as those nearby on Brays Road.

Elphinstone Street is approximately 12.8m wide, and as such there will be sufficient width for vehicles to legally park on both sides of the road adjacent to the proposed double centreline.

Bishop Street is narrower at approximately 9.5m wide. As a result, it is proposed that the double centreline be offset approximately 5.3m from the northern kerb line. This will maintain parking along the northern side of Bishop Street. It will technically result in the loss of one legal parking on the south side of Bishop Street directly at the bend. Observations indicate drivers are in any case not typically parking in this space due to its proximity to the bend.

STAFF RECOMMENDATION

THAT a double centreline be installed around the bend where Elphinstone Street and Bishop Street meet.

DISCUSSION

The TfNSW representative suggested a ‘No Stopping’ zone be considered on the inner radius of the bend, where parking is not allowed.

Council staff noted that drivers are already not typically parking on the inner radius of the bend and that even in the absence of signage, it will be illegal to park within 3m of the proposed double centerline. Noting that is the negative impact on amenity of excessive signage, ‘No Stopping’ signage does not appear warranted at this stage but can be revisited if illegal parking occurs.

COMMITTEE RECOMMENDATION

THAT a double centreline be installed around the bend where Elphinstone Street and Bishop Street meet.

Attachments:
1. Elphinstone Street & Bishop Street

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GENERAL BUSINESS - RHODES EAST PUBLIC DOMAIN PLAN

Department City Assets

Author Initials: BM

At its meeting on 21 May 2024, Council resolved to put on public exhibition a new public domain plan for Rhodes East. This is the portion of Rhodes generally bounded between the rail line and Concord Road, which has been rezoned for significant residential and commercial development, along with a new school.

The public domain plan includes significant walking and cycling infrastructure, along with other infrastructure to manage traffic flow such as speed humps.

There is an opportunity for Traffic Committee members to contribute feedback during the public exhibition period. It will be publicised for feedback at collaborate.canadabay.nsw.gov.au from late May to late June 2024.

As detailed designs are progressively prepared in line with the Public Domain Plan, as appropriate there will be opportunities for the Traffic Committee to formally consider the proposals.

2024/25 Community Grants – Funding Recommendations

1. Community Project Grants Program - Funding Recommendations

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
1	1st Yaralla Sea Group	Project light up	Install energy efficient lighting at the Scout Hall providing lighting for the reserve and launching ramp	$2,000	$2,000	100%	No	• Equipment support grant max $2000 • Improve safety
2	Amazon Women's Tennis	Increase Participation and Visibility of LGBTQIA+ Women in Tennis	Provide group tennis lessons and discounted social play led by coaches within the LGBTQIA+ community	$7,500	$7,500	100%	No	• Social connection and wellbeing • Promoting diversity and inclusion • Targeting women in sport
3	Aurora Australis Chorus	Costume and Music	New music, and costume to use in performances	$1,000	$1,000	100%	No	• Social connection and wellbeing

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
4	Australian Nursing Home Foundation	Turn a New Page in Your Golden Years	Run workshops targeting Chinese speaking seniors to tackle social isolation and explore new interests.	$7,500	$5,981	80%	Yes	• Supporting marginalised community • Catering costs cannot exceed 10% of project cost and items over $1,000 require evidence/ quote as per grant guidelines
5	Australian Skateboarding Federation	SHRED FIVE DOCK!	Free skateboarding workshops at Five Dock Park to teach 60 to 80 skaters (20 skaters over 3 sessions)	$3,500	$2,000	57%	No	• Wellbeing for community • Community connection of likeminded people • Project is a social connection grant and eligible for funding up to $2,000.
6	BAPTISTCARE NSW & ACT	BaptistCare Kitty Doyle Housing Complex - Seniors Concert (Pilot Project)	Music concert and hot lunch with coffee cart to be held every three months at the complex.	$6,000	$1,400	23%	No	• Supports community • Includes $4,600 catering. Catering cannot exceed 10% of project cost as per grant guidelines

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
7	City of Canada Bay Heritage Society	Automatic External Defibrillator (AED)	Purchase Automatic External Defibrillator and AED and CPR familiarisation session	$2,000	$2,000	100%	No	• Social connection and wellbeing • Equipment support grant max $2,000
8	Concord Senior Citizen Club Inc	Knitting and Art	Purchase wool and art supplies for handcraft group	$500	$500	100%	No	• Social connection and wellbeing • Equipment support grant max $2,000 • Community group in LGA
9	Drummoyne District Junior Rugby Union Club Inc	Train the Trainers	Provide training sessions to volunteers relating to coaching techniques, game plays, player development.	$2,000	$2,000	100%	No	• Learning skills • Social connection and wellbeing • Grant funding subject to completion of previous acquittal
10	Drummoyne Municipal Art Society	Assisting people with disabilities and veterans	Provide 5 free painting lessons including equipment and art supplies.	$1,200	$1,200	100%	No	• Social connection and wellbeing • Learning skills • Community group in LGA

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
11	Ebenezer Mission Ltd	Community Inclusive Orchestra	Organise fortnightly/monthly gathering of musicians with and without disabilities from all cultural backgrounds to practice singing and instruments.	$7,500	$5,500	73%	Yes	• Supporting marginalised community • Inclusive program • Building relationships and skills of participants • Includes transport and staff cost which are ongoing operational costs and not eligible under the grant guidelines.
12	Ebenezer Mission Ltd.	Internation Day of People with Disability	Annual Festival to celebrate diversity and raising awareness. The Ebenezer Mission will be inviting musicians and performers with disabilities to perform and showcase their talents. This event will also invite local non-profits and service providers to have stalls and provide information for the advocacy of people with disabilities.	$10,000	$7,500		Yes.	• Disability inclusion • Recommended funding: $7,500 as a community development project • Grant request includes $2,000 on catering which is greater than 10%

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
13	Giant Steps Australia	Community Access Program for Autistic Individuals	Provide autistic children and adults with experiences to reduce social isolation and foster independence.	$2,000	$2,000	100%	No	• Support people living with autism • Raise awareness of people living with autism • Promoting diversity and inclusion
14	Inner West Neighbour Aid	5 Senses Garden Revamp	Revitalise 5 Senses Garden by establishing new garden bed with native and non-native plants including bush tucker and sensory plants, expand and restock vegepods and purchase growing media, soil additives and tools.	$5,000	$5,000	100%	No	• Social connection and wellbeing
15	Let's Get Going	Motiv8Sports	Provide inclusive rugby and soccer games for adults with special needs to participate with confidence alongside regular Canada Bay team players. Includes team building physical coaching sessions.	$3,000	$3,000	100%	No	• Social connection and wellbeing • Promoting diversity and inclusion • Learning skills

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
16	National Italian Australian Women's Association Incorporated (NIAWA)	NIAWA New Website and Newsletter	Create or upgrade website and digital templates to better connect with the community.	$2,000	$2,000	100%	No	• Social connection and wellbeing • Diverse CALD
17	Port Jackson Unit - Marine Rescue NSW	Emergency Medical Equipment	Replace Oxygen / defibrillation kit on two rescue vessels as they are 15 years old and add spinal boards to both vessels to assist with safe rescue & movement of injured members of the public.	$4,090	$2,000	49%	No	• Wellbeing for community • Project is a social connections grant which has a maximum funding amount of $2,000.
18	Rhodes Community Garden Incorporated	Rhodes Community Garden's further development	Purchase steel mesh panels, poles and soil for growing climbing plants in existing garden beds.	$2,000	$2,000	100%	No	Equipment support grant max $2000 Community group in LGA
19	St Patrick's Mortlake	St Pat's Youth String Group	Run a youth string music group at the end of each month open to all children of diverse background and religions to help build sense of community and inclusive culture.	$596	$596	100%	No	• Social connection and wellbeing • Promoting diversity and inclusion • Learning skills

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
20	Sydney East Community College	Mentor Program Networking Night - Connecting Community	A networking night event that connects job-seekers with volunteer mentors to support the integration of professionally skilled migrants, refugees and asylum seekers into the workforce, enabling career continuity and fostering social connectedness and wellbeing.	$2,000	$2,000	100%	Yes	• Diverse CALD
21	Sydney Voices Incorporated	Equipment for Concert	Provide 1-2 hour concert showcasing repertoire including guest artists.	$1,000	$1,000	100%	No	• Social connection and wellbeing • Learning skills
22	The Australian Hokien Huay Kuan Arts Group	Enhance wellbeing of seniors via group dancing and singing and performances in community-based festivals	Drummoyne Civic Hall hire to provide dancing and singing performances in community-based festivals in the City of Canada Bay and Greater Sydney areas	$2,000	$0 (venue fee waiver in lieu of funding)	0%	Yes	• Venue hire waiver provided in lieu of funding • Increased social connection and wellbeing • Local performances • Diverse CALD

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
23	The Concordians Inc	EM Lane Concordians Museum	Relocating current small museum and set up new museum on grounds of Concord Hospital	$7,487	$2,000	27%	No	• Supports community • Includes equipment to a total of $7,000+. Equipment is only eligible under a social connection grant to a maximum $2,000.
24	The Shepherd Centre - For Deaf Children	Acoustic Skills: A life-changing music therapy program for children with hearing loss and their families in Canada Bay	Teaching children with hearing loss to communicate effectively and supporting their emotional wellbeing through interactive musical activities.	$4,954	$1,410	28%	No	• Supporting marginalised community • Children's program • Includes staff costs which is an ongoing operational expense and not eligible for funding
25	Touched by Olivia Foundation Limited	Storytime at Livvi's Place, Five Dock	Free twice weekly story time program including storytelling, music and craft run by people with disabilities at Livvi's Place, Five Dock for all families and all ages.	$2,000	$900	45%	No	• Supporting families and children • Promoting diversity and inclusion • Include $1,100 for salary and uniforms which are not eligible under the grant guidelines.

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% fund-ing	Fee waiver for venue required	Justification
26	Walking Football NSW	Introduction and the Development of Walking Football (Soccer) for Seniors, People with Disabilities, and socially-withdrawn or isolated people	Provide a free series of "Come and Try" Walking Football session	$1,500	$1,500	100%	Yes	• Promoting diversity and inclusion • Social connection and wellbeing • Equipment support grant max $2,000
27	Your Music Inc	Sensory Concerts	Provide sensory concerts to all members of the community equal access to professional live classical concerts, especially those who feel socially isolated due to their visible or non-visible disabilities, including autism, ADHD, and social anxiety.	$2,000	$2,000	100%	Yes	• Promoting diversity and inclusion • Social connection and wellbeing
	27 Projects			**$92,327**	**$65,987**		**7 Venue Hire Fee Waiver Requests**	

2024-25 Community Grants - Funding Recommendations

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% Fund-ing	Fee waiver for venue required	Justification
FUNDING NOT RECOMMENDED								
1	Cancer Patients Foundation	Look Good Feel Better	Look Good Feel Better offers cancer patients of all ages, genders, and cancer types the opportunity to learn practical strategies to manage the physical, psychological and social impacts of cancer treatment.	$7,000	$0	0%	No	• Ongoing operational expenses for existing programs are ineligible as per the grant guidelines
2	Communiteer Pty Ltd	Building a sustainable community ecosystem in the City of Canada Bay	Building a sustainable community ecosystem involving corporate, education institutions and Volunteer Involving Organisations in the City of Canada Bay.	$7,500	$0	0%	No	• Organisation did not meet eligibility criteria as a not-for-profit organisation
3	Community Action for Better Living	Care & Connect	Program for individuals and families who have experienced trauma, difficulties, and hardship including occupational therapy and speech therapy.	$7,500	$0	0%	No	• Ongoing operational expenses for existing programs e.g. staffing costs are ineligible as per the grant guidelines

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% Fund-ing	Fee waiver for venue required	Justification
4	Coro D'Abruzzo Sydney - Inc	Survival of Coro D'Abruzzo	Funding to provide musicians and conductors for an Italian choir.	$7,500	$0	0%	No	• Ineligible as budget items over $1,000 must provide evidence such as quotes
5	Early Years Intercultural Association	Children and Families in Community Adaptation Project (CAFIA)	Specialised and volunteer run community project to support children and families from refugee and minority migrant backgrounds who require adaptation support to adjust to a new culture, environment, and connect with family related services in Canada Bay.	$2,000	$0	0%	No	• Ongoing operations expenses for existing programs are ineligible as per the grant guidelines
6	Five Dock Chamber of Commerce	Five Dock Chamber of Commerce – Membership Growth	Enhance Chamber of Commerce's community presences with targeted marketing campaigns including website support.	$5,927	$0	0%	Yes	• Does not align with the social priority outcomes of the Community Grants Program
7	HeartKids Limited	HeartKids Emergency Support and Care Bags	Preparation of a HeartKids care bag to support families for long hospital stay when their child is diagnosed with Heart Disease.	$3,071	$0	0%	No	• Ongoing operational expenses for existing programs are ineligible under the grant guidelines

No.	Organisation Name	Project Name	Project Summary	Funding requested	Recom-mended funding	% Fund-ing	Fee waiver for venue required	Justification
8	Inner West Youth Orchestra	Inner West Youth Orchestra - family performance concerts	This project is to help support the Inner West Youth Orchestra with establishing quarterly performances open to family, friends and the community.	$3,996	$0	0%	No	• Does not meet the eligibility criteria as an incorporated not-for-profit organisation
9	Lucania Associazione	Cultural Country tour	An annual two-day event (Saturday and Sunday) for the senior members who do not drive to Yass/Young NSW to enhance social connections.	$2,000	$0	0%	No	• Does not meet the eligibility criteria as an incorporated not-for-profit organisation
10	Shared Reading NSW Incorporated	Life, the Universe and Stories: Reading for wellbeing	Train 8 volunteers to establish and facilitate 4 Shared Reading groups in Canada Bay. Shared Reading is evidence-based to promote wellbeing and improve mental health.	$7,500	$0	0%	No	• Duplication of existing program and resources facilitated by the libraries.
11	St Mary's Concord (The Trustee for Sydney Catholic Schools Trust)	School community engagement and participation	Encourage school community engagement and participation in school events and children's learning through digital noticeboard	$7,500	$0	0%	No	• Does not meet the eligibility criteria as an incorporated not-for-profit organisation
	11 Projects			**$53,502**	$0			

2. Environmental Grants Program - Funding Recommendations

2024-25 Community Grants - Funding Recommendations

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
1	**Abbotsford Community Centre**	Sustainable Water Station	The project at Abbotsford Community Centre (ACC) aims to install a water bottle refill station using existing plumbing, in line with the Sustainability Action Plan. This initiative promotes environmental stewardship and provides fresh water access for families. Sourced and installed by Civiq, anticipated outcomes include increased adoption of reusable bottles, reducing water wastage, and fostering community awareness of sustainable practices and environmental issues, cultivating a culture of sustainability.	$3,000	$3,000	100%	• Supports waste minimisation • Positive environmental impact • Defined Measurable outcomes • Detailed budget breakdown
2	**Abbotsford Public School**	A Garden for All 5 Senses!	We are planning to install a sensory garden at the front of the school to engage the senses of children of all learning and social abilities.	$2,600	$1,000	38%	• Transferred from Community Project Grant Program • Outcomes primarily emphasise social cohesion, but also contributes to biodiversity and environmental goals • Partial funding recommended • Clear budget

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
3	**Abbotsford Public School**	Environmental Support	Abbotsford Public School is dedicated to environmental initiatives, including a student-led effort by the Earthlings group. Led by Year 5-6 leaders, the group maintains classroom compost bins and cares for pollinator garden beds weekly. Funding will give access to the school to acquire soil and plants to utilize three dedicated pollinator garden beds. Additionally, they aim to split their native bee hive to enhance the pollinator habitat. Recent donations of native plants by Greening Australia will be maximized with grant support, investing in protective supports and barriers for tube stock.	$2,000	$2,000	100%	• Supports biodiversity in local area • Clearly defined outcomes and budget • Project furthers their commitment as partner in Council's canopy project
4	**Cabarita Mortlake Kindergarten Association**	Muddy patch	This project will be to improve on the current mud patch environment by adding plants to attract insects, a water tank for children to use rainwater in play and a small fence to close the area to children when required.	$1,000	$1,000	100%	• Focus on enhancing biodiversity • Clear budget and plan • Need to clearly define expected outcomes which demonstrate positive environmental impact through measurable results.

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
							Consideration should be given to quantifiable metrics such as insect and butterfly populations
5	**Climate Action Burwood Canada Bay**	The future for cooking is Induction	Climate Action Burwood/Canada Bay, a non-profit community group in the Reid electorate, is dedicated to raising awareness about climate change and advocating for solutions. While emphasizing the electrification of homes and businesses through solar panels, heat pumps, and electric vehicles, they also promote the affordability and environmental benefits of induction cooktops, often overlooked. Their project involves educating the public about induction cooking's health, cost, and environmental advantages through workshops and demonstrations across the City of Canada Bay LGA, aiming to inspire behavioural change through personal engagement.	$1,834	$1,834	100%	• Focus on climate change mitigation and community engagement • Clear, measurable outcomes and detailed budget breakdown • Aim to educate residents about induction cooking • Aligns with the Council's endorsement of transitioning to electrification initiatives

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
6	**Climate Action Burwood Canada Bay**	Speaking 4 the Planet	Speaking 4 the Planet provides a platform for young individuals to voice their concerns regarding climate change, recognizing their strong sentiments and genuine apprehensions about the future. This competition, open to all high schools within the Reid electorate and supported by the three Councils in the area, is held annually on World Environment Day (June 5th).	$1,250	$1,166	93%	• Transferred from Event Grant Program • Outcomes could be more clearly defined for measurability • Slightly reduced amount due to double application • Total amount allocated to CABCB is $3,000
7	**Concord Community Garden**	Concord Community Garden Community Outreach	The project at Concord Community Garden aims to achieve four main objectives: raising awareness of sustainable gardening practices through a comprehensive publicity campaign, fostering community connection by encouraging participation in workshops and garden membership to combat social isolation and promote cultural diversity, providing skill-building workshops on gardening topics for current members and the public, and maintaining the garden as an attractive and sustainable venue to showcase eco-friendly practices and	$2,622.26	$2,622.26	100%	• Raises awareness of sustainable gardening • Fosters community connection • Offers skill-building workshops • Maintains garden as eco-friendly venue • Need to outline how outcomes will be measured, e.g. tracking new member registrations and crop yields

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
			enhance social inclusiveness within the community.				
8	**Concord Kindergarten Association Incorporated**	Splitting Native Bee Hives	The project involves splitting the established native bee hives at Concord Kindergarten to create new hives. This will be done by hiring a professional native beekeeper who initially set up the existing hives. The attached invoice serves as evidence of the costs involved, as similar services were provided last year. The native bee population at Concord Kindergarten is thriving, necessitating the splitting of hives to accommodate their successful breeding.	$450	$450	100%	• Prior experience with hive splitting • Aims to boost native stingless bee population • Detailed budget breakdown provided
9	**Concord Occasional Childcare**	Native Garden for our Children and the Community	This Native Garden initiative, aims to establish a safe area for children and educators to cultivate edible native plants, fostering a love for gardening and sustainable living. This project not only brings joy and fulfillment to young minds but also nurtures their sense of responsibility towards the environment.	$1,719.24	$1,719.24	100%	• Aims to promote sustainability education • Clear budget breakdown • Enhances biodiversity • Applicant should clearly define outcomes demonstrating positive environmental

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
							impact to include in grant agreement
10	**Mortlake Public School**	Community Garden	The Student Representative Council at Mortlake Public Sschool aims to establish a community garden with the guidance of teachers and staff, building on their composition initiative launched in Term 1, 2024. They plan to implement procedures for collecting compost from classrooms, the canteen, and the community, and use grant money to purchase urban garden beds. This will facilitate the creation of an edible garden for a Kitchen Garden project, fostering sustainability and providing valuable learning opportunities for student leaders.	$3,000	$1,000	33%	• Mortlake previously received $1,000 grant for edible garden project • Application lacks detail on how the funds will be used • Budget unclear • No clearly defined outcomes regarding learning or behavioural changes
11	**PlantingSeeds Projects Limited**	PlantingSeeds Projects Limited	PlantingSeeds proposes to install B&B Highways (Bed and Breakfast for Birds, Bees, and Biodiversity) in three Canada Bay schools. This initiative aims to educate and equip	$7,500	$3,000	40%	• Aims to boost biodiversity in local schools • Lacks information on partnerships

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
			schools and communities with biodiversity and citizen science skills, while also revitalizing habitat and promoting well-being. Responding to research indicating a decline in urban pollinators, the project focuses on planting strategies that cater to their needs. The Canada Bay B&B Highway project is inclusive of all abilities, reflecting the diverse population of the City of Canada Bay. Resources have been developed in collaboration with the NSW Department of Education and the CSIRO's Atlas of Living Australia.				• Lacks clarity on accepting partial funding • If funded, agreement should mandate partnership confirmation with schools • Risk management strategies need to be outlined in case schools do not participate
12	**Rhodes Community Garden Incorporated**	Develop and implement small-scale propagation of native plants at Rhodes Community Garden	The Rhodes Community Garden has primarily focused on growing food crops for its members, with a secondary goal of maintaining native plant beds that support local wildlife. To further its environmental impact, the garden aims to start small-scale propagation of native plants sourced locally, with Council approval. While the garden will use some seedlings, any surplus will be offered to the Council, with no intention for commercial production.	$3,000	$3,000	100%	• Clear objectives and budget breakdown • Supports biodiversity • Pilot project that aligns with Council's interests in supporting community gardening initiatives

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
13	**Rosebank College**	Aquagarden project	Aquaponics serves as an engaging, real-world application of STEM principles, offering students insights into sustainable agriculture and ecosystem dynamics while fostering hands-on experience in science and environmental stewardship. This method effectively immerses students in ecological and food production systems, promoting critical thinking and problem-solving skills within a STEM framework.	$3,000	$3,000	100%	• Rosebank previously received a $2,000 grant in 2014 for an aquaponics system which may have been removed during renovation • Project outcomes must be clearly defined • Support for project contingent upon clarification of outcomes
14	**Russell Lea Public School**	Wildlife Corridor Project	The Wildlife Corridor Project is an ongoing endeavour at the school, initiated due to the impact of new construction on local species and native plants. Through past grant funding, efforts have been made to gradually restore the ecosystem by planting native gardens and designating areas for development. While some birdlife, bees, and lizards have increased, the goal is to reintroduce several species such as cicadas, Australian Painted Lady butterflies, and praying mantis.	$1,000	$1,000	100%	• Clear outcomes demonstrated, e.g. Participation in Birdlife Aussie Bird Count & collaboration with other organisations • Clearer budget breakdown is needed • Promotes Council's initiative of biodiversity enhancement

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Justification
	14 projects			**$33,975.50**	**$25,791.50**		

2024-25 Community Grants - Funding Recommendations

3. Event Grants Program - Funding Recommendations

No	Organisation Name	Project/event or activity title	Project Summary	Funding requested	Recommended funding	% funding	Fee waiver request	Justification
SMALL EVENTS – RECOMMENDED FOR FUNDING								
1	Holy Trinity Anglican church Concord West	Fair Trade Christmas Markets	Fair Trade Christmas market to promote the Fair Trade movement. Market includes 8-12 stalls, petting zoo and afternoon tea/ sausage sizzle.	$2,500	$2,500	100%	N/A	• Promotes Community Connection & Vibrant Urban Living
2	St Patrick's Mortlake	St. Pat's Christmas Market and Twilight Event	The Christmas market and twilight event will host market stalls, food trucks, and kids activities. Entertainment will include Christmas carols, bands and giveaways.	$2,500	$2,500	100%	N/A	• Promotes Community Connection & Vibrant Urban Living

SMALL EVENTS - NOT RECOMMENDED FOR FUNDING								
1	Amazon Women's Tennis	Free Social Tennis for LGBTQIA+ Women	Project will improve mental and physical health outcomes by providing a safe space for LGBTQIA+ women to participate in free social tennis afternoons.	$2,500	$0	0%	N/A	• Two applications submitted for the same project- this project is funded under the Community Project Grants Program
2	Concord Kindergarten Association Incorporated	Concord Kindergarten Welcome Picnic	A community event for the parents and children of Concord Kindergarten to bring local families together in a fun and interactive way.	$1,495	$0	0%	N/A	• Small event that primarily benefits a particular organisation.
3	Walking Football NSW	Introduction and the Development of Walking Football (Soccer) for Seniors, People with Disabilities, and socially withdrawn or Isolated People	Walking Football NSW Inc. (NFP) proposes to conduct a series of “Come and Try” Walking Football sessions where members of the public can play for free in a no-contact, safe game.	$1,500	$0	0%	N/A	• Two applications submitted for the same project- funded under the Community Project Grants Program

MEDIUM EVENTS - RECOMMENDED FOR FUNDING								
1	Australian Skateboarding Federation	King Of Concrete Skateboard Competition	KOC is a State/National Level Park competition for skateboarding sanctioned by the Australian Skateboard Federation. It draws the best skaters in Australia, as well as giving the best local skaters a platform to compete against Australia's best. It is also an event that draws families and spectators that enjoy an entertaining day at the skatepark.	$5,580	$5,079	91%	Yes	• Annual youth event bringing participants, and support crew to the local area and is a display for non-skating spectators. • Attracts spectators of all ages. • Promotes Community Connection & Vibrant Urban Living
2	Chiswick Community Activities Group	Movies Under the Stars 2024	'Movies Under the Stars' is an annual free event for everyone in the local community. It is an outdoor cinema in the park and a range of food and refreshments are available for purchase. There are also musical performances, prizes and other fun activities for kids as well.	$7,305	$5,871	80%	Yes	• Annual event is a great addition to the local community • Approx. 1,000 participants expected to attend • 100% of amount requested will be funded with the fee waiver approval for park hire
3	Drummoyne Markets	Drummoyne Twilight Makers Market	Temporary relocation of the Drummoyne Markets to activate the Formosa Street	$7,500	$6,550	87%	N/A	• Promotes Community Connection &

			shared space, connect with Sutton Place businesses, supporting the Drummoyne Art Society Annual Art Show.					Vibrant Urban Living
4	Major's Bay Chamber of Commerce Inc	Christmas on Major's Bay Road	Preparation of Christmas decorations, signs for activities and giveaways for children. Santa on Majors Bay Road. Entertainment associated with the event. Photo booth set up in Peter Woods Place, Christmas stalls and small stage area. Closure of Jellicoe Street for the main event.	$5,000	$5,000	100%	N/A	• Annual event building community & business connections • Promotes Community Connection & Vibrant Urban Living

5	Rotary Club of Drummoyne Inc	Halloween on Renwick Street 2024	Halloween on Renwick Street is an ongoing community project delivered for children and parents in partnership with the residents of Renwick Street Drummoyne, the Rotary Club of Drummoyne, local schools (expanding it through the City of Canada Bay), the local business community, local artists through the Drummoyne Art Trail and the Touched by Olivia Foundation.	$7,500	$7,500	100%	N/A	• Established event previously supported by Council through Place Management • Approx. 5,000 participants expected to attend • Funding will be provided to support event delivery with primary use of funds to be allocated to traffic management and attendee safety

MEDIUM EVENTS NOT RECOMMENDED FOR FUNDING								
1	Australian Nursing Home Foundation	Be a Savvy Senior, Skillful in Mobile Tech (Cantonese / Mandarin)	This project features two full-day events in Sep-Dec 2024, one for Cantonese-speaking seniors and another for Mandarin-speaking seniors. The events include a tech class on cyber scams and data protection, a mobile data backup lesson, and guidance on applying for My Aged Care and accessing aged care services.	$6,000	$0	0%	N/A	• Duplicating existing program (including events funded by other Council funding streams).
2	Dragon Sports Association (DSA)	DSA, Rhodes Dragon Race Festival	DSA propose to host a local dragon boat regatta, in Homebush Bay utilizing Foreshore Park as the hub. DSA will recruit racing teams composed from local community groups and businesses, to promote the sport and to promote and celebrate healthy living and local engagement and community.	$7,469	$0	0%	N/A	• Not eligible due to this year's event being postponed and therefore not acquitted. An extension of the 2023-24 Grant has been provided to complete the event in 2024-25.

3	Five Dock Chamber of Commerce	Five Dock Chamber of Commerce General Meeting & Networking Event	The Five Dock Chamber of Commerce is requesting support for a series of events designed to benefit local businesses and residents. The grant will partially cover critical expenses including: venue hire, catering, marketing materials, and social media promotion.	$7,490	$0	0%	N/A	• Full eligibility criteria not met.

MAJOR EVENTS – RECOMMENDED FOR FUNDING								
1	Rhodes Multicultural Community Association	Lunar New Year	To hold a joyous and festive event Rhodes in conjunction with the Lunar New Year.	$15,000	$15,000	100%	Yes	• Annual events that are important cultural activities in our community • They aim to foster harmony within the community through multiple day events held in Rhodes • Approx. 3,000 participants expected to attend each event
2	Rhodes Multicultural Community Association	Rhodes Mid-Autumn Festival /Moon Festival	To hold a joyous and festive event Rhodes in conjunction with the Mid-Autumn/Moon Festival.	$15,000	$15,000	100%	Yes	• Annual events that are important cultural activities in our community • They aim to foster harmony within the community through multiple day events held in Rhodes • Approx. 3,000 participants expected to attend each event

MAJOR EVENTS NOT RECOMMENDED FOR FUNDING								
1	Australian Chinese Ayers Association	Rhodes Dragon Boat Festival	The Rhodes Dragon Boat Festival is an annual cultural event in Rhodes, NSW, celebrating the ancient tradition of dragon boat racing and Multi culture. This vibrant festival brings together residents and visitors from diverse backgrounds to enjoy a day of exhilarating races, cultural performances, and family-friendly activities.	$15,000	$0	0%	N/A	• Duplicating existing event (including events funded by other Council funding streams).
2	Major's Bay Chamber of Commerce	Halloween on Major's Bay Road	A Halloween event involving the whole of Major's Bay Road and the surrounding community. Stalls, Face Painting, Rides, DJs, photographers, Lolly giveaways, and Specialist activities. All businesses to remain open and provide dining opportunities, and special entertainment would be provided along the main street. Decorations, signage and media coverage.	$15,000	$0	0%	N/A	• Alternate funding source identified. Event grant not required for 2024 event
			Total	**$139,718**	**$65,000**			**7 venue fee waiver requests**

2024-25 Community Grants - Funding Recommendations

PROJECTS RECOMMENDED FOR FUNDING IF THE UNALLOCATED BUDGET FROM THE ABOVE 2 GRANT PROGRAMS IS REALLOCATED

No	Organisation Name	Project Name	Project Summary	Funding requested	Recommended funding	% funding	Fee Waiver	Justification
A	Bloody Great Cause	1. International Women's Day Breakfast 2. A Bloody Great Night Out!	The Foundation for A Bloody Great Cause! is supported entirely by community volunteers, with 100% of all donations going directly to Concord Hospital's Haematology Clinical Research Unit, to provide world-class care locally.	$5,000	$5,000	100%	N/A	• Council has supported the Foundation over many years, including these 2 flagship events • Recommended Council continue its support
B	Breakfast Point NFP Ltd	Canada Bay Makers Festival	A festival to celebrate local Canada Bay makers and showcase the unique, handmade work of local artists and artisans in a friendly atmosphere.	$7,500	$3,360.75	45%	N/A	• Promotes Community Connection & Vibrant Urban Living • Supports Council's Cultural Plan
C	Embroiderers' Guild NSW	The River, Our Mother (Baaka ngamaka'inana)	A group exhibition featuring acclaimed contemporary artist Badger Bates, in collaboration with non-Aboriginal artists Judith Burns and Julie Paterson, exploring the condition of the Baaka (Darling) River and impacts of	$7,434	$3,360.75	45%	N/A	• Promotes Community Connection & Vibrant Urban Living Supports Council's Cultural Plan

			colonisation. Held over September and October 2024 at Gallery76 in Concord West, the exhibition will be open seven days a week and offers free entry.					
	3 projects			$19,934	$11,721.50			

2024-25 Community Grants - Funding Recommendations

City of Canada Bay

Community Grant Guidelines 2024

Community Project Grants

Event Grants

Environmental Grants

Document Set ID: 8164909
Version: 2, Version Date: 01/03/2024

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ABOUT
CITY OF CANADA BAY

Canada Bay is in the inner suburbs of Sydney

The City of Canada Bay Local Government Area (LGA) is located on the banks of the Parramatta River, approximately 6 kilometers from the Sydney Central Business District (CBD) and is bounded by the neighbouring LGAs of the Inner West, Burwood, Strathfield and Parramatta, and the Parramatta River.

Map of City of Canada Bay

Document Set ID: 8164909
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If Canada Bay had **100 people:**

1 person is Aboriginal or Torres Strait Islander

39 is the median age

19 people are aged under 18 years

8 people are aged 18-24 years

22 people are aged over 60 years

40 people were born overseas

40 people speak a language other than English at home

9 Mandarin
6 Italian
4 Cantonese
would speak these languages

4 people need assistance due to disability

12 people would volunteer

6 people would be studying at University

43 people have a university degree

If Canada Bay had **100 households:**

24 lone person households

4 group households

31 couples with children

28 couples without children

9 one parent households

44 households live in high density dwellings

$2311
median weekly household income:
15 low income households earning <$800 a week
43 high income households earning >$3000 a week

34 households are renting privately, while 3 are renting social housing

30 households owned outright

10 households don't own a motor vehicle

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COMMUNITY GRANT AIM

City of Canada Bay aims to provide grant opportunities for community projects which align with the priority areas identified in our Community Strategic Plan and other relevant Council plans.

AVAILABLE FUNDING GRANT SUMMARY

Grant Stream	Category	Funding Amounts per Application
COMMUNITY PROJECT GRANTS	Social Connection Grants	$2,000
	Community Development Project Grants	$7,500
EVENT GRANTS	Small Events	$2,500
	Medium Events	$7,500
	Large Events	$15,000 (Matched Contribution)
ENVIRONMENTAL GRANTS	Support Grants	$1,000
	Development Grants	$3,000

APPLICATION PROCESS

Prior to applying for funding, ensure you have thoroughly reviewed the guidelines.

If English is not your first language, you can use the Translating and Interpreting Service (TIS National) **131 450**, to speak to Help Line. TIS National is free and is available 24 hours a day, 7 days a week.

If you are deaf and/or find it hard hearing or speaking with people who use a phone, the National Relay Service (NRS) can help you:

- **Voice Relay number:** 1300 555 727
- **TTY number:** 1800 555 677
- **SMS relay number :** 0423 677 767

It is recommended that you discuss your application with a member of the grants team prior to applying.

COMMUNITY PROJECTS GRANTS

Ph: 9911 6555

Email: community.grants@canadabay.nsw.gov.au

EVENT GRANTS

Ph: 9121 0091

Email: events.grants@canadabay.nsw.gov.au

ENVIRONMENTAL GRANTS

Ph: 9911 6555

Email: environment@canadabay.nsw.gov.au

TIMEFRAME

Funding rounds open for applications.	**4 March 2024**	All applications must be submitted online. ***Click the link:*** https://www.canadabay.nsw.gov.au/community/get-involved/community-funding **Organisations can submit a total of 2 applications per year. Applications must be for different projects.*
Applications close	**12 April 2024**	Late applications will not be considered.
Applications are reviewed by an internal working group.	**April-May 2024**	Recommendations for funding are endorsed by Council.
You will be notified of the outcome of your application in writing.	**July 2024**	Successful applicants will be required to complete a funding agreement. Unsuccessful applicants are encouraged to seek feedback.
Successful applicants must complete an acquittal/evaluation report at the completion of their project	**June 2025**	Acquittals must be submitted within 12 months of receiving the grant or as stated in the funding agreement.

ACQUITTAL REQUIREMENTS

Funding Amount	Acquittal/Reporting Requirements
For funding up to $5,000	☐ Completed City of Canada Bay acquittal form, submitted via SmartyGrants. ☐ Provide receipts as proof of expenditure of funding. ☐ Provide photographs, flyers or other material relevant to the project. ☐ Provide proof of acknowledgment of Council's support e.g. "Supported by City of Canada Bay" logo on promotional material.
For funding between $5,001 to $14,999	☐ Completed City of Canada Bay acquittal form, submitted via SmartyGrants. ☐ Provide receipts as proof of expenditure of funding. ☐ Provide photographs, flyers or other material relevant to the project. ☐ Provide proof of acknowledgment of Council's support e.g. "Supported by City of Canada Bay" logo on promotional material. ☐ Provide a financial report of the project expenditure. ☐ Activities that included a fundraising component must include evidence of the donation e.g. receipt.
For funding $15,000 and over	☐ Completed City of Canada Bay acquittal form, submitted via SmartyGrants. ☐ Clear evidence of the outcomes of the project and how this has been measured. ☐ Provide receipts as proof of expenditure of funding. ☐ Provide photographs, flyers or other material relevant to the project. ☐ Provide proof of acknowledgment of Council's support e.g. "Supported by City of Canada Bay" logo on promotional material. ☐ Provide an audited financial report of the project expenditure. ☐ Activities that included a fundraising component must include evidence of the donation e.g. receipt.

COMMUNITY PROJECT GRANTS

The City of Canada Bay Community Project Grants aim to facilitate a connected and inclusive community where people are engaged and supported to participate. Community organisations are funded via this program for one-off projects to achieve this aim.

Projects must align with the outcomes or issues identified in the following Council Documents:
Community Strategic Plan (especially key direction 1- Connected Community), Community Safety and Civic Prevention Plan, Disability Inclusion Action Plan, Social Issues Paper.

For further information or assistance to apply for a Community Grant:

9911 6555

Eligibility:

- Not for profit incorporated organisations (unincorporated not-for-profit groups can apply if they have an incorporated not-for-profit group acting as an auspice)
- Organisations can submit up to two application per year (must be for different projects)
- Organisations to auspice up to two groups per year (in addition to up to grant applications from the organisation)
- Project must be located in City of Canada Bay or primarily service residents of the area
- Applicant must have acquitted previous funding
- Project must take place within the grant funding period (retrospective, recurrent or ongoing funding will not be provided)
- Applicants must provide a quote for items over $1,000
- Catering costs can be no more than 10% of total budget or up to $300 (whichever is greater)
- Equipment is eligible in the Social Connections Grants category only and the application must demonstrate how the equipment provides community benefit (equipment or uniforms for individual use are not eligible)
- Projects that involve working with children must demonstrate compliance with child safe guidelines and working with children legislation
- Projects must demonstrate that they have suitable insurance
- All requests for funding and in-kind support must be included in the grant application (Council will not provide additional support for grant funded projects outside of the grants program).

Ineligibility:

Ineligible Applicants

- Sole-traders or for-profit businesses/ activities
- Organisations that have an outstanding debt to City of Canada Bay or breach existing Council policies
- Political parties, schools (including P&C activities that primarily benefit a particular school), tertiary institutions or government organisations

Ineligible Projects

- Duplication of existing programs or projects (including projects funded by other Council funding streams)
- Projects where the primary purpose is fundraising or sponsorship.
- Projects seeking prize money or gifts for attendees
- Religious activities that promote a single faith
- Conference or academic course fees
- Funding for ongoing operational expenses such as rent, staff wages, office equipment, insurance and IT resources/ licences.
- Projects that do not meet the identified priority needs of City of Canada Bay
- Capital works on Council-owned or privately owned facilities.

ASSESSMENT CRITERIA

1) Project Details What are you doing? (Who, What, Where, When, How, Why?)	15%	**a.** Project is clearly defined with the proposed activities and timeframes.
2) Outcomes • How will your project benefit the community? • How does this align and address identified needs in the City of Canada Bay? • How will you measure the success of the program? Did it achieve the intended outcomes?	25%	**a.** Project will positive community outcomes. **b.** Project responds to an identified need or issue. **c.** Project aligns with relevant Council plans and strategies and the priority outcomes of the Community Projects Grants. **d.** Plan on how you would evaluate your project. **e.** Outlines how outcomes are measured and achievement demonstrated (for example, number of attendees, feedback from participants, photos of events or products produced).
3) Capacity Building • How will this project increase participation from the community and/or improve the capacity of the organisation?	20%	**a.** Project increases participation from the community and/ or improve the capacity of the organisation to service the community.
4) Budget • How much are your seeking? • How will you spend the money? Please itemise. • Are there any other sources of funding including in-kind contributions?	20%	**a.** Budget is well researched with evidence for costings for all project expenses (include quotes for items over $1000). **b.** Project includes a breakdown of expenses including any other sources of funding and in-kind contributions.
5) Capacity and Expertise • Tell us about your organisation ability to manage the project • Are you working with other groups or organisations?	20%	**a.** Organisation demonstrates experience and resources required to manage the project. **b.** The project has community support (for example, involves partnerships or opportunities for contribution/ collaboration).

SOCIAL CONNECTION GRANTS

FUNDING UP TO $2,000

Priority Outcomes

- Increase participation in community activities
- Improve connections and social networks
- Increase the social and physical well-being of residents

What types of Projects have been funded:

- Events to highlight community awareness e.g. Seniors Festival, Neighbour Day, Youth Week, Social Inclusion Week activities.
- Equipment to enhance community participation and/ or safety.
- Small projects to increase participation in community activities

COMMUNITY DEVELOPMENT GRANTS

FUNDING UP TO $7,500

Priority Outcomes

- Address issues that cause disadvantage and inequities
- Strengthen networks and partnerships between community organisations and groups
- Improve access to community services and resources

What types of Projects have been funded:

- Workshops to build employment experience for people with a disability
- Projects to provide support to people from culturally and linguistically diverse backgrounds to access services
- Projects to encourage and support the engagement of community volunteers

EVENT GRANTS

The Event Grants aim is to support community-based events and festivals which activate public areas, connect people to place and promote the diverse community and culture of the City of Canada Bay.

Projects must align with the outcomes identified in the following Council Documents:
Community Strategic Plan, Social Issues Paper

For further information or assistance to apply for an Event Grant:

9121 0091

Eligibility:

- Not-for-profit incorporated organisations (unincorporated not-for-profit groups can apply if they have an incorporated not-for-profit group acting as an auspice/sponsor).
- Event must take place in City of Canada Bay and primarily service residents of the area.
- Must have acquitted previous funding.
- Event must take place within the funding period (retrospective, recurrent or ongoing funding will not be provided).
- Event must be free or have a significant proportion of the event that is free to the general public.
- Event must have suitable insurance or demonstrate that they are able to obtain this ($20 million public liability Insurance).
- Must be able to provide an event risk assessment and other required documentation.
- Events that involve working with children must demonstrate that they can comply with child safe guidelines and working with children legislation.
- Must provide quotes for items over $1,000.
- Catering costs can be no more than 10% of total budget or $300 (whichever is greater).
- All requests for funding must be included in the grant application. This includes requests for in-kind services e.g. venue hire, waste removal (Council will not provide in-kind support for funded events outside of the grants program).

Examples of eligible budget items or sponsorship funding must be spent on:

- Venue or park hire
- Equipment hire for running event
- On-costs including waste management, traffic management, security, cleaning etc.
- Publicity
- Performers/entertainment (limit to 25% of budget)
- Catering (limit to 25% of budget)
- Decorations

Ineligibility:

Ineligible Applicants

- Sole-traders or for-profit business/event.
- Organisations that have an outstanding debt to City of Canada Bay.
- Political parties, schools (including P&C activities that primarily benefit a particular school), tertiary institutions or government organisations.

Ineligible Projects

- Duplicating existing event (including events funded by other Council funding streams).
- Event where the primary purpose is fundraising.
- Prize money or gifts for attendees.
- Events that breach existing Council policies.
- Religious events that promote a single faith.
- Conference or academic course fees.
- Funding for ongoing operational expenses such as rent, staff wages, office equipment, insurance and IT resources/ licences.
- Events that do not meet the identified priority needs of City of Canada Bay.

ASSESSMENT CRITERIA

1) Clear evidence project will address the City of Canada Bay's identified needs	25%	**a.** Aligns with relevant Council plans and strategies plus the priority outcomes of the Event Sponsorship Program. **b.** Has a clearly defined event with proposed activities and timeframes listed.
2) Outcomes	20%	**a.** Provides evidence of measurable and achievable outcomes for the community. **b.** Provides evidence of how the outcomes will be measured e.g. number of attendees, feedback from participants.
3) Capacity Building	15%	**a.** Provides evidence of how the event will increase participation from the community. **b.** Provides evidence of how the funding will enhance sponsorship and funding interest from other sources (including for future events).
4) Budget	20%	**a.** Provides a well-researched budget with evidence of costings for all event expenses (include quotes for items over $1,000). **b.** The budget is realistic and represents value for money. **c.** Budget clearly shows evidence of other income streams to support the event.
5) Capacity to manage the project	20%	**a.** Provide evidence of organisation's ability to manage a project- including the organisation's prior event management experience. **b.** Provide evidence of community support for the project e.g. identify partnerships or opportunities for contribution from other sources.

SMALL EVENT

FUNDING UP TO $2,500

Your event may be SMALL if it:

- Is likely to have 500 or less attendees.
- Is held indoors or in a small outdoor area.
- Targets a specific demographic or section of the community.

MEDIUM EVENT

FUNDING UP TO $7,500

Your event may be MEDIUM if it:

- Is likely to have 1,000 or less attendees.
- Is held outdoors in an open space.
- Targets a major section of the community.

MAJOR EVENT

FUNDING UP TO $15,000
(Matched Contribution)

Your event may be MAJOR if it:

- Is likely to have over 1,000 attendees.
- Is held outdoors in a large open space.
- Targets the broader community.
- Partners with various other organisations and businesses which contribute financially to the event.
- Involves significant infrastructure.

***Note:** Must demonstrate matched funding or contribution such as hire of equipment, advertising & promotion, staging related expenses.*

***Volunteer hours & performance fees cannot be included as an in-kind expense in this category.*

ENVIRONMENTAL GRANTS

Council is offering Environmental Grants to support sustainability and biodiversity projects in our local community. The grants program supports projects that promote sustainability outcomes including behaviour change, community engagement and increased skills and ability to participate in achieving environmental outcomes (that is, more than just infrastructure programs).

This program helps to deliver Council's strategic sustainability objectives as outlined in YOUR Future 2030, and the Environment & Resource Recovery & Waste Strategies is managed by the Sustainability Team.

For further information or assistance to apply for an Environmental Grant:

9911 6555

OBJECTIVES

The objectives of the Environmental Grants program are:

- To encourage and support environmental and sustainability outcomes in City of Canada Bay.
- To foster community engagement in projects that protect or enhance the environment.
- To deliver outcomes that align with Council's YOUR Future 2030 and the Environment & Resource Recovery & Waste Strategies outcomes of water, energy and greenhouse gas emission reductions.
- To encourage projects that develop knowledge, skills and active involvement about and for the environment.

Applicants Eligibility

Eligible Applicants

- Schools.
- Local incorporated not-for-profit organisations can apply including community groups, school Parents & Citizens groups, community-based early learning centres and conservation groups.
- Unincorporated community groups, only if sponsored by an incorporated organisation to support your group application. This means the sponsoring body agrees to and is responsible for administering the grant funding, financial expenditure, project progress, and reporting. When choosing a sponsor, we encourage you to choose one that is relevant to the sector and that can support the implementation of your project.

Ineligble Applicants

- State government organisations.
- Political parties.
- For profit organisations and businesses.
- Applicants with outstanding debts.
- Applicants with outstanding grant acquittals from previous Council grant funding.

Ineligible Projects

- Projects that have already been completed.
- Funraising activities or contributions to indiviudals.
- Staffing or operational costs (excluding suppliers/ contractors such as landscape architectd).
- Projects that are undertaken for commercial purposes.
- Projects that have already been allocated funds from another source.

Application and Assessment Process

Projects will be assessed on their merit, and how well they meet the selection criteria.

Examples of projects that may be considered include:

- litter education and prevention.
- water conservation and saving initiatives.
- energy conservation and saving initiatives.
- waste avoidance, minimisation and management.
- native gardens.
- construction of vegetable, permaculture or no-dig gardens.

Essential Criteria

The following criteria will be applied in assessing and prioritising project proposals:

1. **The application must demonstrate a clear rationale for the initiative with key deliverables clearly stated that address at least one of the funding priority areas:**
   - Climate change mitigation and adaptation
   - Protection and enhancement of the natural environment
   - Reduction in resource consumption such as water, energy or gas
   - Waste minimisation - resource recovery projects that focuses on re-use, waste reduction and/or recycling.
   - Sustainability education and community engagement
2. **Demonstrate a positive environmental impact in the short and long term with measurable outcomes.**
3. **Demonstrate clear and achievable outcomes.**
4. **Capacity and demonstrated ability that the applicant is able to successfully undertake and deliver the project within the agreed timeframe.**
5. **Demonstration of a realistic budget with breakdown of proposed income and expenditures.**
6. **The project can demonstrate links to Council's strategic sustainability outcomes.**
7. **Evidence of collaboration and partnerships with other organisations.**
8. **Long term sustainability of project past the grant funding timeframe.**
9. **Projects intending to conduct on-ground activities on Council land need to obtain a letter of support from the relevant Council department. This requirement ensures alignment with current works programs and management plans.**

ASSESSMENT CRITERIA

1) Clear evidence project will address the City of Canada Bay's identified needs	25%	**a.** Aligns with relevant Council environmental, biodiversity or waste plans or strategies **b.** A creative, innovative or robust project that demonstrate a clear vision and delivery of environmental outcome(s)
2) Outcomes	20%	**a.** Provides evidence of measurable and achievable outcomes for project **b.** Provides evidence of how the outcomes will be measured e.g. amount of waste reduced, feedback from participants, etc.
3) Capacity Building	20%	**a.** Provides a clear strategy for education and/or engagement of the community, participants and/or audience **b.** Involvement of multiple stakeholders from the wider community **c.** Effective promotion of project outcomes to a wide audience, this includes recognition of Council's contribution
4) Budget	20%	**a.** Provides a clear and well-balanced budget which demonstrates matching funds including funding from other streams, cash contribution and in-kind contribution, if appropriate. **b.** The budget is realistic and represents value for money.
5) Capacity to manage the project	15%	**a.** Provides evidence of organisation's ability to manage a similar project. **b.** Provides evidence of community support for the project e.g. identify partnerships or opportunities for collaboration from other areas.

Avaliable Funding

A total of $30,000 in grant funding is available in two different categories:

SUPPORT GRANTS

FUNDING UP TO $1,000

To expand on existing projects.

DEVELOPMENT GRANTS

FUNDING UP TO $3,000

For the implementation of new projects.

Grant amounts are cash values excluding GST.

Grant funding will take the form of a financial payment only. If part funding by Council is offered, the applicant may be required to submit a revised budget to Council to demonstrate the project can be delivered with partial grant funding. Part of the assessment will be to establish the financial need of the organisation to access Council funded programs.

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BUDGET

All applications are required to provide a balanced and realistic budget outlining all sources of income and expenditure for the project/event.

Budget Tables

STEP 1
INCOME

- List the anticipated amount you are expecting as a City of Canada Bay grant.
- List other sources of income such as other grants, contributions from your organisation etc.

STEP 2
IN-KIND CONTRIBUTIONS

- List any in-kind support (non-monetary donation or contribution) your organisation can provide and the estimated dollar value e.g. volunteer hours, venue hire.

STEP 3
EXPENDITURE

- Clearly list all items that you will be paying for as part of your project. This should include in-kind amounts you are anticipating from Council e.g. venue hire.
- Quotes or estimates from suppliers are required for all items over $1,000.

STEP 4
BALANCE

- The income amount (Step 1) should be equal to expenditure amount (Step 3). In-kind amounts will support your application but will not be included in the total.

City of
Canada Bay

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Delivery Program 2022–26 and Operational Plan 2024-25 — summary of public submissions and internal feedback

Delivery Program 2022–26 and Operational Plan 2024–25 — external submissions

Submission reference number	Summary	Verbatim submission	Council officer response	Impact on Delivery Program 2022–26 and Operational Plan 2024-25 — recommendation
Collaborate Canada Bay 25605	Request expediting of enhancements to Victoria Road Precinct at Drummoyne.	After reviewing the proposed capital works projects listed for 22-26, it is absolutely pathetic to see that Victoria Rd, Drummoyne is only receiving $4 million for the whole stretch of road for urban renewal. Drummoyne is a major gateway to Canada Bay and is a long stretch of road that requires complete footpath renewal, bike lanes, street trees and improvements to lighting (and needs street banners like Five Dock- why do we miss out? Drummoyne is currently 2nd largest precinct in terms of population and will drop to 5th by 2036, however 2nd - 5th positions are all extremely close in population, yet you are spending $8 million on Strathfield Triangle Domain, $6 million on Rhodes public domain and $2 million on an intersection upgrade at George and Pomeroy Streets! Realistically, how can you achieve all that you say you will do in Drummoyne's Urban Design Review Document, with $4 million, when a small domain is given $6 million and $8 million. Also, you talk about sustainaibility [sic] and have only $800K targeted for Bike Plans. Not good enough. You need to revisit the scope of works and add in extra money for Victoria Rd, of you want to achieve decent outcomes for this gateway. It's a long stretch of road that needs so much attention. Don't promise the world with fancy documents with mocked up images to get us excited. Commit the right amount of funds and spend them. It is just	Victoria Road is classified a State Road, Council does not have authority to make changes to the road in relation to reallocation of road space for bike paths, expanded footpaths and the like. However, local streets adjacent and parallel to Victoria Road are under Council management, and therefore Council has invested significant infrastructure improvements to Drummoyne's local streets in recent years. This has included the preparation of the *Victoria Road Urban Design Review* in 2020, which identified potential improvements to the public domain near/adjacent to Victoria Road, as well as the changes to the types of development permissible in the town centre study area. This piece of work led to the rezoning of certain land in Drummoyne in 2022 and was subsequently followed by the adoption of a development control plan to guide future development and their interface with the public domain. In 2020-21, based on the *Victoria Road Urban Design Review*, Council trialled the establishment of two new town square/public spaces in Church Street and Formosa Street in Drummoyne. Investment was put into the closure of these two	The focus on Drummoyne Public Domain enhancements is being prioritised for delivery after completion of planning and design scheduled for 2024-25. This is a complex precinct and Council will continue to engage and work with the State Government to address issues caused by the new tunnel and impacts on Victoria Road.

Submission reference number	Summary	Verbatim submission	Council officer response	Impact on Delivery Program 2022–26 and Operational Plan 2024-25 — recommendation
		not fair. For many years, Drummoyne has been stripped of capital money, at the expense of other suburbs. We will not take it anymore and are prepared to rise up and make it known. (I also can't put my postcode in the field as it's not letting me - it's [redacted]). I also want a response and it also won't let me submit the email address we use for our business use - [redacted] - please fix your fields for submission.	streets and transforming these spaces from vehicular roadways into places for people to sit, dwell and actively enjoy the outdoors and cultural life. In late 2022, these public squares were made permanent through significant capital investment in construction and making these temporary places into permanent public spaces for the community. Over the next four years, Council will continue to provide funding to improve Drummoyne Town Centre. This is reflected in the forecasted capital funding for Drummoyne, in-line with the next phase of works planned in Drummoyne. In 2024-25 detailed designs will be prepared for public domain improvements, focusing on footpath upgrades along Victoria Road. Construction works will subsequently follow in future years. Comments on the engagement system data entry form are noted. The supplied details had saved in the system. Council apologises for any inconvenience caused and will test forms in the future to avoid this issue.	
ECM DocSetID 8224274	Council should place more emphasis on road maintenance and renewal.	Thank you for your email and the information contained there in [sic]. The projects all have merit and deserving of implementation, but one does wonder, given that many residents are subject to cost of living pressures, and given the future rate increase, would it not be more appropriate to direct certain of these funds towards essential road works. I appreciate that council does allocate funds	While road maintenance is a critical component of our infrastructure, it's essential to adopt a holistic approach that considers the entire asset portfolio. Our asset management strategy is designed to optimise the allocation of resources across various asset classes, including roads, parks, stormwater, buildings and more.	No change to Delivery Program and Operational Plan. Commonwealth Government has written to Canada Bay, re the Roads to recovery funding. Council will receive $3.551M over 5 years and budgets have been adjusted to reflect this additional funding.

Submission reference number	Summary	Verbatim submission	Council officer response	Impact on Delivery Program 2022–26 and Operational Plan 2024-25 — recommendation
		for this purpose, however many of the most used roads in our LGA are in need of attention.	This strategic framework ensures that investment is prioritised based on a thorough understanding of asset condition, performance, and the community's evolving needs. Council manages 226 km of local roads and for the 2024-25 financial year, $12.4M of the budget will be invested in renewal and maintenance of roads and related infrastructure such as footpaths and cycleways. This includes $3.9M on road renewal and maintenance. There are over 18km of main roads that traverse our local government area which are classified as state roads. The responsibility for maintenance and repair of state roads rests with Transport for NSW.	

Delivery Program 2022–26 and Operational Plan 2024-25 — internal amendments

Draft document page number	Subject	Amendment
8	Introduction - Mayor	Updated following closure of exhibition period, with adjusted budget figures following budget review.
9	Introduction – General Manager	Updated to remove call to action for exhibition period which has now closed.

Minor typographical errors identified during exhibition that did not affect the intent of the document were corrected prior to the final copy presented on the agenda.

Changes to operating budget for 2024-25

The following section includes proposed changes to the exhibited draft budgets. It is proposed to increase the general income from rates in 2024-25 by the maximum allowable percentage set by IPART of 5.3%. The minimum rate for 2024-25 may be set at no more than $953.95 as determined by IPART. The Statement of Revenue Policy as exhibited will be replaced in the Operational Plan with the following tables:

- Table 1: Operational budget including capital grants and contributions
- Table 2: Capital expenditure

Individual Business Unit budgets will be updated in the Delivery Program to match the budget shown in Table 1. The charts on page 74 of the draft Delivery Program will also be updated based on the information provided below.

Table 1: Operational budget forecasts as exhibited and as amended following the IPART determination and the quarterly budget review process

	Exhibited forecast 204-25	Proposed forecast 2024-25	Change	Explanation
Operational budget				
Operating income				
Rates and annual charges	71,109,067	71,109,067	0	
User fees and charges	21,645,210	21,590,288	(54,922)	Increase in fire safety audit fees up $8K Kokoda Track Income adjustment down $63K
Other revenue	6,747,581	6,747,581	0	
Other income	4,444,619	4,445,619	0	
Grants and contributions – operational	6,525,446	6,506,285	(19,161)	Loan subsidy grant of $82K removed, as balance paid in 2023-24 Roads to Recovery Grant allocation increased- $63K
Grants and contributions – capital	11,419,743	12,875,218	1,455,475	Grant funding adjusted to match expenditure for the following projects: • Deakin St Foreshore Access – down $1,029k • St Lukes Oval Redevelopment Stage 1 – down $800k • Timbrell Park Sportsfield Upgrade – down $500k • Road Resurfacing Program – down $400k • Renew Iron Cove Seawall- Sisters Bay to Birkenhead Point – down $86k • Taplin Park playground fence – up $11k • Playground upgrade –Brett Park – up $71k • Howley Park East Upgrade - up $1,187k • Regional Cycleway Upgrade - RMS Grant – up $3,000k
Interest	7,058,000	7,058,000	0	

Total operating income	**$128,950,666**	**$130,332,058**	**$1,381,392**	
Operating expenses				
Employee costs	50,545,078	50,555,359	10,281	$8K change in wages in Building and Compliance $2K change in wages in Roads and Traffic
Borrowings	587,337	587,337	0	
Materials and services	41,407,437	41,406,947	(490)	Change in roads and traffic – up $490
Depreciation	17,527,678	17,527,678	0	
Other expenses	7,462,245	7,179,682	(282,563)	Change in Fire and SES service levy - down $282K
Net loss from disposal of assets	0	0	0	
Total operating expenditure	**117,529,775**	**117,257,003**	**(272,772)**	
Surplus/(deficit) from continuing operations	**11,420,891**	**13,075,055**	**1,654,164**	
Operating result – surplus/(deficit)	**1,148**	**199,837**	**198,689**	

Table 2: Capital budgets as exhibited and with recommendations following third quarter review

Projects	Exhibited budget 2024-25	Proposed budget 2024-25	Change	Explanation
Buildings	**$**	**$**	**$**	
Buildings Renewal	2,853,378	4,509,043	1,655,665	Re-phased from 2023-24
Annual Building and Facility Accessibility Works Program	300,000	300,000	0	
Five Dock Park Amenities Building renewal	300,000	300,000	0	
Drummoyne Pool Renewals	300,000	300,000	0	
Cabarita Pool Renewals	300,000	300,000	0	
Sustainability Program (Net Zero by 2030) - Buildings	350,000	350,000	0	
Bayview Park Toilet - New Amenities Building	675,000	800,242	125,242	Name changed from: Bayview Park Toilet - Design Phase - Knockdown & Rebuild Re-phased from 2023-24

Projects	Exhibited budget 2024-25	Proposed budget 2024-25	Change	Explanation
New Public Toilet	90,000	90,000	0	
Buildings Innovation Program	300,000	300,000	0	
St Lukes Oval (Concord) Redevelopment Stage 1	950,000	150,000	(800,000)	Construction re-phased to 2025-26
Library Building Upgrades	90,000	90,000	0	
Beaconsfield Site – Green Corridor Establishment	0	496,559	496,559	Re-phased from 2023-24
Drummoyne Pool - Sustainability Project Electric Heat Pumps	0	315,000	315,000	Re-phased from 2023-24
Queen Elizabeth Park Toilet Block	0	500,575	500,575	Re-phased from 2023-24
Public toilet - McIlwaine Park	0	291,677	291,677	Re-phased from 2023-24
Five Dock Library- Partial Interior Upgrade	0	195,057	195,057	Re-phased from 2023-24
Five Dock Leisure Centre Renovation	0	685,531	685,531	Re-phased from 2023-24
Wangal Reserve Amenities Upgrade	0	210,868	210,868	Re-phased from 2023-24
Majors Bay Village Renewal	0	50,000	50,000	Re-phased from 2023-24
Shade Structure Renewals Program	0	100,000	100,000	Change in reporting category
Sub-total	**6,508,378**	**10,334,552**	**3,826,174**	
Project Management Office	**$**	**$**	**$**	
Rhodes Recreation Centre	23,000,000	36,000,000	13,000,000	Budget adjusted to reflect project being completed by 30/6/2025.
PMO Projects	1,388,947	1,388,947	0	Name changed from Major Projects - City Services and Assets
Timbrell Park Sportsfield Upgrade	1,750,000	999,346	(750,654)	Rephasing to future years
Project Management Office	1,319,315	1,100,015	(219,300)	Part of the Budget provision reallocated to Plans of management, PMO system, Business cases and strategies
Plans of Management and Masterplans	0	120,000	120,000	New – PMO Office budget reallocation
Depot Relocation Investigation	0	293,456	293,456	Re-phased from 2023-24
PMO System	0	49,315	49,315	New - PMO Office budget reallocation
PMO Business Cases and Strategies	0	50,000	50,000	New - PMO Office budget reallocation

Projects	Exhibited budget 2024-25	Proposed budget 2024-25	Change	Explanation
Shade Structure Renewals Program	50,000	0	(50,000)	Moved to buildings
Sub-total	**27,508,262**	40,001,079	**12,492,817**	
Finance	**$**	**$**	**$**	
Finance	791,543	791,543	0	
Sub-total	791,543	791,543	**0**	
Fleet Services	**$**	**$**	**$**	
Fleet - Vehicles (Trucks, Utes, Trailers, Mowers)	900,000	900,000	0	
Fleet - Lease Back Vehicles (Sedans and Wagons)	1,116,000	1,116,000	0	
Small Plant - Engineering	32,000	32,000	0	
Small Plant - Parks & Gardens	32,000	32,000	0	
Sub-total	**2,080,000**	**2,080,000**	**0**	
Digital and Information Services	**$**	**$**	**$**	
Information Technology Projects	100,000	100,000	0	
Sub-total	**100,000**	**100,000**	**0**	
Library and Community Services	**$**	**$**	**$**	
Concord Library Furniture and Fittings	8,880	8,880	0	
Five Dock Library Furniture	6,980	6,980	0	
Library Audio/Visual	42,380	42,380	0	
Library Books	326,790	326,790	0	
Library Periodicals	38,890	38,890	0	
Library Cataloguing and Processing	126,720	126,720	0	
The Learning Space - Furniture and Fittings	11,040	11,040	0	
Library RFID Equipment Replacement SRV	0	78,000	78,000	Re-phased from 2023-24

Projects	Exhibited budget 2024-25	Proposed budget 2024-25	Change	Explanation
Sub-total	**561,680**	**639,680**	**78,000**	
Open Space	**$**	**$**	**$**	
Annual Shade Renewal Program	50,000	0	(50,000)	Moved Shade Structure renewal program to Buildings
Annual Outdoor Exercise Equipment Program	50,000	50,000	0	
Deakin St Foreshore Access	1,957,855	518,465	(1,439,390)	Re-phased to future year
Urban Canopy Street Tree Masterplan	65,000	110,000	45,000	Re-phased from 2023-24
Urban Canopy Tree Planting	200,000	200,000	0	
Parks Renewal Program - Non - Playground Equipment	100,000	100,000	0	
Catchment Management - Study and Implementation	0	0	0	
Playground Accessibility Improvements	150,000	150,000	0	
New Playground - Rothwell Park	0	0	0	
Playground upgrade - Chiswick Park	10,000	10,000	0	
Playground upgrade - Central Park	280,000	291,600	11,600	Re-phased from 2023-24
Playground upgrade - Henry Lawson Park	10,000	10,000	0	
Playground upgrade - Coralie Reserve	95,000	95,900	900	Re-phased from 2023-24
Playground upgrade - Croker Park	10,000	10,000	0	
Water and Wellbeing Stations	120,000	120,000	0	
Strathfield Triangle Playground	20,000	0	(20,000)	Re-phased to future year
Pedestrian Access Mobility Plan improvements	100,000	100,000	0	
Urban Canopy - Asset Management	20,000	60,003	40,003	Re-phased from 2023-24
Howley Park East Upgrade	74,840	1,187,128	1,112,288	Re-phased from 2023-24
Golf Course Safety Screens	320,000	356,000	36,000	Re-phased from 2023-24
Queen Elizabeth Park Commemorative Garden Restoration	300,000	336,000	36,000	Re-phased from 2023-24
Massey Park Golf Improvement Works	100,000	100,000	0	Name changed from Golf Courses Improvement Works

Projects	Exhibited budget 2024-25	Proposed budget 2024-25	Change	Explanation
Open Space Planning & Recreation	123,485	123,485	0	
Sportsfield Rebuild - Queen Elizabeth	264,000	264,000	0	
Majors Bay Reserve - Car parking expansion	25,000	0	(25,000)	Project removed
Playground Design Strategy	50,000	50,000	0	
Annual Skateboard Park Renewal Program	0	149,508	149,508	Re-phased from 2023-24
Wangal Reserve and Punt Park POM Actions	0	82,407	82,407	Re-phased from 2023-24
Drummoyne Oval/ Taplin Stormwater re-use	0	306,422	306,422	Re-phased from 2023-24
Playground upgrade - Brett Park	0	242,376	242,376	Re-phased from 2023-24
Taplin Park playground fence	0	22,896	22,896	Re-phased from 2023-24
Utz Reserve upgrade	0	184,075	184,075	Re-phased from 2023-24
Fred Kelly Place – Design	0	50,000	50,000	New
Lovedale Place improvements	0	75,000	75,000	New
Sub-total	**4,495,180**	**5,355,265**	**860,085**	
Roads and Traffic	**$**	**$**	**$**	
Annual Accessibility Works Program (Bus Stop Upgrades etc)	200,000	200,000	0	
Annual Capital Works Traffic Facilities Program	210,000	210,000	0	
Annual Footpath Renewal Program	560,000	560,000	0	
Annual Kerb/Gutter Renewal Program	210,000	210,000	0	
Annual Regional Roads Program	128,000	128,000	0	
Annual Road Pavement Renewal Program	651,322	651,324	2	
Road Resurfacing Program	1,500,000	1,500,000	0	
Roads To Recovery Program	478,000	541,079	63,079	Additional funding from Commonwealth Govt.
The Terrace - Embankment Stabilisation	75,000	75,000	0	

Projects	Exhibited budget 2024-25	Proposed budget 2024-25	Change	Explanation
Traffic Committee Initiatives	40,000	40,000	0	
Rhodes Station Public Domain Construction works	500,000	3,000,000	2,500,000	Name changed from- Public Domain Plan Transport Interchange at Station Precinct
Victoria Road, Drummoyne - Public Domain design/construction	0	202,000	202,000	Re-phased from 2023-24
Annual Bridge Renewal Program	46,000	46,000	0	
Canada Bay Bike Plan Implementation Program	200,000	0	(200,000)	Project re-phased to 2025-26
Clermont Lane - Parking Barrier	50,000	152,317	102,317	Re-phased from 2023-24
Local Roads Heavy Patching Program	350,000	350,000	0	
Greenlees Avenue - Design and Construct parking treatment	150,000	150,000	0	
Wellbank Street - design and construct parking treatment	115,000	115,000	0	
Phillip Street - Construct car parking treatment	200,000	100,000	(100,000)	Allocation reduced in 2024-25
Mortlake LATM	300,000	300,000	0	
Shoreline Drive at Annie Leggatt Promenade, Rhodes	191,000	191,000	0	
Majors Bay Village Renewal	50,000	0	(50,000)	
Regional Cycleway Upgrade - RMS Grant	0	3,000,000	3,000,000	Re-phased from 2023-24
Five Dock Park - Car parking Upgrade - POM action item	0	400,000	400,000	Re-phased from 2023-24
Metered parking replacement and upgrade	0	236,250	236,250	Re-phased from 2023-24
Sub-total	**6,204,322**	**12,357,970**	**6,153,648**	
Strategic Assets and Innovation	**$**	**$**	**$**	
Drainage Renewal and Relining Program	700,000	700,000	0	
Seawall Renewal-Cap	200,000	200,000	0	
Annual Stormwater Management Program	428,500	428,430	(70)	

Projects	Exhibited budget 2024-25	Proposed budget 2024-25	Change	Explanation
Renew Iron Cove Seawall- Sisters Bay to Birkenhead Point	2,000,000	2,000,000	0	
Drainage - Re-Lining Rothwell to Rhond	400,000	400,000	0	
Floodplains - Future Flood Studies, FRMS, FRM	120,000	120,000	0	
Pedestrian Crossing Safety Lighting Improvement Program	450,000	450,000	0	Name changed from: Pedestrian Crossing Safety Improvement Program
Kings Bay Seawall - Barnwell Park Canal Outlet Zone	200,000	0	(200,000)	Project re-phased to future year
Saltwater Creek and Exile Bay Seawall naturalisation	1,750,000	793,509	(956,491)	Project re-phased
Annual Lighting and Pole Renewal	335,000	335,000	0	
Sub-total	**6,583,500**	**5,426,939**	**(1,156,561)**	
Street Tree Program	**$**	**$**	**$**	
Street Tree Replacement Program	250,000	250,000	0	
Sub-total	**250,000**	**250,000**	**0**	
Venue Management	**$**	**$**	**$**	
Venue Management	56,000	56,000	0	
Sub-total	**56,000**	**56,000**	**0**	
Total	**55,138,865**	**77,393,028**	**22,254,163**	

Fees and Charges 2024-25 — external submissions

One external submissions was received in relation to the Fees and Charges 2024-25.

Submission reference number	Summary	Verbatim submission	Council officer response	Impact on Fees and Charges — recommendation
ECM DocSetID 8205621 V1	Endorsement for green fees as exhibited for Massey Park Golf Course.	1 March 2024: The board of Massey Park Golf Club have considered Councils [sic] request for our input into proposed Green Fee increases at Massey Park Golf Course for 2025. We are proud of the growth in golf at Massey Park under our management over the past few years including record women's and Junior beginners' participation. Council enjoys strong revenue from Massey Park Golf Course. We believe that increasing green fees may make Massey Park less competitive at a time of well documented cost of living pressure. We submit to Council that Green Fees should remain as is for 2025. Should Council elect to increase green fees we would suggest the following: [see table in ECM file 8205621, which recommends an uplift in all fees except for members] 12 March 2024: Confirmation email from the club that a 5% increase would be acceptable, with a request that the fees to be rounded to the nearest 50c.	Council's draft Fees and Charges that were placed on public exhibition included the 5% increase with rounding applied to take the fees to the nearest 50c as suggested by the Club. No further submission was received regarding the exhibited Fees and Charges for green fees at Massey Park.	No change to the exhibited fees required.

Fees and Charges 2024-25 — internal changes

Fees and Charges 2024-25	Exhibited	Revised	Change	Explanation
Developments Involving Erection of Buildings, Carrying out of Works, or the Demolition of Buildings or Works at Work Value – Statutory				
DA for development up to $5,000	$138.00	$144.00	+$6	Development application fees are contained in Schedule 4 of the *Environmental Planning and Assessment Regulation 2021* and set annually by the NSW Department of Planning and Environment. https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 2.1
Between $5,001 - $50,000	$212 plus $3.00 for each $1,000 or part above $5,000	$220 plus $3.00 for each $1,000 or part above $5,000	+$8	
Between $50,001 - $250,000	$442 plus $3.64 for each $1,000 or part above $50,000	$459 plus $3.64 for each $1,000 or part above $50,000	+$17	
Between $250,001 - $500,000	$1,455 plus $2.34 for each $1,000 or part above $250,000	$1,509 plus $2.34 for each $1,000 or part above $250,000	+$54	
Between $500,001 - $1 Million	$2,189 plus $1.64 for each $1,000 or part above $500,000	$2,272 plus $1.64 for each $1,000 or part above $500,000	+$83	
Between $1 Million – less than $10 Million	$3,281 plus $1.44 for each $1,000 above $1 Million	$3,404 plus $1.44 for each $1,000 above $1 Million	+$123	
Greater than $10 Million	$19,916 plus $1.19 for each $1,000 above $10 Million	$20,667 plus $1.19 for each $1,000 above $10 Million	+$751	
Development application for development involving the erection of a dwelling house with an estimated cost of $100,000 or less	$571.00	$592.00	+$21	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 2.3
DA not involving building work, demolition or sub division	$357.00	$370.00	+$13	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 2.7

Fees and Charges 2024-25	Exhibited	Revised	Change	Explanation
Additional fee for development application for designated development	$1,154.00	$1,198.00	+$44	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.3
Development Applications - Modification of a Consent Under Section 4.55 and 4.56				
Section 4.55 (1) – Corrections	$89 under EPA Regulation 2021 Schedule 4 Clause 4.1	$92 under EPA Regulation 2021 Schedule 4 Clause 4.1	+$3	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.1
Section 4.55 (1A) – Minor modifications	Lesser of $809 or 50% fee for original application	Lesser of $839 or 50% fee for original application	+$30	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.2
S4.55 (2) of the Act, or under section 4.56 of the Act if the fee for the original application was less than $100.	50% of the fee for the original development application	50% of the fee for the original development application	No change	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.3 (a)
S4.55 (2) of the Act, or under section 4.56 of the Act where the fee of the original application was more than $100 but does not involve the erection of a building, the carrying out of work or the demolition of a work or building.	50% of the fee for the original development application	50% of the fee for the original development application	No change	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.3 (b)
S4.55 (2) of the Act, or under section 4.56 of the Act where the original application was for a dwelling house with an estimated cost of construction of $100,000 or less.	$238.00	$247.00	+$9	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.4
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $5,000.	$69.00	$71.00	+$2	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.5
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $5,001-$250,000.	$106 plus an additional $1.50 for each $1,000 (or part of $1,000) of the estimated cost exceeds $5,000	$110 plus an additional $1.50 for each $1,000 (or part of $1,000) of the estimated cost exceeds $5,000	+$4	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.5
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $250,001-$500,000.	$627 plus an additional $0.85 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $250,000.	$651 plus an additional $0.85 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $250,000.	+$24	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.5

Fees and Charges 2024-25	Exhibited	Revised	Change	Explanation
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $500,001-$1,000,000.	$894 plus an additional $0.50 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $500,000.	$927 plus an additional $0.50 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $500,000.	+$33	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.5
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $1,000,001-$10,000,000.	$1,238 plus an additional $0.40 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $1,000,000.	$1,285 plus an additional $0.40 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $1,000,000.	+$47	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.5
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of more than $10,000,000.	$5,943, plus an additional $0.27 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $10,000,000.	$6,167, plus an additional $0.27 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $10,000,000.	+$224	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.5
Additional fee for modification application if notice of application is required to be given under the Act, section 4.55(2) or 4.56(1)	$835	$866	+$31	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.6
Additional fee for modification application that is accompanied by statement of qualified designer	$954.00	$990.00	+$36	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 4.7
Development Applications | Other Developments – Statutory				
Development for the purpose of one or more advertisements.	$357 plus an additional $93 per advertisement in excess of one, or the fee in accordance with the above table, whichever is greater.	$371 plus an additional $93 per advertisement in excess of one, or the fee in accordance with the above table, whichever is greater.	+$14	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 2.2
Additional fees payable for development that requires advertising				

Fees and Charges 2024-25	Exhibited	Revised	Change	Explanation
a. in case of designated development	$2,785.00	$2,890.00	+$115	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.5
b. in case of advertised development	$1,386.00	$1,438.00	+$52	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.6
c. in case of prohibited development	$1,386.00	$1,438.00	+$52	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.7
d. in case of development for which an environmental planning instrument requires notice to be given otherwise than as referred to in a, b or c above.	$1,386.00	$1,438.00	+$52	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.8
e. Development Application that is accompanied by a voluntary planning agreement under S7.4 of the Act.	$1,386.00	$1,438.00	+$52	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.8
f. Modification of consent (only if previously advertised or required by DCP 2017 to be notified)	$1,386.00	$1,438.00	+$52	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.8
g. Application to review a determination as required by Section 8.2-8.5 of the EP&A Act. (where required by DCP 2017 to be notified)	$1,386.00	$1,438.00	+$52	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.8
Integrated Development and Development which Requires Concurrence				
Additional fee for development application for integrated development	$176 + $401 for each approval body to which the DA is to be forwarded	$183 + $416 for each approval body to which the DA is to be forwarded	+$22	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.1
Additional fee for development application for development requiring concurrence, other than if concurrence is assumed under Environmental Planning and Assessment Regulation 2021, section 55	$176 + $401 for each Concurrence authority body to which the DA is to be forwarded	$183 + $416 for each Concurrence authority body to which the DA is to be forwarded	+$22	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.2
Review of Determination Under S8.2-S8.5				
Review of determination for a development application that involves the erection of a dwelling house with an estimated cost of construction of $100,000 or less.	$238.00	$247.00	+$9	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.2

Fees and Charges 2024-25	Exhibited	Revised	Change	Explanation
1. Review of determination of any other development up to $5,000.	$69.00	$71.00	+$2	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.3
2. Review of determination of any other development with an estimated cost of $5,001 – $250,000.	$107 plus an additional $1.50 for each $1,000 (or part of $1,000) of the estimated cost exceeds $5,000	$110 plus an additional $1.50 for each $1,000 (or part of $1,000) of the estimated cost exceeds $5,000	+$3	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.3
3. Review of determination of any other development with an estimated cost of $250,001-$500,000.	$627 plus an additional $0.85 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $250,000.	$651 plus an additional $0.85 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $250,000.	+$24	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.3
4. Review of determination of any other development with an estimated cost of $500,001-$1,000,000.	$894 plus an additional $0.50 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $500,000.	$927 plus an additional $0.50 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $500,000.	+$33	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.3
5. Review of determination of any other development with an estimated cost of $1,000,001-$10,000,000.	$1,238 plus an additional $0.40 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $1,000,000.	$1,285 plus an additional $0.40 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $1,000,000.	+$47	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.3
6. Review of determination of any other development with an estimated cost more than $10,000,000.	$5,943 plus an additional $0.27 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $10,000,000.	$6,167 plus an additional $0.27 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $10,000,000.	+$224	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.3

Fees and Charges 2024-25	Exhibited	Revised	Change	Explanation
Application for review of decision to reject and not determine a development application under the Act, section 8.2(1)(c) if the estimated cost of development is (a)	$69 if the estimated cost is less than $100,000	$71 if the estimated cost is less than $100,000	+$2	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.4
Application for review of decision to reject and not determine a development application under the Act, section 8.2(1)(c) if the estimated cost of development is (b)	$188 if the estimated cost is $100,000 - $1 million	$195 if the estimated cost is $100,000 - $1 million	+$7	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.4
Application for review of decision to reject and not determine a development application under the Act, section 8.2(1)(c) if the estimated cost of development is (c)	$313 if the estimated cost is more than $1 million	$325 if the estimated cost is more than $1 million	+$12	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.4
Notice of application for review of a determination under the Act, section 8.3	$778.00	$807.00	+$29	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 7.7
Subdivisions Schedule 4 Part 2				
Other than Strata subdivision, involving the opening of a public road.	$833 plus $65 per additional lot	$865 plus $65 per additional lot	+$22	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 2.4
Other than Strata subdivision, not involving the opening of a public road.	$414 plus $53 per additional lot	$430 plus $53 per additional lot	+$16	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 2.5
Strata Units Subdivision	$414 plus $65 per additional lot	$430 plus $65 per additional lot	+$16	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 2.6
Design Review Panel Referrals				
Referral of Development Applications and Pre-lodgment Applications to the Design Review Panel	$3,763.00	$3,905.00	+$142	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.4
Referral of amended plans (DA or Pre-DA) to the Design Review Panel	$1,881.00	$1,953.00	+$72	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 3.4
Planning Certificates				
Section 10.7(2) Certificate Application/Reprint	$66/lot	$69/lot	+$3	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 9.7
Section 10.7(2)/(5) Certificate Application/Reprint	$167/lot	$174/lot	+$7	https://legislation.nsw.gov.au/view/html/inforce/current/sl-2021-0759#sch.4 Clause 9.8

Fees and Charges 2024-25	Exhibited	Revised	Change	Explanation
Boarding House Tariffs				
Where full board and lodging is provided:	$432 per week for single accommodation; or $713 per week for a family or shared accommodation	$453 per week for single accommodation; or $747 per week for a family or shared accommodation	+$21 per week for single accommodation; or +$34 per week for family or shared accommodation	24-05 / 19 April 2024 / A894200 23-02 – Information about Rating 2024-25
Where less than full board or lodging is provided:	$291 per week for single accommodation; or $479 per week for family or shared accommodation	$305 per week for single accommodation; or $502 per week for family or shared accommodation	+$14 per week for single accommodation; or +$23 per week for family or shared accommodation	
Rates Certificates				
Section 603 certificate	$95	$100	+$5	24-05 / 19 April 2024 / A894200 23-02 – Information about Rating 2024-25

DELIVERY PROGRAM
2022-2026
OPERATIONAL PLAN
2024-2025
IMPLEMENTATION
YEAR 3
DRAFT
For Public
Exhibition
City of
Canada Bay
1

Council Staff at Lunar New Year 2024.

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ENGLISH
If you do not understand this information, please come to the Council or contact the Telephone Interpreter Service (TIS) on 13 14 50 and ask them to connect you to Council on 9911 6555. We will try to answer your enquiries by using an interpreter.

ITALIAN
Se hai difficoltà a capire questo documento presentati direttamente all'ufficio del Comune, oppure telefona al Servizio Telefonico Interpreti (TIS, numero di telefono 13 14 50) e chiedi di essere messo in contatto con l'ufficio del Comune (numero di telefono 9911 6555). Cercheremo di rispondere alle tue domande con l'aiuto di un interprete.

GREEK
Αν δεν καταλαβα νετε αυτ τι πληροφορ ε , παρακαλο με ελ τε στο Δ μο επικοινων στε με την Τηλεφωνικ Υπηρεσ α Διερμην ων (TIS) στο 13 14 50 και ζητε στε να σα συνδ σουν με τον Δ μο στον αριθμ 9911 6555. Θα προσπαθ σουμε να απαντ σουμε στι ερωτ σει σα χρησιμοποι ντα να διερμην α.

SIMPLIFIED CHINESE
如果您对这些内容不理解，请向地方议会咨询或致电13 14 50联系电话口译服务（TIS），并在他们的帮助下通过电话与9911 6555地方议会联系。h们将尽力通过口译员回答您的问题。

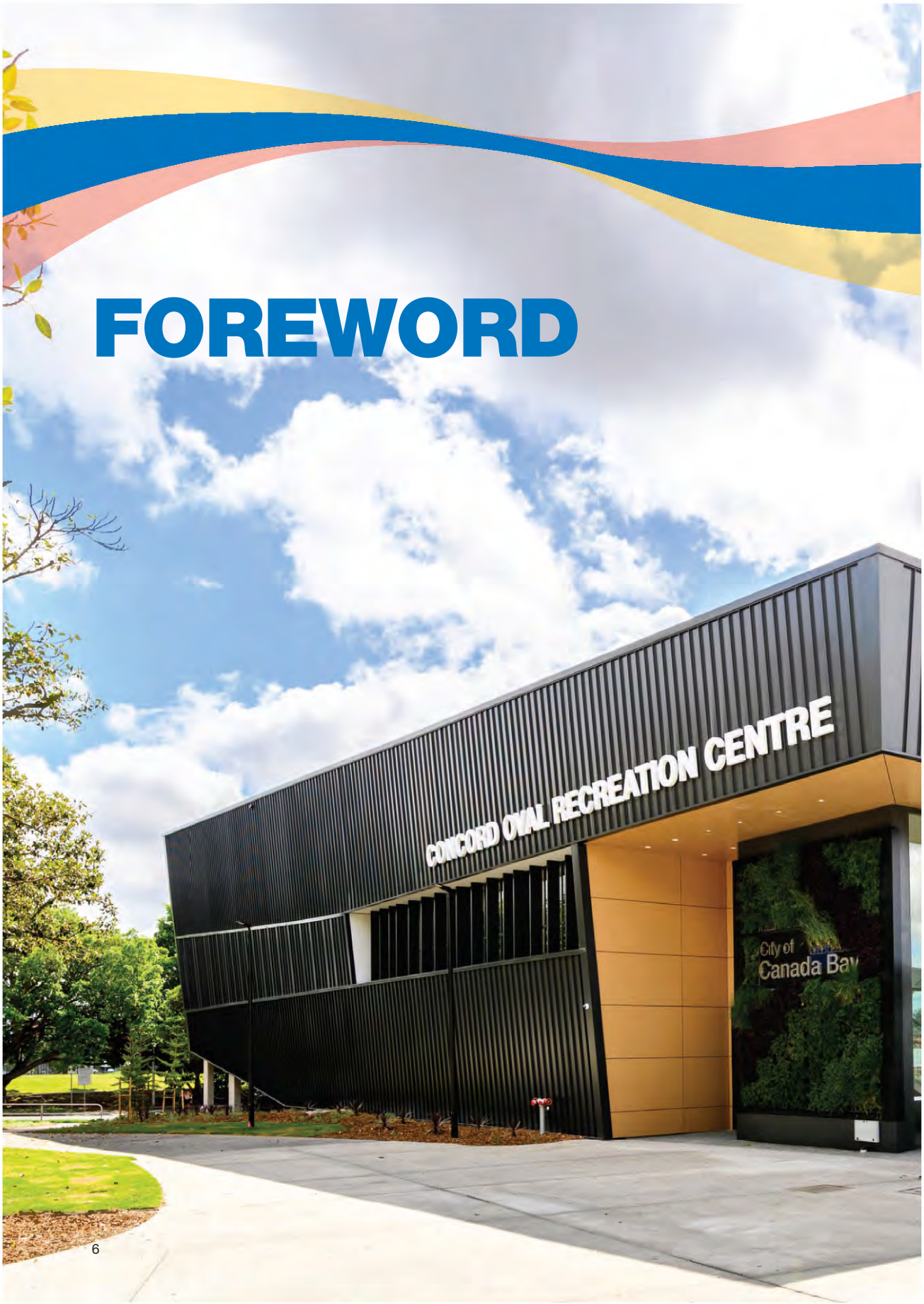
KOREAN
이 정보내용을 잘 이해하지 못하신다면, 심의회(Council)로 방문해 주시거나, <13 14 50>으로 전화통역서비스를 이용하셔서 심의회(9911 6555)로 연결해 달라고 요청하시기 바랍니다. 통역사의 도움을 받아 귀하의 문의사항에 답변해 드리도록 하겠습니다.

Welcome to Country ceremony.

ACKNOWLEDGEMENT OF COUNTRY

The City of Canada Bay acknowledges the Wangal clan, one of the 29 tribes of the Eora nation and the traditional custodians of this land. Council pays respect to Elders past, present and emerging and extends this respect to all Aboriginal and Torres Strait Islander people living in or visiting the City of Canada Bay.

FOREWORD



FOREWORD

Concord Oval Recreation Centre.

MAYOR'S MESSAGE

Welcome to the third Operational Plan of the Delivery Program 2022-26.

This document contains a description of our ongoing services and a draft list of planned operational deliverables and capital projects for 2024-25. The document includes Council's draft budget, with proposed fees and charges for 2024-25 presented in a separate volume.

The following highlights are planned for the $117.5M Operational Plan in 2024-25:

- Development of background studies to inform land use change around the Five Dock metro station
- Conducting business and economic development programs
- Development of a corporate Customer Experience Strategy
- Delivering programs and projects to protect and enhance native species and local biodiversity
- Delivering Ferragosto at Five Dock for its 27th year.

In 2024-25 the draft Capital Works budget has been set at $54M and includes the following highlights:

- Parramatta to Sydney Foreshore Link in partnership with Transport for NSW
- Timbrell Park playing surface upgrade
- Majors Bay Reserve foreshore viewing deck
- Howley Park East Upgrade, including improved pedestrian access, lawn terrace with seating steps, park benches and additional parking
- Upgrading sections of Sisters Bay seawall in Drummoyne.

Thank you for taking the time to read our draft Operational Plan for 2024-25.

Community feedback is welcomed at this time. More information about how you can get involved can be found at collaborate.canadabay.nsw.gov.au.

Mayor Michael Megna

FOREWORD

GENERAL MANAGER'S MESSAGE

This document contains Council's draft Operational Plan 2024-25, covering the third year of implementing the Delivery Program 2022-2026.

Our services are aimed at supporting our local community, protecting the environment, making it easier to get around, caring for our assets and applying reliable governance and civic leadership across all of Council's operations.

The community engagement activities that we are undertaking will feed into refreshing the Delivery Program for a new term of Council, which commences after the elections in September 2024. There is much to accomplish and we look forward to hearing from you.

I commend the draft Operational Plan 2024-25 to you and welcome your feedback on the projects and programs that are proposed. Council's Collaborate webpage provides an online form that you can use to provide feedback, as well as the timeframe for submissions leading up to the June adoption of the Plan and budget.

Thank you for taking the time to review our draft plans and for providing us with your views.

John Clark, General Manager

OUR COUNCIL

OUR COUNCIL

Vertical Garden Wall at Concord Oval Recreation Centre.

YOUR MAYOR AND COUNCILLORS

The City of Canada Bay elects nine representatives at the commencement of each term including a popularly elected Mayor. The Councillors elect a Deputy Mayor from within their number each year.

Mayor

The role of the Mayor is to be the leader of the Council and a leader in the local community. They are the spokesperson for the Council and they promote the effective and consistent implementation of the Council's integrated planning and reporting processes.

Presiding over Council meetings, the Mayor ensures they are conducted efficiently, effectively, and according to the Local Government Act. They work with the General Manager to ensure there are adequate opportunities and mechanisms for engagement between the Council and the local community.

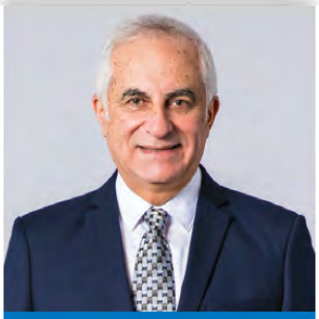
Councillors

Councillors oversee the affairs of the Council in accordance with the Local Government Act 1993. They consult regularly with community organisations and other key stakeholders to keep everyone informed of the Council's decisions and actions.

They are involved in the integrated planning and reporting process through determining and adopting delivery programs and operational plans for the benefit of the community.

Council term

The current Council was elected in December 2021. The next election is due to take place in September 2024.



Michael Megna
Mayor

Michael was appointed Mayor of the City of Canada Bay by the NSW Governor on 25 January 2024, following his nomination by fellow Councillors in December 2023.

Being a lifelong, third-generation Canada Bay resident, Michael is a strong community representative and has represented his community for over 30 years.

Deputy Mayor Councillor
Joseph Cordaro

Joseph was elected to Council in December 2021 and elected Deputy Mayor in September 2023.

He and his family have lived in the area for more than 30 years and enjoy the vibrant multicultural and multi-generational community.

OUR COUNCIL

Councillor
Anthony Bazouni

Anthony was elected to Council in December 2021.

He has lived and worked in the City for many years, including more than 23 years as a local lawyer.

Councillor
Stephanie Di Pasqua

Stephanie was elected to Council in 2017 and served as Deputy Mayor of the City between January 2022 and September 2023.

A lifelong resident, Stephanie is passionate about supporting residents, local businesses and community groups.

Councillor
Andrew Ferguson

Andrew was first elected to Council in 2017.

He and his family have lived in the area for the past 30 years, and he is committed to equity, social justice, heritage and environmental sustainability.

Councillor
Charles Jago

Charles is a long-time resident of the area who was first elected to the Council in 2017.

His professional experience spans information technology, the energy industry, adult education, and government and community development.

Councillor
Julia Little

Julia has served on Council since 2017 and, together with her husband and young children, is an active member of the local area.

She is a media and communications specialist with experience working in the Commonwealth public sector.

Councillor
Carmel Ruggeri

Carmel was elected to Council in 2021. Carmel has lived in the City all her life and is passionate about supporting the local community and spirit.

She has operated a business locally, and many people would recognise her from her food walking tours around Five Dock and Concord.

COUNCIL'S MISSION AND VALUES

The City of Canada Bay and its Councillors and staff are proud to act and operate by its mission statement and values.

Our values

Developed by the staff of the City of Canada Bay, the values guide delivery of high-quality services and projects for the community.

The values underpin our aim to have the customer at the centre of everything that we do.

We empower our people

We value opportunities to grow and learn.

We encourage feedback.

We openly share our knowledge, skills and ideas.

We provide support and training to do the best job possible.

We enable people to make decisions.

We act with integrity

We are open and honest.

We provide transparency in our decision making.

We do what we say we will do.

We take responsibility and are accountable for our actions.

We declare or report potential conflicts or unethical behaviour.

OUR COUNCIL

Jellicoe Street, Concord.

Mission statement

An excellent organisation delivering great outcomes for our community.

We work together

We are inclusive and foster a 'one team' approach.

We value safety and look out for each other.

We proactively offer help or solutions.

We are inclusive of stakeholders in decision making.

We think holistically.

We are respectful

We are kind, thoughtful and show compassion and dignity.

We embrace diversity and put ourselves in the shoes of others.

We use respectful communication and listen to understand.

We acknowledge each other and greet each other with a smile.

We appreciate contributions and share credit where it is due.

We will respond to our community in a timely and responsible manner.

We innovate

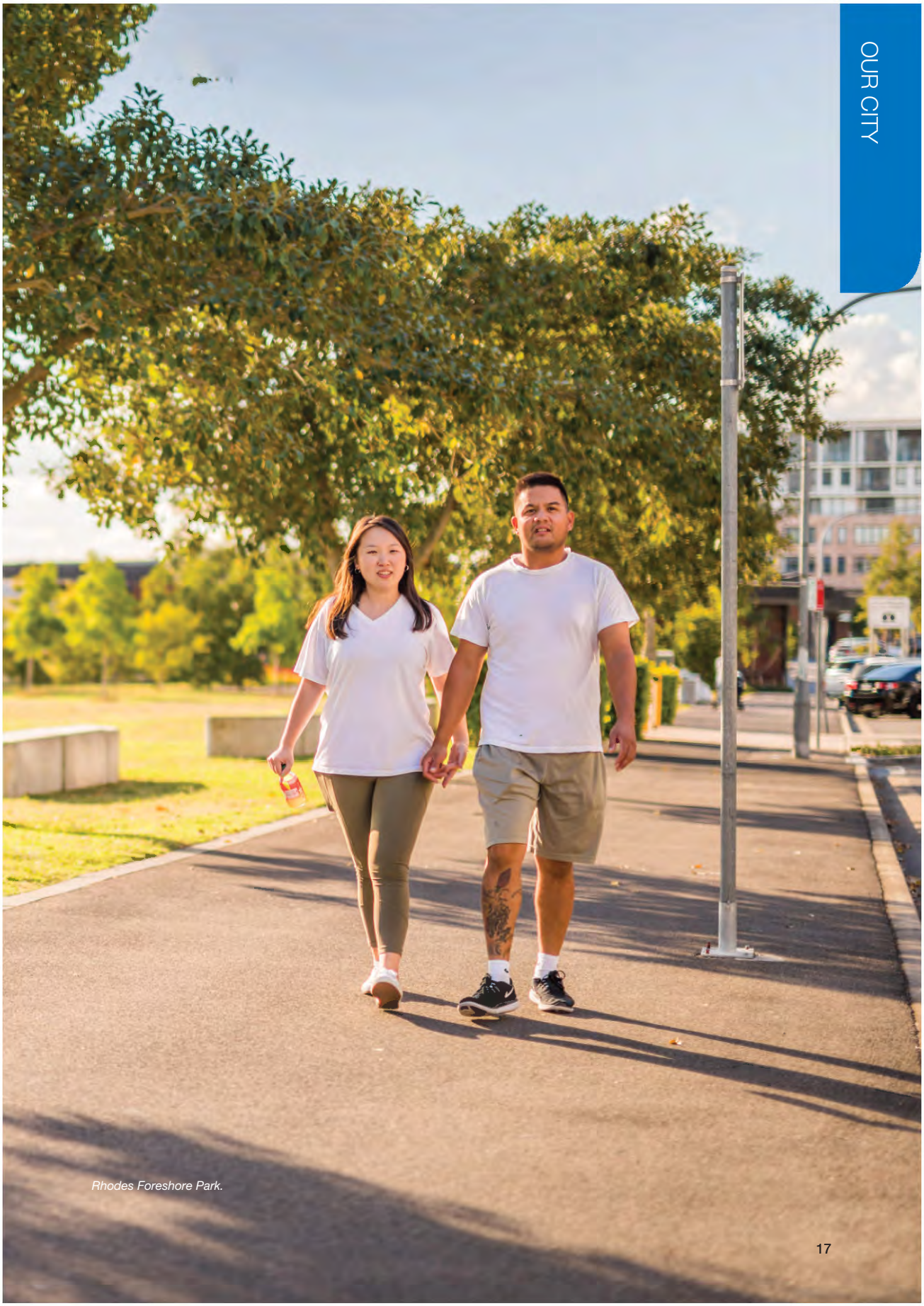
We encourage and value ideas that will improve services for our community.

We are creative problem solvers and are committed to creative thinking.

We will be better tomorrow than we are today, building on past success.

We continuously improve and challenge ourselves to deliver better outcomes.

OUR CITY
16



Rhodes Foreshore Park.

OUR CITY AND COMMU

The City of Canada Bay has a land area of 19.9km² and an estimated population of 89,177 spread across 17 suburbs. It boasts 36 kilometres of Parramatta River foreshore and is a beacon to locals and visitors who flock to enjoy its more than 300 open green recreation spaces and 348 hectares of open space.

We are a City that celebrates diversity, cares for the environment, and plans well for the future. With 40 per cent of residents born overseas, the cultural and linguistic diversity of the City's residents is one of our most celebrated attributes.

Our shared sense of community is strong throughout the area. It is a safe place to live, and people enjoy the parks and playgrounds, community facilities and sports fields, and cultural events and activities spread across the City.

Over time, our City has grown. Its character has changed as former industrial sites have been adapted into residential dwellings. People have moved in to areas that offer a better quality of life and recreational opportunities.

By 2041 the city's population is forecast to grow by over 30,000 people, an increase of around 40% on the current population estimate.

Our community believes we can all do several things to ensure that the City of Canada Bay retains its character, heritage, and widespread appeal.

These include addressing climate change, consulting with the community on significant projects, providing appropriate planning outcomes, maintaining our parks and open spaces, celebrating diversity, managing traffic and parking well, providing excellent support services for community members, and supporting local businesses.

OUR CITY

NITY

Community vision

Together we are an inclusive, sustainable and thriving foreshore community.

Community values

Our top community values relate to:
– The natural environment and open space
– Care for and access to our foreshore
– Safety

KEY FACTS

This page contains some key facts* about the City of Canada Bay community in a 2023 snapshot.

Estimated population growth across household profiles and suburbs are tabled over the page.

CITY
19.90km²

PEOPLE
89,177

ORIGINAL INHABITANTS
Wangal clan of the Eora Nation

BORN OVERSEAS
40%

LANGUAGE OTHER THAN ENGLISH AT HOME
44%

MEDIAN AGE
39 years

POPULATION EMPLOYED FULL TIME
59%

LARGEST INDUSTRY EMPLOYER
Professional, Scientic and Technical Services

INTERVIEWED RESIDENTS WHO SAY THE CITY OF CANADA BAY IS A GOOD PLACE TO LIVE
96%

MEDIUM-HIGH DENSITY DWELLINGS
64%

OUR CITY

MEDIAN WEEKLY HOUSEHOLD INCOME
$2,371

MEDIAN MONTHLY MORTGAGE
$3,000

MEDIAN WEEKLY RENT
$560

OPEN SPACE
348 hectares

TREE CANOPY
18.1%

PARKS
168

DOGGY OFF-LEASH AREAS
19

LIBRARIES
3

CULTURAL SPACES
7

SCHOOLS, PRESCHOOLS AND CHILDCARE
77

SPORTING FIELDS
28

GOLF COURSES
2

SWIMMING CENTRES
2

*Source: https://www.abs.gov.au/census/find-census-data/quickstats/2021/LGA11520

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OUR FUTURE: 2022 TO 2036

Council obtains its population forecasts from the population forecast tool operated by forecast.id.com.au. This information is updated regularly on the basis of forecast models that look at the ways populations change over time. It helps Council and the community to make informed decisions.

Category	2021	2041	% difference
Population	89,177	126,691	41%
Dwellings	39,080	55,241	41%
Households	36,033	51,941	44%
Average household size	2.46	2.41	-2%
Couple families with dependents	10,970	15,620	42%
Couples without dependents	10,430	14,487	39%
Group households	1,667	2,492	49%
Lone person households	8,880	13,460	52%
One parent families	2,999	4,276	43%
Other families	1,089	1,610	49%

Table: # Forecast changes 2021 to 2041, Source https://forecast.id.com.au/canada-bay/population-households-dwellings on 8/1/24.

Suburb	Population 2021	Population 2036	% difference
Abbotsford — Wareemba	7,334	7,422	1.2%
Cabarita	2,109	2,176	3.2%
Chiswick	3,055	3,234	5.9%
Concord	15,030	18,441	22.7%
Concord West	6,478	8,062	24.5%
Drummoyne	13,383	13,995	4.6%
Five Dock — Canada Bay	12,119	17,438	43.9%
Liberty Grove	2,268	2,087	-8%
Mortlake – Breakfast Point	7,655	8,454	10.4%
North Strathfield — Strathfield	7,661	14,155	84.8%
Rhodes	11,958	22,694	89.8%
Russell Lea — Rodd Point	6,925	7,153	3.3%

Forecast population growth by suburb to 2036.

OUR CITY

Rhodes waterfront.

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NSW PRIORITY PROJECTS AND CRITICAL GROWTH AREAS

Some City of Canada Bay areas will experience significant growth in the coming years.

There are several high-profile NSW Government projects and initiatives that are related to key growth areas in the City of Canada Bay, most notably:

Sydney Metro West
The Sydney Metro West project will support a growing City and deliver world-class metro services to more communities.

This 24 kilometre underground railway will connect Greater Parramatta and the Sydney CBD and includes three stations in the City of Canada Bay at North Strathfield, Concord Oval, and Five Dock.

The new Metro will double rail capacity between the two CBDs, link new communities to rail services and support employment growth and housing supply.

Council has an opportunity to influence the extent of change around station locations and to ensure that the community is consulted from an early stage. A local planning study has been prepared and further engagement is proposed to establish the preferred land uses and built form outcomes around Metro stations.

sydneymetro.info/west/project-overview

Parramatta Road
Parramatta Road connects Parramatta with the Sydney CBD. The NSW Government's Parramatta Road Corridor Urban Transformation Strategy covers land along Parramatta Road from Granville to Camperdown, including Five Dock and Concord.

This strategy includes plans to revitalise the corridor and surrounds through investment in jobs, transport, open spaces and public amenity.

Stage 1 of the strategy is now complete, and work has commenced to implement Stage 2.

Stage 2 will deliver a variety of housing types and provide a transition in building scale between the Stage 1 centres and established neighbourhoods.

www.planning.nsw.gov.au/parramattaroad

Victoria road Drummoyne.

Rhodes
Rhodes is an important strategic centre in the Eastern City District Plan, with significant opportunities to create a great new place to live, work and visit.

As an important centre, the State government has prepared the Rhodes Place Strategy, to guide development on the eastern side of the peninsula between the rail line and Concord Road, as well as the Station Precinct in Rhodes West.

The Rhodes Place Strategy will deliver:
4,200 new homes, with an initial cap of 3,000 homes pending further infrastructure

- 1,100 new jobs
- New primary school
- Rhodes train station upgrades
- New ferry wharf
- Improved pedestrian and walking paths
- 2.3 hectares of new public open space, including a foreshore park and promenade
- Excellence in design and sustainability, including dual reticulation for development and incentives to exceed BASIX and tree canopy targets.

www.planning.nsw.gov.au/rhodeseast

Key external drivers
We have considered federal, state, and regional priorities in the development of our suite of integrated planning documents. View more details about key drivers, view the information in Appendix 1: Key drivers.

OUR PARTNERS

While Council has a custodial role in initiating, preparing and delivering Our Future 2036 on behalf of the community, it cannot do so in isolation.

Partnerships will be crucial in ensuring our City receives the funding, support and assistance it needs to meet the challenges of the future:

Community partners
- Churches and religious organisations
- Community groups and organisations
- Community services
- Environmental groups
- Indigenous groups and organisations
- Not-for-profit organisations
- Resident groups
- Schools and educational institutions
- Sporting bodies and organisations
- Volunteers.

Business partners
- Chambers of Commerce
- Industry groups
- Local businesses.

Government partners
- Federal Government agencies
- NSW Government agencies
- South Sydney Regional Organisation of Councils (SSROC)
- Other councils.

McIlwaine Park Rhodes.

Great North Road, Abbotsford.

OUR ORGANISATION

OUR ORGANISATION

Council's main administration and customer service centre Marlborough Street, Drummoyne.

OUR EXECUTIVE

The General Manager and Directors make up Council's executive management team.

The General Manager is responsible for the day to day management of the directorates, overall operation of the organisation and for ensuring the implementation of the decisions of Council.

The Directors assist the General Manager in the development of long-term strategic plans and their delivery, while ensuring the organisation is meeting its obligations.

John Clark
General Manager

The General Manager is responsible for the overall performance of the Council as well as Executive Services to the Mayor and Councillors, Organisational Development, and Media and Communications.

Our General Manager is John Clark who has over 20 years of experience in the Local Government Sector.

Before joining the City of Canada Bay, John worked at Waverley Council, where he was the Director of Customer Service and Organisational Development. He has also worked at the City of Ryde and Ku-ring-gai Council as well as in the NSW Government where he served as the Executive Director of Corporate and Operational Services at the Department of Premier and Cabinet.

Russell Wolfe
Director
Community, Culture and Leisure

The Community, Culture and Leisure directorate delivers services that welcome, connect, celebrate and inspire our community. This includes the libraries, community services, children's services, recreation management, place management and venues management.

This directorate is about the provision of equitable and accessible activities and facilities for everyone.

Russell has over 20 years of local government experience in managing community and recreation services. He has worked at North Sydney and Warringah Councils, as well as in the UK and has qualifications in geography and sports science, community management and change management.

OUR ORGANISATION

Monica Cologna
Director
Environment and Planning

Community and Environmental Planning is responsible for all statutory planning matters such as the assessment of development applications and subdivisions, strategic planning, maintaining and upgrading the City's planning framework, environmental health, sustainability, building services, approval of construction certificates, building inspections, health, waste and law enforcement.

Monica has over 20 years of experience in urban planning and design and has worked at Randwick and Cumberland City Councils, as well as in the UK. Monica has qualifications in urban and regional planning and urban design.

Greig Schuetrumpf
Director
City Assets

City Assets is responsible for the planning and delivery of infrastructure, asset management and associated services including traffic management, and provision and stewardship of roads, footpaths and traffic facilities. The service also manages open spaces and community buildings.

City Assets manages the delivery of Council's capital works program such as the recently completed Concord Oval Recreation Centre Precinct and supports the community's disaster management response efforts.

Greig is a senior executive who joined Council in November 2022. He has extensive experience in management of customer services, infrastructure and asset management portfolios for large State Government organisations. Greig's skills in leadership and change management are a strong asset for Council and the community.

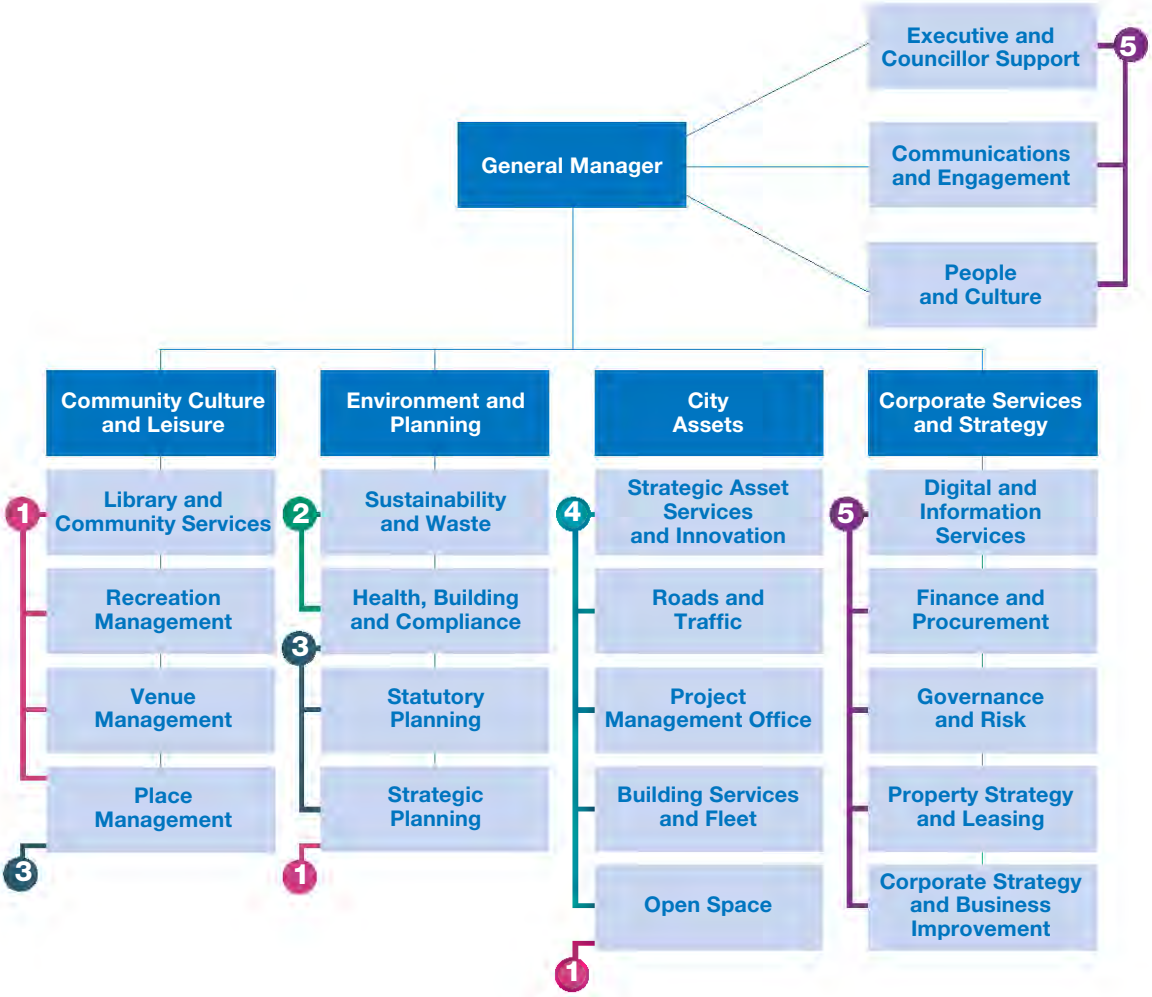
Evan Hutchings
Director
Corporate Services and Strategy

Corporate Services is responsible for finance, the collection of rates, governance and support services, insurance and risk management, maintenance of records, information systems, and customer support.

Corporate Services also provides support to other directorates of Council to enable them to fulfil their responsibilities to the community.

Evan brings a wealth of experience having held roles as Director of Corporate Services across several metro and regional NSW Councils including Waverley and Cootamundra-Gundagai.

OUR STRUCTURE



The City of Canada Bay is structured into four directorates and their alignment with the strategic directions of CSP Our Future 2036 is shown in this structure diagram.

CSP DIRECTION KEY

1. Connected community
2. A sustainable and thriving community
3. Vibrant urban living
4. Infrastructure and transport
5. Civic leadership

OUR SERVICES

Council's Operational Plan is delivered by 374* full time equivalent staff across 21 Business Units. The organisation works together towards achievement of the strategic directions of the Community Strategic Plan (CSP).

The Business Units, their CSP links and corresponding directorate are shown below.

You can find out more information about the services in Appendix 2: Our services.

Council's Business Units develop their work plans and budgets annually, guided by the Delivery Program, Community Strategic Plan, Resourcing Strategy, and other adopted strategies and plans.

CSP	Directorate	Service
●	CCL	Library and Community Services
●	CCL	Recreation Management
●	CCL	Venue Management
● ●	CCL	Place Management
●	EP	Sustainability and Waste
● ●	EP	Health, Building and Compliance
● ●	EP	Statutory Planning
●	EP	Strategic Planning
●	CA	Strategic Asset Services and Innovation
●	CA	Roads and Traffic
●	CA	Project Management Office
●	CA	Building Services and Fleet
● ●	CA	Open Space
●	ES	Executive and Councillor Support
●	ES	Communications and Engagement
●	ES	People and Culture
●	CSS	Digital and Information Services
●	CSS	Finance and Procurement
●	CSS	Governance and Risk
●	CSS	Property Strategy and Leasing
●	CSS	Corporate Strategy and Business Improvement

KEY

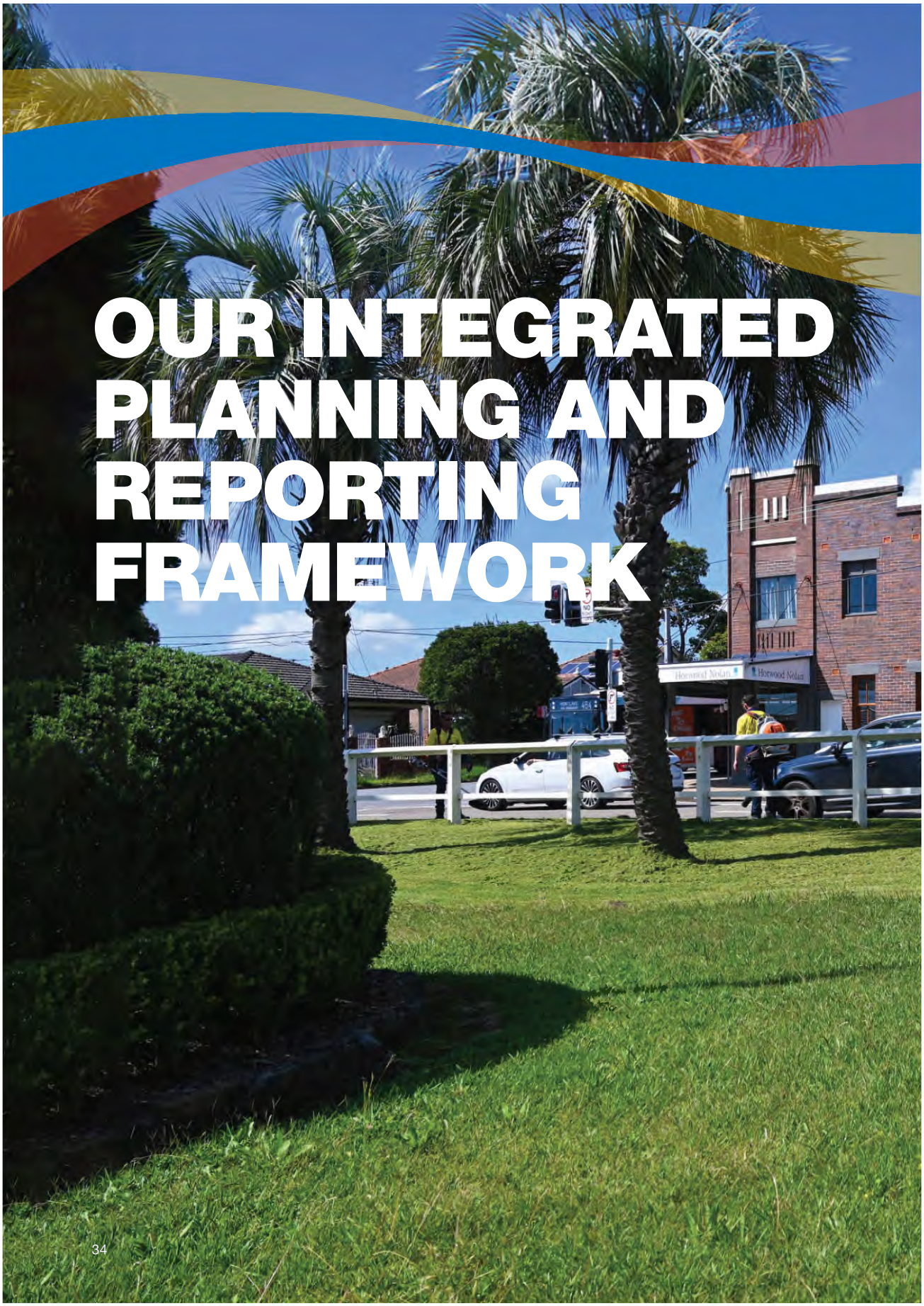
CSP Strategic Direction

- ● Connected community
- ● A sustainable and thriving environment
- ● Vibrant urban living
- ● Infrastructure and transport
- ● Civic leadership

Directorate

CA City Assets
CCL Community, Culture and Leisure
CSS Corporate Services and Strategy
EP Environment and Planning
ES Executive Services

**Source: Council's People and Culture database, full time equivalent staff (FTE) as at 5 March 2024.*



OUR INTEGRATED PLANNING AND REPORTING FRAMEWORK

The mowing crew at Queen Elizabeth Park, Concord.

OUR INTEGRATED PLANNING AND REPORTING FRAMEWORK

DELIVERY PROGRAM AND OPERATIONAL PLAN PURPOSE

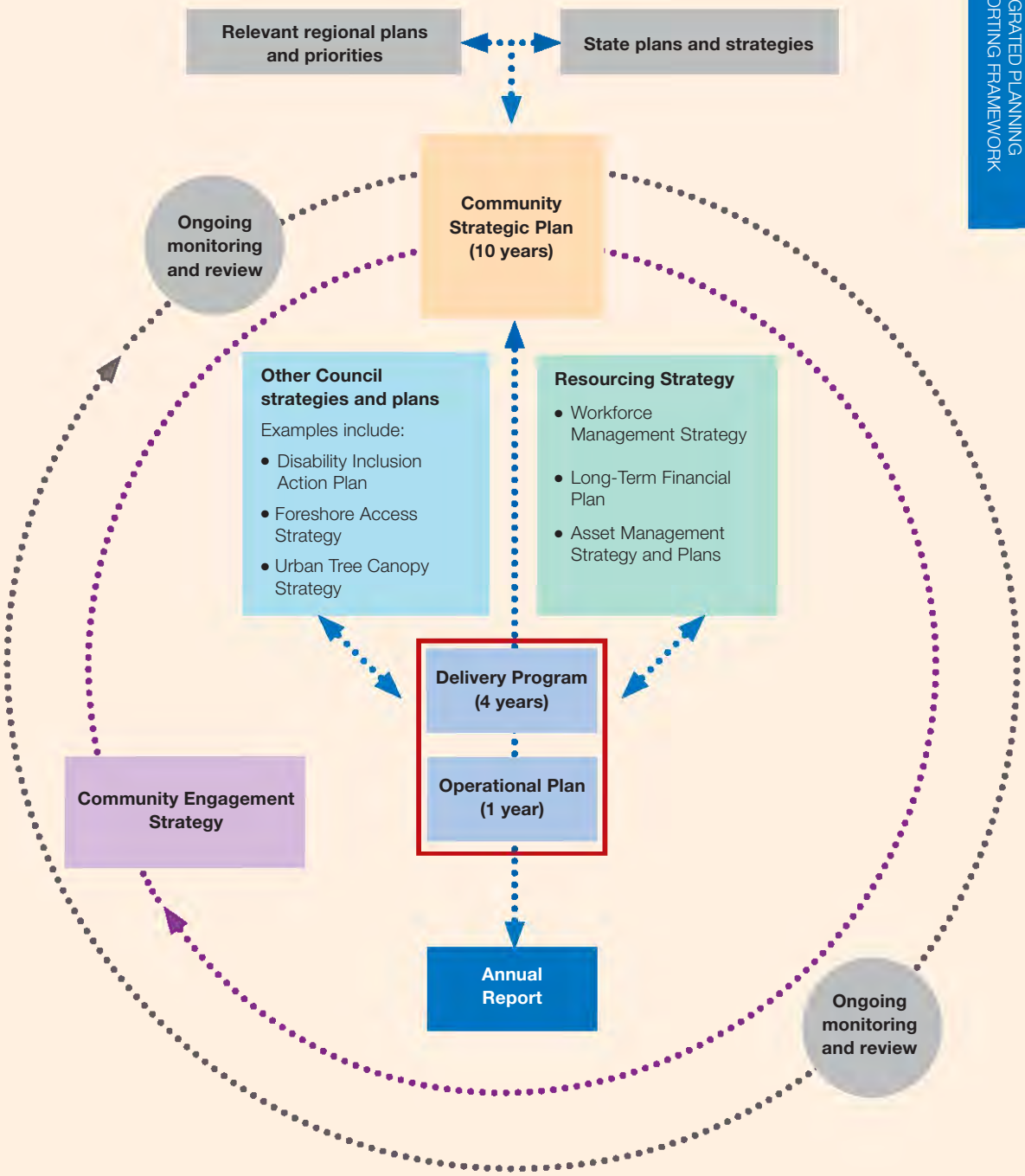
The Delivery Program outlines the actions Council will undertake during its term of office to contribute towards the long-term strategies and desired outcomes of the Community Strategic Plan.

In accordance with legislative requirements, each newly elected council must prepare a new Delivery Program by 30 June in the year following the Local Government elections.

The Operational Plan is a subset of the Delivery Program. In accordance with legislative requirements, Council must have an Operational Plan adopted before the beginning of each financial year, outlining the activities to be undertaken that year, as part of the Delivery Program.

This document is the third Operational Plan of Delivery Program 2022-2026.

OUR INTEGRATED PLANNING AND REPORTING FRAMEWORK



Source: adapted from the NSW Office of Local Government – Integrated Planning and Reporting Framework. Website: olg.nsw.gov.au

PERFORMANCE MONITORING AND REPORTING

Council's performance in delivering the Operational Plan is reported to the community at six monthly intervals.

Council's performance in respect of the budget is reported to Council at the end of every financial quarter.

Performance towards achievement of the Community Strategic Plan directions and goals is reported each year in the annual report and at the end of each Council term in the State of our City report.

Once these reports have been endorsed by Council, they are published on Council's website.

Concord Oval Recreation Centre.

SERVICE REVIEWS AND CONTINUOUS IMPROVEMENT

In December 2022 an organisation restructure took place to better align services with the Community Strategic Plan: Our Future 2036.

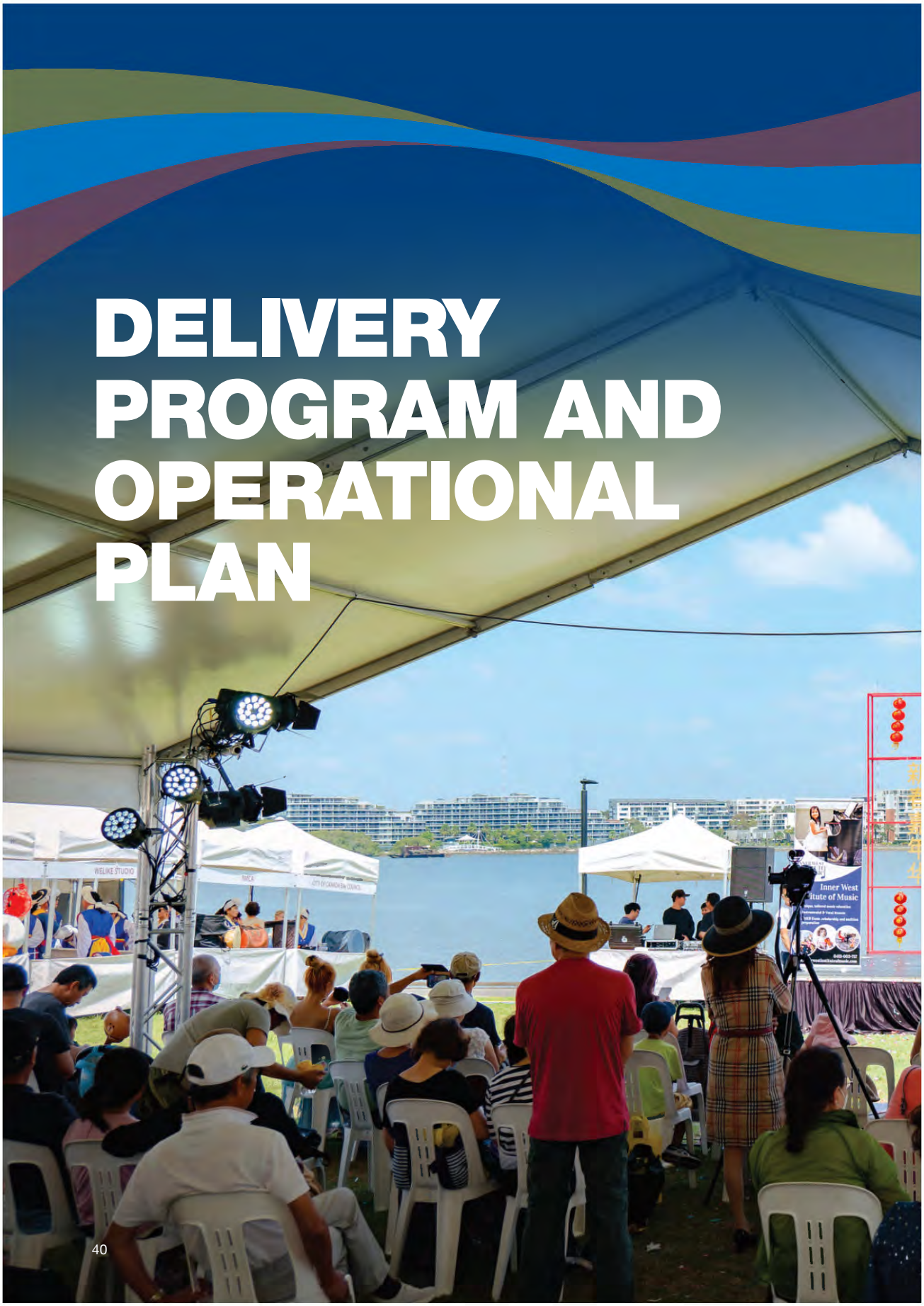
The structure of Council Services is key to placing the customer at the centre of everything we do and ensures our service delivery is supported by the right people, great communication and approachable leadership within a framework of accountability.

During the 2023-24 financial year, Council's City Assets team was transformed for improved customer focus, streamlined project delivery, and an improved focus on workplace safety. In addition to this high-level Directorate review, a formal Service Review Framework was developed to guide the systematic review of all Council services over time.

The Framework is the mechanism through which Council identifies services that require review, as well as how Council will engage with the community and other stakeholders to determine service levels and appropriate measures.

Within the Framework, Council will undertake a minimum of two service reviews annually.

DELIVERY PROGRAM AND OPERATIONAL PLAN



Lunar New Year celebrations at Rhodes.

ABOUT THE DELIVERY P OPERATIONAL PLAN

The City of Canada Bay's 2022-26 Delivery Program is a fixed, four-year plan that sets out how Council will deliver its Community Strategic Plan commitments to the community.

How to read this plan: the Delivery Program is structured on the five strategic directions of the Community Strategic Plan and contains the following parts:

Strategic Direction from our CSP

QBL Quadruple Bottom Line

CSP Goals

What you can do

The groups and organisations that help our delivery

Council Services that contribute to this outcome

DIRECTION 1: CONNECTED COMMUNITY

COMMUNITY OUTCOME

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SOCIAL ENVIRONMENTAL CIVIC

OUR FUTURE 2036 GOALS

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OUR PARTNERS

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HOW THE COMMUNITY CAN SUPPORT THIS OUTCOME

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COUNCIL SERVICES THAT SUPPORT THIS OUTCOME

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ROGRAM AND

The CSP Goal

Goal 1.1 Foster an inclusive community where diversity is welcomed and celebrated

The Delivery Program (DP) Strategy (4 years)

STRATEGY 1.1.1 DELIVER COMMUNITY INITIATIVES THAT STRENGTHEN SOCIAL INCLUSION

Reference	Deliverable	Responsibility
1.1.1.1	Aximet perit haruptus eum aciandicatin nos ut id qui unducimos sitat re	Unducimos sitat re
1.1.1.2	Se consera non pos que doluptatur? Reptas exceriosae peles dolores tiberent, simi, natempel il et ulliquae. Num experio nsequodis aut	Unducimos sitat re
1.1.1.3	Se consera non pos que doluptatur? Reptas exceriosae peles dolores tiberent, simi, natempel il et ulliquae. Num experio nsequodis aut	Unducimos sitat re
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1.1.1.5	Se consera non pos que doluptatur? Reptas exceriosae peles dolores tiberent, simi, natempel il et ulliquae. Num experio nsequodis aut harumque nobis adis iusam apis est expelia aut od quaeped eic tore dolut odis doloria	Unducimos sitat re
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The annual operational plan deliverables that contribute towards achievement of DP strategies and CSP goals

STRATEGY 1.1.2 SUPPORT VOLUNTEERING PROGRAMS THAT STRENGTHEN SOCIAL INCLUSION AND CONNECTION

Reference	Deliverable	Responsibility
1.1.2.1	Aximet perit haruptus eum aciandicatin nos ut id qui unducimos sitat re	Unducimos sitat re
1.1.2.2	Aximet perit haruptus eum aciandicatin nos ut id qui unducimos sitat re	Unducimos sitat re
1.1.2.3	Aximet perit haruptus eum aciandicatin nos ut id qui unducimos sitat re	Unducimos sitat re
1.1.2.4	Aximet perit haruptus eum aciandicatin nos ut id qui unducimos sitat re	Unducimos sitat re

Quadruple bottom line

The NSW Government's Integrated Planning and Reporting (IPR) framework stipulates that the quadruple bottom line (QBL) is clearly linked to the Community Strategic Plan, Delivery Program and Operational Plan.

The following symbols are shown throughout the Delivery Program to demonstrate how the QBL links to the five strategic directions of the Community Strategic Plan.

DIRECTION 1: CONNECT

DIRECTION 1: CONNECTED COMMUNITY

COMMUNITY OUTCOME

Our local communities are diverse, inclusive and safe places where all people are valued. Everyone has equitable access to services and facilities, and there are plenty of opportunities for everyone to enjoy active lifestyles both outdoors and indoors.

SOCIAL ENVIRONMENTAL CIVIC

OUR FUTURE 2036 GOALS

1. Foster an inclusive community where diversity is welcomed and celebrated
2. Celebrate, recognise, and honour Aboriginal and Torres Strait Islander cultures
3. Provide the community with equitable access to a range of programs, services, and facilities
4. Promote a community where residents feel safe and enjoy good health
5. Provide open space, facilities, and programs that promote active lifestyles

OUR PARTNERS

- Community groups and organisations
- Residents, workers and visitors
- Community services
- Indigenous groups and organisations
- Business and industry
- Sporting bodies and organisations
- Volunteers
- NSW Government

HOW THE COMMUNITY CAN SUPPORT THIS OUTCOME

- Be involved in the community and sporting groups and organisations
- Volunteer in the community and at our libraries
- Participate in community engagement
- Attend community events, festivals and activities
- Participate in programs and activities that celebrate First Nations cultures
- Support local emergency relief groups and efforts

COUNCIL BUSINESS UNITS THAT SUPPORT THIS OUTCOME

- Library and Community Services
- Recreation Management
- Venues Management
- Place Management
- Strategic Planning
- Open Space

DELIVERY PROGRAM AND OPERATIONAL PLAN

ED COMMUNITY

Summer Reading Challenge Award Celebration at Concord Library 2023-24.

DIRECTION 1: DELIVERY PROGR OPERATIONAL PLAN DELIVERAB

Goal 1.1 Foster an inclusive community where diversity is welcomed and celebrated

STRATEGY 1.1.1 DELIVER COMMUNITY INITIATIVES THAT STRENGTHEN SOCIAL INCLUSION

Reference	Deliverable	Responsibility
1.1.1.1	Deliver Council's annual program of festivals and events.	Manager Place Management
1.1.1.2	Finalise and implement the Social Sustainability Plan.	Manager Library and Community Services
1.1.1.3	Draft revised Disability Inclusion Action Plan (DIAP).	Manager Library and Community Services

STRATEGY 1.1.2 SUPPORT VOLUNTEERING PROGRAMS THAT STRENGTHEN SOCIAL INCLUSION AND CONNECTION

Reference	Deliverable	Responsibility
1.1.2.1	Support volunteer-led initiatives in the libraries.	Manager Library and Community Services

STRATEGY 1.1.3 DELIVER INITIATIVES THAT ADDRESS LOCAL HOUSING AFFORDABILITY

Reference	Deliverable	Responsibility
1.1.3.1	Develop a holistic strategy for Council's affordable housing portfolio.	Manager Property Strategy and Leasing

Goal 1.2 Celebrate, recognise, and honour Aboriginal and Torres Strait Islander cultures

STRATEGY 1.2.1 INCREASE OPPORTUNITIES TO CELEBRATE ABORIGINAL AND TORRES STRAIT ISLANDER CULTURES

Reference	Deliverable	Responsibility
1.2.1.1	Deliver actions within the Reflect Reconciliation Action Plan (RAP) and submit a draft Innovation RAP in 2025.	Manager Communications and Engagement

AM STRATEGIES AND LES

Goal 1.3 Provide the community with equitable access to a range of programs, services, and facilities

STRATEGY 1.3.1 DELIVER COMMUNITY AND CULTURAL FACILITIES THAT RESPOND TO THE DIVERSE NEEDS OF THE COMMUNITY		
Reference	**Deliverable**	**Responsibility**
1.3.1.1	Implement the use of smart technology to provide pin code access to Council's venues for hire.	Venues Manager
1.3.1.2	Implement new property management system to enhance customer experience and improve efficiency and oversight.	Manager Property Strategy and Leasing

STRATEGY 1.3.2 DELIVER PROGRAMS, SERVICES, AND FACILITIES THAT INCREASE COMMUNITY CONNECTION		
Reference	**Deliverable**	**Responsibility**
1.3.2.1	Review and improve wayfinding at Concord and Five Dock Libraries.	Manager Library and Community Services

Goal 1.4 Promote a community where residents feel safe and enjoy good health

STRATEGY 1.4.1 IMPLEMENT INITIATIVES THAT CONTRIBUTE TO THE COMMUNITY'S SENSE OF SAFETY AND WELLBEING		
Reference	**Deliverable**	**Responsibility**
1.4.1.1	Implement the Council-wide Child Safe Action Plan.	Manager Library and Community Services
1.4.1.2	Conduct Crime Prevention through Environmental Design (CPTED) audits in partnership with Burwood Local Area Command.	Manager Open Space

STRATEGY 1.4.2 IMPLEMENT INITIATIVES THAT SUPPORT LOCAL RESILIENCE AND ADAPTABILITY
This Delivery Program strategy is being delivered in the Roads and Traffic business unit work plan.

STRATEGY 1.4.3 CONTINUOUSLY IMPROVE PUBLIC AND ENVIRONMENTAL HEALTH SERVICES TO SUPPORT HEALTH AND SAFETY OF RESIDENTS

This Delivery Program strategy is being delivered in the Health, Building and Compliance service work plan.

Goal 1.5 Provide open space, facilities, and programs that promote active lifestyles

STRATEGY 1.5.1 IMPROVE QUALITY AND CAPACITY OF OPEN SPACE TO SUPPORT A DIVERSITY OF RECREATION ACTIVITIES

This Delivery Program strategy is being delivered in the Open Space business unit work plan.

STRATEGY 1.5.2 INVESTIGATE OPPORTUNITIES FOR NEW AND CONNECTED OPEN SPACES, RECREATION FACILITIES, AND PROGRAMS

Reference	Deliverable	Responsibility
1.5.2.1	Prepare the operational management plan for the upcoming Rhodes Recreation Centre.	Manager Recreation Management
1.5.2.2	Review and consolidate Council's plans of management for community and operational lands.	Manager Project Management Office
1.5.2.3	Deliver masterplans for Queen Elizabeth Park, Concord, and Five Dock Park.	Manager Project Management Office
1.5.2.4	Manage the tender for the operation of Council's swimming centres.	Manager Recreation Management

PERFORMANCE MEASURES

Measure	Baseline	Target	Frequency of reporting
Number of library service visitors, including the Learning Space*	200,000 yearly (2022-23)	Maintain or increase	Every six months
Number of library service members*	34,000 members (2022-23)	Maintain or increase	Annually
Number of community groups and organisations supported during the year*	20 (2022-23)	Maintain or increase	Annually
Percentage capacity of Council's recreational bus trips for senior residents*	65% (2021-22)	70%	Every six months

** Outcomes that Council can control*
*** Outcomes that Council can influence*

DIRECTION 2: A SUSTAI THRIVING ENVIRONMEN

DIRECTION 2: SUSTAINABLE AND THRIVING ENVIRONMENT

COMMUNITY OUTCOME

By working together, greenhouse gas emissions are reduced across the area. We send less waste to landfill and more of our materials are recycled and reused. The City of Canada Bay will be home to more and healthier flora and fauna and our tree canopy will have increased. The quality of our foreshores and waterways will be enhanced and there will be more foreshore recreational opportunities.

ENVIRONMENTAL SOCIAL CIVIC

OUR FUTURE 2036 GOALS

1. Reduce greenhouse gas emissions
2. Increase urban tree canopy
3. Reduce waste to landfill through avoidance and increased recycling and reuse
4. Enhance and protect native flora and fauna to support local biodiversity
5. Improve access to, and enhance the quality of, the City's foreshore and waterways

OUR PARTNERS

- Residents, community groups and organisations
- Business and industry
- Environmental groups and organisations
- Community services
- Local schools and childcare
- Indigenous groups and organisations
- Volunteers
- Resilient Sydney Network
- NSW Government
- NSW Environment Protection Authority
- Parramatta River Catchment Group

HOW THE COMMUNITY CAN SUPPORT THIS OUTCOME

- Volunteer to protect the natural environment
- Take action at home to recycle, reuse, reduce consumption, and divert waste from landfill
- Plant and preserve more trees and build biodiversity in gardens and balconies
- Reduce litter by placing litter in the bin or taking it home when full
- Implement sustainable living practices in your own home
- Install solar panels, buy renewable energy, and reduce energy consumption
- Help to create and use community gardens

COUNCIL BUSINESS UNITS THAT SUPPORT THIS OUTCOME

- Sustainability and Waste
- Health, Building and Compliance
- Open Space

DELIVERY PROGRAM AND OPERATIONAL PLAN

NABLE AND T

Volunteers at Clean Up Australia Day 2023.

DIRECTION 2: DELIVERY PROGR PLAN GOALS, STRATEGIES, AND

Goal 2.1 Reduce greenhouse gas emissions

STRATEGY 2.1.1 LEAD INITIATIVES THAT EMPOWER THE COMMUNITY TO REACH EMISSIONS TARGETS, TRANSITION TO RENEWABLE ENERGY, AND IMPROVE CLIMATE RESILIENCE		
Reference	**Deliverable**	**Responsibility**
2.1.1.1	Deliver a program for residents which supports the Emissions Reduction Action plan and Climate Resilience Framework to increase resilience and reduce greenhouse gas emissions.	Manager Sustainability and Waste
2.1.1.2	Deliver projects which support the delivery of the Climate Resilience Framework which increase climate resilience and reduce greenhouse gas emissions.	Manager Sustainability and Waste

Goal 2.2 Increase urban tree canopy

STRATEGY 2.2.1 ENCOURAGE RESIDENTS AND STAKEHOLDERS TO PLANT, RETAIN, AND MAINTAIN THE URBAN TREE CANOPY		
Reference	**Deliverable**	**Responsibility**
2.2.1.1	Complete the review of actions and targets within the Urban Canopy Strategy.	Manager Open Space
2.2.1.2	Finalise the Street Tree Masterplan and tree inventory database.	Manager Open Space
2.2.1.3	Develop and implement a tree program aimed at increasing and retaining the number of trees on private land.	Manager Sustainability and Waste

Goal 2.3 Reduce waste to landfill through avoidance, increased recycling, and reuse

STRATEGY 2.3.1 DELIVER BEST PRACTICE PROGRAMS THAT REDUCE WASTE TO LANDFILL AND PROMOTE A CIRCULAR ECONOMY		
Reference	**Deliverable**	**Responsibility**
2.3.1.1	Deliver an expanded food organics garden organics (FOGO) trial for multi-unit dwellings.	Manager Sustainability and Waste
2.3.1.2	Deliver a program targeting waste diversion and increased recycling of materials in apartments and houses.	Manager Sustainability and Waste

AM AND OPERATIONAL ACTIVITIES

STRATEGY 2.3.2 DELIVER INNOVATIVE PROGRAMS AIMED AT REDUCING ILLEGAL DUMPING AND LITTERING IN CITY STREETS AND PARKS		
Reference	**Deliverable**	**Responsibility**
2.3.2.1	Deliver a new litter prevention plan.	Manager Sustainability and Waste
2.3.2.2	Deliver a new illegal dumping strategy.	Manager Sustainability and Waste

Goal 2.4 Enhance and protect native flora and fauna to support local biodiversity

STRATEGY 2.4.1 DELIVER INITIATIVES THAT PROTECT, MANAGE, AND RESTORE THE CITY'S HABITAT AREAS, FAUNA, AND NATIVE SPECIES		
Reference	**Deliverable**	**Responsibility**
2.4.1.1	Deliver biodiversity and biosecurity programs and projects to protect and enhance native species and local biodiversity.	Manager Sustainability and Waste

Goal 2.5 Improve access to, and enhance the quality of, foreshore and waterways

STRATEGY 2.5.1 IMPLEMENT INITIATIVES TO EXPAND, ENHANCE, AND PROMOTE PUBLIC SPACES AND PATHS ALONG THE FORESHORE
This Delivery Program strategy is being delivered in the Strategic Planning and Open Space service work plans.

STRATEGY 2.5.2 WORK WITH THE PARRAMATTA RIVER CATCHMENT GROUP TO DELIVER THE PARRAMATTA RIVER MASTERPLAN		
Reference	**Deliverable**	**Responsibility**
2.5.2.1	Implement and support the Parramatta River Masterplan.	Manager Open Space
2.5.2.2	Maintain membership of Parramatta River Catchment Group.	Manager Open Space

PERFORMANCE MEASURES			
Measure	**Baseline**	**Target**	**Frequency of reporting**
Net emissions (tonnes CO2-e) from Council operations*	7,579 t CO2-e (2017-18)	• 2,983 t CO2-e by 2025 • Zero CO2-e by 2030	Annually
Net emissions (tonnes CO2-e) from the City of Canada Bay Community**	772,220 t CO2-e (2017-18)	• 351,682 t CO2-e by 2035 • Zero CO2-e by 2050	Annually***
Kilograms per year of domestic waste stream to landfill per resident**	190kg/per annum (2019-20)	Decrease	Annually
Number of trees planted**	800 (2019-20)	1,500	Annually

** Outcomes that Council can control*
*** Outcomes that Council can influence*
**** Annual total community emissions data has a lag of 12 months from reporting year*

Tending the garden at Concord Oval Recreation Centre.

DELIVERY PROGRAM AND OPERATIONAL PLAN

DIRECTION 3: VIBRANT URBAN LIVING

DIRECTION 3: VIBRANT URBAN LIVING

COMMUNITY OUTCOME

Our local villages and town centres are welcoming and active community hubs with opportunities to participate in varied art, culture and creative activities. Our City is welcoming and supportive of business and the local economy is strong. The built environment respects the unique character of our neighborhoods and responds to the needs of our growing community.

ECONOMIC SOCIAL

OUR FUTURE 2036 GOALS

1. Create vibrant local village centres and community hubs
2. Improve access to local art, culture and creative activities
3. Promote the City as an attractive, welcoming place to do business
4. Ensure the built environment respects the unique neighbourhood character and responds deftly to evolving community needs

OUR PARTNERS

- Community groups and organisations
- Residents, workers and visitors
- Business and industry
- Chambers of Commerce
- Volunteers
- Resilient Cities Network (Sydney)
- Southern Sydney Regional Organisation of Councils (SSROC)
- NSW Government

HOW THE COMMUNITY CAN SUPPORT THIS OUTCOME

- Sponsor and attend local events and activities, including creative and cultural programs and activities or local business forums
- Shop local
- Report safety and maintenance issues
- Celebrate our local heritage

COUNCIL BUSINESS UNITS THAT SUPPORT THIS OUTCOME

- Health, Building and Compliance
- Strategic Planning
- Statutory Planning
- Place Management

Street performers at Jellicoe Street, Concord.

DELIVERY PROGRAM AND OPERATIONAL PLAN

DIRECTION 3: DELIVERY PROGR PLAN GOALS, STRATEGIES, AND

Goal 3.1 Create vibrant local village centres and community hubs

STRATEGY 3.1.1 IMPLEMENT A MULTIDISCIPLINARY AND COLLABORATIVE PLACE MANAGEMENT APPROACH TO MAXIMISE CITY-WIDE SOCIAL, ECONOMIC, AND ENVIRONMENTAL OUTCOMES		
Reference	**Deliverable**	**Responsibility**
3.1.1.1	Implement the Place Management Framework and adopted Place Plans.	Manager Place Management

Goal 3.2 Improve access to local art, culture, and creative activities

STRATEGY 3.2.1 DELIVER INNOVATIVE AND ACCESSIBLE ARTS AND CULTURAL PROJECTS, PROGRAMS, AND CREATIVE ACTIVITIES
This Delivery Program strategy is being delivered in the Place Management business unit work plan.

STRATEGY 3.2.2 ENCOURAGE INTEGRATION OF PUBLIC ART AND DESIGN IN KEY SITES AROUND THE CITY		
Reference	**Deliverable**	**Responsibility**
3.2.2.1	Implement the Cultural Plan and Public Art Strategy.	Manager Place Management

Goal 3.3 Promote the City as an attractive, welcoming place to do business

STRATEGY 3.3.1 SUPPORT AND PROMOTE AN ENLIVENED EVENING ECONOMY
This Delivery Program strategy is being delivered in the Place Management business unit work plan.

STRATEGY 3.3.2 PROVIDE ECONOMIC DEVELOPMENT ACTIVITIES IN PARTNERSHIP TO STIMULATE THE LOCAL ECONOMY		
Reference	**Deliverable**	**Responsibility**
3.3.2.1	Conduct business and economic development programs in priority places.	Manager Place Management

AM AND OPERATIONAL ACTIVITIES

Goal 3.4 Ensure the built environment respects neighbourhood character and responds deftly to evolving community need

STRATEGY 3.4.1 EFFECTIVELY PLAN FOR FUTURE GROWTH BY BALANCING REGIONAL PRIORITIES WITH LOCAL VALUES

Reference	Deliverable	Responsibility
3.4.1.1	Prepare background studies to inform an update to the Canada Bay Local Strategic Planning Statement.	Manager Strategic Planning

STRATEGY 3.4.2 IMPLEMENT BEST PRACTICE LAND USE PLANNING AND CONSTRUCTION APPROACHES TO DELIVER QUALITY DEVELOPMENT OUTCOMES

Reference	Deliverable	Responsibility
3.4.2.1	Prepare background studies to inform land use change around the Five Dock Metro station.	Manager Strategic Planning
3.4.2.2	Finalise the Planning Proposal for Stage 2 of the Parramatta Road Corridor.	Manager Strategic Planning
3.4.2.3	Review and update the Canada Bay Development Control Plan.	Manager Strategic Planning
3.4.2.4	Review and update the Canada Bay Local Infrastructure Contributions Plan.	Manager Strategic Planning

PERFORMANCE MEASURES

Measure	Baseline	Target	Frequency of reporting
Percentage of people and businesses who agree town centres are vibrant**	57% (2019-20)	Maintain or improve	Biennially (every two years)
Median number of days to assess Development Applications*	83 days (2019-20)	Decrease	Annually
Percentage of planned environmental health inspections completed according to the inspection schedule*	- new measure	100%	Six monthly and annually

** Outcomes that Council can control*
*** Outcomes that Council can influence*

DIRECTION 4: INFRASTR AND TRANSPORT

DIRECTION 4: INFRASTRUCTURE AND TRANSPORT

COMMUNITY OUTCOME

Traffic and parking are managed well to improve road and pedestrian safety and minimise congestion. There are more opportunities to walk, cycle and use public transport. Our public assets – including parks, seawalls, roads and cycleways – are in great condition and able to meet growing local and visitor population demands.

SOCIAL ECONOMIC ENVIRONMENTAL

OUR FUTURE 2036 GOALS

1. Manage local assets to ensure they continue to meet community needs and address climate adaptation
2. Manage traffic and parking to minimise congestion and increase road safety
3. Encourage active and accessible transport opportunities

OUR PARTNERS

- Community groups and organisations
- Business and industry
- Chambers of Commerce
- Southern Sydney Regional Organisation of Councils (SSROC)
- NSW Government
- Transport for NSW
- Federal Government

HOW THE COMMUNITY CAN SUPPORT THIS OUTCOME

- Have your say during community engagement
- Provide feedback on public exhibitions of policies, strategies, and plans
- Choose to walk, cycle, and use public transport to get around
- Report any issues with roads and footpaths to Council

COUNCIL BUSINESS UNITS THAT SUPPORT THIS OUTCOME

- Strategic Asset Services and Innovation
- Roads and Traffic
- Project Management Office
- Building Services and Fleet
- Open Space

DELIVERY PROGRAM AND OPERATIONAL PLAN

UCTURE

Roundabout in Rodd Point.

DIRECTION 4: DELIVERY PROGR PLAN GOALS, STRATEGIES, AND

Goal 4.1 Manage local assets to ensure they continue to meet community needs and address climate adaption

STRATEGY 4.1.1 ENSURE THAT COUNCIL'S BUILDINGS, PARKS, STORMWATER AND SEAWALLS, AND INFRASTRUCTURE ASSETS ARE CLIMATE RESILIENT AND ABLE TO SUPPORT A GROWING COMMUNITY

Reference	Deliverable	Responsibility
4.1.1.1	Develop Powells Creek Flood Plain Risk Management Plan.	Manager Strategic Asset Services and Innovation
4.1.1.2	Management of the Sydney Metro works within public roads in accordance with the Sydney Metro Interface Agreement and relevant legislation.	Manager Strategic Asset Services and Innovation
4.1.1.3	Review Council's Stormwater Risk Management Strategy.	Manager Strategic Asset Services and Innovation
4.1.1.4	Complete a review of the Asset Management Strategy and Plans.	Manager Strategic Asset Services and Innovation

STRATEGY 4.1.2 PROACTIVELY MANAGE AND MAINTAIN COUNCIL'S LOCAL ROAD AND FOOTPATH NETWORK

This Delivery Program strategy is being delivered in the Roads and Traffic service work plan.

Goal 4.2 Manage traffic and parking to minimise congestion and improve road safety

STRATEGY 4.2.1 PLAN, DELIVER, AND MANAGE TRAFFIC AND PARKING SO THAT IT CAN BETTER SUPPORT POPULATION CHANGE

This Delivery Program strategy is being delivered in the Roads and Traffic service work plan.

Goal 4.3 Encourage active and accessible transport opportunities

STRATEGY 4.3.1 SUPPORT AND ADVOCATE FOR SAFE AND ACCESSIBLE ACTIVE AND PUBLIC TRANSPORT NETWORKS

This Delivery Program strategy is being delivered in the Roads and Traffic business unit work plan.

AM AND OPERATIONAL ACTIVITIES

PERFORMANCE MEASURES			
Measure	**Baseline**	**Target**	**Frequency of reporting**
Number of participants in car safety seat fitting and road safety activities*	- new measure	Maintain or increase	Annually
Metres of new active travel assets (footpaths, shared paths, on-road cycleways) delivered.*	n/a	Workload measure (delivered per program)	Annually
Percentage of road surfaces rated in satisfactory condition or better.*	91% (2019-20)	>90%	Annually

** Outcomes that Council can control*

DIRECTION 5: CIVIC LEADERSHIP

DIRECTION 5: CIVIC LEADERSHIP

COMMUNITY OUTCOME

Council leads the way with ethical and effective decision making to ensure a sustainable, financially secure, and resilient future for the City of Canada Bay. It is easy for people to find out about what is happening in their community and how they can get involved in decisions that affect them. Our community's quality of life is improved by thoughtful use of 'smart city' technology.

CIVIC ENVIRONMENTAL ECONOMIC

OUR FUTURE 2036 GOALS

1. Council is accountable, efficient, and ready to meet future challenges
2. Council is supported by a skilled and efficient workforce that is equipped to meet the needs of a growing community
3. Council works with partners to actively shape the City's future
4. The City of Canada Bay community is well informed and eager to engage in issues and decisions that impact them

OUR PARTNERS

- Community groups and organisations
- Residents and ratepayers
- Business and industry
- Southern Sydney Regional Organisation of Councils (SSROC)
- Office of Local Government
- NSW Government
- Federal Government

HOW THE COMMUNITY CAN SUPPORT THIS OUTCOME

- Learn about how Council operates and how decisions are made
- Participate in community engagement events related to finance, environment, and high-profile projects
- Get to know what Council does through newsletters and other communication channels, including social media
- Interact with and use Council's smart technology, including smart parking and smart signs

COUNCIL BUSINESS UNITS THAT SUPPORT THIS OUTCOME

- Executive and Councillor Support
- Communications and Engagement
- People and Culture
- Digital and Information Services
- Finance and Procurement
- Governance and Risk
- Property Strategy and Leasing
- Corporate Strategy and Business Improvement

DELIVERY PROGRAM AND OPERATIONAL PLAN

Council staff members taking part in the Australasian Management Challenge Team 2023.

DIRECTION 5: DELIVERY PROGR PLAN GOALS, STRATEGIES, AND

Goal 5.1 Council is accountable, efficient, and ready to meet future challenges

STRATEGY 5.1.1 ENSURE DECISION MAKING IS OPEN, ACCOUNTABLE, AND INFORMED BY INTEGRATED PLANNING AND RISK MANAGEMENT

Reference	Deliverable	Responsibility
5.1.1.1	Manage and administer the local government elections.	Manager Governance and Risk
5.1.1.2	Meet the Integrated Planning and Reporting requirements by June 2025, including the Community Strategic Plan, Delivery Program, Operational Plan and Resourcing Strategy.	Director Corporate Services and Strategy
5.1.1.3	Prepare the Annual Report, incorporating the (State of our City) end of term report, by November 2024.	Director Corporate Services and Strategy

STRATEGY 5.1.2 STRENGTHEN COUNCIL'S FINANCIAL OPERATIONS AND PROCESSES

Reference	Deliverable	Responsibility
5.1.2.1	Develop draft Community Leasing Policy.	Manager Property Strategy and Leasing
5.1.2.2	Monitor and participate in the Independent Pricing and Regulatory Tribunal's review of the financial model for NSW local councils.	Manager Finance and Procurement
5.1.2.3	Review Council's current Investment Policy and implement amendments whist ensuring the Investment Portfolio continues to be managed within a prudent and conservative risk framework.	Manager Finance and Procurement

STRATEGY 5.1.3 IMPLEMENT ENVIRONMENTAL EFFICIENCY MEASURES ACROSS COUNCIL ASSETS AND SERVICES

Reference	Deliverable	Responsibility
5.1.3.1	Deliver projects that support climate resilience for Council assets.	Manager Sustainability and Waste

AM AND OPERATIONAL ACTIVITIES

Goal 5.2 Council is supported by a skilled and efficient workforce that is equipped to meet the needs of a growing community

STRATEGY 5.2.1 ESTABLISH TIMELY PLANS FOR FUTURE WORKFORCE NEEDS AND DELIVER WORKFORCE MANAGEMENT PLAN

Reference	Deliverable	Responsibility
5.2.1.1	Develop Council's new Workforce Management Plan for 2025-2029.	Manager People and Culture
5.2.1.2	Implement a new Human Resource Information System.	Manager People and Culture

STRATEGY 5.2.2 PROMOTE COUNCIL AS AN EMPLOYER OF CHOICE WITH A TALENTED AND VALUED WORKFORCE

Reference	Deliverable	Responsibility
5.2.2.1	Implement Council's Mental Health Support Strategy to provide for the mental safety and wellbeing of staff through provision of training and support mechanisms.	Manager People and Culture
5.2.2.2	Drive organisational culture and values through initiatives such as the annual staff recognition and excellence awards.	Manager People and Culture
5.2.2.3	Implement the Learning and Development Strategy to foster an engaged and empowered learning culture.	Manager People and Culture
5.2.2.4	Revise Council's Recruitment and Marketing Strategies to include Disability Inclusion and Reconciliation Action Plan tasks relating to: · Cultural sensitivity training · New talent pools to increase diversity · Exploring funding opportunities for traineeships and employment programs eg veteran's program or disability training	Manager People and Culture
5.2.2.5	Embed the Safety First culture throughout the organisation through the implementation of the Health, Safety and Wellbeing Strategy and Framework.	Manager People and Culture

STRATEGY 5.2.3 IMPLEMENT BEST PRACTICE TECHNOLOGY AND PROCESSES		
Reference	**Deliverable**	**Responsibility**
5.2.3.1	Undertake a major software incident management exercise as part of organisational business continuity.	Manager Digital and Information Services
5.2.3.2	Continue digitisation of Council archived records.	Manager Digital and Information Services
5.2.3.3	Implement recommendations from Council's Cyber Security Audit.	Manager Digital and Information Services

STRATEGY 5.2.4 DELIVER BUSINESS AND SERVICE DELIVERY IMPROVEMENTS		
Reference	**Deliverable**	**Responsibility**
5.2.4.1	Undertake two Service Reviews each financial year, consistent with the Service Review Framework.	Director Corporate Services and Strategy
5.2.4.2	Progress Council's administration and operational accommodation strategy.	Manager Property Strategy and Leasing
5.2.4.3	Develop a corporate Customer Experience Strategy.	Digital and Information Services

Goal 5.3 Council works with partners to actively shape the City's future

STRATEGY 5.3.1 PARTNER WITH THE COMMUNITY AND STAKEHOLDERS TO DELIVER INTEGRATED PLANNING OBJECTIVES AND ADVOCACY TO STATE AND FEDERAL GOVERNMENTS		
Reference	**Deliverable**	**Responsibility**
5.3.1.1	Develop and implement the Community Perception Survey.	Director Corporate Services and Strategy

STRATEGY 5.3.2 SEEK SMART CITY PARTNERSHIPS TO IMPROVE COMMUNITY AND COUNCIL OUTCOMES
This Delivery Program strategy is being delivered within the Place Management business unit work plan.

Goal 5.4 Support a well-informed and engaged community that can participate in issues and decisions that affect them

STRATEGY 5.4.1 ENSURE THE COMMUNITY IS WELL-INFORMED THROUGH HIGH QUALITY, ACCESSIBLE, AND TIMELY INFORMATION

This Delivery Program strategy is being delivered as within the Communications and Engagement business unit work plan.

PERFORMANCE MEASURES

Measure	Baseline	Target	Frequency of reporting
Percentage of scheduled operational activities that are on track for completion within the project timeframe*	- new measure	80%	Six monthly and annually
Percentage of scheduled capital infrastructure projects that are on track for completion within the project timeframe*	- new measure	80%	Six monthly and annually
Percentage of high impact projects with a community engagement plan*	- new measure	100%	Annually
Percentage of rates collected by due date**	95% (2021-22)	95%	Annually
Cash expense cover ratio*		>3 months	Annually
Debt service cover ratio*		>2.00x	Annually
Operating performance ratio*		>0.00%	Annually
Own source operating revenue ratio*		>60%	Annually
Unrestricted current ratio*		>1.5x	Annually

** Outcomes that Council can control*
*** Outcomes that Council can influence*

RESOURCING

Japanese Fan Dance Group Sense Asia 2023.

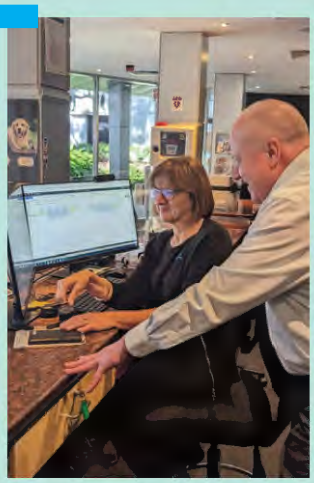
RESOURCING STRATEGY

Council plans and budgets to achieve the Community Strategic Plan outcomes through development of a Resourcing Strategy at the start of each Council term and undertaking regular reviews of the resourcing strategy throughout the term of office. The Resourcing Strategy is comprised of the following three elements:

PEOPLE:
A Workforce Management Plan that builds the capacity and capability of our staff to ensure we provide the best services and outcomes for you.

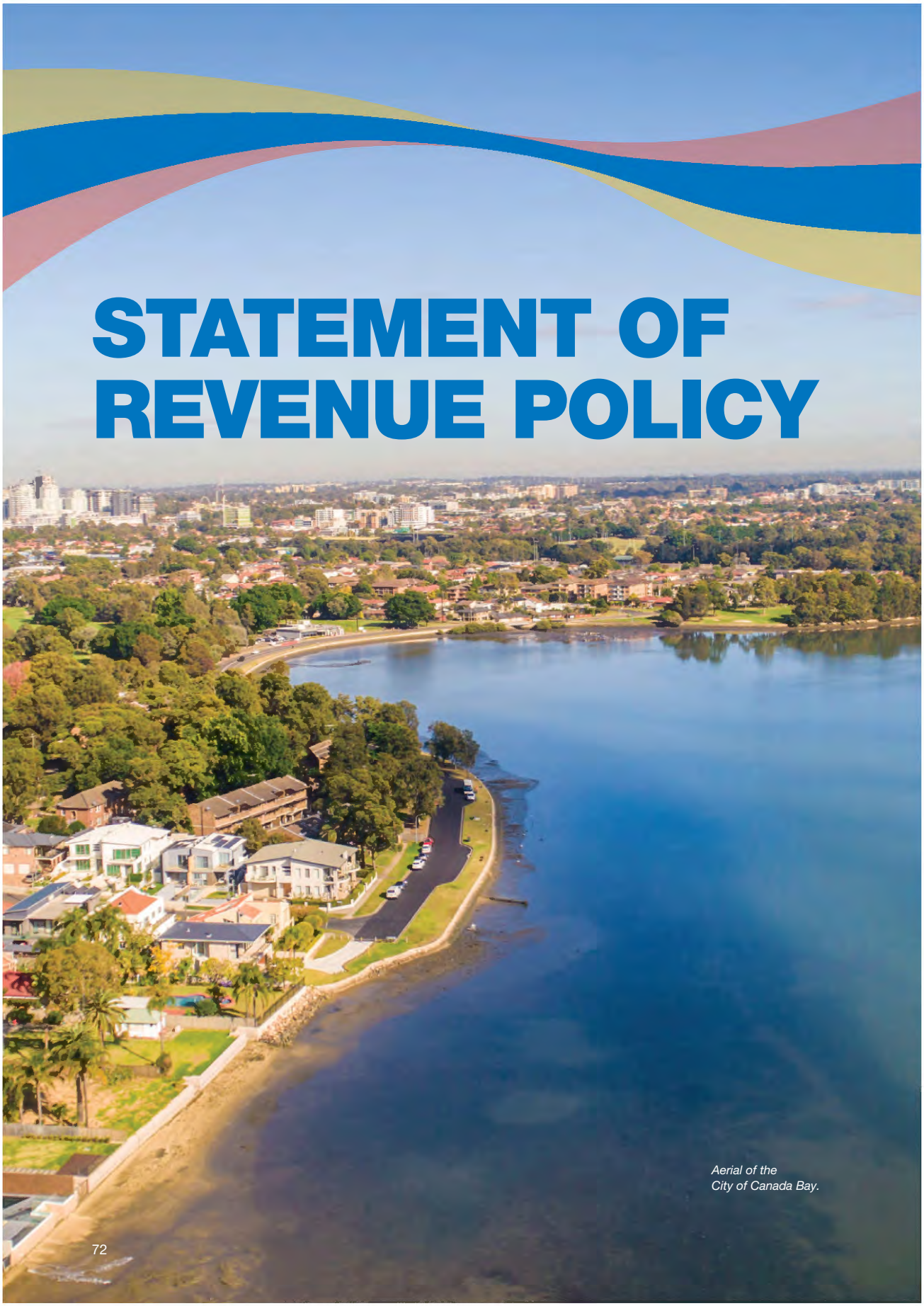
ASSETS:
Asset Management Strategy and Plans to ensure that our existing assets are well maintained and that new assets are planned strategically to meet current and future needs.

FINANCES:
A Long-term Financial Plan that provides for financial security to deliver our services and resilience to recover from shocks.



The Resourcing Strategy plans ahead for the next 10 years, anticipating the changing needs of our growing community and adjusting annually as trends and challenges impact on the services that we deliver.

STATEMENT OF REVENUE POLICY



Aerial of the City of Canada Bay.

Overview

This Statement of Revenue Policy identifies where Council expects its revenue to be derived during 2024-2025, and how it intends to expend that revenue in order to deliver this year's Operational Plan.

The Statement of Revenue Policy includes estimates of income and expenditure, with a detailed budget for the Operational Plan's deliverables.

It provides information about the rates and special rates that will apply across the City in 2024-2025, and the fees and charges that will be levied for some of the services the Council provides to the community.

It also includes a pricing methodology that demonstrates how the Council has arrived at its schedule of fees and charges.

The estimated income and expenditure for Council's operating and capital budgets are presented in the table below.

Estimated income and expenditure	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Operational budget				
Operating income				
Rates and annual charges	71,109,067	73,830,736	77,139,025	79,067,501
User fees and charges	21,645,210	21,923,972	23,030,216	23,605,971
Other revenue	6,747,581	4,715,000	7,089,178	6,721,950
Other income	4,445,619	7,326,477	4,617,197	7,266,407
Grants and contributions - operational	6,525,446	4,177,430	6,777,438	4,732,627
Interest	7,058,000	6,638,499	6,558,000	6,946,874
Total operating income	**117,530,923**	**118,612,113**	**125,211,054**	**128,341,330**
Operating expenses				
Employee costs	50,545,078	49,927,855	53,636,375	54,977,284
Borrowings	587,337	552,424	515,968	528,867
Materials and services	41,407,437	41,901,563	43,161,140	44,240,169
Depreciation	17,527,678	18,745,363	19,757,442	20,251,378
Other expenses	7,462,245	7,177,604	7,839,261	8,035,243
Net loss from disposal of assets	0	0	0	0
Total operating expenditure	117,529,775	118,304,809	124,910,186	128,032,941
Operational result - surplus/(deficit)	**1,148**	**307,304**	**300,868**	**308,389**
Capital budget				
Capital income				
Grants and contributions - capital	11,419,743	10,594,743	7,927,743	7,927,743
New loan	0	0	0	0
Proceeds from the disposal of assets	501,000	501,000	501,000	501,000
Total capital income	**11,920,743**	**11,095,743**	**8,428,743**	**8,428,743**
Capital expenses				
Capital expenditure	54,247,321	37,558,419	33,326,789	34,639,816
Capital expenditure - principal loan	791,543	826,456	862,913	900,980
Capital expenditure - other	100,000	100,000	100,000	100,000
Total capital expenditure	**55,138,865**	**38,484,876**	**34,289,702**	**35,640,796**
Capital result - surplus/(deficit)	**(43,218,121)**	**(27,389,133)**	**(25,860,958)**	**(27,212,053)**
Funding movements				
Add back depreciation and amortisation - non cash item	17,527,678	18,745,363	19,757,442	20,251,378
Transfer from reserve	34,634,436	17,443,593	14,914,392	15,768,780
Transfer to reserve	8,945,141	9,107,128	9,111,744	9,116,495
Total funding movements	**43,216,973**	**27,081,828**	**25,560,090**	**26,903,663**
Net result - surplus/(deficit)	**(0)**	**0**	**(0)**	**(0)**
Operating ratio	**0.00%**	**0.26%**	**0.24%**	**0.24%**

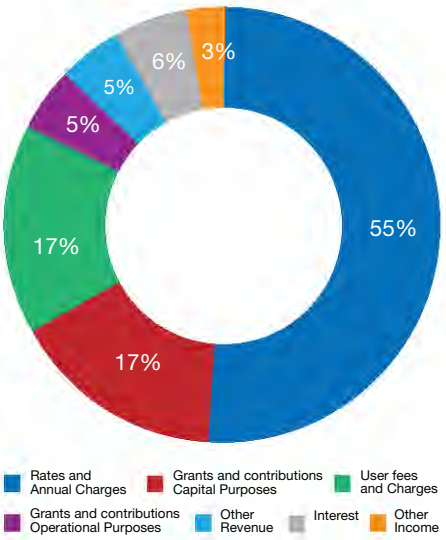
Income statement

	Forecast 2024-2025
Income from continuing operations	
Rates and annual charges	71,109,066
User fees and charges	21,645,211
Other revenue	6,747,581
Other income	4,445,619
Grants and contributions - operational	6,525,446
Interest	7,058,000
Grants And Contributions - capital	11,419,743
Total operating income	**128,950,666**
Expenses from continuing operations	
Employee costs	50,545,078
Borrowings	587,337
Materials and services	41,407,437
Depreciation	17,527,678
Other expenses	7,462,245
Net loss from disposal of assets	0
Total operating expenditure	**117,529,775**
Surplus/(deficit) from continuing operations	**11,420,891**
Surplus/(deficit) before capital grants and contributions	**1,148**

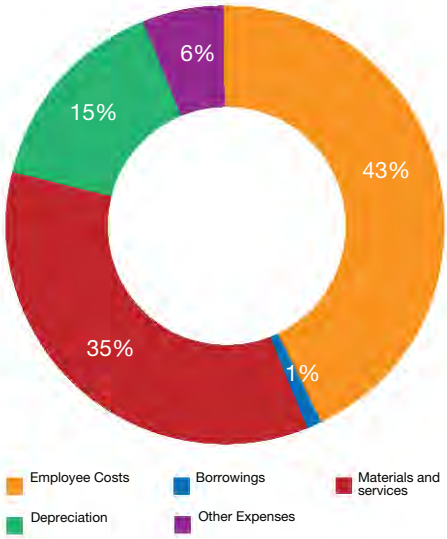
Proposed borrowings for 2024-2025

Nil.

Operating income 2024-2025



Operating expenditure 2024-2025



Combined budget summary 2024–25 - Executive Services

Business units

- Executive Services
- General Manager
- Communications and Engagement
- People and Culture

Executive Services	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	120,000	122,004	127,308	130,491
Total income from continuing operations	**120,000**	**122,004**	**127,308**	**130,491**
Expenses from continuing operations				
Employee costs	4,837,451	4,659,595	5,381,617	5,516,157
Borrowings	0	0	0	0
Materials and services	1,327,910	1,430,391	1,395,142	1,430,021
Depreciation	0	0	0	0
Other expenses	30,138	30,594	31,662	32,454
Total expenses from continuing operations	**6,195,499**	**6,120,580**	**6,808,421**	**6,978,632**
Surplus/(deficit) from continuing operations	**(6,075,499)**	**(5,998,576)**	**(6,681,113)**	**(6,848,141)**

Business unit
General Manager

General Manager	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**0**	**0**	**0**	**0**
Expenses from continuing operations				
Employee costs	778,159	883,645	821,419	841,954
Borrowings	0	0	0	0
Materials and services	643,249	713,284	675,814	692,709
Depreciation	0	0	0	0
Other expenses	30,138	30,594	31,662	32,454
Total expenses from continuing operations	**1,451,546**	**1,627,523**	**1,528,895**	**1,567,117**
Surplus/(deficit) from continuing operations	(1,451,546)	(1,627,523)	(1,528,895)	(1,567,117)

Business unit
Communications and Engagement

Communications and Engagement	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**0**	**0**	**0**	**0**
Expenses from continuing operations				
Employee costs	1,073,846	805,129	1,133,652	1,161,993
Borrowings	0	0	0	0
Materials and services	333,919	344,553	350,826	359,597
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**1,407,765**	**1,149,682**	**1,484,478**	**1,521,590**
Surplus/(deficit) from continuing operations	**(1,407,765)**	**(1,149,682)**	**(1,484,478)**	**(1,521,590)**

Business unit
People and Culture

People and Culture	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	120,000	122,004	127,308	130,491
Total income from continuing operations	**120,000**	**122,004**	**127,308**	**130,491**
Expenses from continuing operations				
Employee costs	2,985,446	2,970,821	3,426,546	3,512,210
Borrowings	0	0	0	0
Materials and services	350,742	372,554	368,502	377,715
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**3,336,188**	**3,343,375**	**3,795,048**	**3,889,924**
Surplus/(deficit) from continuing operations	**(3,216,188)**	**(3,221,371)**	**(3,667,740)**	**(3,759,434)**

Combined budget summary 2024-25 – Corporate Services and Strategy

Business units

- Director Corporate Services and Strategy
- Chief Financial Officer
- Chief Digital Information Officer
- Property Strategy and Leasing
- Governance and Risk

Corporate Services and Strategy	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	53,215,800	55,227,086	58,470,313	59,932,071
User fees and charges	610,748	642,538	535,912	549,310
Interest	7,058,000	4,715,000	6,558,000	6,721,950
Other revenue	1,256,448	1,159,116	1,320,055	1,353,056
Other income	4,422,624	4,144,618	4,593,038	4,707,864
Grants and contributions-operational purposes	3,910,772	3,989,247	4,085,526	4,187,664
Total income from continuing operations	**70,474,392**	**69,877,604**	**75,562,844**	**77,451,915**
Expenses from continuing operations				
Employee costs	8,538,509	8,384,416	9,020,790	9,246,310
Borrowings	587,337	552,424	515,968	528,867
Materials and services	8,336,692	8,328,342	8,130,671	8,333,938
Depreciation	9,163,415	9,711,959	10,272,367	10,529,176
Other expenses	2,765,000	2,684,864	2,904,978	2,977,602
Total expenses from continuing operations	**29,390,952**	**29,662,005**	**30,844,774**	**31,615,893**
Surplus/(deficit) from continuing operations	**41,083,439**	**40,215,599**	**44,718,070**	**45,836,021**

Business unit
Director Corporate Services and Strategy

Director Corporate Services and Strategy	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**0**	**0**	**0**	**0**
Expenses from continuing operations				
Employee costs	1,005,996	1,072,300	1,062,039	1,088,590
Borrowings	0	0	0	0
Materials and services	227,457	273,959	241,187	247,217
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**1,233,453**	**1,346,259**	**1,303,226**	**1,335,807**
Surplus/(deficit) from continuing operations	**(1,233,453)**	**(1,346,259)**	**(1,303,226)**	**(1,335,807)**

Business unit
Chief Financial Officer

Chief Financial Officer	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	53,246,854	55,258,829	58,504,484	59,967,096
User fees and charges	542,270	573,741	463,264	474,846
Interest	7,058,000	4,715,000	6,558,000	6,721,950
Other revenue	125,505	115,745	131,859	135,155
Other income	0	0	0	0
Grants and contributions-operational purposes	3,910,772	3,989,247	4,085,526	4,187,664
Total income from continuing operations	**64,883,401**	**64,652,561**	**69,743,133**	**71,486,711**
Expenses from continuing operations				
Employee costs	2,219,504	2,296,533	2,349,693	2,408,435
Borrowings	587,337	552,424	515,968	528,867
Materials and services	739,306	1,198,475	776,735	796,153
Depreciation	9,163,415	9,711,959	10,272,367	10,529,176
Other expenses	75,000	0	78,797	80,767
Total expenses from continuing operations	**12,784,562**	**13,759,391**	**13,993,560**	**14,343,399**
Surplus/(deficit) from continuing operations	**52,098,838**	**50,893,171**	**55,749,573**	**57,143,312**

Business unit
Chief Digital and Information Officer

Chief Digital and Information Officer	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	63,886	0	67,776	69,470
Interest	0	0	0	0
Other revenue	1,535	0	1,612	1,652
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**65,421**	**0**	**69,388**	**71,123**
Expenses from continuing operations				
Employee costs	3,647,433	1,382,722	3,850,816	3,947,086
Borrowings	0	0	0	0
Materials and services	3,340,179	3,191,400	3,509,281	3,597,013
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**6,987,612**	**4,574,122**	**7,360,097**	**7,544,099**
Surplus/(deficit) from continuing operations	**(6,922,191)**	**(4,574,122)**	**(7,290,709)**	**(7,472,977)**

Business unit
Property Strategy and Leasing

Property Strategy and Leasing	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	(31,054)	(31,743)	(34,171)	(35,025)
User fees and charges	4,592	4,613	4,872	4,994
Interest	0	0	0	0
Other revenue	1,111,000	1,043,371	1,167,244	1,196,425
Other income	4,422,624	4,144,618	4,593,038	4,707,864
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**5,507,162**	**5,160,859**	**5,730,983**	**5,874,258**
Expenses from continuing operations				
Employee costs	1,064,289	1,076,282	1,123,579	1,151,668
Borrowings	0	0	0	0
Materials and services	832,236	840,831	874,369	896,228
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**1,896,525**	**1,917,113**	**1,997,948**	**2,047,897**
Surplus/(deficit) from continuing operations	**3,610,637**	**3,243,746**	**3,733,035**	**3,826,361**

Business unit
Governance and Risk

Governance and Risk	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	64,184	0	0
Interest	0	0	0	0
Other revenue	18,408	0	19,340	19,824
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**18,408**	**64,184**	**19,340**	**19,824**
Expenses from continuing operations				
Employee costs	601,286	2,556,579	634,663	650,530
Borrowings	0	0	0	0
Materials and services	3,197,514	2,823,677	2,729,099	2,797,326
Depreciation	0	0	0	0
Other expenses	2,690,000	2,684,864	2,826,181	2,896,836
Total expenses from continuing operations	**6,488,800**	**8,065,120**	**6,189,943**	**6,344,692**
Surplus/(deficit) from continuing operations	**(6,470,392)**	**(8,000,936)**	**(6,170,603)**	**(6,324,868)**

Combined budget summary 2024-25 – Environment and Planning

Business units

- Director Environment and Planning
- Health, Building and Compliance
- Sustainability and Waste
- Strategic Planning
- Statutory Planning

Environment and Planning	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	17,912,655	18,619,091	18,690,046	19,157,297
User fees and charges	4,304,379	4,331,786	4,551,843	4,665,639
Interest	0	0	0	0
Other revenue	5,180,328	5,893,576	5,442,583	5,578,648
Other income	22,995	32,812	24,159	24,763
Grants and contributions-operational purposes	407,774	308,942	391,737	401,530
Total income from continuing operations	**27,828,132**	**29,186,207**	**29,100,368**	**29,827,877**
Expenses from continuing operations				
Employee costs	8,649,008	8,647,150	9,128,273	9,356,480
Borrowings	0	0	0	0
Materials and services	15,111,914	14,490,283	16,353,698	16,762,540
Depreciation	0	0	0	0
Other expenses	3,823,628	3,606,156	4,017,200	4,117,630
Total expenses from continuing operations	**27,584,549**	**26,743,589**	**29,499,171**	**30,236,650**
Surplus/(deficit) from continuing operations	**243,582**	**2,442,618**	**(398,803)**	**(408,773)**

Business unit
Director Environment and Planning

Director Environment and Planning	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	56,968	56,678	59,852	61,348
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**56,968**	**56,678**	**59,852**	**61,348**
Expenses from continuing operations				
Employee costs	414,087	411,065	437,162	448,091
Borrowings	0	0	0	0
Materials and services	310,029	304,205	325,724	333,867
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**724,116**	**715,270**	**762,886**	**781,958**
Surplus/(deficit) from continuing operations	**(667,148)**	**(658,592)**	**(703,034)**	**(720,610)**

Business unit
Health, Building and Compliance

Health, Building and Compliance	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	1,482,766	1,465,805	1,573,067	1,612,394
Interest	0	0	0	0
Other revenue	5,123,360	5,599,307	5,382,731	5,517,299
Other income	15,000	24,657	15,759	16,153
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**6,621,126**	**7,089,769**	**6,971,557**	**7,145,846**
Expenses from continuing operations				
Employee costs	3,805,148	3,704,051	4,014,629	4,114,995
Borrowings	0	0	0	0
Materials and services	975,585	701,821	1,024,975	1,050,599
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**4,780,733**	**4,405,872**	**5,039,604**	**5,165,594**
Surplus/(deficit) from continuing operations	**1,840,393**	**2,683,897**	**1,931,953**	**1,980,252**

Business unit
Sustainability and Waste

Sustainability and Waste	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	17,912,655	18,619,091	18,690,046	19,157,297
User fees and charges	1,015,502	1,062,459	1,077,346	1,104,280
Interest	0	0	0	0
Other revenue	0	237,591	0	0
Other income	7,995	8,155	8,400	8,610
Grants and contributions-operational purposes	273,456	247,072	253,806	260,151
Total income from continuing operations	**19,209,608**	**20,174,368**	**20,029,598**	**20,530,338**
Expenses from continuing operations				
Employee costs	1,735,047	1,657,553	1,831,598	1,877,388
Borrowings	0	0	0	0
Materials and services	12,783,964	13,131,658	14,254,599	14,610,964
Depreciation	0	0	0	0
Other expenses	3,798,628	3,579,890	3,990,934	4,090,707
Total expenses from continuing operations	**18,317,639**	**18,369,101**	**20,077,131**	**20,579,059**
Surplus/(deficit) from continuing operations	**891,970**	**1,805,267**	**(47,533)**	**(48,721)**

Business unit
Strategic Planning

Strategic Planning	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	520,735	512,178	540,268	553,775
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	87,500	12,200	88,261	90,468
Total income from continuing operations	**608,235**	**524,378**	**628,529**	**644,242**
Expenses from continuing operations				
Employee costs	909,591	1,086,668	960,286	984,293
Borrowings	0	0	0	0
Materials and services	842,793	150,042	538,754	552,223
Depreciation	0	0	0	0
Other expenses	25,000	26,266	26,266	26,923
Total expenses from continuing operations	**1,777,384**	**1,262,976**	**1,525,306**	**1,563,439**
Surplus/(deficit) from continuing operations	**(1,169,149)**	**(738,598)**	**(896,777)**	**(919,196)**

Business unit
Statutory Planning

Statutory Planning	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	1,285,377	1,291,344	1,361,162	1,395,191
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	46,818	49,670	49,670	50,912
Total income from continuing operations	**1,332,195**	**1,341,014**	**1,410,832**	**1,446,103**
Expenses from continuing operations				
Employee costs	1,785,135	1,787,813	1,884,598	1,931,713
Borrowings	0	0	0	0
Materials and services	199,543	202,557	209,646	214,887
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**1,984,678**	**1,990,370**	**2,094,244**	**2,146,600**
Surplus/(deficit) from continuing operations	**(652,483)**	**(649,356)**	**(683,412)**	**(700,497)**

Combined budget summary 2023-24 – City Assets

Business units

- Director City Assets
- Roads and Traffic
- Open Space
- Building Services and Fleet
- Project Management Office

City Assets	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	(15,107)	(15,441)	(16,624)	(17,040)
User fees and charges	7,478,644	7,130,184	7,910,338	8,108,096
Interest	0	0	0	0
Other revenue	44,485	36,341	46,737	47,905
Other income	0	0	0	0
Grants and contributions-operational purposes	1,481,313	1,519,563	1,516,899	1,554,821
Total income from continuing operations	**8,989,335**	**8,670,647**	**9,457,350**	**9,693,784**
Expenses from continuing operations				
Employee costs	16,024,373	15,407,937	16,910,241	17,332,997
Borrowings	0	0	0	0
Materials and services	13,043,267	14,222,928	13,473,358	13,810,192
Depreciation	7,942,117	8,577,486	9,006,361	9,231,520
Other expenses	460,058	467,004	483,348	495,432
Total expenses from continuing operations	**37,469,815**	**38,675,355**	**39,873,308**	**40,870,141**
Surplus/(deficit) from continuing operations	**(28,480,480)**	**(30,004,708)**	**(30,415,958)**	**(31,176,357)**

Business unit
Director City Assets

Director City Assets	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**0**	**0**	**0**	**0**
Expenses from continuing operations				
Employee costs	860,131	821,862	907,772	930,466
Borrowings	0	0	0	0
Materials and services	49,078	48,251	51,564	52,853
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**909,209**	**870,113**	**959,336**	**983,319**
Surplus/(deficit) from continuing operations	**(909,209)**	**(870,113)**	**(959,336)**	**(983,319)**

Business unit
Strategic Asset Services and Innovation

Strategic Asset Services and Innovation	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	90,336	79,568	95,839	98,235
Interest	0	0	0	0
Other revenue	8,496	0	8,926	9,149
Other income	0	0	0	0
Grants and contributions-operational purposes	307,333	213,241	326,050	334,201
Total income from continuing operations	**406,165**	**292,809**	**430,815**	**441,585**
Expenses from continuing operations				
Employee costs	1,687,604	1,139,321	1,780,537	1,825,050
Borrowings	0	0	0	0
Materials and services	1,696,771	2,033,386	1,776,146	1,820,550
Depreciation	1,742,478	1,881,876	1,975,970	2,025,369
Other expenses	0	0	0	0
Total expenses from continuing operations	**5,126,852**	**5,054,583**	**5,532,653**	**5,670,969**
Surplus/(deficit) from continuing operations	**(4,720,687)**	**(4,761,774)**	**(5,101,838)**	**(5,229,384)**

Business unit
Roads and Traffic

Roads and Traffic	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	3,870,848	3,798,792	4,144,380	4,247,990
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	973,470	909,545	1,190,849	1,220,620
Total income from continuing operations	**4,844,318**	**4,708,337**	**5,335,229**	**5,468,610**
Expenses from continuing operations				
Employee costs	5,302,232	5,569,401	5,594,190	5,734,045
Borrowings	0	0	0	0
Materials and services	3,254,254	3,793,538	3,349,397	3,433,132
Depreciation	6,199,639	6,695,610	7,030,391	7,206,151
Other expenses	460,058	467,004	483,348	495,432
Total expenses from continuing operations	**15,216,183**	**16,525,553**	**16,457,326**	**16,868,759**
Surplus/(deficit) from continuing operations	**(10,371,865)**	**(11,817,216)**	**(11,122,097)**	**(11,400,149)**

Business unit
Open Space

Open Space	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	3,060,236	3,017,691	3,185,050	3,264,676
Interest	0	0	0	0
Other revenue	34,848	34,671	36,612	37,527
Other income	0	0	0	0
Grants and contributions-operational purposes	200,510	396,777	0	0
Total income from continuing operations	**3,295,594**	**3,449,139**	**3,221,662**	**3,302,204**
Expenses from continuing operations				
Employee costs	5,882,830	6,366,400	6,209,111	6,364,339
Borrowings	0	0	0	0
Materials and services	4,039,253	4,647,655	4,084,090	4,186,192
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**9,922,083**	**11,014,055**	**10,293,201**	**10,550,531**
Surplus/(deficit) from continuing operations	**(6,626,489)**	**(7,564,916)**	**(7,071,539)**	**(7,248,327)**

Business unit
Building Services and Fleet

Building Services and Fleet	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	(15,107)	(15,441)	(16,624)	(17,040)
User fees and charges	457,224	234,133	485,069	497,196
Interest	0	0	0	0
Other revenue	1,141	1,670	1,199	1,229
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**443,258**	**220,362**	**469,644**	**481,385**
Expenses from continuing operations				
Employee costs	2,002,664	1,510,953	2,113,616	2,166,456
Borrowings	0	0	0	0
Materials and services	3,920,711	3,700,098	4,124,744	4,227,863
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**5,923,375**	**5,211,051**	**6,238,360**	**6,394,319**
Surplus/(deficit) from continuing operations	**(5,480,117)**	**(4,990,689)**	**(5,768,716)**	**(5,912,934)**

Business unit
Project Management Office

Project Management Office	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**0**	**0**	**0**	**0**
Expenses from continuing operations				
Employee costs	288,911	0	305,015	312,640
Borrowings	0	0	0	0
Materials and services	83,201	0	87,417	89,602
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**372,112**	**0**	**392,432**	**402,243**
Surplus/(deficit) from continuing operations	**(372,112)**	**0**	**(392,432)**	**(402,243)**

Residents boarding the Bayrider bus service in Drummoyne.

Combined budget summary 2023-24 – Community Services and Leisure

Business unit

- Director Community, Culture and Leisure
- Place Management
- Library and Community Services
- Venue Management
- Recreation Management

Community Culture and Leisure	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	(4,281)	0	(4,710)	(4,828)
User fees and charges	9,251,439	9,819,464	10,032,123	10,282,926
Interest	0	0	0	0
Other revenue	266,320	237,444	279,803	286,798
Other income	0	0	0	0
Grants and contributions-operational purposes	605,587	698,743	655,968	672,367
Total income from continuing operations	**10,119,065**	**10,755,651**	**10,963,184**	**11,237,264**
Expenses from continuing operations				
Employee costs	12,495,738	12,828,757	13,195,454	13,525,340
Borrowings	0	0	0	0
Materials and services	3,587,654	3,429,619	3,808,271	3,903,478
Depreciation	422,146	455,918	478,714	490,682
Other expenses	383,421	388,986	402,073	412,125
Total expenses from continuing operations	**16,888,959**	**17,103,280**	**17,884,512**	**18,331,625**
Surplus/(deficit) from continuing operations	**(6,769,894)**	**(6,347,629)**	**(6,921,328)**	**(7,094,361)**

Business unit
Director - Community Culture and Leisure

Director Community Culture and Leisure	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	0	0	0	0
Interest	0	0	0	0
Other revenue	0	0	0	0
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**0**	**0**	**0**	**0**
Expenses from continuing operations				
Employee costs	400,819	413,840	423,160	433,739
Borrowings	0	0	0	0
Materials and services	10,350	0	10,874	11,146
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**411,169**	**413,840**	**434,034**	**444,885**
Surplus/(deficit) from continuing operations	**(411,169)**	**(413,840)**	**(434,034)**	**(444,885)**

Business unit
Place Management

Place Management	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	100,000	90,707	106,090	108,742
Interest	0	0	0	0
Other revenue	143,259	105,798	150,511	154,274
Other income	0	0	0	0
Grants and contributions-operational purposes	64,420	156,283	81,844	83,890
Total income from continuing operations	**307,679**	**352,788**	**338,445**	**346,906**
Expenses from continuing operations				
Employee costs	1,048,146	1,125,258	1,107,729	1,135,422
Borrowings	0	0	0	0
Materials and services	966,601	1,083,201	1,042,534	1,068,597
Depreciation	0	0	0	0
Other expenses	161,075	163,508	169,230	173,461
Total expenses from continuing operations	**2,175,822**	**2,371,967**	**2,319,493**	**2,377,480**
Surplus/(deficit) from continuing operations	**(1,868,143)**	**(2,019,179)**	**(1,981,048)**	**(2,030,574)**

Business unit
Library and Community Services

Library and Community Services	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	(4,281)	0	(4,710)	(4,828)
User fees and charges	4,101,434	4,237,057	4,518,050	4,631,001
Interest	0	0	0	0
Other revenue	1,161	1,157	1,220	1,251
Other income	0	0	0	0
Grants and contributions-operational purposes	541,167	542,460	574,124	588,477
Total income from continuing operations	**4,639,481**	**4,780,674**	**5,088,684**	**5,215,901**
Expenses from continuing operations				
Employee costs	7,973,583	8,039,340	8,420,962	8,631,486
Borrowings	0	0	0	0
Materials and services	1,287,057	1,292,469	1,362,872	1,396,944
Depreciation	422,146	455,918	478,714	490,682
Other expenses	222,346	225,478	232,843	238,664
Total expenses from continuing operations	**9,905,132**	**10,013,205**	**10,495,391**	**10,757,776**
Surplus/(deficit) from continuing operations	**(5,265,651)**	**(5,232,531)**	**(5,406,707)**	**(5,541,875)**

Business unit
Venue Management

Venue Management	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	1,236,097	1,228,894	1,361,805	1,395,850
Interest	0	0	0	0
Other revenue	69,900	88,464	73,439	75,275
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**1,305,997**	**1,317,358**	**1,435,244**	**1,471,125**
Expenses from continuing operations				
Employee costs	458,119	480,334	483,581	495,671
Borrowings	0	0	0	0
Materials and services	166,935	176,176	175,389	179,774
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**625,054**	**656,510**	**658,970**	**675,444**
Surplus/(deficit) from continuing operations	**680,943**	**660,848**	**776,274**	**795,681**

Business unit
Recreation Management

Recreation Management	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027	Forecast 2027-2028
Income from continuing operations				
Rates and annual charges	0	0	0	0
User fees and charges	3,813,908	4,262,806	4,046,178	4,147,332
Interest	0	0	0	0
Other revenue	52,000	42,025	54,633	55,999
Other income	0	0	0	0
Grants and contributions-operational purposes	0	0	0	0
Total income from continuing operations	**3,865,908**	**4,304,831**	**4,100,811**	**4,203,331**
Expenses from continuing operations				
Employee costs	2,615,070	2,769,985	2,760,022	2,829,023
Borrowings	0	0	0	0
Materials and services	1,156,711	877,773	1,216,602	1,247,017
Depreciation	0	0	0	0
Other expenses	0	0	0	0
Total expenses from continuing operations	**3,771,781**	**3,647,758**	**3,976,624**	**4,076,040**
Surplus/(deficit) from continuing operations	**94,127**	**657,073**	**124,187**	**127,292**

Council's waste contractors collecting the recycling.

Capital projects

Projects	Budget 2024-2025	Budget 2025-2026	Budget 2026-2027	Budget 2027-2028
Buildings	**$**	**$**	**$**	**$**
Buildings Renewal	2,853,378	1,301,700	1,301,700	1,301,700
Annual Building and Facility Accessibility Works Program	300,000	300,000	300,000	300,000
Five Dock Park Amenities Building renewal	300,000	3,000,000	0	0
Drummoyne Pool Renewals	300,000	125,000	125,000	125,000
Cabarita Pool Renewals	300,000	125,000	125,000	125,000
Sustainability Program (Net Zero by 2030) - Buildings	350,000	350,000	350,000	350,000
Bayview Park Toilet - Design Phase - Knockdown & Rebuild	675,000	0	0	0
New Public Toilet	90,000	710,000	0	0
Multi-Purpose Community Space	0	1,030,000	2,250,000	
Concord - Indoor Youth Facility	0	0	300,000	
Buildings Innovation Program	300,000	300,000	300,000	300,000
St Lukes Oval (Concord) Redevelopment Stage 1	950,000	0	0	0
Library Building Upgrades	90,000	0	0	0
Sub-total	**6,508,378**	**7,241,700**	**5,051,700**	**2,501,700**
Project Management Office	**$**	**$**	**$**	**$**
Rhodes Recreation Centre	23,000,000	0	0	0
Major Projects - City Services and Assets	1,388,947	1,688,442	1,730,653	1,782,573
Timbrell Park Sportsfield Upgrade	1,750,000	0	0	0
Project Management Office	1,319,315	568,947	583,170	600,665
Shade Structure Renewals Program	50,000	0	0	50,000
Sub-total	**27,508,262**	**2,257,389**	**2,313,823**	**2,433,238**
Finance	**$**	**$**	**$**	**$**
Finance	791,543	826,456	862,913	900,980
Sub-total	**791,543**	**826,456**	**862,913**	**900,980**
Fleet Services	**$**	**$**	**$**	**$**
Fleet - Vehicles (Trucks, Utes, Trailers, Mowers)	900,000	1,000,000	1,000,000	1,000,000
Fleet - Lease Back Vehicles (Sedans and Wagons)	1,116,000	1,000,000	1,000,000	1,000,000
Small Plant - Engineering	32,000	33,000	34,000	34,000
Small Plant - Parks & Gardens	32,000	33,000	34,000	34,000
Sub-total	**2,080,000**	**2,066,000**	**2,068,000**	**2,068,000**
Digital and Information Services	**$**	**$**	**$**	**$**
Information Technology Projects	100,000	0	0	100,000
Sub-total	**100,000**	**0**	**0**	**100,000**
Library and Community Services	**$**	**$**	**$**	**$**
Concord Library Furniture and Fittings	8,880	9,200	9,600	9,888
Five Dock Library Furniture	6,980	7,300	7,600	7,828
Library Audio/Visual	42,380	44,100	62,821	64,706
Library Books	326,790	340,000	324,625	334,363
Library Periodicals	38,890	40,400	45,315	46,675
Library Cataloguing and Processing	126,720	131,800	131,383	135,324
The Learning Space - Furniture and Fittings	11,040	11,500	12,000	12,360
Sub-total	**561,680**	**584,300**	**593,344**	**611,144**

Projects	Budget 2024-2025	Budget 2025-2026	Budget 2026-2027	Budget 2027-2028
Open Space	**$**	**$**	**$**	**$**
Annual Shade Renewal Program	50,000	50,000	50,000	50,000
Annual Outdoor Exercise Equipment Program	50,000	100,000	0	0
Deakin St Foreshore Access	1,957,855	0	0	0
Urban Canopy Street Tree Masterplan	65,000	0	0	0
Cabarita Park Beach Swim Enclosure Net	0	250,000	0	0
Urban Canopy Tree Planting	200,000	200,000	440,000	200,000
Parks Renewal Program - Non - Playground Equipment	100,000	100,000	100,000	100,000
Catchment Management - Study and Implementation	0	120,000	0	0
Playground Accessibility Improvements	150,000	150,000	150,000	150,000
New Playground - Rothwell Park	0	0	20,000	130,000
Playground upgrade - Chiswick Park	10,000	20,000	230,000	0
Playground upgrade - Central Park	280,000	0	0	0
Playground upgrade - Henry Lawson Park	10,000	20,000	280,000	0
Playground upgrade - Coralie Reserve	95,000	0	0	0
Playground upgrade - Howse Park	0	0	20,000	130,000
Playground upgrade - Montague Park	0	0	20,000	130,000
Playground upgrade - Croker Park	10,000	20,000	130,000	0
Playground upgrade - Peg Paterson Park	0	0	20,000	130,000
Drummoyne Oval Picket Fence	0	0	200,000	0
Massey Park Fence - Staged	0	0	400,000	400,000
Water and Wellbeing Stations	120,000	0	0	0
Strathfield Triangle Playground	20,000	50,000	350,000	0
Pedestrian Access Mobility Plan improvements	100,000	100,000	0	0
Urban Canopy - Asset Management	20,000	100,000	100,000	100,000
Mill Park Half Basketball Court	0	0	85,000	0
Howley Park East Upgrade	74,840	0	0	0
Golf Course Safety Screens	320,000	0	0	0
Queen Elizabeth Park Commemorative Garden Restoration	300,000	0	0	0
Golf Courses Improvement Works	100,000	0	0	100,000
Open Space Planning & Recreation	123,485	0	0	0
Sportsfield Rebuild - Queen Elizabeth	264,000	0	0	0
Majors Bay Reserve - Car parking expansion	25,000	0	0	0
Playground Design Strategy	50,000	0	0	0
Sub-total	**4,495,180**	**1,280,000**	**2,595,000**	**1,620,000**

Property Strategy	**$**	**$**	**$**	**$**
Affordable Housing - Acquisition	0	0	132,000	0
Sub-total	**0**	**0**	**132,000**	**0**

Roads and Traffic	**$**	**$**	**$**	**$**
Annual Accessibility Works Program (Bus Stop Upgrades etc)	200,000	200,000	200,000	200,000
Annual Capital Works Traffic Facilities Program	210,000	220,000	220,000	220,000
Annual Footpath Renewal Program	560,000	560,000	560,000	560,000
Annual Kerb/Gutter Renewal Program	210,000	357,931	420,000	420,000
Annual Regional Roads Program	128,000	125,000	125,000	125,000
Annual Road Pavement Renewal Program	651,322	1,717,893	1,969,631	1,969,631
Road Resurfacing Program	1,500,000	2,050,000	2,382,833	2,382,833
Roads To Recovery Program	478,000	400,000	400,000	400,000
The Terrace - Embankment Stabilisation	75,000	0	0	0
Traffic Committee Initiatives	40,000	40,000	40,000	40,000
Public Domain Plan Transport Interchange at Station Precinct	500,000	0	0	0
Victoria Road, Drummoyne - Public Domain design/construction	0	2,000,000	2,050,000	0

Projects	Budget 2024-2025	Budget 2025-2026	Budget 2026-2027	Budget 2027-2028
Roads and Traffic	**$**	**$**	**$**	**$**
Annual Bridge Renewal Program	46,000	46,000	46,000	50,000
Intersection Upgrade George and Pomeroy Street	0	2,000,000	0	0
Strathfield Triangle Public Domain - Construction works	0	4,000,000	4,000,000	0
Rhodes Station Public Domain Construction works	0	3,000,000	3,000,000	0
Canada Bay Bike Plan Implementation Program	200,000	200,000	200,000	200,000
Clermont Lane - Parking Barrier	50,000	0	0	0
Local Roads Heavy Patching Program	350,000	725,234	871,590	871,590
Greenlees Avenue - Design and Construct parking treatment	150,000	0	0	0
Wellbank Street - design and construct parking treatment	115,000	0	0	0
Phillip Street - Construct car parking treatment	200,000	0	0	0
Mortlake LATM	300,000	0	0	0
Shoreline Drive at Annie Leggatt Promenade, Rhodes	191,000	0	0	0
Majors Bay Village Renewal	50,000	0	0	0
Sub-total	**6,204,322**	**17,642,059**	**16,485,054**	**7,439,054**
Strategic Assets and Innovation	**$**	**$**	**$**	**$**
Drainage Renewal and Relining Program	700,000	450,000	450,000	450,000
Seawall Renewal-Cap	200,000	1,000,000	1,450,000	1,450,000
Annual Stormwater Management Program	428,500	622,000	622,000	622,000
Werrell Reserve - Seawall Renewal	0	92,000	0	0
Renew Iron Cove Seawall- Sisters Bay to Birkenhead Point	2,000,000	1,340,000	1,373,500	1,373,500
Drainage - Re-Lining Rothwell to Rhond	400,000	0	0	0
Drainage - Re-lining Crane to Beaconsfield	0	600,000	0	0
Floodplains - Future Flood Studies, FRMS, FRM	120,000	230,000	0	0
Pedestrian Crossing Safety Improvement Program	450,000	450,000	450,000	450,000
Kings Bay Seawall - Barnwell Park Canal Outlet Zone	200,000	4,261,000	0	0
Saltwater Creek and Exile Bay Seawall naturalisation	1,750,000	1,975,000	0	0
Annual Lighting and Pole Renewal	335,000	335,000	670,000	300,000
Wiremill Park Timber Piles seawall renewal	0	562,000	0	0
Cabarita Point seawall renewal	0	0	160,000	0
France Bay seawall renewal southern end of Cabarita Park	0	0	320,000	0
Gross Pollutant Trap - Moala Street	0	0	200,000	0
Gross Pollutant Trap - Currawang Street	0	250,000	0	0
Yaralla Environmental Basin	0	665,000	0	0
Sub-total	**6,583,500**	**12,832,000**	**5,695,500**	**4,645,500**
Street Tree Program	**$**	**$**	**$**	**$**
Street Tree Replacement Program	250,000	250,000	250,000	250,000
Sub-total	**250,000**	**250,000**	**250,000**	**250,000**
Waste and Sustainability	**$**	**$**	**$**	**$**
Bin Replacement/Refresh - Domestic Waste	0	3,500,000	0	0
Community Recycling Centre Rebuild	0	0	5,000,000	0
Sub-total	**0**	**3,500,000**	**5,000,000**	**0**
Venue Management	**$**	**$**	**$**	**$**
Venue Coordination	56,000	0	0	0
Sub-total	**56,000**	**0**	**0**	**0**
Total	**55,138,865**	**48,479,904**	**41,047,334**	**22,569,616**

Ordinary rates and special rates that apply in 2024-2025

Rating Structure

The total income that can be raised from levying rates on property is capped by the State Government based on a determination by the Independent Pricing and Regulatory Tribunal (IPART). IPART determined that general income from rates in 2024-25 may be increased by a maximum of 5.3%. The minimum rate has been approved by IPART to increase to $953.95.

The increase allowed by IPART relates to general income in total and not to individual ratepayer's rates. Individual rates are also affected by other factors such as land valuations. As such, rates for individual ratepayers may vary by more or less than the percentage allowable depending on how an individual ratepayer's land valuation has changed in a particular year compared to the land values of other ratepayers.

The following information details the rating structures for rating of land for 2024-25. Land is rated according to its use as either Residential or Business. The ad valorem rate, the minimum rate and anticipated revenue from each rating category is:

Rate category, No. of assessments and rateable land value	Basis of rate calculation	Total ordinary rate income
Residential Residential number: 36,865 No. minimums: 22,018 Land value: $46,687,297,269	Minimum rate $953.95 Cents in the dollar: 0.066834	$45,472,033
Business Business number: 1,825 No. minimums: 808 Land value: $3,517,593,196	Minimum rate $953.95 Cents in the dollar: 0.18785	$7,180,329
Total rate assessments 38,690	**Total rateable value $50,204,890,465**	**$52,652,362**
SMSC category, No. of assessments	**Basis of rate calculation**	**Total SMSC**
Stormwater management services charge (Residential) SMSC No. standard 15,321 No. strata 21,381	Standard properties $25 Strata properties $12.50	$650,313
Stormwater management services Charge (business) SMSC No. standard 961 No. strata 861	Standard properties minimum $25 or $25 per 350m² Strata properties minimum $5 or part thereof by entitlement	$90,337
Total stormwater management services charge (SMSC)		**$740,650**
Total rate revenue ordinary and SMSC		**$53,393,012**

Stormwater Management Charge

The Stormwater Management Charge is an ongoing charge to ratepayers used to fund capital and recurrent costs associated with the introduction of additional stormwater management programs. The amount charged is $12.50 per annum for residential strata properties, or $25 per annum for other residential. Strata businesses are charged a minimum $5, while other businesses are charged $25, plus an additional $25 for each 350 square metres or part of 350 square metres by which the area of the parcel of land exceeds 350 square metres.

Domestic Waste Management Charge

Domestic Waste Management (DWM) Services are provided to all residential properties in the local government area. The Domestic Waste Management Charge is a separate charge for waste services. The cost of these services cannot be financed from ordinary rates and the charge covers the costs of providing the services. The amount charged for a standard residential service for 2024-2025 is $460. Income raised from the DWM Charge is forecast at $18.03M. For all charges relating to waste management, please refer to the document Fees and Charges 2024-2025.

Pensioner Rebate

The Local Government Act 1993 provides for eligible pensioners to be able to receive a rate reduction of 50% of their total rates, up to a maximum of $250.

Rate Instalments

Rate instalments will be due on the following dates:

First Instalment	31 August 2024
Second Instalment	30 November 2024
Third Instalment	29 February 2025
Fourth Instalment	31 May 2025

Boarding House Tariffs

Maximum tariffs for boarding houses and lodging houses for the period 1 July 2024 to 30 June 2025 (inclusive) are expected to be determined in May 2024.

The maximum tariffs, excluding GST, that a boarding house or lodging house may charge tariff-paying occupants for the current year are:

a) Where full board and lodging is provided:
$432 per week for single accommodation; or
$713 per week for a family or shared accommodation

b) Where less than full board or lodging is provided:
$291 per week for single accommodation; or
$479 per week for family or shared accommodation

Maximum Interest Rate on Overdue Rates and Charges

The maximum rate of interest payable on overdue rates and charges for the period 1 July 2024 to 30 June 2025 (inclusive) is expected to be determined in May 2024.

The maximum rate of interest payable on overdue rates and charges for the period 1 July 2023 to 30 June 2024 (inclusive) is 9.0% per annum.

Revenue Policy

In accordance with Section 608 of the Local Government Act 1993 and other relevant legislation, City of Canada Bay Council charges and recovers approved fees and charges for any services it provides as contained within the document entitled "Fees and Charges 2024 - 2025".
Fees and charges are generally intended to be imposed on the following services provided by Council under the Local Government Act or any other Act or regulations:

- Supply of a product, service or commodity;
- Giving of information;
- Providing a service in connection with the exercise of the Council's regulatory functions, including receiving an application for approval, granting an approval, making an inspection and issuing a certificate;
- Allowing admission to any building or enclosure;
- Possession, occupation or enjoyment of a rail, pipe, wire, pole, cable, tunnel or structure laid, erected, suspended, constructed or placed on, under or over a public place (s.611)
- Allowing the use or benefit from Council's assets, possessions, etc.

City of Canada Bay Council's general policy in determining the amount of fees to be charged for goods and services considers the following factors:

- The cost of providing the service
- The importance of the service to the community
- Prices fixed by the relevant industry body
- Any factors specified in the Local Government Regulations
- Equity factors
- User pays principle
- Financial objectives
- Customer objectives
- Resource use objectives
- Market prices
- Cross subsidisation objectives
- Goods and Services Tax (GST)

In cases where the amount of fees and charges for service is determined under another Act or regulatory body, Council's policy is not to determine an amount that is inconsistent with the amountdetermined under the other Act or regulatory body. All of Council's fees and charges not subject to statutory control are reviewed on an annual basis prior to finalisation of Council's annual operating budget. However, in special circumstances, fees and charges can be reviewed and approved by Council in accordance with the Local Government Act 1993 and Regulations.

Council's main administration and customer service centre Marlborough Street, Drummoyne.

Reduction or waiving of fees

Under section 610E of the Local Government Act 1993, Council may waive or reduce a fee in a particular case if Council is satisfied that the case falls within a category of hardship or any other category in respect of which Council has determined payment should be so waived or reduced. Council has established the categories below which may apply to any fees.

Commercial: where Council, or its contractor, operates a service and reduction of the fee is required to compete in the market.

Community recognition and community fundraising: excluding those fees or charges prescribed by legislation, fees or charges may be waived or reduced for initiatives that:

- Recognise and/or celebrate the achievements of an entity within the City of Canada Bay (for example, street banners).
- Support the activities of registered not-forprofit and charitable organisations, community organisations and other organisations that provide identifiable social benefits that respond to community needs (e.g. venue hire).
- Generate donations on behalf of, and/or for provision to, charitable fundraising authority holders where it is demonstrated that all revenue exceeding costs of the specified activity is donated (for example, facility hire for disaster recovery events).

Medical Waste - where residents have increased waste due to medical reasons and have provided certification of the condition from a medical practitioner and demonstrated the resulting increase in household waste.

Non-provision or disruption of a service - Where a service is not provided, Council may, at its discretion, refund or credit the fee. Where a service is disrupted, Council may, at its direction, refund or credit the fee in full or in part.

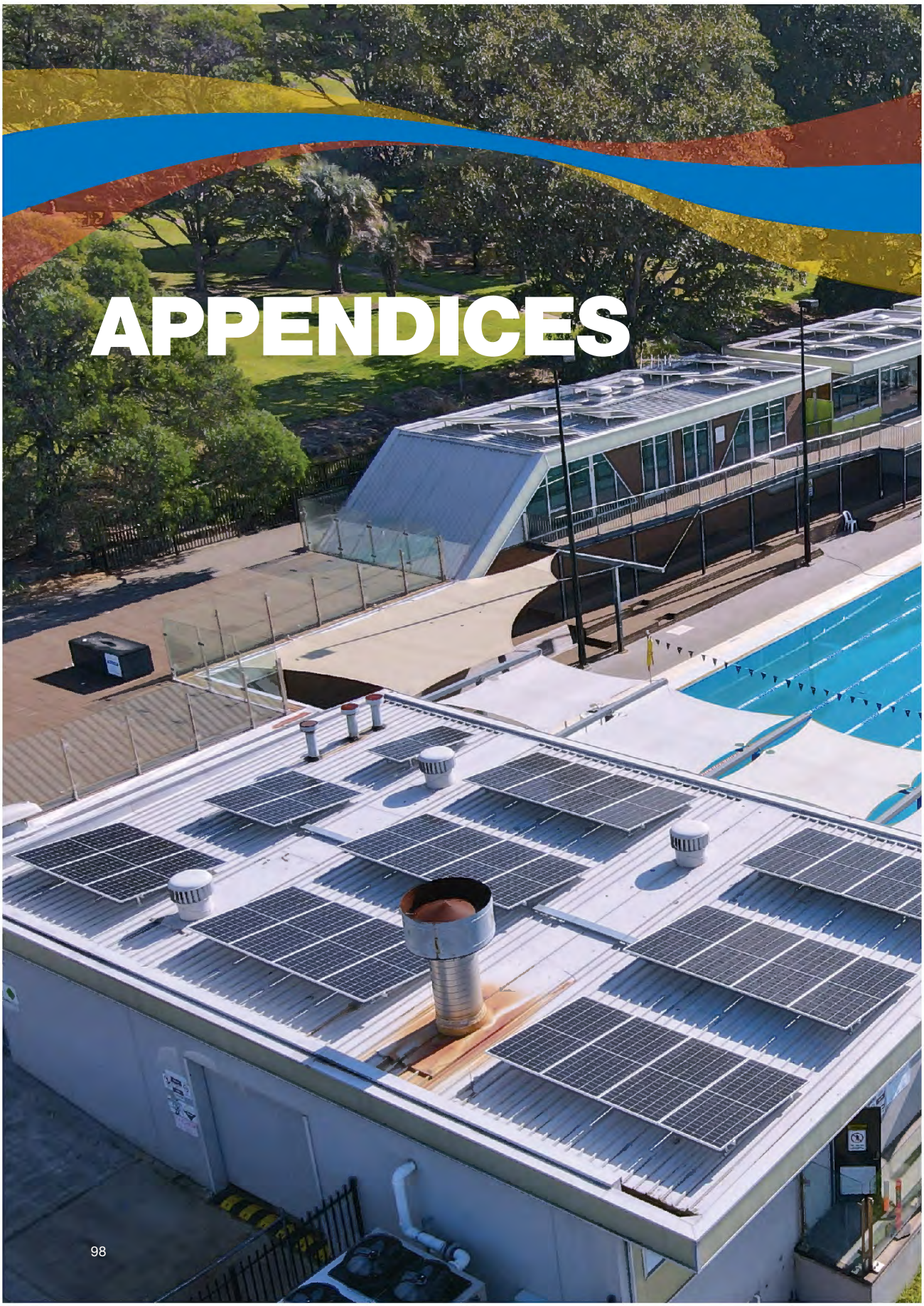
Promotions - where, due to factors such as prevailing market conditions and/or the underutilization of an asset, program or service, promotional activities in the form of financial incentives are warranted to increase revenue from time to time.

Goods and Services Tax (GST)

City of Canada Bay Council unequivocally reserves the right to pass on the GST imposed on some of the goods and services provided, and where legislation is changed to remove or alter GST, the new GST treatment will be applied immediately to the relevant fees and charges.

Price Codes

Code	Name	Description
BAGS	Bonds and Deposits	Refundable deposit against possible damage to Council property.
FC	Full Cost Pricing	Council recovers all direct and indirect costs of the service (including depreciation of assets deployed).
LR	Legislative Requirements	Price of the service is determined by Legislation, and dependent on price, may or may not recover Full Cost.
MP	Market Pricing	The price of the service is determined by examining alternative prices of surrounding service providers (this also may or may not recover the full costs of the service) e.g. Children's Services.
PC	Partial Cost Pricing	Council recovers less than the Full Cost (as defined above). The reasons may include community service obligation, priorities or legislative limits on charging.
RR	Rate of Return Pricing	This would include Full Cost Pricing as defined above in addition to a profit margin to factor in a return to Council for assets employed.
z	Free (Zero Priced)	Some services may be provided free of charge and the whole cost determined as a community service obligation and / or may fall within a class of public good.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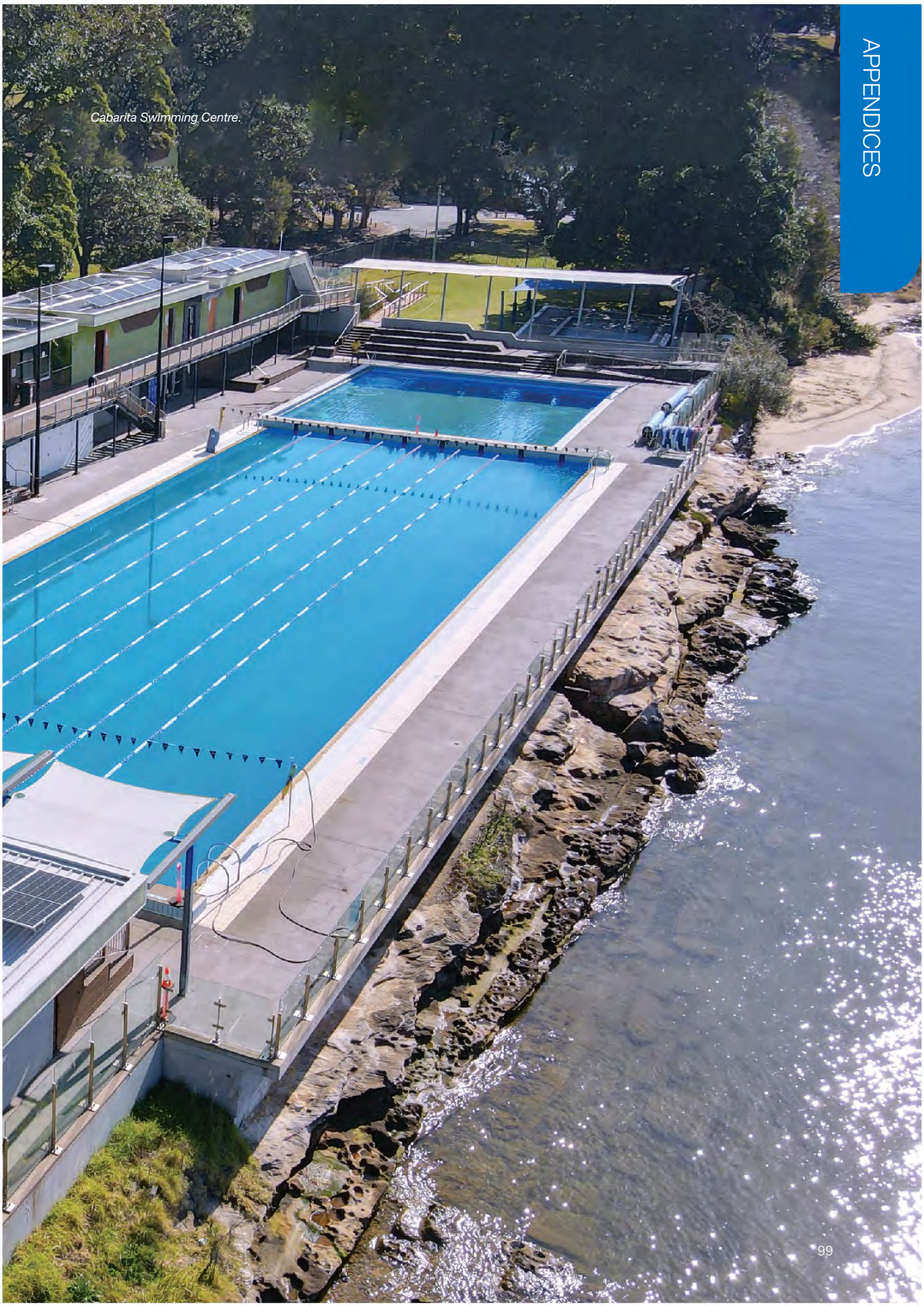

APPENDIX 1: KEY DRIVERS

When Council undertakes its integrated planning and reporting, the following plans and strategies are considered:

Premier's priorities

	Connected community	Sustainable and thriving environment	Vibrant urban living	Infrastructure and transport	Civic leadership
Bumping up education results for children	☑				
Increasing the number of Aboriginal young people reaching their learning potential	☑				
Protecting our most vulnerable children	☑				
Increasing permanency for children in out-of-home care					
Reducing domestic violence reoffending	☑				
Reducing recidivism in the prison population					
Reducing homelessness	☑				
Improving service levels in hospitals					
Improving outpatient and community care					
Towards zero suicides	☑				
Greener public spaces		☑			
Greening our city		☑			
Government made easy					☑
World class public service					☑

Eastern City District Plan

	Connected community	Sustainable and thriving environment	Vibrant urban living	Infrastructure and transport	Civic leadership
E1 Planning for a city supported by infrastructure			☑	☑	
E2 Working through collaboration	☑				☑
E3 Providing services and social infrastructure to meet people's changing needs	☑				
E4 Fostering healthy, creative, culturally rich and socially connected communities	☑				
E5 Providing housing supply, choice and affordability, with access to jobs, services and public transport	☑		☑	☑	☑
E6 Creating and renewing great places and local centres, and respecting the District's heritage	☑		☑		
E7 Growing a stronger and more competitive Harbour CBD					
E8 Growing and investing in health and education precincts and the Innovation Corridor			☑		☑
E9 Growing international trade gateways					
E10 Delivering integrated land use and transport planning and a 30-minute city			☑	☑	
E11 Growing investment, business opportunities and jobs in strategic centres			☑		
E12 Retaining and managing industrial and urban services land			☑		
E13 Supporting growth of targeted industry sectors			☑		
E14 Protecting and improving the health and enjoyment of Sydney Harbour and the District's waterways		☑			
E15 Protecting and enhancing bushland and biodiversity		☑			
E16 Protecting and enhancing scenic and cultural landscapes		☑	☑		
E17 Increasing urban tree canopy cover and delivering Green Grid connections		☑	☑		
E18 Delivering high quality open space	☑		☑		
E19 Reducing carbon emissions and managing energy, water and waste efficiently		☑			
E20 Adapting to the impacts of urban and natural hazards and climate change		☑			
E21 Preparing Local Strategic Planning Statements informed by local strategic planning			☑		
E22 Monitoring and reporting on the delivery of the plan			☑		☑

United Nations Sustainable Development Goals

	Connected community	Sustainable and thriving environment	Vibrant urban living	Infrastructure and transport	Civic leadership
1. End poverty	☑		☑	☑	
2. Zero hunger	☑				
3. Good health and wellbeing	☑		☑		
4. Quality education	☑				
5. Gender equality	☑				☑
6. Clean water and sanitation		☑		☑	
7. Affordable clean energy		☑			
8. Decent work and economic growth	☑		☑		
9. Industry innovation and infrastructure	☑		☑	☑	
10. Reduced inequality	☑				☑
11. Sustainable cities and communities	☑	☑	☑		
12. Responsible consumption and production		☑			
13. Climate action		☑			
14. Life below water		☑			
15. Life on land		☑			
16. Peace, justice and strong institutions	☑				☑
17. Partnerships for the goals	☑				☑

Modern Slavery Compliance

	Connected community	Sustainable and thriving environment	Vibrant urban living	Infrastructure and transport	Civic leadership
Council has a legislative obligation and a moral imperative to take all reasonable steps to seek to ensure that the goods and services that we procure are not the product of modern slavery.	☑	☑	☑	☑	☑

Child Safe Organisation

	Connected community	Sustainable and thriving environment	Vibrant urban living	Infrastructure and transport	Civic leadership
The City of Canada Bay is committed to the safety and wellbeing of all children and young people who use our services and facilities.	☑	☑	☑	☑	☑

Climate Emergency

	Connected community	Sustainable and thriving environment	Vibrant urban living	Infrastructure and transport	Civic leadership
Council declared a climate emergency at its meeting on 17 September 2019. We have a responsibility to our community and planet to not only reduce our greenhouse gas emissions but implement climate change mitigation and adaptation measures to safeguard the beautiful place we call home. We have since adopted and begun implementing an Environmental Strategy and Emissions Reduction Action Plan.	☑	☑	☑	☑	☑

Disability Access and Inclusion

	Connected community	Sustainable and thriving environment	Vibrant urban living	Infrastructure and transport	Civic leadership
Council is working to remove barriers and make sure that everyone has equal access to places, services, employment, volunteering opportunities, information and to contribute to our community. We value the perspective, experiences and contributions of all people from our diverse community.	☑	☑	☑	☑	☑

APPENDIX 2: OUR BUSINESS UNITS

Business Unit	Services
Building Services and Fleet	• Facilities Management o Building Maintenance and Operations o Access Control, Security and CCTV • Building Capital Works o Building Design and Delivery Management o Building Design Standards • Trades Services o Building and Open Space Repairs and Maintenance o Graffiti Removal and Painting • Fleet Management o Operational Vehicle and Plant o Internal Light Vehicle • Shade Structures o Shade and Outdoor Dining Structures o Repairs, Maintenance and Renewals
Communications and Engagement	• Community engagement o Online engagement o Face to face engagement • Media and communications o Digital communications o Printed communications o Media management
Corporate Strategy and Business Improvement	• Integrated Planning and Reporting • Business Performance Management • Service Review Framework implementation • Corporate Projects
Digital and Information Services	• ICT Security and Operations o Service desk o Application support o Systems engineering • Information and Data Governance Manager o Records management o Government Information (Public Access) applications o Private and Personal Information Protection • Digital Business Solutions o Geographic Information systems o Business analysis, digital solutions and change • Customer Experience o Front counter service o Call Centre o After hours service o Justice of the Peace service

Business Unit	Services
Executive and Councillor Support	• Personal assistant service to the General Manager • Councillor support and administration • Citizenship ceremonies • Civic event organisation
Finance and Procurement	• Financial operations o Rates o Accounts Payable o Debt Recovery • Corporate accounting o Budget, including fees and charges o Investments • Procurement
Governance and Risk	• Council meeting administration • Audit and Risk o ARIC Committee Administration o Business Continuity o Internal Audit • Fraud and Corruption Prevention • Insurance and claim management • Public Interests Disclosure management
Health, Building and Compliance	• Environmental Health o Land contamination o Development referral service o Cooling water systems o Food safety incl mobile food vendor certification o Skin penetration o Pollution and neighbourhood amenity o Service station audit program • Law Enforcement and Parking o Law enforcement o Parking patrols • Building Certification and Compliance Team o Swimming pool compliance o Public space occupation and hoarding o Illegal building works/building development compliance o Building fire safety o Construction Certificate service and inspections o Building information certificates

Business Unit	Services
Library and Community Services	• Libraries (Concord, Five Dock & The Learning Space) o Collections o Customer Service o Programs o Spaces o Technology • Early childhood education and care o Wellbank Children's Centre o Victoria Avenue Children's Centre • Community Development o Community bus trips o Homeless persons o Community grants o Accessibility and inclusion o Seniors
Open Space	• Operations – Open Space o Parks and Water o Garden services and landscaping o Sportsfields and golf courses • Open Space Planning and Recreation o Parramatta River Catchment Group representatives o Landscape architecture o Open space bookings • Urban ecology o Urban Forester o Tree Services o Bushcare
People and Culture	• People and Culture Operations o Workforce Planning o Business Partnerships o Performance Planning o Learning and Development o Recruitment o Induction and on-boarding o Payroll Services • Health Safety and Wellbeing • Return to Work coordination

Business Unit	Services
Place Management	• Place Management • Cultural Development • Economic Development • Community fundraising and sponsorship • Community and Cultural events • Smart City • Street banners and flags
Project Management Office	• Support and Administration o Project Frameworks Management: ▪ Project Management, ▪ Procurement in Construction (including contract management) ▪ Prioritisation ▪ Project Risk Management ▪ Assurance o PMO 365 administration support and enhancements • Strategic Portfolio Management o Master planning (recreational and associated assets) o Plans of Management o Grants Coordination o Interface projects: ▪ State or federal government construction project initiatives ▪ VPA delivery ▪ High risk high profile • Projects o Project Management (buildings, parks and infrastructure)
Property Strategy and Leasing	• Council owned affordable housing • Advertising on Council land • Leases and licences • Strategic property management
Recreation Management	• Five Dock Leisure Centre o Gymnastics and sports court hire. • Concord Oval Recreation Centre o Gym and Health Club o Fitness classes, including bootcamp o Personal training o Sports court hire o Creche • Drummoyne and Cabarita Swimming Centres

Business Unit	Services
Roads and Traffic	• Infrastructure and Design o Infrastructure and projects • Infrastructure Operations o Infrastructure Services o Civil projects operations • Cleansing Services o Street sweeping o Community recycling centre o Town centre cleansing o Amenity cleaning • Traffic and Design o Traffic Engineering o Road Safety • Emergency Management
Statutory Planning	• Development assessment services • Duty Planner Service
Strategic Asset Services and Innovation	• Engineering Services o Development Engineering referrals and management o Drainage, marine and floodplain engineering and operations • Strategic Asset Management • Sydney Metro interface
Strategic Planning	• Land use planning studies • Planning Proposals • Development Control Plans • Local Environmental Plans • Local Infrastructure Contribution Plans • Heritage Advisory Service and grants
Sustainability and Waste	• Waste management o Domestic waste o Development referrals o Resource Recovery Strategy coordination • Sustainability o Environmental grants o Education, including events • Natural Environment o Education o Biosecurity
Venue Management	• Venue hire/bookings

Council staff at Concord Oval.

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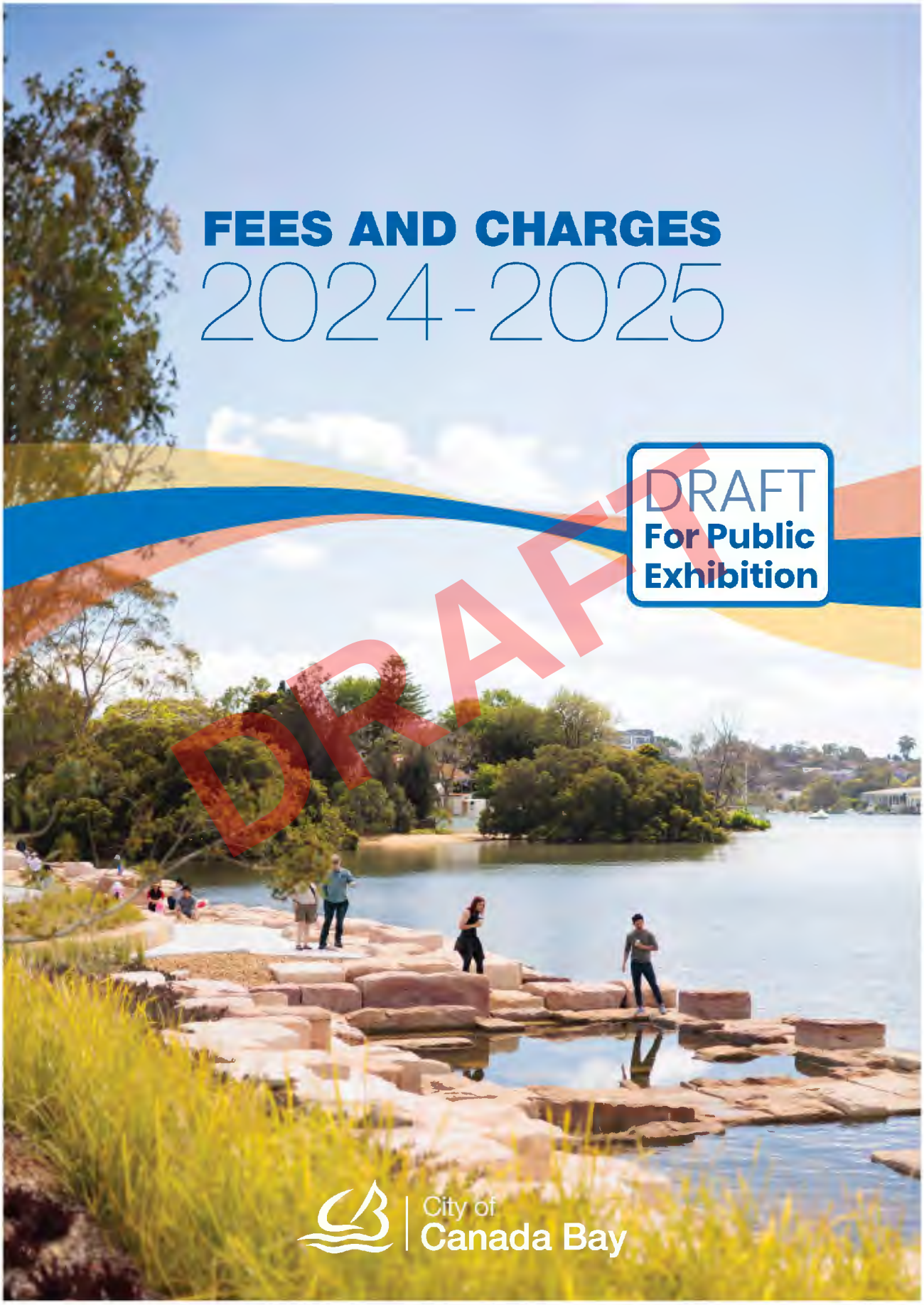
Notes

Notes

City of Canada Bay

1a Marlborough Street
Drummoyne NSW 2047

Phone: 9911 6555
Email: council@canadabay.nsw.gov.au
Web: canadabay.nsw.gov.au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Ordinary rates and special rates that apply in 2024-25

Rating Structure

The total income that can be raised from levying rates on property is capped by the State Government based on a determination by the Independent Pricing and Regulatory Tribunal (IPART). IPART determined that general income from rates in 2024-25 may be increased by a maximum of 5.3%. The minimum rate has been approved by IPART to increase to $953.95.

The increase allowed by IPART relates to general income in total and not to individual ratepayer's rates. Individual rates are also affected by other factors such as land valuations. As such, rates for individual ratepayers may vary by more or less than the percentage allowable depending on how an individual ratepayer's land valuation has changed in a particular year compared to the land values of other ratepayers.

The following information details the rating structures for rating of land for 2024-25. Land is rated according to its use as either Residential or Business. The ad valorem rate, the minimum rate and anticipated revenue from each rating category is:

Rate Category, No of Assessments and Rateable Land Value	Basis of Rate Calculation	Total Ordinary Rate Income
Residential Residential Number: 36,865 No. Minimums: 22,018 Land Value: $46,687,297,269	Minimum Rate $953.95 Cents in the Dollar: 0.066834	$45,472,033
Business Business Number: 1,825 No. Minimums: 808 Land Value: $3,517,593,196	Minimum Rate $953.95 Cents in the Dollar: 0.18785	$7,180,329
Total Rate Assessments 38,690	**Total Rateable Value $50,204,890,465**	**$52,652,362**
SMSC Category, No of Assessments	**Basis of Rate Calculation**	**Total SMSC**
Stormwater Management Services Charge (Residential) SMSC No. Standard 15,321 No. Strata 21,381	Standard Properties $25 Strata Properties $12.50	$650,313
Stormwater Management Services Charge (Business) SMSC No. Standard 961 No. Strata 861	Standard Properties Minimum $25 or $25 per 350m² Strata Properties Minimum $5 or part thereof by entitlement	$90,337
Total Stormwater Management Services Charge (SMSC)		**$740,650**
Total Rate Revenue Ordinary & SMSC		**$53,393,012**

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Stormwater Management Charge

The Stormwater Management Charge is an ongoing charge to ratepayers used to fund capital and recurrent costs associated with the introduction of additional stormwater management programs. The amount charged is $12.50 per annum for residential strata properties, or $25 per annum for other residential. Strata businesses are charged a minimum $5, while other businesses are charged $25, plus an additional $25 for each 350 square metres or part of 350 square metres by which the area of the parcel of land exceeds 350 square metres.

Domestic Waste Management Charge

Domestic Waste Management (DWM) Services are provided to all residential properties in the local government area. The Domestic Waste Management Charge is a separate charge for waste services. The cost of these services cannot be financed from ordinary rates and the charge covers the costs of providing the services. The amount charged for a standard residential service for 2024-25 is $460. Income raised from the DWM Charge is forecast at $18.03M. For all charges relating to waste management, please refer to the document Fees and Charges 2024-2025.

Pensioner Rebate

The Local Government Act 1993 provides for eligible pensioners to be able to receive a rate reduction of 50% of their total rates, up to a maximum of $250.

Rate Instalments

Rate instalments will be due on the following dates:

First Instalment	31 August 2024
Second Instalment	30 November 2024
Third Instalment	28 February 2025
Fourth Instalment	31 May 2025

Boarding House Tariffs

Maximum tariffs for boarding houses and lodging houses for the period 1 July 2024 to 30 June 2025 (inclusive) are expected to be determined in May 2024.

The maximum tariffs, excluding GST, that a boarding house or lodging house may charge tariff-paying occupants for the current year are:

a) Where full board and lodging is provided:
   $432 per week for single accommodation; or
   $713 per week for a family or shared accommodation

b) Where less than full board or lodging is provided:
   $291 per week for single accommodation; or
   $479 per week for family or shared accommodation

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Maximum Interest Rate on Overdue Rates and Charges

The maximum rate of interest payable on overdue rates and charges for the period 1 July 2024 to 30 June 2025 (inclusive) is expected to be determined in May 2024.

The maximum rate of interest payable on overdue rates and charges for the period 1 July 2023 to 30 June 2024 (inclusive) is 9.0% per annum.

Revenue Policy

In accordance with Section 608 of the Local Government Act 1993 and other relevant legislation, City of Canada Bay Council charges and recovers approved fees and charges for any services it provides as contained within the document entitled "Fees and Charges 2024 - 2025".

Fees and charges are generally intended to be imposed on the following services provided by Council under the Local Government Act or any other Act or regulations:

- Supply of a product, service or commodity;
- Giving of information;
- Providing a service in connection with the exercise of the Council's regulatory functions, including receiving an application for approval, granting an approval, making an inspection and issuing a certificate;
- Allowing admission to any building or enclosure;
- Possession, occupation or enjoyment of a rail, pipe, wire, pole, cable, tunnel or structure laid, erected, suspended, constructed or placed on, under or over a public place (s.611)
- Allowing the use or benefit from Council's assets, possessions, etc.

City of Canada Bay Council's general policy in determining the amount of fees to be charged for goods and services considers the following factors:

- The cost of providing the service
- The importance of the service to the community
- Prices fixed by the relevant industry body
- Any factors specified in the Local Government Regulations
- Equity factors
- User pays principle
- Financial objectives
- Customer objectives
- Resource use objectives
- Market prices
- Cross subsidisation objectives
- Goods and Services Tax (GST)

In cases where the amount of fees and charges for service is determined under another Act or regulatory body, Council's policy is not to determine an amount that is inconsistent with the amount determined under the other Act or regulatory body.

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All of Council's fees and charges not subject to statutory control are reviewed on an annual basis prior to finalisation of Council's annual operating budget. However, in special circumstances, fees and charges can be reviewed and approved by Council in accordance with the Local Government Act 1993 and Regulations.

Reduction or waiving of fees

Under section 610E of the Local Government Act 1993, Council may waive or reduce a fee in a particular case if Council is satisfied that the case falls within a category of hardship or any other category in respect of which Council has determined payment should be so waived or reduced. Council has established the categories below which may apply to any fees.

Commercial: where Council, or its contractor, operates a service and reduction of the fee is required to compete in the market.

Community recognition and community fundraising: excluding those fees or charges prescribed by legislation, fees or charges may be waived or reduced for initiatives that:

- Recognise and/or celebrate the achievements of an entity within the City of Canada Bay (for example, street banners).
- Support the activities of registered not-for-profit and charitable organisations, community organisations and other organisations that provide identifiable social benefits that respond to community needs (e.g. venue hire).
- Generate donations on behalf of, and/or for provision to, charitable fundraising authority holders where it is demonstrated that all revenue exceeding costs of the specified activity is donated (for example, facility hire for disaster recovery events).

Medical Waste - where residents have increased waste due to medical reasons and have provided certification of the condition from a medical practitioner and demonstrated the resulting increase in household waste.

Non-provision or disruption of a service - Where a service is not provided, Council may, at its discretion, refund or credit the fee. Where a service is disrupted, Council may, at its direction, refund or credit the fee in full or in part.

Promotions - where, due to factors such as prevailing market conditions and/or the underutilization of an asset, program or service, promotional activities in the form of financial incentives are warranted to increase revenue from time to time.

Goods & Services Tax (GST)

City of Canada Bay Council unequivocally reserves the right to pass on the GST imposed on some of the goods and services provided, and where legislation is changed to remove or alter GST, the new GST treatment will be applied immediately to the relevant fees and charges.

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Price Codes

Code	Name	Description
BAGS	Bonds and Deposits	Refundable deposit against possible damage to Council property
FC	Full Cost Pricing	Council recovers all direct and indirect costs of the service (including depreciation of assets deployed).
LR	Legislative Requirements	Price of the service is determined by Legislation, and dependent on price, may or may not recover Full Cost.
MP	Market Pricing	The price of the service is determined by examining alternative prices of surrounding service providers (this also may or may not recover the full costs of the service) e.g. Children's Services.
PC	Partial Cost Pricing	Council recovers less than the Full Cost (as defined above). The reasons may include community service obligation, priorities or legislative limits on charging.
RR	Rate of Return Pricing	This would include Full Cost Pricing as defined above in addition to a profit margin to factor in a return to Council for assets employed.
Z	Free (Zero Priced)	Some services may be provided free of charge and the whole cost determined as a community service obligation and / or may fall within a class of public good.

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

City of Canada Bay

Administration and Governance

Financial Administration

Administration Charge per bank guarantee	$280.00	$280.00	$0.00	$280.00	FC

Credit Card Charges

Amex Credit Card Use Charge – GST Free & GST Exempt				1%	FC
MasterCard and Visa Credit Card Use Charge – GST Free & GST Exempt				0.60%	FC
Amex Credit Card Use Charge – GST Applicable				1%	FC
MasterCard and Visa Credit Card Use Charge – GST Applicable				0.60%	FC

Dishonoured Fee

Cheques, Electronic Transactions, Credit Cards, etc	$65.00	$65.00	$0.00	$65.00	RR
Cheques, Electronic Transactions, Credit Cards, etc	$65.00	$65.00	$0.00	$65.00	RR

Records Management

Documents, Maps & Reports

City of Canada Bay Local Infrastructure Contribution Plan	$50.00	$50.00	$0.00	$50.00	PC
City of Canada Bay Planning Agreements Policy (each)	$50.00	$50.00	$0.00	$50.00	PC
City of Canada Bay LEP – Paper Copy	$50.00	$50.00	$0.00	$50.00	PC
City of Canada Bay Development Control Plan – Paper Copy – (Full)	$170.00	$170.00	$0.00	$170.00	PC
Strathfield Triangle DCP Paper Copy	$50.00	$50.00	$0.00	$50.00	PC
Paper Copy – Individual Parts of DCP (A to J)	$30.00	$30.00	$0.00	$30.00	PC
Other Planning Policies, Plans, Codes & Guidelines (each)	$30.00	$30.00	$0.00	$30.00	PC
Annual report, Operational Plan (Full Version – Paper Copy)	$120.00	$127.00	$0.00	$127.00	PC
Provision of certified copy of a document, map or plan under the EP&A Act, section 10.8(2)	$62.00	$62.00	$0.00	$62.00	LR
Sale of building / development approval records (per full year)	$1,200.00	$1,270.00	$0.00	$1,270.00	PC
Note: Service expanded to include combined list of all DA's, Construction Certificates and Complying Development Certificates approved					
Sale of building / development approval records (per month)	$120.00	$127.00	$0.00	$127.00	PC
Note: Service expanded to include combined list of all DA's, Construction Certificates and Complying Development Certificates approved					

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Formal Request					
Formal Access Application (Not Personal Information of Applicant & Personal Information of Applicant)					
GIPA Formal Application Fee	$30.00	$30.00	$0.00	$30.00	LR
Processing Charge for Access Application (GIPA Act S64) (per hour)			$30 Per Hour/part thereof		LR
Internal Review					
GIPA Internal Review Application	$40.00	$40.00	$0.00	$40.00	LR
Informal Request					
GIPA Document and Production			$42 Per Hour/part thereof		LR
Photo Copying/Scanning – Plans				$10.20 each	LR
Property Enquiries					
Own or Adjoining Property	$0.00	$0.00	$0.00	$0.00	Z
Up to 60 minutes	$85.00	$95.00	$0.00	$95.00	LR
Over 60 minutes		$120/hour or part thereof in excess of 1 hour			LR
Subpoena Processing					
Conduct Money (upon receipt of subpoenas)	$50.00	$50.00	$0.00	$50.00	LR
Less than one hour is required to compile the information	$181.00	$191.00	$0.00	$191.00	PC
Longer than one hour is required to compile the information, and additional charges per hour or part thereof is charged	$132.00	$139.00	$0.00	$139.00	PC
Subpoena File Retrieval Fee – after 1st file only	$17.50	$17.50	$0.00	$17.50	LR
Printing and Copying					
A3 black and white per page	$0.50	$0.50	$0.00	$0.50	PC
A3 colour per page	$3.00	$3.00	$0.00	$3.00	PC
A4 black and white per page	$0.20	$0.20	$0.00	$0.20	PC
A4 colour per page	$2.00	$2.00	$0.00	$2.00	PC
Per A0 copy	$36.20	$38.20	$0.00	$38.20	PC
Per A1-A2 copy	$23.80	$25.10	$0.00	$25.10	PC

Electronic File Management Fee - Field File (DA, s4.55, s4.56 and s8.2 application, and Construction Certificates and Complying Development Certificates where Council is the Certifier))

Fee per application for the electronic file management of Applications and accompanying information based on the cost of works as listed below:

$0 - $150,000	$96.50	$102.00	$0.00	$102.00	PC
$150,001 – $300,000	$120.00	$127.00	$0.00	$127.00	PC
$300,001 – $500,000	$181.00	$191.00	$0.00	$191.00	PC
$500,001 – $1,000, 000	$362.00	$382.00	$0.00	$382.00	PC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Electronic File Management Fee - Field File (DA, s4.55, s4.56 and s8.2 application, and Construction Certificates and Complying Development Certificates where Council is the Certifier)) [continued]					
$1,000,001 or more	$730.00	$770.00	$0.00	$770.00	PC
GIS - House Renumbering					
Request for change in house numbering – non refundable	$321.00	$339.00	$0.00	$339.00	PC

Animal Management

Registration Category

Dog – Not Desexed or Desexed (after relevant age)	$252.00	$252.00	$0.00	$252.00	LR
Dog – Not Desexed (recognised breeder)/(not recommended)	$75.00	$75.00	$0.00	$75.00	LR
Dog – Desexed (by relevant age)	$75.00	$75.00	$0.00	$75.00	LR
Dog – Desexed (by relevant age eligible pensioner)	$32.00	$32.00	$0.00	$32.00	LR
Dog – Desexed (sold by pound/shelter)	$0.00	$0.00	$0.00	$0.00	LR
Dog – Working / Service of the State, Assistance Animal	$0.00	$0.00	$0.00	$0.00	Z
Cat – Desexed or Not Desexed	$65.00	$65.00	$0.00	$65.00	LR
Cat – Eligible Pensioner	$32.00	$32.00	$0.00	$32.00	LR
Cat – Desexed (sold by pound/shelter)	$0.00	$0.00	$0.00	$0.00	LR
Cat – Not Desexed (recognised breeder)/(not recommended)	$65.00	$65.00	$0.00	$65.00	LR
Registration Late Fee	$21.00	$21.00	$0.00	$21.00	LR

Annual Permit Category

Annual Permit Fee for dangerous or restricted dogs	$221.00	$221.00	$0.00	$221.00	LR
If the companion animal has not been desexed by the relevant desexing age and is not kept by a recognised breeder for breeding purposes, an additional fee of $177 is payable in addition to the applicable registration fee listed above.					
Cat not desexed by four months of age	$92.00	$92.00	$0.00	$92.00	LR
Permit Late Fee	$21.00	$21.00	$0.00	$21.00	LR

Impounding of Animals

Cat Cage – Bond	$100.00	$100.00	$0.00	$100.00	BAGS
Cat Cage – Late Fees	$29.50	$28.36	$2.84	$31.20	FC
Cat Cage Rental per week or part thereof	$29.50	$28.36	$2.84	$31.20	FC
Animals other than dogs or cats per week	$118.00	$125.00	$0.00	$125.00	FC
Daily Holding Fee	$71.00	$90.00	$0.00	$90.00	FC
Release of Animal	$71.00	$90.00	$0.00	$90.00	FC

Asset Management

Aus Spec 1 Guidelines

Design and Construction Guidelines for Contractors/ Developers	$11,020.00	$10,581.82	$1,058.18	$11,640.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Civil Works in the Public Domain

Application Fee for Civil Works in the Public Domain (Cost of work up to $30,000)	$2,500.00	$2,700.00	$0.00	$2,700.00	LR
Application Fee for Civil Works in the Public Domain (Cost of work greater than $30,000)	$7,500.00	$8,000.00	$0.00	$8,000.00	FC
Civil works inspection	$364.00	$384.00	$0.00	$384.00	FC
Security Deposit				Cost of Works	BAGS
Final Drainage Inspection Fee	$600.00	$650.00	$0.00	$650.00	FC
This fee is calculated per inspection or submission of a final report. The fee includes a review of a CCTV inspection provided by the applicant. Where further testing or information is required to assess the final report, the applicant will be asked to collate the necessary information or testing and submit. There will be no further charge for additional submissions unless the information initially provided does not meet the specified requirements of Council, or it has been requested more than once.					
Final Road Inspection Fee	$600.00	$650.00	$0.00	$650.00	FC
This fee is calculated per inspection or submission of a final report. In the case of road pavements, the fee includes of all information submitted in the report. Where further testing or information is required to assess the final report, the applicant will be asked to collate the necessary information or testing and submit. There will be no further charge for additional submissions unless the information initially provided does not meet the specified requirements of Council, or it has been requested more than once.					

Pre-Commencement Damage Report

Applicable when submitting a Development Application so as to determine the condition of the public asset before building works commence

Pre-commencement Damage Report Form	$444.00	$469.00	$0.00	$469.00	FC
Prior to undertaking approved works within the Public Road Reserve, it is necessary to lodge a report to clearly indicate the condition of all assets within the Road Reserve in the area of the worksite that could be impacted by the works. The report needs to clearly indicate any defects with the assets prior to the commencement of approved work. When the approved works have been completed a final report is to be lodged indicating the condition (including defects) of all assets captured in the report lodged prior to commencing the approved works to allow the comparison of defects before and after the approved works have been undertaken. Fee is calculated as per Asset Damage Report lodged.					

Emergency Call Out Situations

For after-hours responses (between 3:00 PM and 6:30 AM Monday to Friday and all day weekends and public holidays). Where a call out is necessary to ensure safety of the public, etc and is required due to the action or inaction of another party that can be identified as responsible, Council will seek to recover costs from the responsible person.

Labour costs				Full cost of labour to Council + 50%	FC

Flood Risk / Stormwater Assessment

Application to connect a private drain with a public drain under the control of a Council or with a drain which connects with such a public drain (Section 68)	$1,300.00	$1,370.00	$0.00	$1,370.00	RR
Initial Assessment	$500.00	$530.00	$0.00	$530.00	RR
Subsequent Assessments (each)	$338.00	$360.00	$0.00	$360.00	RR

Memorial Donations

Memorial Seat with Plaque	$3,680.00	$3,890.00	$0.00	$3,890.00	RR
Memorial Park Seat	$3,190.00	$3,370.00	$0.00	$3,370.00	RR
Memorial Plaque Only	$555.00	$585.00	$0.00	$585.00	RR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
OSD Identification Plate					
On-site detention (OSD) Identification Plate	$100.00	$110.00	$0.00	$110.00	RR
Rock Anchor Permit					
Application Fee	$7,500.00	$8,000.00	$0.00	$8,000.00	RR
Cost per anchor	$300.00	$320.00	$0.00	$320.00	RR
Refundable Holding Deposit	Minimum $50,000 plus $1,000 per anchor above 50 units				BAGS
Property Services					
Business Use of Footpaths					
Administration of Business Use of Footpaths					
Application Fee – Footpath Dining	$321.00	$339.00	$0.00	$339.00	RR
Bond (less than or equal to 5m2)	$500.00	$500.00	$0.00	$500.00	BAGS
Bond (greater than or equal to 5m2)	$1,000.00	$1,000.00	$0.00	$1,000.00	BAGS
Major Commercial Centres					
George Street North Strathfield Footpath Dining Approval per m2 per annum	$243.00	$257.00	$0.00	$257.00	RR
Great North Road Five Dock Footpath Dining Approval per m2 per annum	$277.00	$293.00	$0.00	$293.00	RR
Majors Bay Road, Concord Footpath Dining Approval per m2 per annum	$282.00	$298.00	$0.00	$298.00	RR
Rhodes Adjacent to 1 Rider Boulevard Footpath Dining Approval per m2 per annum	$369.00	$390.00	$0.00	$390.00	RR
Other Commercial Areas					
Other Commercial Areas Footpath Dining per m2 per annum in Canada Bay	$231.00	$244.00	$0.00	$244.00	RR
Rhodes Other Footpath Locations Footpath Dining Approval per m2 per annum	$287.00	$303.00	$0.00	$303.00	RR
Property Administration					
Fee for Preparation of all Council Leases	$270.00	$259.09	$25.91	$285.00	PC
Application to permanently close and purchase unused and unformed Council public road (S38A Roads Act) (non-refundable)	$1,500.00	$1,580.00	$0.00	$1,580.00	FC
Processes include preliminary internal investigations, status search/report and report back to applicant with investigation result and may also include administration and submission of a report to Council to determine if a road closure application will be accepted or refused for progression to the next Stage of the process. *Valuation, surveying, legal costs met by the applicant.* *Any sale of land is subject to Council resolution and agreement by the applicant to the sale price.*					

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Building Services

General Information

BUILDERS INDEMNITY INSURANCE
Construction Certificates and Complying Development Certificates cannot be issued unless the applicant provides a certificate of insurance issued by an approved insurer under the Home Building Act 1989.
Persons who wish to do building work on their own home may apply to the Department of Fair Trading for an owner-builder permit where:

(a) the cost of the work exceeds 5,000;
(b) the work relates to a single dwelling - house or dual occupancy; and
(c) the work requires development consent or is complying development.

An owner-builder who sells their dwelling within 7 years of completion of the work must take out home warranty insurance.
Works valued less than 12,000.00 value, no insurance is required when carried out by a licensed builder.

LONG SERVICE LEVY
For building or subdivision works that exceed a value of 250,000, payment of the Long Service Levy to the Long Service Levy Payments Corporation is required prior to Council (or an accredited certifier) issuing the Construction or Complying Development Certificate. Council acts as an agent for collection of this levy.
The amount payable is currently fixed at 0.25% of the total cost of the work and is GST exempt

General Information of Building Services				As listed above.	Z

Complying Development Certificates

Administration of Complying Development Certificates

Complying Development Certificate Applications Involving A Building Code Of Australia Alternative Solution	Relevant application fee PLUS additional charges may be levied to recover council's costs in more complicated assessments at the rate of $315.00/hour or part thereof.				RR
Such charges will be as determined by the Manager Health, Building & Compliance in consultation with the applicant.					
Confirmation in writing that development is exempt or complying development.	$1,716.00	$1,818.18	$181.82	$2,000.00	LR
Notification for Complying Development Certificates	$168.00	$177.00	$0.00	$177.00	LR

Complying Development Certificates – Application

Work value less than or equal to $20,000 (Class 1&10 Buildings)	$1,170.00	$1,127.27	$112.73	$1,240.00	RR
Work value between $20,001 and $50,000 (Class 1&10 Buildings)	$2,030.00	$1,945.45	$194.55	$2,140.00	RR
Work value between $50,001 and $200,000 (Class 1&10 Buildings)	$2,900.00	$2,781.82	$278.18	$3,060.00	RR
Work value between $200,001 and $1 million (Class 1&10 Buildings)	$3,790.00	$3,636.36	$363.64	$4,000.00	RR
Work value more than $1 million (Class 1&10 Buildings)	$4,760.00	$4,572.73	$457.27	$5,030.00	RR
Work value less than or equal to $20,000 (Class 2-9 Buildings)	$1,680.00	$1,609.09	$160.91	$1,770.00	RR
Work value between $20,001 and $50,000 (Class 2-9 Buildings)	$3,110.00	$2,981.82	$298.18	$3,280.00	RR
Work value between $50,001 and $200,000 (Class 2-9 Buildings)	$3,500.00	$3,363.64	$336.36	$3,700.00	RR
Work value between $200,001 and $1 million (Class 2-9 Buildings)	$4,330.00	$4,154.55	$415.45	$4,570.00	RR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Complying Development Certificates – Application [continued]

Work value more than $1 million (Class 2-9 Buildings)				POA	RR

Other Activity Application Fees (Section 68 Of Local Government Act 1993)

Manufactured Home	$2,560.00	$3,100.00	$0.00	$3,100.00	LR
Other Activities	$236.00	$249.00	$0.00	$249.00	LR
Street Performances under Section 68	$0.00	$0.00	$0.00	$0.00	Z

Compliance Cost Notice

Preparation and service of Notice of Intention to give Development Control Order				Maximum $750 GST Exempt	LR

The fee will be charged with a Notice of Intention and an Order under the EPA Act for unauthorised works.

Reasonable costs and expenses incurred for monitoring, compliance, investigation, preparation and other costs associated with the development control order				POA	LR

Construction and Development Certification

Damage Deposits

For alterations and additions, swimming pools, carports and light structure type works, a $5,000 cap applies. For new single residential dwelling homes a cap of $10,000 applies. For all other works including residential flat buildings, commercial/industrial and mixed developments no limit or cap applies.
Damage deposits / bonds / prepayments of all types, paid via cash, cheque, bank cheque, money order, credit card etc. All damage deposits / bonds / prepayments refundable, will not earn any interest while deposited with the Council as it is considered that administration cost in managing these monies, would more than offset the interest that would have been earned.

Bank guarantees associated with Damage Deposit – Administration Charge per bank guarantee	$280.00	$280.00	$0.00	$280.00	RR
Damage deposit for demolition works per metre of street frontage measured at the property boundary	$0.00	$238.00	$0.00	$238.00	BAGS

A damage deposit is held by Council until the works are completed. Any damage to Council infrastructure will need to be rectified before the damage deposit is able to be refunded. The damage to Council infrastructure is determined through the applicant lodging of pre and post works Infrastructure Damage Reports.
Damage deposit is calculated at $150 per metre of street frontage measured at the property boundary.

Damage deposit for construction works valued at less than $250,000				Deposit is 5% of cost of works	BAGS

A damage deposit is held by Council until the works are completed. Any damage to Council infrastructure will need to be rectified before the damage deposit is able to be refunded. The damage to Council infrastructure is determined through the applicant lodging of pre and post works Infrastructure Damage Reports.
Damage deposit is calculated as 5% of the value of the construction works.

Damage deposit for construction works valued at more than $250,000				Deposit is 5% of cost of works	BAGS

A damage deposit is held by Council until the works are completed. Any damage to Council infrastructure will need to be rectified before the damage deposit is able to be refunded. The damage to Council infrastructure is determined through the applicant lodging of pre and post works Infrastructure Damage Reports.
Damage deposit is calculated as 5% of the cost of construction works.

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Construction Certificates - Class 1&10 (Refer General Note)

General Note: Values listed in this table equate to the contract price or the cost of the building (in cases where there is no contract) and calculated in accordance with the Regulation. Values include the costs associated with the construction of the building, the costs associated with the preparation of the building for the purpose for which it is to be used (such as installing plant, fittings, fixtures and equipment), other works (if any) and costs of demolition (if any).

Work value less than or equal to $25,000	$1,170.00	$1,127.27	$112.73	$1,240.00	MP
Work value between $25,001 and $50,000	$2,030.00	$1,945.45	$194.55	$2,140.00	MP
Work value between $50,001 and $100,000	$2,900.00	$2,781.82	$278.18	$3,060.00	MP
Work value between $100,001 and $300,000	$3,420.00	$3,281.82	$328.18	$3,610.00	MP
Work value between $300,001 and $1,000,000	$3,790.00	$3,636.36	$363.64	$4,000.00	MP
Work value exceeding $1,000,001	$4,760.00	$4,572.73	$457.27	$5,030.00	MP

Construction Certificates - Class 2-9 (Refer General Note)

General Note: Values listed in this table equate to the contract price or the cost of the building (in cases where there is no contract) and calculated in accordance with the Regulation. Values include the costs associated with the construction of the building, the costs associated with the preparation of the building for the purpose for which it is to be used (such as installing plant, fittings, fixtures and equipment), other works (if any) and costs of demolition (if any).

Work value less than or equal to $25,000	$1,680.00	$1,609.09	$160.91	$1,770.00	MP
Work value between $25,001 and $50,000	$3,110.00	$2,981.82	$298.18	$3,280.00	MP
Work value between $50,001 and $100,000	$3,500.00	$3,363.64	$336.36	$3,700.00	MP
Work value between $100,001 and $300,000	$3,870.00	$3,718.18	$371.82	$4,090.00	MP
Work value between $300,001 and $1,000,000	$4,330.00	$4,154.55	$415.45	$4,570.00	MP
Work value exceeding $1,000,001				POA	MP

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Registration of Certificates Issued by Accredited Certifiers

Registration of a Complying Development Certificate	$39.00	$39.00	$0.00	$39.00	LR
Registration of Construction Certificate issued by Private Certifier (Not Complying Development)	$43.00	$43.00	$0.00	$43.00	LR
Registration of Occupation Certificate issued by Private Certifier	$43.00	$43.00	$0.00	$43.00	LR
Registration of Subdivision Certificate issued by Private Certifier (Not Complying Development)	$43.00	$43.00	$0.00	$43.00	LR

Transfer of PCA services to Council

Council appointed as PCA	Package as determined by Council delegate				RR

Construction Inspection

Inspection Fee	$350.00	$336.36	$33.64	$370.00	MP

Fire Safety Compliance

BCA Class 2-3 Effective Height <25m	$740.00	$709.09	$70.91	$780.00	MP
BCA Class 2-3 Effective Height >25m	$1,480.00	$1,418.18	$141.82	$1,560.00	MP
BCA Class 5-9 up to or equal 500m2 floor area	$610.00	$586.36	$58.64	$645.00	MP
BCA Class 5-9 >500m2 floor area	$1,220.00	$1,172.73	$117.27	$1,290.00	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Fire Safety Compliance [continued]

Annual Fire Safety Statement Lodgement/Registration Fee	$200.00	$191.82	$19.18	$211.00	RR
Annual Fire Safety Statement – Late fee	$125 per month up to a maximum of 5 months				LR
Annual Fire Safety Statement – Request to Stay Infringement Notice	$400.00	$400.00	$0.00	$400.00	LR

Building Information Certification (Section 6.24)

Section 6.24 - Classes 1 & 10 - Statutory

Classes 1 & 10 (Dwellings), and Class 2 building containing only two dwellings				$250 per dwelling	LR

Section 6.24 - Other Classes - Statutory

A building not exceeding 200sqm	$250.00	$250.00	$0.00	$250.00	LR
A building greater than 200sqm but not exceeding 2,000sqm	$250 plus an additional 50 cents per square metre over 200 m2				LR
A building greater than 2,000sqm	$1,165 plus an additional 7.50 cents per m2 over 2,000				LR
Additional Inspections	$90.00	$90.00	$0.00	$90.00	LR

Where a Building Information Certificate Application involves Unauthorised Works

Note: The applicable Development Application fees and/or Construction Certificate and inspection fees are payable for unauthorised works - refer to the relevant fee within the Schedule of Fees and Charges

Archive Fee for Unauthorised Works Building Certificates*	$100.00	$100.00	$0.00	$100.00	LR

Certificates

Planning Certificates

Note that for strata lot applications, one fee is charged per lot applied for within that strata plan.

Section 10.7(2) Certificate Application/Reprint				$66/lot	LR
Section 10.7(2)/(5) Certificate Application/Reprint				$167/lot	LR
Fee for urgent processing of applications for Section 10.7(2)/(5) within 24 hours	$100/lot (Council reserves the right not to make the service available)				LR

Outstanding Notices

Outstanding Notice – Section 735A (per lot)	$225.00	$238.00	$0.00	$238.00	LR

Occupation Certificates

Occupation Certificates (Council as PCA)	$350.00	$336.36	$33.64	$370.00	MP

Rates Certificates

Reprint and Post Rate Notices and Instalment Notices	$22.00	$22.00	$0.00	$22.00	LR
Section 603 certificate	$95.00	$95.00	$0.00	$95.00	LR
Urgency fee – Processed within 24 hours	$165.00	$174.00	$0.00	$174.00	RR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Section 54 Certificate (LGA, 1993)

Application Fee	$60.00	$60.00	$0.00	$60.00	LR

Section 88G Certificate

(Conveyancing Act 1919)

Section 88G certificates (Section 88G of Conveyancing Act)	$10.00	$10.00	$0.00	$10.00	LR
Section 88G certificate requiring inspection	$35.00	$35.00	$0.00	$35.00	LR

Swimming Pool Safety Certificate

Fee For Provision of Registration Information of Swimming Pool	$10.00	$9.09	$0.91	$10.00	LR
Swimming Pool Application Exemption Fee	$250.00	$250.00	$0.00	$250.00	LR
Swimming Pool Compliance Certificate	$150 plus $100 for second and subsequent inspections.				LR
Swimming Pool Sign	$25.00	$24.00	$2.40	$26.40	RR

Compliance

Abandoned Articles

Motor Vehicles, Trucks, Trailers and Caravans

Impounding/Admin/Processing Fee	$225 impounding fee plus $50/day admin/processing fee + $215 towing fee **Last year fee** $225 impounding fee plus $40/day holding fee + $205 towing fee				FC

Other Goods

Political Poster per poster per day	$10.40	$15.00	$0.00	$15.00	LR
Water Craft Impounding Fee	$150 admin fee plus $10 per day				FC
All Other Items Impounding Fee	$150 admin fee + $30 per day **Last year fee** $150 admin fee + $25 per day				FC

Clothing Bank Bins

Annual Permit Fee Per Bin - Not Registered Charity	$1,050.00	$1,110.00	$0.00	$1,110.00	LR
Annual Permit Per Bin - Registered Charity	$457.00	$483.00	$0.00	$483.00	RR
Initial Annual Application Fee	$357.00	$377.00	$0.00	$377.00	FC

Public Health Inspections

Improvement Notice Fee – Food Act	$330.00	$330.00	$0.00	$330.00	LR
Prescribed Fee – Public Health Act (Other)	$290.00	$295.00	$0.00	$295.00	LR
Prescribed Fee – Public Health Act (Per Regulated System)	$620.00	$635.00	$0.00	$635.00	LR
Brothel Audit	$535.00	$565.00	$0.00	$565.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Public Health Inspections [continued]

Food – Pre-Occupation Inspection	$180.00	$190.00	$0.00	$190.00	FC
Food – Annual Itinerant/Mobile Food Vendor Fee (Includes Administration Fee, Approval & Inspections)	$180.00	$190.00	$0.00	$190.00	FC
Food – Reinspection	$180.00	$190.00	$0.00	$190.00	FC
Food - Home Jurisdiction Inspection	$307.00	$324.00	$0.00	$324.00	LR
Food – Level Zero Inspection Fee	$158.00	$167.00	$0.00	$167.00	FC
Food – Level One Annual Business Fee (Includes Administration Fee & Routine Inspections)	$307.00	$324.00	$0.00	$324.00	FC
Food – Level Two Annual Business Fee (Includes Administration Fee & Routine Inspections)	$630.00	$630.00	$0.00	$630.00	FC
Food – Level Three Annual Business Fee (Includes Administration Fee & Routine Inspections)	$855.00	$905.00	$0.00	$905.00	FC
Food – Temporary Food Stall Admin/Inspection	$99.50	$105.00	$0.00	$105.00	FC
Food – Temporary Food Event – Food Vendor (per stall/ vehicle)	$99.50	$105.00	$0.00	$105.00	FC
Food - Temporary Food Event - (late submission - Urgency Fee)	$350.00	$350.00	$0.00	$350.00	FC
Food Sample	Total cost of analysis & sampling				FC
Mortuary/Funeral Parlour/Undertaker Audit	$153.00	$162.00	$0.00	$162.00	FC
Regulated Cooling Tower System/Warm Water System Audit (each system)	$198.00	$209.00	$0.00	$209.00	FC
Shared Accommodation/Boarding House Audit	$182.00	$192.00	$0.00	$192.00	FC
Skin Penetration Business Inspection & Administration Fee	$180.00	$190.00	$0.00	$190.00	FC
Skin Penetration Business Reinspection	$137.00	$145.00	$0.00	$145.00	FC
Skin Penetration Preoccupation Inspection Fee	$180.00	$190.00	$0.00	$190.00	FC
Regulated Swimming Pool Inspection & Administration Fee	$156.00	$165.00	$0.00	$165.00	FC
Petrol Station Audit	$386.00	$408.00	$0.00	$408.00	LR

Protection of Environment Operations Act

Environmental Audit	$353.00	$373.00	$0.00	$373.00	FC
POEO – Cost compliance (S.104)	Total cost of compliance				RR
POEO – Notice Administration Fee	$785.00	$803.00	$0.00	$803.00	LR
Wastewater Management Facility – Approval to Install (Includes Assessment of Application and Initial Inspection)	$245.00	$259.00	$0.00	$259.00	FC
Wastewater Management Facility – Approval to Operate (Includes Assessment of Application and Initial Inspection)	$128.00	$135.00	$0.00	$135.00	FC
Water Sample	Total cost of analysis and sampling				FC

Community Services

Aged Services and Services for People with a Disability

Active Adults	$30.00	$29.09	$2.91	$32.00	PC
Bay Connection	$26.50	$25.91	$2.59	$28.50	PC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Child Care

Wellbank Children's Centre

Enrolment Bond + Holding Fee	One week of full fees based on childs days of attendance + $70 holding fee				BAGS
Fee per Day	$157.00	$169.00	$0.00	$169.00	PC

Victoria Avenue Children's Centre

Enrolment Bond + Holding fee	One week of full fees based on childs attendance patterns + $70 holding fee				BAGS
Fee per Day	$157.00	$169.00	$0.00	$169.00	PC

Street Parties and School Fetes

Traffic Management – Community Street Parties and School Fetes (all inclusive subject to council approval)	Maximum $4,000				LR

Development Applications

General Note:
If two or more statutory fees apply to a single DA, then the amount payable shall be the sum of those fees.
Note 1:
These fees are additional to other fees, which may apply.
Note 2:
Regulations require Council to refund the amount of the fee not expended in advertising the application.

Developments Involving Erection of Buildings, Carrying out of Works, or the Demolition of Buildings or Works at Work Value – Statutory

Council's collect the Planning Reform Fee (plan FIRST) on behalf of the NSWGovernment for building works or subdivisions that are estimated to have a value greater than $50,000. The fee is calculated as a percentage of the estimated development cost and is payable upon lodgement of a Development Application (DA). The following DA fees are Plan FIRST inclusive.

DA for development up to $5,000	$138.00	$138.00	$0.00	$138.00	LR
Between $5,001 – $50,000	$212 plus $3.00 for each $1,000 or part above $5,000				LR
Between $50,001 – $250,000	$442 plus $3.64 for each $1,000 or part above $50,000				LR
Between $250,001 – $500,000	$1,455 plus $2.34 for each $1,000 or part above $250,000				LR
Between $500,001 – $1 Million	$2,189 plus $1.64 for each $1,000 or part above $500,000				LR
Greater than $1 Million less than $10 Million	$3,281 plus $1.44 for each $1,000 above $1 Million				LR
Greater than $10 Million	$19,916 plus $1.19 for each $1,000 above $10 Million				LR
Development application for development involving the erection of a dwelling house with an estimated cost of $100,000 or less	$571.00	$571.00	$0.00	$571.00	LR
DA not involving building work, demolition or sub division	$357.00	$357.00	$0.00	$357.00	LR
Additional fee for development application for designated development	$1,154.00	$1,154.00	$0.00	$1,154.00	LR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Amended DA Plan Reassessment Fee					
Estimated cost of works up to $1million	$268.00	$283.00	$0.00	$283.00	LR
Estimated cost of works of between $1million and up to $5million	$535.00	$565.00	$0.00	$565.00	LR
Estimated cost of works between $5million and up to $10million	$965.00	$1,020.00	$0.00	$1,020.00	LR
Estimated cost of works in excess of $10million	$1,340.00	$1,420.00	$0.00	$1,420.00	LR
Refund of Development Application Fees					
Withdrawal of application before assessment.				Maximum 75% of fees paid	PC
Withdrawal of application after assessment but prior to assessment report preparation				Maximum 50% of fees paid	PC
Withdrawal of application after determination				No refund	PC
Long Service Levy - Statutory Collected on behalf of The Long Service Payments Corporation					
The long service levy is applied to all NSW building and construction projects of $250,000 or more (inc. GST).				The current rate is 0.25% of the total cost of the work.	LR
Other Developments – Statutory					
Development Applications for the pruning or removal of a tree for Heritage Items and Properties in H.C.A				$110/application or $44/application where applicant is a pensioner	LR
Development for the purpose of one or more advertisements.				$357 plus an additional $93 per advertisement in excess of one, or the fee in accordance with the above table, whichever is greater.	LR
Subdivisions Schedule 4 Part 2					
Other than Strata subdivision, involving the opening of a public road.				$833 plus $65 per additional lot	LR
Other than Strata subdivision, not involving the opening of a public road.				$414 plus $53 per additional lot	LR
Strata Units Subdivision				$414 plus $65 per additional lot	LR
Linen Releases (Subdivision Certificates)					
Subdivision Certificates Application per lot				$320/lot	MP
Re-inspection Fee	$86.00	$91.00	$0.00	$91.00	MP
Checking of Section 88 instruments	$940.00	$995.00	$0.00	$995.00	MP
Re-execution of Subdivision Plans or Section 88 Instrument	$940.00	$995.00	$0.00	$995.00	MP
Minor boundary adjustments, where no new lots are proposed	$885.00	$935.00	$0.00	$935.00	MP
Integrated Development and Development which Requires Concurrence – Statutory (refer Note 1)					
Additional fee for development application for integrated development				$176 + $401 for each approval body to which the DA is to be forwarded	LR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Integrated Development and Development which Requires Concurrence – Statutory (refer Note 1) [continued]

Additional fee for development application for development requiring concurrence, other than if concurrence is assumed under Environmental Planning and Assessment Regulation 2021, section 55	$176 + $401 for each Concurrence authority body to which the DA is to be forwarded				LR

Additional fees payable for development that requires advertising

In addition to any other fees payable, Council will charge up to the following maximum fees for giving of the notice required for the development:

a. in case of designated development	$2,785.00	$2,785.00	$0.00	$2,785.00	LR
b. in case of advertised development	$1,386.00	$1,386.00	$0.00	$1,386.00	LR
c. in case of prohibited development	$1,386.00	$1,386.00	$0.00	$1,386.00	LR
d. in case of development for which an environmental planning instrument requires notice to be given otherwise than as referred to in a, b or c above.	$1,386.00	$1,386.00	$0.00	$1,386.00	LR
e. Development Application that is accompanied by a voluntary planning agreement under S7.4 of the Act.	$1,386.00	$1,386.00	$0.00	$1,386.00	LR
f. Modification of consent (only if previously advertised or required by DCP 2017 to be notified)	$1,386.00	$1,386.00	$0.00	$1,386.00	LR
g. Application to review a determination as required by Section 8.2-8.5 of the EP&A Act. (where required by DCP 2017 to be notified)	$1,386.00	$1,386.00	$0.00	$1,386.00	LR

Development Applications - Notification

Notification of Development Applications, Planning Proposals, S4.55 Applications or S8.2-S8.5 Applications.

3D Digital Architectural Model (where Development Application is required to be referred to JRPP)	$2,530.00	$2,670.00	$0.00	$2,670.00	RR
3D Digital Architectural Model (where required to accompany a Development Application)	$1,260.00	$1,330.00	$0.00	$1,330.00	RR
a. Works up to $10,000	$46.00	$48.60	$0.00	$48.60	RR
b. Works between $10,001 and up to $100,000	$168.00	$177.00	$0.00	$177.00	RR
c. Works between $100,001 and up to $500,000	$331.00	$350.00	$0.00	$350.00	RR
d. Works between $500,001 and up to $1 Million	$404.00	$427.00	$0.00	$427.00	RR
e. Works greater than $1 Million and up to $10 Million	$720.00	$760.00	$0.00	$760.00	RR
f. Works greater than $10 Million	$825.00	$870.00	$0.00	$870.00	RR

Notification fee for amended development application plans

Notification fee for amended development application plans	Refer to the notification fees for Original DA in the table above				LR

Review of Determination Under S8.2-S8.5

1. Review of determination of any other development up to $5,000.	$69.00	$69.00	$0.00	$69.00	LR
2. Review of determination of any other development with an estimated cost of $5,001 – $250,000.	$107 plus an additional $1.50 for each $1,000 (or part of $1,000) of the estimated cost exceeds $5,000				LR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Review of Determination Under S8.2-S8.5 [continued]

3. Review of determination of any other development with an estimated cost of $250,001-$500,000.	$627 plus an additional $0.85 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $250,000.				LR
4. Review of determination of any other development with an estimated cost of $500,001-$1,000,000.	$894 plus an additional $0.50 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $500,000.				LR
5. Review of determination of any other development with an estimated cost of $1,000,001-$10,000,000.	$1,238 plus an additional $0.40 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $1,000,000.				LR
6. Review of determination of any other development with an estimated cost more than $10,000,000.	$5,943 plus an additional $0.27 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $10,000,000.				LR
Review of determination for a development application that does not involve the erection of a building, the carrying out of a work or the demolition of a work or building.	50% of original application fee				LR
Review of determination for a development application that involves the erection of a dwelling house with an estimated cost of construction of $100,000 or less.	$238.00	$238.00	$0.00	$238.00	LR
Application for review of decision to reject and not determine a development application under the Act, section 8.2(1)(c) if the estimated cost of development is (a)	$69 if the estimated cost is less than $100,000				LR
Application for review of decision to reject and not determine a development application under the Act, section 8.2(1)(c) if the estimated cost of development is (b)	$188 if the estimated cost is $100,000 - $1 million				LR
Application for review of decision to reject and not determine a development application under the Act, section 8.2(1)(c) if the estimated cost of development is (c)	$313 if the estimated cost is more than $1 million				LR
Appeal against determination of modification application under the Act, section 8.9	50% fee that was payable for the application the subject of appeal				LR
Notice of application for review of a determination under the Act, section 8.3	$778.00	$778.00	$0.00	$778.00	LR

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Development Applications - Modification of a Consent Under Section 4.55 and 4.56

Section 4.55 (1) – Corrections	$89 under EPA Regulation 2021 Schedule 4 Clause 4.1				LR
Section 4.55 (1A) – Minor modifications	Lesser of $809 or 50% fee for orginal application				LR
S4.55 (2) of the Act, or under section 4.56 of the Act if the fee for the original application was less than $100.	50% of the fee for the original development application				LR
S4.55 (2) of the Act, or under section 4.56 of the Act where the fee of the original application was more than $100 but does not involve the erection of a building, the carrying out of work or the demolition of a work or building.	50% of the fee for the original development application				LR
S4.55 (2) of the Act, or under section 4.56 of the Act where the original application was for a dwelling house with an estimated cost of construction of $100,000 or less.	$238.00	$238.00	$0.00	$238.00	LR
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $5,000.	$69.00	$69.00	$0.00	$69.00	LR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Development Applications - Modification of a Consent Under Section 4.55 and 4.56 [continued]

S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $5,001-$250,000.	$106 plus an additional $1.50 for each $1,000 (or part of $1,000) of the estimated cost exceeds $5,000				LR
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $250,001-$500,000.	$627 plus an additional $0.85 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $250,000.				LR
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $500,001-$1,000,000.	$894 plus an additional $0.50 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $500,000.				LR
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of $1,000,001-$10,000,000.	$1,238 plus an additional $0.40 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $1,000,000.				LR
S4.55 (2) of the Act, or under section 4.56 of the Act for any other development up to an estimated cost of more than $10,000,000.	$5,943, plus an additional $0.27 for each $1,000 (or part of $1,000) by which the estimated cost exceeds $10,000,000.				LR
Review of Section 4.55 Modification under Section 8.2(1)(b)	50% of original S96 Application Fee				LR
Additional fee for modification application if notice of application is required to be given under the Act, section 4.55(2) or 4.56(1)	$835				LR
Additional fee for modification application that is accompanied by statement of qualified designer	$465.00	$491.00	$0.00	$491.00	RR

Development Applications - Other Services

Certified Planning Documents – Statutory

Provision of certified copy of a document, map or plan under the EP&A Act, section 10.8(2)	$62.00	$66.00	$0.00	$66.00	RR
Copy of Standard Conditions of Development Applications	$36.20	$38.20	$0.00	$38.20	RR

DA Pre-Lodgement Panel

Type of development Fee for service DA - Minor developments (Dwelling houses and Heritage)	$665.00	$636.36	$63.64	$700.00	RR
Type of development Fee for service DA - Major developments	$1,050.00	$1,009.09	$100.91	$1,110.00	RR

Design Review Panel Referrals

Referral of Development Applications and Pre-lodgement Applications to the Design Review Panel	$3,763.00	$3,763.00	$0.00	$3,763.00	LR
Referral of amended plans (DA or Pre-DA) to the Design Review Panel	$1,881.00	$1,881.00	$0.00	$1,881.00	LR

Covenant Removals or Amendments

Application	$140 plus $70 per hour or part thereof in excess of 2 hours				LR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Registration of Notice of Class 2 Remediation

Registration of notice of intention to carry out Class 2 remediation works (clause 16 – SEPP 55)	$224.00	$237.00	$0.00	$237.00	RR

Development Contributions to Services and Amenities

City of Canada Bay Local Infrastructure Contribution Plan
https://www.canadabay.nsw.gov.au/development/plans-policies-and-controls/development-contribution-plans

City of Canada Bay S7.11 Contributions

Section 7.11 Contributions Plan Canada Bay	Charges shall be made for provision and improvement of infrastructure, including, but not limited to car parking (where applicable), open space, community facilities and roads, in accordance with the current Section 7.11 Contributions Plan				LR

City of Canada Bay S7.12 Contributions

Work Value From $0 to $100,000	Nil				LR
Work Value From $100,001 to $200,000	0.50% multiplied by the Indexed development cost				LR
Work Value Greater Than $200,000	1% multiplied by the Indexed development cost				LR

City of Canada Bay S7.4 Contributions

Application for planning agreement under s 7.4 of the Environmental Planning and Assessment Act.	Negotiated with each applicant as S7.4 Agreement proposed				LR

DCP Amendments and Re-zoning

Pre-Planning Proposal Meeting

Scoping Proposal and Meeting	$10,000.00	$9,090.91	$909.09	$10,000.00	RR

Planning Proposals

A Minor LEP generally refers to a single allotment spot rezoning generated by a planning anomaly or inconsistency, or minor amendments such as the modification of a development standard. These rezoning are generally not complex or contentious. A Major LEP refers to all other rezoning applications submitted to Council. Fees for both major and minor LEP amendments are not refundable.

Major LEP	$100,000.00	$100,000.00	$0.00	$100,000.00	FC
Major DCP	$30,000.00	$30,000.00	$0.00	$30,000.00	FC
Minor LEP or DCP	$10,000.00	$10,000.00	$0.00	$10,000.00	FC
Reimbursement of Actual Cost of required consultants (ie – planning urban design, traffic, heritage financial / economic, legal, etc).	At cost				FC

Events

Administrations of Event

Cancellation fee (prior to 1 month before event)	50% of fee				FC
Cancellation fee (within 1 month of event)	100% of Fee				FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Administrations of Event [continued]

Fete Stall Hire (2.4m X 2.4m or similar)	$75.00	$150.00	$15.00	$165.00	PC
Marquee Hire (3m X 3m or similar)	$225.00	$300.00	$30.00	$330.00	PC
Pop Up Marquee Hire - limited availability	$0.00	$150.00	$15.00	$165.00	FC
Post Event – Garbage Clean-Up penalty	$80.00	$136.36	$13.64	$150.00	RR
Temporary Food Premises Approval Permit – Daily fee for Commercial	$99.50	$105.00	$0.00	$105.00	RR

Ferragosto in August 2024

* Health inspection fee is included in the fees and charges for all food and wine stalls.

Great North Road Business Stall	$210.00	$190.91	$19.09	$210.00	PC
Not-For-Profit Community Group Stall	$225.00	$204.55	$20.45	$225.00	FC
City of Canada Bay Business – Food Stall*	$600.00	$545.45	$54.55	$600.00	FC
City of Canada Bay Business – Merchandise Stall	$440.00	$400.00	$40.00	$440.00	FC
City of Canada Bay Business – Food Van	$1,000.00	$909.09	$90.91	$1,000.00	FC
Food Stall* – Standard	$740.00	$672.73	$67.27	$740.00	FC
Merchandise Stall – Standard	$565.00	$513.64	$51.36	$565.00	FC
Pre-packaged Food Stall* – Standard	$615.00	$559.09	$55.91	$615.00	FC
Wine Stall* – Standard	$615.00	$559.09	$55.91	$615.00	FC
Food Van* – Standard	$1,100.00	$1,000.00	$100.00	$1,100.00	FC

Large Events (over 10,000 but less than 40,000 attendees)

* Health inspection fee is included in the fees and charges for all food and wine stalls.

Not-For-Profit Community Group Stall	$200.00	$200.00	$20.00	$220.00	FC
City of Canada Bay Business – Food Stall*	$345.00	$363.64	$36.36	$400.00	FC
City of Canada Bay Business – Food Van	$585.00	$631.82	$63.18	$695.00	FC
City of Canada Bay Business – Pre-packaged Food Site	$0.00	$268.18	$26.82	$295.00	FC
City of Canada Bay Business – Merchandise / Other Site	$280.00	$268.18	$26.82	$295.00	FC
City of Canada Bay Business – Alcohol Site	$0.00	$268.18	$26.82	$295.00	FC
Food Stall*	$460.00	$500.00	$50.00	$550.00	FC
Food Van	$685.00	$904.55	$90.45	$995.00	FC
Pre-packaged Food Stall	$430.00	$404.55	$40.45	$445.00	FC
Merchandise / Other Site	$385.00	$404.55	$40.45	$445.00	FC
Alcohol Site	$410.00	$404.55	$40.45	$445.00	FC
Amusement Hire Space				Price on application	FC

Medium Events (1,000 - 10,000 attendees)

* Health inspection fee is included in the fees and charges for all food and wine stalls.

Not-For-Community Group	$145.00	$100.00	$10.00	$110.00	FC
City of Canada Bay Business – Food Site	$130.00	$227.27	$22.73	$250.00	FC
City of Canada Bay Business – Food Van	$600.00	$359.09	$35.91	$395.00	FC
City of Canada Bay Business – Pre-packaged Food Site	$155.00	$131.82	$13.18	$145.00	FC
City of Canada Bay Business – Merchandise / Other Site	$165.00	$131.82	$13.18	$145.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Medium Events (1,000 - 10,000 attendees) [continued]

City of Canada Bay Business – Alcohol Site	$115.00	$131.82	$13.18	$145.00	FC
Food Site	$250.00	$295.45	$29.55	$325.00	FC
Food Van	$270.00	$495.45	$49.55	$545.00	FC
Pre-packaged Food Site	$165.00	$200.00	$20.00	$220.00	FC
Merchandise / Other Site	$190.00	$200.00	$20.00	$220.00	FC
Alcohol Site	$215.00	$200.00	$20.00	$220.00	FC
Amusement Hire Space per ride				Price on application	FC

Small Events (less than 1,000)

All fees and charges related to Small Events will be publicised by Council as part of the stallholder application process.	To be determined by a resolution in Council Meeting	FC

Facilities Hire and Use

General Conditions of Venues Hire

Note 1
The venue hire terms and conditions are located on the council website or when requested by the Venues management team. Groups may additionally pay:

- A bond of up to $1,000.
- A Key Bond of $100
- A security fee
- Public Liability insurance to the value of $20 million is required. Hirers may be eligible to use Council insurance for the nominated fee (as noted below). A hirer is eligible if they are a person or group of persons (not being a sporting body, club, association, corporation or incorporated body), who hires a Council facility for non-commercial or non-profit making purposes, less frequently than 12 times per calendar year.

Note 2

- Category 1 is defined as Commercial, Federal or State Government or individuals for the purpose such as receptions, private parties, dinner dances or weddings.
- Category 2 is defined as registered Non-Profit Groups and charities. Non-profit community groups or charities must provide Council with a copy of their letter of Incorporation or evidence of non-profit status to obtain the reduced rate.
- Category 3 is defined as Sporting groups/clubs or associations.

Note 3
Council reserves the right to do the following:

- Revise minimum hire booking periods at any time.

General Conditions of Venues Hire	As listed above.	Z

Administration of Facilities Hire

Venue Co-ordination

Category 1 - Bond (except Five Dock Library Bay Room, Concord Library Function Room, The Connection Event Space)	$600.00	$600.00	$0.00	$600.00	BAGS

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Venue Co-ordination [continued]					
Category 2/3 - Bond (except Five Dock Library Bay Room, Concord Library Function Room, The Connection Event Space)	$300.00	$300.00	$0.00	$300.00	BAGS
Regular Hirer Bond (except Five Dock Library Bay Room, Concord Library Function Room, The Connection Event Space)	$0.00	$300.00	$0.00	$300.00	BAGS
A regular hirer is defined as any individual, business or organisation that has booked 10 or more dates within a calendar year.					
Category 1,2&3 - Bond - The Connection Event Space	$1,000.00	$1,000.00	$0.00	$1,000.00	BAGS
Insurance- Once off Hall Hirers	$27.50	$26.36	$2.64	$29.00	FC
Key Replacement for Halls			Full cost of Recovery		FC
Replacement Cost of Access Card	$50.00	$48.18	$4.82	$53.00	FC
Fire Alarm Turn-Out Fee by NSW Fire & Rescue	$1,760.00	$1,600.00	$160.00	$1,760.00	LR
The NSW Fire Brigades ACT 1989, Sect 42 allows FRNSW to charge for attending false alarm call-outs to monitored AFA systems. Council reserves the right to pass on the charge to applicant.					
Security Guard Fee Per hour Per Guard (minimum 4 hours)	$77.00	$74.55	$7.45	$82.00	FC
Alarm Call Out Fee	$115.00	$110.00	$11.00	$121.00	FC
Cleaning Fee (Payable if venue requires additional cleaning)			Full Cost Recovery per booking		FC
Venue Call Out Fee per hour			Full Cost Recovery per booking		FC

Cabarita Conservatory

Category 1: Cabarita Conservatory

A minimum of 4 hours will be charged

Off Peak Hours - Monday to Thursday – 7am -11pm (per hour)	$61.00	$73.64	$7.36	$81.00	FC
Peak Hours - Friday to Sunday 7am -11pm, PH (per hour)	$140.00	$134.55	$13.45	$148.00	FC

Category 2: Cabarita Conservatory

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Thursday – 7am -11pm (per hour)	$32.50	$38.64	$3.86	$42.50	PC
Peak Hours - Friday to Sunday – 7am -11pm, PH (per hour)	$74.00	$67.27	$6.73	$74.00	PC

Campbell Park Community Hall

Category 1: Campbell Park Community Venue

A minimum of 4 hours will be charged

Off Peak Hours - Monday to Thursday – 7am -11pm, Friday 7am -11pm (per hour)	$40.00	$38.64	$3.86	$42.50	FC
Peak Hours - Saturday to Sunday 7am – 11pm, PH (per hour)	$78.00	$70.91	$7.09	$78.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Category 2/3: Campbell Park Community Venue					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$28.00	$30.00	$3.00	$33.00	PC
Peak Hours -Saturday to Sunday 7am – 11pm, Friday – Sunday 6pm – 11pm, PH (per hour)	$55.50	$53.64	$5.36	$59.00	PC
Canada Bay Civic Hall					
Category 1: Canada Bay Civic Hall					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$56.50	$54.55	$5.45	$60.00	FC
Peak Hours - Friday to Sunday – 6pm -11pm, Saturday to Sunday – 7am – 6pm,PH (per hour)	$66.50	$64.09	$6.41	$70.50	FC
Category 2: Canada Bay Civic Hall					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$39.00	$39.09	$3.91	$43.00	PC
Peak Hours - Friday to Sunday – 6pm -11pm, Saturday to Sunday – 7am – 6pm,PH (per hour)	$63.00	$60.45	$6.05	$66.50	PC
Chiswick Community Centre					
Category 1: Chiswick Community Hall					
A minimum of 4 hours will be charged					
Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$40.00	$49.09	$4.91	$54.00	FC
Peak Hours - Friday - 6pm -11pm, Saturday to Sunday – 7am – 11pm,PH(per hour)	$63.00	$60.91	$6.09	$67.00	FC
Category 2: Chiswick Community Hall					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$33.50	$32.73	$3.27	$36.00	PC
Peak Hours - Friday - 6pm -11pm, Saturday to Sunday – 7am – 11pm,PH(per hour)	$51.00	$49.09	$4.91	$54.00	PC
Concord Library Function Room					
Category 1: Concord Library Rooms					
A minimum of 2 hours will be charged					
Off Peak Hours- Monday to Thursday – 9:30am -7:30pm, Friday – 9:30am -5pm (per hour)	$47.00	$49.09	$4.91	$54.00	FC
Peak Hours - Saturday – 9:30am – 4pm, Sunday – 1pm – 5pm, PH (per hour)	$62.50	$61.36	$6.14	$67.50	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Category 2: Concord Library Rooms

A minimum of 2 hours will be charged

Off Peak Hours = Monday to Thursday – 9:30am – 7:30pm, Friday – 9:30am -5pm (per hour)	$39.50	$37.73	$3.77	$41.50	PC
Peak Hours - Saturday – 9:30am – 4pm, Sunday – 1pm – 5pm, PH (per hour)	$49.00	$47.27	$4.73	$52.00	PC

Concord Community Centre

Concord Community Centre Function Room

Category 1: Concord Community Centre Function Room

A minimum of 4 hours will be charged

Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$63.00	$65.45	$6.55	$72.00	FC
Peak Hours - Friday – 6pm -11pm, Saturday to Sunday – 7am – 11pm,PH (per hour)	$79.00	$80.91	$8.09	$89.00	FC

Category 2: Concord Community Centre Function Room

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$47.00	$46.36	$4.64	$51.00	PC
Peak Hours - Friday – 6pm -11pm, Saturday to Sunday – 7am – 11pm,PH (per hour)	$63.00	$60.91	$6.09	$67.00	PC

Concord Community Centre Meeting Room

Category 1: Concord Community Centre Meeting Room

A minimum of 4 hours will be charged

Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$47.00	$45.45	$4.55	$50.00	FC
Peak Hours - Friday – 6pm -11pm, Saturday to Sunday – 7am – 11pm,PH (per hour)	$51.00	$50.91	$5.09	$56.00	FC

Category 2: Concord Community Centre Meeting Room

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Thursday – 7am -11pm, Friday – 7am – 6pm (per hour)	$35.50	$34.09	$3.41	$37.50	PC
Peak Hours - Friday – 6pm -11pm, Saturday to Sunday – 7am – 11pm,PH (per hour)	$39.00	$38.64	$3.86	$42.50	PC

Concord Memorial Hall

Category 1: Concord Memorial Hall

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Thursday – 7am – 11pm, Friday – 7am – 6pm (per hour)	$36.50	$37.27	$3.73	$41.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Category 1: Concord Memorial Hall [continued]

Peak Hours - Friday to Sunday – 6pm – 11pm, Saturday to Sunday – 7am – 6pm, PH (per hour)	$48.00	$46.36	$4.64	$51.00	FC

Category 2: Concord Memorial Hall

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Thursday – 7am – 11pm, Friday – 7am – 6pm (per hour)	$23.50	$23.64	$2.36	$26.00	PC
Peak Hours - Friday to Sunday – 6pm – 11pm, Saturday to Sunday – 7am – 6pm, PH (per hour)	$34.50	$33.18	$3.32	$36.50	PC

Concord Senior Citizens Centre

Concord Senior Citizens Club

Concord Senior Citizens Club (per hour)	$6.70	$6.45	$0.65	$7.10	PC

Concord Senior Citizens Centre Meeting Room 1

Category 1: Concord Senior Citizens Centre Meeting Room 1

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Friday 7am - 11pm (per hour)	$34.50	$33.64	$3.36	$37.00	FC
Peak Hours - Saturday and Sunday 7am-11pm, PH (per hour)	$40.00	$56.36	$5.64	$62.00	FC

Category 2: Concord Senior Citizens Centre Meeting Room 1

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Friday 7am-11pm (per hour)	$17.75	$18.18	$1.82	$20.00	PC
Peak Hours - Saturday and Sunday 7am-11pm,PH (per hour)	$29.00	$28.18	$2.82	$31.00	PC

Concord Senior Citizens Centre Meeting Room 2

Category 1: Concord Senior Citizens Centre Meeting Room 2

Off Peak Hours - Monday to Friday 7am - 11pm (per hour)	$39.50	$38.18	$3.82	$42.00	PC
Peak Hours - Saturday and Sunday 7am-11pm,PH (per hour)	$44.50	$47.27	$4.73	$52.00	PC

Category 2: Concord Senior Citizens Centre Meeting Room 2

Off Peak Hours - Monday to Friday 7am - 11pm (per hour)	$19.75	$19.09	$1.91	$21.00	PC
Peak Hours - Saturday and Sunday 7am-11pm,PH (per hour)	$22.25	$23.64	$2.36	$26.00	PC

Concord Senior Citizens Centre Auditorium

Category 1: Concord Senior Citizens Centre Auditorium

A minimum of 4 hours will be charged

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Category 1: Concord Senior Citizens Centre Auditorium [continued]					
Off Peak Hours - Monday to Thursday – 7am -11pm, Friday 7am -6pm (per hour)	$49.00	$49.09	$4.91	$54.00	FC
Peak Hours - Friday – 6pm -11pm, Saturday to Sunday – 7am – 11pm, PH (per hour)	$63.00	$60.91	$6.09	$67.00	FC
Category 2: Concord Senior Citizens Centre Auditorium					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday to Thursday – 7am -11pm, Friday 7am -6pm (per hour)	$26.50	$27.27	$2.73	$30.00	PC
Peak Hours - Friday – 6pm -11pm, Saturday to Sunday – 7am – 11pm, PH (per hour)	$41.00	$40.00	$4.00	$44.00	FC
Drummoyne Oval - Greg Davis Stand					
Category 1: Drummoyne Oval - Greg Davis Stand					
A minimum of 4 hours will be charged					
Off Peak Hours - Monday – Thursday 7am-11pm, Friday – 7am - 11pm (per hour)	$88.00	$98.18	$9.82	$108.00	FC
Peak Hours - Saturday and Sunday – 7am-11pm, PH (per hour)	$155.00	$149.09	$14.91	$164.00	FC
Category 2/3: Drummoyne Oval - Greg Davis Stand					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday – Thursday 7am-11pm, Friday – 7am - 11pm (per hour)	$87.50	$79.55	$7.95	$87.50	FC
Peak Hours - Saturday and Sunday – 7am - 11pm, PH (per hour)	$87.50	$84.55	$8.45	$93.00	FC
Five Dock Library - Bay Room					
Category 1: Five Dock Library - Bay Room					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday to Thursday – 09:30am – 7:30pm, Friday – 9:30am – 5pm (per hour)	$39.50	$40.45	$4.05	$44.50	FC
Peak Hours - Saturday – 9:30am – 4pm, Sunday – 1pm – 5pm, PH (per hour)	$42.50	$50.45	$5.05	$55.50	FC
Category 2: Five Dock Library - Bay Room					
A minimum of 2 hours will be charged					
Off Peak Hours - Monday to Thursday – 9:30am – 7:30pm, Friday – 9:30am – 5pm (per hour)	$31.00	$30.00	$3.00	$33.00	PC
Peak Hours - Saturday – 9:30am – 4pm, Sunday – 1pm – 5pm, PH (per hour)	$34.50	$37.73	$3.77	$41.50	PC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Rhodes Community Centre

Category 1: Rhodes Community Centre (Combined)

A minimum of 4 hours will be charged

Off Peak Hours - Monday to Friday – 7am – 11pm, Saturday to Sunday – 6pm – 11pm (per hour)	$42.00	$50.91	$5.09	$56.00	FC
Peak Hours Saturday to Sunday – 7am – 6pm,PH (per hour)	$51.00	$63.64	$6.36	$70.00	FC

Category 2: Rhodes Community Centre (Combined)

A minimum of 2 hours will be charged

Off Peak Hours - Monday to Friday – 7am – 11pm, Saturday to Sunday – 6pm – 11pm (per hour)	$33.50	$34.09	$3.41	$37.50	PC
Peak Hours Saturday to Sunday – 7am – 6pm,PH (per hour)	$49.00	$47.27	$4.73	$52.00	PC

Rothwell Park Community Venue

Category 1: Rothwell Park Community Venue

A minimum of 4 hours will be charged

Off Peak Hours - Monday to Thursday 7am-11pm (per hour)	$33.50	$39.09	$3.91	$43.00	FC
Peak Hours - Friday to Sunday 7am-11pm, PH (per hour)	$50.00	$48.18	$4.82	$53.00	FC

Category 2/3: Rothwell Park Community Venue

A minimum of 2 hours will be charged

Off Peak Hours - 7am-11pm (per hour)	$22.00	$30.91	$3.09	$34.00	PC
Peak Hours - Friday to Sunday 7am-11pm, PH (per hour)	$39.00	$37.73	$3.77	$41.50	PC

The Connection - Rhodes

The Connection - Event Space - Combined (incl. Terrace & Foyer)

Category 1: The Connection - Rhodes Event Space Combined

A minimum of 4 hours will be charged

Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm, (per hour)	$350.00	$336.36	$33.64	$370.00	FC
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$290.00	$278.18	$27.82	$306.00	FC

Category 2: The Connection - Rhodes Event Space Combined

A minimum of 4 hours will be charged

Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm, (per hour)	$187.00	$173.64	$17.36	$191.00	PC
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$145.00	$139.09	$13.91	$153.00	PC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
The Connection - Rhodes Event Space 1					
Category 1: The Connection - Event Space 1					
A minimum of 4 hours will be charged					
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm, (per hour)	$100.00	$96.36	$9.64	$106.00	FC
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$79.00	$77.27	$7.73	$85.00	FC
Category 2: The Connection - Rhodes Event Space 1					
A minimum of 4 hours will be charged					
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm, (per hour)	$41.00	$42.73	$4.27	$47.00	PC
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$36.50	$35.45	$3.55	$39.00	PC
The Connection - Rhodes Event Space 2					
Category 1: The Connection - Rhodes Event Space 2					
A minimum of 4 hours will be charged					
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm, (per hour)	$175.00	$168.18	$16.82	$185.00	FC
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$125.00	$134.55	$13.45	$148.00	FC
Category 2: The Connection - Rhodes Event Space 2					
A minimum of 4 hours will be charged					
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm, (per hour)	$99.00	$95.45	$9.55	$105.00	PC
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$73.00	$70.45	$7.05	$77.50	PC
The Connection – Rhodes Meeting Room 1 & 2 (Combined)					
Category 1: The Connection - Meeting Room 1&2 Combined					
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$0.00	$61.82	$6.18	$68.00	PC
Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$0.00	$77.27	$7.73	$85.00	FC
Category 2: The Connection - Meeting Room 1&2 Combined					
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$0.00	$30.91	$3.09	$34.00	PC
Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$0.00	$38.64	$3.86	$42.50	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

The Connection - Rhodes Meeting Room 1

Category 1: The Connection - Rhodes Meeting Room 1

A minimum of 2 hours will be charged

Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$65.00	$62.73	$6.27	$69.00	FC
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$54.00	$51.82	$5.18	$57.00	FC

Category 2: The Connection - Rhodes Meeting Room 1

A minimum of 2 hours will be charged

Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$25.50	$24.55	$2.45	$27.00	PC
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$23.50	$22.73	$2.27	$25.00	PC

The Connection - Rhodes Meeting Room 2/3

Category 1: The Connection - Rhodes Meeting Room 2/3

A minimum of 2 hours will be charged

Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$49.00	$47.27	$4.73	$52.00	FC
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$44.00	$42.73	$4.27	$47.00	FC

Category 2: The Connection - Rhodes Meeting Room 2/3

A minimum of 2 hours will be charged

Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$20.00	$23.64	$2.36	$26.00	PC
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$18.00	$19.09	$1.91	$21.00	PC

The Connection - Rhodes Activity Room

Category 1: The Connection - Rhodes Activity Room

A minimum of 2 hours will be charged

Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$66.00	$66.36	$6.64	$73.00	FC
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$59.00	$53.64	$5.36	$59.00	FC

Category 2: The Connection - Rhodes Activity Room

A minimum of 2 hours will be charged

Peak Hours – Mon – Thurs 5pm-11pm, PH 7am-11pm (per hour)	$26.50	$26.82	$2.68	$29.50	PC
Off Peak Hours – Mon – Thurs 7am-5pm, Fri – Sun 7am-11pm (per hour)	$23.50	$22.73	$2.27	$25.00	PC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
The Connection - Deck & Amphitheatre					
Off Peak Hours - Mon – Fri 09:00 – 17:00, Sun – Thu 17:00 – 23:00 (per hour)	$87.50	$84.09	$8.41	$92.50	FC
Peak Hours - Fri – Sat, Public Holidays 17:00 – 23:00, Sat – Sun, Public Holidays 09:00 – 17:00 (per hour)	$114.50	$110.00	$11.00	$121.00	FC
Concord Oval					
Canadian Exiles Room - Combined (incl. Terrace & Balcony)					
Category 1: Canadian Exiles Combined					
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$125.00	$113.64	$11.36	$125.00	FC
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm (per hour)	$175.00	$168.18	$16.82	$185.00	FC
Category 2&3: Canadian Exiles Combined					
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$73.00	$66.36	$6.64	$73.00	FC
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm (per hour)	$99.00	$90.00	$9.00	$99.00	FC
Canadian Exiles Room 1					
Category 1: Canadian Exiles Room 1					
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$78.00	$70.91	$7.09	$78.00	FC
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm (per hour)	$100.00	$96.36	$9.64	$106.00	PC
Category 2&3: Canadian Exiles Room 1					
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$36.00	$32.73	$3.27	$36.00	FC
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm (per hour)	$41.00	$39.55	$3.95	$43.50	PC
Canadian Exiles Room 2					
Category 1: Canadian Exiles Room2					
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$63.00	$57.27	$5.73	$63.00	FC
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm (per hour)	$78.00	$75.45	$7.55	$83.00	PC
Category 2&3: Canadian Exiles Room2					
Off Peak Hours – Mon – Thu 7am -11pm , Fri 7am-4pm (per hour)	$34.00	$30.91	$3.09	$34.00	FC
Peak Hours – Fri 4pm-11pm, Sat, Sun & PH 7am-11pm (per hour)	$37.00	$37.73	$3.77	$41.50	PC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Sunnyside Rooms 1&3					
Category 1: Sunnyside Rooms 1&3					
Off Peak Hours – Mon – Fri 5pm -11pm , Sat - Sun 7am-11pm (per hour)	$25.00	$23.64	$2.36	$26.00	FC
Peak Hours – Mon - Fri 7am-5pm, PH 7am-11pm (per hour)	$30.00	$29.09	$2.91	$32.00	PC
Category 2&3: Sunnyside Rooms 1&3					
Off Peak Hours – Mon – Fri 5pm -11pm , Sat - Sun 7am-11pm (per hour)	$20.00	$18.18	$1.82	$20.00	FC
Peak Hours – Mon - Fri 7am-5pm, PH 7am-11pm (per hour)	$25.00	$22.73	$2.27	$25.00	PC
Sunnyside Room 2					
Category 1: Sunnyside Rooms 2					
Off Peak Hours – Mon – Fri 5pm -11pm , Sat - Sun 7am-11pm (per hour)	$30.00	$27.27	$2.73	$30.00	FC
Peak Hours – Mon - Fri 7am-5pm, PH 7am-11pm (per hour)	$35.00	$33.64	$3.36	$37.00	PC
Category 2&3: Sunnyside Rooms 2					
Off Peak Hours – Mon – Fri 5pm -11pm , Sat - Sun 7am-11pm (per hour)	$25.00	$22.73	$2.27	$25.00	FC
Peak Hours – Mon - Fri 7am-5pm, PH 7am-11pm (per hour)	$30.00	$27.27	$2.73	$30.00	PC
Five Dock Leisure Centre					
Stadium					
Court Hire – Casual Booking – per hour - Weekday	$85.00	$81.82	$8.18	$90.00	MP
Court Hire – Casual Booking – per hour - Weekend	$99.00	$95.45	$9.55	$105.00	MP
Court Hire – Casual Booking – per hour – Non for Profit Off Peak (Monday – Friday 05:30am – 09:00am) *	$49.00	$47.27	$4.73	$52.00	MP
Community Groups able to provide documentation of non for profit status					
Court Hire – Casual Booking – per hour – Non for Profit Peak *	$72.00	$69.09	$6.91	$76.00	MP
Community Groups able to provide documentation of non for profit status					
Court Hire – Casual Booking – Weekend per hour – Non for Profit Peak *	$85.00	$81.82	$8.18	$90.00	MP
*Community Groups able to provide documentation of non for profit status					
Court Hire – Casual Usage – 10 Visit Pass	$84.60	$81.00	$8.10	$89.10	MP
Court Hire – Casual Usage – 10 Visit Pass (Off Peak)	$50.00	$48.18	$4.82	$53.00	MP
Court Hire – Casual Usage – Concession – 10 Visit Pass	$65.70	$63.00	$6.30	$69.31	MP
Court Hire – Casual Usage – Concession – No Booking – Per Person	$7.30	$7.00	$0.70	$7.70	MP
Court Hire – Casual Usage – No Booking – Per Person	$9.40	$9.00	$0.90	$9.90	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Stadium [continued]					
Court Hire – Casual Usage – No Booking – Per Person (Monday - Friday 5:30 am - 9:00 am)	$6.20	$6.00	$0.60	$6.60	MP
Court Hire – Commercial – Regular Hirer – 1 court – per hour. More than 2hrs of bookings per week	$85.00	$81.82	$8.18	$90.00	MP
Court Hire – Events – per court – per hour	$139.50	$134.09	$13.41	$147.50	MP
Court Hire – Events – per court – per hour – After Hours	$182.00	$174.55	$17.45	$192.00	MP
Court Hire – Events – Cleaning Fee – per hour	$192.00	$184.55	$18.45	$203.00	MP
Court Hire – Volleyball – 1court per hour	$85.00	$81.82	$8.18	$90.00	MP
Sport Activity – Badminton – Off Peak per hour – Monday – Friday 5:30am – 4:00pm	$25.00	$24.09	$2.41	$26.50	MP
Court Hire – Volleyball – 2courts per hour	$170.00	$163.64	$16.36	$180.00	MP
Sport Activity – Badminton – per hour	$33.00	$31.82	$3.18	$35.00	MP
Court Hire – Volleyball – 3courts per hour	$210.00	$204.55	$20.45	$225.00	MP
Sport Activity - Pickle Ball - Per person	$9.40	$9.00	$0.90	$9.90	MP
Sports Competition – Nomination Fee – All competitions – Per Season	$30.00	$29.09	$2.91	$32.00	MP
Sports Competition – One Day Registration Fee	$10.00	$10.00	$1.00	$11.00	MP
Sports Competition – Soccer – Junior – Per Game –	$78.00	$75.00	$7.50	$82.50	MP
Sports Competition – Soccer – Men's – Per Game	$91.00	$87.27	$8.73	$96.00	MP
Sports Competition – Soccer – Mixed – Per Game	$91.00	$87.27	$8.73	$96.00	MP
Sports Competition – Soccer – Women's – Per Game	$91.00	$87.27	$8.73	$96.00	MP
Sports Competition Annual Registration Fee – Senior Futsal	$91.00	$87.27	$8.73	$96.00	MP
Sports Competition Half Year Registration Fee – Senior Futsal	$63.50	$60.91	$6.09	$67.00	MP
Sports Competition Season Registration Fee – Junior Futsal	$63.50	$60.91	$6.09	$67.00	MP
Storage – Stadium Store Room Hire – Per Week – Per 2m2	$20.00	$20.00	$2.00	$22.00	MP
Health Club					
Casual Entry	$28.00	$25.45	$2.55	$28.00	MP
Casual Entry – 10 Visit Pass – 6 Month Validity	$232.00	$220.91	$22.09	$243.00	MP
Casual Entry – 10 Visit Pass Concession	$139.00	$131.82	$13.18	$145.00	MP
Casual Entry – 20 Visit Pass – 12 Month Validity	$418.00	$404.55	$40.45	$445.00	MP
Casual Entry – 20 Visit Pass – 12 Month Validity - Concession	$0.00	$245.45	$24.55	$270.00	MP
Casual Entry – Concession Card / Physio / Exercise Physiologist	$16.80	$15.91	$1.59	$17.50	MP
Casual Entry – Fitness Assessment	$40.00	$36.36	$3.64	$40.00	MP
Casual Entry – Non Member – Body Scan	$0.00	$40.91	$4.09	$45.00	MP
Casual Entry – Non Member – First Assessment - Nutritional Plan	$0.00	$131.82	$13.18	$145.00	MP
Casual Entry – Non Member – Nutritional Review	$0.00	$72.73	$7.27	$80.00	MP
Casual Entry – Non Member – Personal Training	$10.00	$9.09	$0.91	$10.00	MP
Casual Entry – Sporting Group – Min 8 Participants – Per Person	$12.50	$11.82	$1.18	$13.00	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Health Club [continued]					
Casual Entry – Sporting Team Group Class (no instructor)	$82.00	$77.27	$7.73	$85.00	MP
Casual Entry – Sporting Team Group Class (Inc Instructor)	$147.00	$140.91	$14.09	$155.00	MP
Health Club Hire – Group Fitness Half Studio (Inc Instructor) – per hour	$0.00	$109.09	$10.91	$120.00	MP
Health Club Hire – Group Fitness Half Studio (no instructor) – per hour	$58.00	$54.55	$5.45	$60.00	FC
Health Club Hire – Group Fitness Instructor – per hour	$75.00	$72.73	$7.27	$80.00	MP
Health Club Hire – Full group fitness/Cycle Room (Inc Instructor) – per hour	$0.00	$127.27	$12.73	$140.00	MP
Health Club Hire - Group Fitness Full Studio Hire (no instructor) - per hour	$78.00	$74.55	$7.45	$82.00	MP
Health Club Program – Fit For Life – Assessment	$16.00	$16.36	$1.64	$18.00	MP
Health Club Program – Fit For Life – Casual Visit	$8.00	$7.27	$0.73	$8.00	MP
Health Club Program – First Assessment - Nutritional Plan	$0.00	$113.64	$11.36	$125.00	MP
Health Club Program – Fit for Life – 10 Visit Pass	$72.00	$67.27	$6.73	$74.00	MP
Health Club Program – Fitness assessment & workout programs (Split days or Complex)	$0.00	$59.09	$5.91	$65.00	MP
Health Club Program – Member - 12 Week Program with 1 x 45 min PT session per week + Nutrition Plan	$0.00	$863.64	$86.36	$950.00	MP
Health Club Program – Member - 8 Week Program with 1 x 45 min PT session per week + Nutrition Plan	$0.00	$568.18	$56.82	$625.00	MP
Health Club Program – Member Body Scan ex promotion	$0.00	$31.82	$3.18	$35.00	MP
Health Club Program – Myzone – 10 Visit Pass	$0.00	$68.18	$6.82	$75.00	MP
Health Club Program – Non-Member - 12 Week Program with 1 x 45 min PT session per week + Nutrition Plan	$0.00	$954.55	$95.45	$1,050.00	MP
Health Club Program – Non-Member - 8 Week Program with 1 x 45 min PT session per week + Nutrition Plan	$0.00	$681.82	$68.18	$750.00	MP
Health Club Program – Nutritional Review	$0.00	$59.09	$5.91	$65.00	MP
Gym – Group Fitness – Specialty Class - Short Class	$8.00	$7.73	$0.77	$8.50	MP
Gym – Group Fitness – Specialty Class – External - Equipment	$0.00	$14.55	$1.45	$16.00	MP
Gym – Group Fitness – Specialty Class – Long or external Class	$0.00	$11.36	$1.14	$12.50	MP
Gym – Group Fitness – Specialty Class – Subscription - Long or External Class per week	$0.00	$15.00	$1.50	$16.50	MP
Gym – Group Fitness – Specialty Class Subscription - Weekly - Short Class	$12.00	$11.36	$1.14	$12.50	MP
Health Club Program – Teen Gym – One Off Casual Visit	$13.00	$12.27	$1.23	$13.50	MP
Health Club Program – Teen Gym – 10 Visit Pass	$110.50	$105.45	$10.55	$116.00	MP
Health Club Program – Teen Gym – 20 Visit Pass	$182.00	$177.27	$17.73	$195.00	MP
Membership – Direct Debit – Adult – Weekly	$24.50	$23.18	$2.32	$25.50	MP
Membership – Direct Debit – Adult inc myzone – Weekly	$0.00	$33.18	$3.32	$36.50	MP
Membership – Direct Debit – Flexi – Weekly	$17.00	$16.36	$1.64	$18.00	FC
Membership – Direct Debit – Corporate – Weekly	$20.80	$20.00	$2.00	$22.00	MP
Membership – Direct Debit – Off Peak	$14.70	$14.09	$1.41	$15.50	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Health Club [continued]					
Membership – Direct Debit – Pension – Weekly	$12.25	$11.36	$1.14	$12.50	MP
Membership – Direct Debit – Concession – Weekly	$15.90	$15.00	$1.50	$16.50	MP
Membership – Failed Payment Fee	$8.30	$8.00	$0.80	$8.80	MP
Membership – Joining Fee	$90.00	$81.82	$8.18	$90.00	MP
Membership – Off Peak member entry during peak hours, per visit	$10.00	$9.09	$0.91	$10.00	MP
Membership – Upfront – 3 Month Rehabilitation Membership	$527.50	$503.64	$50.36	$554.00	MP
Membership – Upfront – 6 Month Rehabilitation Membership	$980.50	$935.91	$93.59	$1,029.50	MP
Membership – Upfront – 12 Month Rehabilitation Membership	$1,898.00	$1,811.82	$181.18	$1,993.00	MP
Membership – Upfront – Adult – 12 Months	$1,147.00	$1,068.18	$106.82	$1,175.00	MP
Membership – Upfront – Adult – 6 Months	$592.00	$554.55	$55.45	$610.00	MP
Membership – Upfront – Adult – 3 Months	$312.00	$293.64	$29.36	$323.00	MP
Membership – Upfront – Corporate – 12 Months	$973.00	$918.18	$91.82	$1,010.00	MP
Membership – Upfront – Off Peak – 12 Months	$688.00	$645.45	$64.55	$710.00	MP
Membership – Upfront – Concession – 12 Months	$744.00	$695.45	$69.55	$765.00	MP
Membership - Upfront - Concession - 6 Months	$384.00	$361.82	$36.18	$398.00	MP
Membership - Upfront – Pension - 6 Months	$296.00	$272.73	$27.27	$300.00	MP
Membership – Upfront – Pension – 12 months	$573.00	$527.27	$52.73	$580.00	MP
Personal Training – 10 Sessions – 30 Minutes	$502.00	$470.91	$47.09	$518.00	MP
Personal Training – 10 Sessions – 45 Minutes	$623.00	$581.82	$58.18	$640.00	MP
Personal Training – 10 Sessions – 60 Minutes	$725.00	$677.27	$67.73	$745.00	MP
Personal Training – 20 Sessions – 30 Minutes	$918.00	$854.55	$85.45	$940.00	MP
Personal Training – 20 Sessions – 45 Minutes	$1,139.00	$1,054.55	$105.45	$1,160.00	MP
Personal Training – 20 Sessions – 60 Minutes	$1,326.00	$1,227.27	$122.73	$1,350.00	MP
Personal Training – 5 Sessions – 30 Minutes	$264.00	$251.82	$25.18	$277.00	MP
Personal Training – 5 Sessions – 45 Minutes	$328.00	$312.73	$31.27	$344.00	MP
Personal Training – 5 Sessions – 60 Minutes	$382.00	$364.55	$36.45	$401.00	MP
Personal Training – Group Session – 45 Minutes – 2 – 4 People	$107.00	$97.27	$9.73	$107.00	MP
Personal Training – Group Session – 60 Minutes – 2 – 4 People	$124.00	$112.73	$11.27	$124.00	MP
Personal Training – Single Session – 30 Minute	$54.00	$51.82	$5.18	$57.00	MP
Personal Training – Single Session – 45 Minute	$67.00	$63.64	$6.36	$70.00	MP
Personal Training – Single Session – 60 Minute	$78.00	$74.55	$7.45	$82.00	MP
Personal Training – Starter Pack – 3 X 45 Minute Sessions	$140.00	$131.82	$13.18	$145.00	MP
Personal Training – 14/15yr Starter Pack – 2 x 45 Minute Sessions	$80.00	$72.73	$7.27	$80.00	MP
Gymnastics					
Birthday Parties – Cancellation / Deposit Fee	$100.00	$90.91	$9.09	$100.00	MP
Birthday Parties – Party – Per Child	$35.00	$31.82	$3.18	$35.00	MP
Casual Usage – Adult Gym	$27.00	$18.18	$1.82	$20.00	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Gymnastics [continued]					
Casual Usage – Adult Gym – 10 Visit Pass	$243.00	$163.64	$16.36	$180.00	MP
Casual Usage – Adult Gym – 20 Visit Pass	$486.00	$327.27	$32.73	$360.00	MP
Gymnastics – Competitive Training – 3hrs per week	$39.00	$37.27	$3.73	$41.00	MP
Gymnastics - Competitive/Recreational Training - 5hrs per week	$46.80	$44.55	$4.45	$49.00	MP
Gymnastics - Competitive/Recreational Training - 6hrs per week	$0.00	$49.55	$4.95	$54.50	MP
Gymnastics - Competitive/Recreational Training - 8hrs per week	$65.05	$61.82	$6.18	$68.00	MP
Gymnastics – Competitive Training – 12hrs per week	$89.85	$85.45	$8.55	$94.00	MP
Gymnastics - Competitive Training - 14.5hrs per week	$100.05	$95.45	$9.55	$105.00	FC
Gymnastics – Competitive Training – 9hrs per week	$69.25	$65.45	$6.55	$72.00	MP
Gymnastics – Competitive Training – 18hrs per week	$100.00	$95.45	$9.55	$105.00	MP
Gymnastics - Recreational - Higher Level Foundations	$39.00	$36.36	$3.64	$40.00	MP
Gymnastics - Recreational 1 hour session	$26.00	$25.00	$2.50	$27.50	MP
Gymnastics - Recreational 1.5 hour session	$31.20	$29.91	$2.99	$32.90	MP
Gymnastics - Recreational 2 hour session	$36.40	$34.91	$3.49	$38.40	MP
Gymnastics - Recreational 3 hour session	$39.00	$37.45	$3.75	$41.20	MP
Gymnastics – Recreation – Junior Gym – per session	$21.00	$20.00	$2.00	$22.00	MP
Gymnastics – Recreational – Mini Gym per session	$21.00	$20.00	$2.00	$22.00	MP
Gymnastics – Recreation – Play Gym – per session	$21.00	$20.00	$2.00	$22.00	MP
Gymnastics – Recreation – Teen Tumble – per session	$31.20	$29.55	$2.95	$32.50	MP
Gymnastics Hall Hire – After Hours	$343.00	$311.82	$31.18	$343.00	MP
Gymnastics Hall Hire – Competition – Inner City Region – per hour	$141.00	$128.18	$12.82	$141.00	MP
Gymnastics Hall Hire – Competition – Other Regions – per hour	$188.00	$170.91	$17.09	$188.00	MP
Gymnastics Hall Hire – Regular Hirer – per hour More than 2 Bookings per week – Monday – Friday	$142.00	$129.09	$12.91	$142.00	MP
Gymnastics Hall Hire – Saturday – Sunday – per hour	$277.00	$251.82	$25.18	$277.00	MP
Gymnastics Hall Hire Mon-Friday – per hour	$187.00	$170.00	$17.00	$187.00	MP
Gymnastics – casual usage – external squad – one apparatus rotation (up to 8 gymnasts per rotation) – per gymnast per hour	$7.00	$6.36	$0.64	$7.00	MP
Gymnastics Program – GymAbility – 45 Minutes – per session	$9.00	$8.18	$0.82	$9.00	MP
Membership – Annual Gymnastics Registration – Adult	$62.50	$56.82	$5.68	$62.50	MP
Membership – Annual Gymnastics Registration – Competitive	$135.00	$122.73	$12.27	$135.00	MP
Membership – Annual Gymnastics Registration – Recreational	$91.00	$82.73	$8.27	$91.00	MP
Membership – Term 4 Gymnastics Registration – Recreational	$52.00	$47.27	$4.73	$52.00	MP
Schools					
Schools – Gymnastics – Per Hour (1:10 ratio)	$141.00	$113.64	$11.36	$125.00	MP
Schools – Health Club – Functional Class – Per Hour (1:13 ratio)	$0.00	$145.45	$14.55	$160.00	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Schools [continued]					
Schools – Health Club – Virtual Cycle Class – Per Hour (0:25 ratio)	$0.00	$104.55	$10.45	$115.00	MP
Schools – Health Club Group Fitness – Per Hour (1:30 group fitness and 1:25 cycle ratios)	$184.00	$176.36	$17.64	$194.00	FC
Schools – Stadium Hire – Per Hour	$123.00	$118.18	$11.82	$130.00	MP
Schools – Gymnastics – Per Extra Instructor	$58.00	$54.55	$5.45	$60.00	PC
Schools – Health Club – Per Extra Instructor	$75.00	$71.82	$7.18	$79.00	PC
Activities Room					
Activities Room – Hire – per hour	$68.50	$65.91	$6.59	$72.50	MP
Crèche – Member – 90 Minutes	$6.60	$6.36	$0.64	$7.00	MP
Crèche – 10 Visit Pass – 90 Minutes	$59.50	$57.27	$5.73	$63.00	MP
Crèche – 20 Visit Pass – 90 Minutes	$119.00	$114.55	$11.45	$126.00	MP
Crèche –1st Child Fortnightly Direct Debit – unlimited	$29.00	$27.82	$2.78	$30.60	MP
Crèche – Additional Child Fortnightly Direct Debit – unlimited	$22.00	$21.09	$2.11	$23.20	MP
Crèche – Late Fee – Per 30 Minutes	$6.60	$6.36	$0.64	$7.00	MP
Crèche – No Show Fee – Per 90 Minutes	$6.60	$6.36	$0.64	$7.00	MP
Retail					
Merchandise – Cap	$0.00	$13.64	$1.36	$15.00	MP
Merchandise – Card Holder	$0.00	$9.09	$0.91	$10.00	MP
Merchandise – Coffee Mug	$0.00	$14.55	$1.45	$16.00	MP
Merchandise – Drink Bottle	$0.00	$25.45	$2.55	$28.00	MP
Merchandise – Hoodies	$0.00	$36.36	$3.64	$40.00	MP
Merchandise – Singlet	$0.00	$27.27	$2.73	$30.00	MP
Merchandise – Tote bag	$0.00	$7.27	$0.73	$8.00	MP
Merchandise – Tshirt	$0.00	$27.27	$2.73	$30.00	MP
Merchandise – Badminton Racquet	$25.00	$24.00	$2.40	$26.40	MP
Merchandise – Badminton Shuttlecocks - 12 pack	$0.00	$31.82	$3.18	$35.00	MP
Merchandise – Badminton Shuttlecocks - Singles	$5.00	$3.18	$0.32	$3.50	MP
Merchandise – Boxing Gloves	$48.40	$45.45	$4.55	$50.00	MP
Merchandise – Boxing Inners	$6.10	$5.91	$0.59	$6.50	MP
Merchandise – EzyDry Towel	$2.00	$1.82	$0.18	$2.00	MP
Merchandise – Futsal Shin Pads	$21.80	$20.91	$2.09	$23.00	MP
Merchandise – Futsal Socks	$19.60	$18.82	$1.88	$20.70	MP
Merchandise – Futsal Training Bibs	$80.00	$76.82	$7.68	$84.50	MP
Merchandise – Gym Bag	$43.20	$40.91	$4.09	$45.00	MP
Merchandise – Gym Towel	$12.50	$11.36	$1.14	$12.50	MP
Merchandise – Gymnastics Chalk	$4.75	$4.55	$0.45	$5.00	MP
Merchandise – Gymnastics Recreation Leotard	$55.00	$45.45	$4.55	$50.00	MP
Merchandise – Gymnastics WAG Training Leotard	$49.70	$45.45	$4.55	$50.00	MP
Merchandise – Gymnastics Tracksuit	$110.00	$100.00	$10.00	$110.00	MP
Merchandise – Membership Cards	$5.00	$4.82	$0.48	$5.30	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Retail [continued]

Merchandise – Miscellaneous	Additional items may be added throughout the year				MP
Merchandise – Pickleball Ball	$6.00	$5.45	$0.55	$6.00	MP
Merchandise – Pickleball Paddle	$65.00	$62.27	$6.23	$68.50	MP

FDLC Sponsorship and Promotions

FDLC Promotions	Available on Request				MP
FDLC Sponsorship	Available on Request				MP

Filming

General Condition for Filming

Note 1 Exclusive use of venue/open space
When a venue or open space area is barricaded or sectioned off exclusively.

Note 2 Waivers of Council Fees
Fees may be waived or reduced in accordance with the Local Government Filming Protocol 2009 to be determined by application only. All requests for fees to be waived or reduced must be received at least 14 days prior to the event date.

Note 3 Changes to original applications
Major revisions to a filming application will incur a surcharge of 75% of original application fee.

Note 4
Failure to obtain Council approval may incur a fine under the relevant act.

Note 5 Risk Cost
Fee to ensure effective management of applications that are lodged with less than 7days notice to Council.

As listed above.	As listed above.				Z

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Definitions for impact of filming/ photography:

- Ultra-Low: No more than 10 Crew, no disruption is caused to residents, retailers, motorists or other events/activities, Activities are contained to footpaths or open public space areas only, associated vehicles are legally parked at all times and not driven onto footpaths or parks.
- Low: 11 - 25 Crew, No more than 4 trucks/vans, no construction, minimal lighting/equipment, small or no unit base, no more than 2 locations.
- Medium: 26-50 Crew, No more than 10 trucks, some construction, some equipment for example: medium trucks, medium sized cranes, unit base required, no more than 4 locations.
- High: >50 Crew, >10 trucks, significant construction, extensive equipment, large unit base required, > 4 locations.

As listed above.	As listed above.				Z

Fee for Filming

Application Fee

Application Fee – Ultra low impact less than 10 crew, 1 camera, sound, 1 light, no vehicles	$0.00	$0.00	$0.00	$0.00	Z

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Application Fee [continued]					
Application Fee – Low impact 11-25 crew, minimal vehicles, minimal equipment/lighting, small unit base	$150.00	$158.00	$0.00	$158.00	LR
Application Fee – Medium impact 26-50 no more than 10 trucks, some equipment, unit base	$300.00	$317.00	$0.00	$317.00	LR
Application Fee – High impact more than 50 crew, more than 10 trucks, significant construction, extensive equipment, large unit base	$500.00	$530.00	$0.00	$530.00	LR
Application Fee – Council approval for parking when filming on private property such as unit base plans or parking plans.	$150.00	$158.00	$0.00	$158.00	LR
Major revisions to a filming application	75% of original application fee				FC
Filming over 3 days					
Standard low impact filming per day	$150.00	$158.00	$0.00	$158.00	LR
Standard medium impact per day	$300.00	$317.00	$0.00	$317.00	LR
Standard high impact filming per day	$500.00	$530.00	$0.00	$530.00	LR
Traffic Management for Filming					
Administration and assessment of Traffic Management Plan - low impact	Refer to Traffic Management section of this document.				LR
Low impact Traffic Management Plans include situations where the primary form of traffic management is not more than stop / go traffic control on a local, Council managed road. The fee includes the Council's consultation with the NSW Police. Fee is determined per Traffic Management Plan submission.					
Administration and assessment of Traffic Management Plan - medium impact	Refer to Traffic Management section of this document.				LR
Medium impact Traffic Management Plans include situations where the primary form of traffic management will include stop / go traffic control on a Regionally classified Road, State classified road or a multi-lane local, Council managed road. The fee includes Council's consultation with the NSW Police and Transport for NSW. The fee is applied per Traffic Management Plan submission.					
Administration and assessment of Traffic Management Plan - high impact	Refer to Traffic Management section of this document.				LR
High impact Traffic Management Plans include situations where the primary form of traffic management will generally include road closures on Local, Regional or State classified roads. The fee includes Council's consultation with the NSW Police and Transport for NSW. Fee is calculated per Traffic Management Plan submission.					
Advertising for Temporary Road Closures	Refer to Traffic Management section of this document.				LR
Partial Road Closure	Refer to Traffic Management section of this document.				LR
Full Road Closure	Refer to Traffic Management section of this document.				LR
Hire of Parks and Open Space for Exclusive Use					
Filming Drummoyne Oval, Rothwell and Goddard Park (low impact) per day	$1,390.00	$1,470.00	$0.00	$1,470.00	LR
Filming Golf Courses (low impact) per day	$1,220.00	$1,290.00	$0.00	$1,290.00	LR
Passive Park (low impact) per day	$134.00	$142.00	$0.00	$142.00	LR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Hire of Parks and Open Space for Exclusive Use [continued]					
Filming Drummoyne Oval, Rothwell and Goddard Park (medium impact) per day	$1,980.00	$2,090.00	$0.00	$2,090.00	LR
Filming Golf Courses (medium impact) per day	$1,630.00	$1,720.00	$0.00	$1,720.00	LR
Passive Park (medium impact) per day	$257.00	$271.00	$0.00	$271.00	LR
Filming Drummoyne Oval, Rothwell and Goddard Park (high impact) per day	$2,460.00	$2,600.00	$0.00	$2,600.00	LR
Filming Golf Courses (high impact) per day	$2,170.00	$2,290.00	$0.00	$2,290.00	LR
Passive Park (high impact) per day	$386.00	$408.00	$0.00	$408.00	LR
Risk Cost – less than 3 days notification to Council	$484.00	$510.00	$0.00	$510.00	LR
Risk Cost – less than 7 days notification to Council	$250.00	$264.00	$0.00	$264.00	LR
Sports Field (low impact) per day	$192.00	$203.00	$0.00	$203.00	LR
Sports Field (medium impact) per day	$321.00	$339.00	$0.00	$339.00	LR
Sports Field (high impact) per day	$450.00	$475.00	$0.00	$475.00	LR
Other Fees of Filming					
Occupation of Parking Meter Area	80% of current parking rate per car space occupied for the period in operation				LR
Access Fee	$300.00	$317.00	$0.00	$317.00	LR
Cleaning Fee (per hour)	$100.00	$106.00	$0.00	$106.00	LR
Location research/site inspections/supervisor (per hour)	$74.00	$78.00	$0.00	$78.00	LR
Power Access (per hour)	$74.00	$78.00	$0.00	$78.00	LR
Security Fee (minimum 4 hours) (per hour)	$99.50	$105.00	$0.00	$105.00	LR
Site Preparation (per hour)	$74.00	$78.00	$0.00	$78.00	LR
Site Remediation	To be determined by location & activities				LR
Temporary Structure – (installation of table & Chairs in parks, marquees, signage, barriers, cabling)	$425 per day per structure				LR
Still Photography					
Standard Ultra Low per hour, non-commercial (all-inclusive per application)	$0.00	$0.00	$0.00	$0.00	Z
Standard low impact per day (all-inclusive per application)	$115.00	$121.00	$0.00	$121.00	LR
Standard medium impact per day (all-inclusive per application)	$170.00	$180.00	$0.00	$180.00	LR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Still Photography [continued]					
Standard high impact Still Photography per day (all-inclusive per application)	$220.00	$232.00	$0.00	$232.00	LR

Golf Courses

Barnwell Park Golf Course

BP Adults

Mondays (excl. Public Holidays) – Eighteen (18) Holes	$19.50	$18.64	$1.86	$20.50	MP
Tue – Fri (excl. Public Holidays) – Eighteen (18) Holes	$26.00	$25.00	$2.50	$27.50	MP
Eighteen (18) Holes Weekends and Public Holidays	$32.00	$30.45	$3.05	$33.50	MP
Mondays (excl. Public Holidays) – Nine (9) Holes	$14.50	$14.09	$1.41	$15.50	MP
Tue – Fri (excl. Public Holidays) – Nine (9) Holes	$21.00	$20.00	$2.00	$22.00	MP
Nine (9) Holes Weekends and Public Holidays	$25.00	$24.09	$2.41	$26.50	MP

BP Multi-Golf (Foot/Disc)

Multi- Golf (Foot/Disc) Adults (cost per person)	$16.00	$15.45	$1.55	$17.00	MP
Multi- Golf (Foot/Disc) School Children (cost per person)	$10.50	$10.00	$1.00	$11.00	MP

BP School Children

Eighteen (18) Holes	$16.00	$15.45	$1.55	$17.00	MP
Nine (9) Holes	$11.00	$10.45	$1.05	$11.50	MP
School Programs per Child	$5.40	$5.00	$0.50	$5.50	MP

BP Pensioner/Senior/Uni or TAFE Student

Concessions (Pensioner/Senior/Uni or TAFE Student)Tue - Fri Eighteen (18) Holes	$22.50	$21.36	$2.14	$23.50	MP
Concessions (Pensioner/Senior/Uni or TAFE Student)Tue - Fri Nine (9) Holes	$18.00	$17.27	$1.73	$19.00	MP

BP Twilight Golf

Admission after 3 pm all year round	$16.00	$15.45	$1.55	$17.00	MP

BP Club Members Competition Times

BP Club Members Annual Block Booking Fee	To be negotiated by Council				MP
Adults - all days comp / social Eighteen (18) Holes	$21.00	$20.00	$2.00	$22.00	MP
Concessions (Pensioner/Senior/Uni or TAFE Student) all days (18) Holes	$17.00	$16.36	$1.64	$18.00	MP
School Children Eighteen (18) Holes	$13.00	$12.27	$1.23	$13.50	MP
Adults - all days comp / social Nine (9) Holes	$16.00	$15.45	$1.55	$17.00	MP
Concessions (Pensioner/Senior/Uni or TAFE Student) all days Nine (9) Holes	$12.00	$11.36	$1.14	$12.50	MP
School Children Nine (9) Holes	$9.00	$8.64	$0.86	$9.50	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
BP Sponsorship and Promotions					
BP Promotions	Available on request subject to approval of contract manager				MP
Yearly course hole sponsorship	Available on Request				MP
Use of Private Golf Carts					
Administration Fee per 3 Year Term	$15.50	$15.00	$1.50	$16.50	MP
Massey Park Golf Course					
MP Adults					
Eighteen (18) Holes	$39.00	$37.27	$3.73	$41.00	MP
Nine (9) Holes	$28.00	$26.82	$2.68	$29.50	MP
MP Seniors					
Eighteen (18) Holes	$31.50	$30.00	$3.00	$33.00	MP
Nine (9) Holes	$25.00	$24.09	$2.41	$26.50	MP
MP School Children Mon-Fri					
Eighteen (18) Holes	$18.00	$17.27	$1.73	$19.00	MP
Nine (9) Holes	$13.50	$12.73	$1.27	$14.00	MP
MP University & TAFE Students Mon-Fri					
Eighteen (18) Holes	$26.50	$25.45	$2.55	$28.00	MP
Nine (9) Holes	$21.00	$20.00	$2.00	$22.00	MP
MP Pensioners Mon-Fri (only)					
Eighteen (18) Holes	$26.50	$25.45	$2.55	$28.00	MP
Nine (9) Holes	$21.00	$20.00	$2.00	$22.00	MP
Weekend Concessions (School, University & TAFE, Pensioners)	$31.50	$30.00	$3.00	$33.00	MP
MP Twilight Golf					
Admission after 3 pm during non-Daylight Saving Periods and after 4 pm Daylight Saving Periods	$23.00	$21.82	$2.18	$24.00	MP
MP Club Members Competition Times					
MP Club Members Competition Annual Block Booking Fee	To be negotiated by Council				MP
MP Club Members Competition Eighteen (18) Holes – Adults	$22.50	$21.82	$2.18	$24.00	MP
MP Club Members Competition Eighteen (18) Holes – Pensioner	$18.50	$17.73	$1.77	$19.50	MP
MP Club Members Competition Eighteen (18) Holes – Junior	$16.00	$15.45	$1.55	$17.00	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
MP Sponsorship					
MP Promotions	Available on request subject to approval of contract manager				MP
Yearly course hole sponsorship	Available on Request				MP
Tennis Courts					
Cintra Park					
Casual Monday – Friday (9am-5pm) per hour	$25.70	$24.64	$2.46	$27.10	MP
Casual Monday – Friday (5pm-10.30pm) & Weekends per hour	$28.90	$27.73	$2.77	$30.50	MP
Permanent Monday – Friday (9am-5pm) per hour	$22.50	$21.64	$2.16	$23.80	MP
Permanent Monday – Friday (5pm-10.30pm) & Weekends per hour	$26.80	$25.73	$2.57	$28.30	MP
Croker Park					
Monday-Friday before 5pm per hour	$26.80	$25.73	$2.57	$28.30	MP
All other times per hour	$30.00	$28.82	$2.88	$31.70	MP
Five Dock Park					
Casual Hire	$26.80	$25.73	$2.57	$28.30	MP
Night Play Under Lights per hour	$30.00	$28.82	$2.88	$31.70	MP
Greenlees					
Casual Hire Monday – Friday (7am-5pm) per hour	$26.80	$25.73	$2.57	$28.30	MP
Casual Hire Monday – Friday (5pm-10.30pm) & Weekends per hour	$28.90	$27.73	$2.77	$30.50	MP
Powells Creek					
Monday-Friday before 5pm per hour	$26.80	$25.73	$2.57	$28.30	MP
All other times	$27.90	$26.82	$2.68	$29.50	MP

Graffiti Removal - Non-Council Property and Assets

Note At the 15 February 2005 Council Meeting, Council endorsed to undertake removal of graffiti on an even shared cost basis through City Services only with the consent of the owner (within legislation).

Graffiti removal from non Council property and assets - resident contribution to cleaning materials	At Shared Cost	PC
If requested by the owner an estimate of the cost of materials to be used in removing the graffiti at the time of obtaining consent from the owner. Council will endeavour to advise the consenting owner if an estimate provided requires variation during the work. However, the Council will charge 50% of the actual cost to the Council for the materials used to remove the graffiti. This fee will be charged in conjunction with the cost of labour and equipment used.		

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Graffiti Removal - Non-Council Property and Assets [continued]

Graffiti removal from non Council property and assets - resident contribution for Council staff, vehicle and high pressure cleaner				At Shared Cost	PC
If requested by the owner an estimate of the cost of the Council staff, vehicle, high-pressure cleaner or other equipment used in removing the graffiti at the time of obtaining consent from the owner. Council will endeavour to advise the consenting owner if an estimate provided requires variation during the work. However, the Council will charge 50% of the actual cost to the Council for its staff, plant hire of the vehicle, pressure cleaner or other equipment used to remove the graffiti. This fee will be charged in conjunction with the cost of materials used.					

Library

Library Service Charges

Overdue Items

Overdue fee if matter referred to a collection agency	$19.20	$20.30	$0.00	$20.30	FC
Library Items Overdue – Adult & Young Adult Members for Second Notice (Capped at $20 per borrower)	$0.00	$0.00	$0.00	$0.00	PC
Library Items Overdue – Junior Members 14 y.o. and under	$0.00	$0.00	$0.00	$0.00	Z

Reserved Items - Miscellaneous

Inter-Library Loans**				$5.50 plus costs	PC
If additional charges by Library borrowed from, costs are passed onto borrower.					
Reserved Items	$0.00	$0.00	$0.00	$0.00	Z

Printing and photocopying charges

Photocopying & Printing Charges – Black/White A3				$0.40/copy	PC
Photocopying & Printing Charges – Black/White A4				$0.20/copy	PC
Photocopying & Printing Charges – Colour A3				$2/copy	PC
Photocopying & Printing Charges – Colour A4				$1.00/copy	PC
Photographic reproduction				POA + $6	PC
Photographic reproduction – Commercial				POA + $30	PC

Item Sale

Library 2nd Hand Book Sales #				Minimum $0.50/per book	PC
Price at the discretion of the Manager.					
Mailing Tube (to fit A0 print)	$5.00	$4.55	$0.45	$5.00	PC
Per Cotton Bag	$6.00	$5.45	$0.55	$6.00	RR
Per Poly Bag	$2.00	$1.82	$0.18	$2.00	RR
USB stick, earphones etc				Maximum $20 per item	FC

Materials Replacement Costs

CD Cases/DVD Cases (Damaged or Lost)	$2.00	$2.00	$0.00	$2.00	PC
Library Items (Damaged or Lost) *				Cost of Item+$16.50 processing	PC
Donated paperbacks replaced by similar item at discretion of manager.					

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Materials Replacement Costs [continued]					
Library Items(Replacement of Barcode Label or Tag)	$2.00	$2.00	$0.00	$2.00	PC
Membership Card Replacement	$5.00	$5.00	$0.00	$5.00	PC
Local History Research					
Concord: A centenary history on CD Rom	$34.50	$31.36	$3.14	$34.50	PC
Drummoyne/Concord Combined history book on CD Rom	$39.50	$35.91	$3.59	$39.50	PC
Drummoyne: A western suburbs history on CD Rom	$29.50	$26.82	$2.68	$29.50	PC
Pictorial History of Canada Bay – hardback	$34.95	$31.77	$3.18	$34.95	PC
Pictorial History of Canada Bay – paperback	$24.95	$22.68	$2.27	$24.95	PC
Research	First hour free then $60/hour				PC
Research – Commercial	First hour free then $110/hour				PC
Library Programs					
A0 160 gsm matte colour poster print per page	$39.50	$37.73	$3.77	$41.50	FC
A0 160gsm matte b/w plan print per page	$14.00	$13.64	$1.36	$15.00	FC
A0 200 gsm glossy colour photo print per page	$62.00	$59.55	$5.95	$65.50	FC
A1 or 50x70 cm 160gsm matte colour poster print per page	$23.50	$22.73	$2.27	$25.00	FC
A1 or 50x70 cm 200gsm glossy colour photo print per page	$37.50	$35.91	$3.59	$39.50	FC
3D Printing in ABS (acrylonitrile butadiene styrene print material included)	$5.00 per hour or part thereof				FC
3D Printing Set Up – per print job	$5.00	$4.55	$0.45	$5.00	FC
Makerspace activity consumables	Dependent on Activity				FC
Booking of special after school and school holiday activities	Dependent on Activity				PC
Booking of The Lab Rhodes and Five Dock	Dependent on The Lab Network guidelines and sessions per term. **Last year fee** Dependent on Activity				PC
Booking of The Lab Five Dock and The Lab Rhodes Dependent on The Network Guidelines and No. of Sessions/Term.					
Booking of special events/workshops/programs/activities	Dependent on Activity				FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Parks Hire

General Conditions of Open Space Hire

- Additional Costs
  Any additional costs (i.e. staff time, cleaning, line marking etc.) will be levied at cost recovery rates.
- Bond Payments
  Council reserves the right to charge a refundable bond.
- Booking Fee
  A non-refundable booking is charged for all bookings.
- Casual Hire
  Casual use is defined as a single application for 9 or less consecutive hire events within a 12 month period.
- Pre-season period
  Pre-season applies during the lead up to the winter season from 1 Feb to 31 Mar each year. Fees for pre-season hire are charged at 50% of seasonal fees reflecting the reduced service level which excludes the provision of line marking, goalposts and lighting. All pre-season use is subject to availability from the in season hirer.
- Public Convenience Access
  Public Conveneince Access of $250 may be applicable to sporting and training events when no other hire fees are charged and Council may require a key bond of $100.
- Public Liability Insurance
  Seasonal hirers are required to provide evidence of current public liability insurance coverage to a minimum value of $20,00,000.
- Schools Use
  Schools located in the City of Canada Bay can book and use Council sportsgrounds for free within during normal school hours (8.30am to 4.00pm weekdays during school terms) with the exception of Majors Bay Reserve, Cintra Hockey and Concord Oval. Booking fees apply to all bookings.
  Schools located outside the City of Canada Bay can book and use Council sportsgrounds at 50% of the Casual rate within during normal school hours (8.30am to 4.00pm weekdays during school terms) with the exception of Majors Bay Reserve, Cintra Hockey, Concord Oval and all use of turf wickets. Booking fees apply to all bookings.
- Seasonal Hire
  Seasonal hire is defined as a single application for 10 or more consecutive hire events within a 12 month period.
- Seasonal Use
  Summer Season is from 3rd week of September to 31 March each year.
  Winter Season is from 1 April to 31 August each year.
- Sports Floodlighting
  Hourly fees for sports floodlighting are not covered by ground hire. In the event users have paid in advance for sports lighting, they will be refunded for any park closures due to wet weather.

As listed above.				As listed above.	Z

Open Space Miscellaneous

Use of Parks

Casual Booking Fee	$37.40	$35.91	$3.59	$39.50	FC
Change to Seasonal Booking Fee	$61.50	$59.09	$5.91	$65.00	FC
Pre-Seasonal Booking Fee	$61.50	$59.09	$5.91	$65.00	FC
Seasonal Booking Fee	$111.00	$106.36	$10.64	$117.00	FC
Call out fee	$208.00	$200.00	$20.00	$220.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Licence Fees					
Licence Agreement Fee	$368.00	$353.64	$35.36	$389.00	FC
Alteration of Licence Agreement	$740.00	$709.09	$70.91	$780.00	FC
Minimum Charge for Lease of Council Sporting Fields		As per Gazettal by Dept of lands			FC
One off Events					
Sporting Fields – additional/one off installation of goal posts	$1,530.00	$1,472.73	$147.27	$1,620.00	FC
Sporting Fields – additional/one off line marking	$1,530.00	$1,472.73	$147.27	$1,620.00	FC
Turf Wicket Preparation	$1,530.00	$1,472.73	$147.27	$1,620.00	FC
Unauthorised use of field by organised teams/clubs	$474.00	$454.55	$45.45	$500.00	FC
Open Space Key Hire					
Key Bond – Casual Users	$100.00	$100.00	$0.00	$100.00	BAGS
Key Bond – Seasonal Initial Bookings	$50.00	$50.00	$0.00	$50.00	BAGS
Key Replacement/Provide Additional Key	$63.00	$60.45	$6.05	$66.50	FC
Drummoyne Oval					
Bond – Corporate Cricket Day	$3,000.00	$3,000.00	$0.00	$3,000.00	BAGS
Facility Cleaning Fee				At Cost	FC
Ground Hire (per hour)	$463.00	$444.55	$44.45	$489.00	FC
Grounds staff for match day (per staff per hour)	$94.50	$90.91	$9.09	$100.00	FC
Seasonal Fee – Leased arrangements			Negotiated by Council		FC
Drummoyne Oval Lights Usage					
Lights at 100lux level / per hour	$30.70	$29.09	$2.91	$32.00	FC
Lights at 250lux level / per hour	$92.50	$88.64	$8.86	$97.50	FC
Lights at 500lux level / per hour	$308.00	$295.45	$29.55	$325.00	FC
Lights at 1400lux level / per hour	$680.00	$654.55	$65.45	$720.00	FC
Special Events					
Special Events				POA	FC
Concord Oval					
Seasonal Fee – Cleaning & Waste Management		To be negotiated by Council			FC
Casual Hire (per day)	$3,080.00	$2,954.55	$295.45	$3,250.00	FC
Concord Oval – Professional/Elite Training Field Hire Per Hour	$0.00	$454.55	$45.45	$500.00	FC
Seasonal Fee – Waste Management for current lessees only		To be negotiated by Council			FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Majors Bay Reserve Synthetic					
Full Field					
Casual training and matchplay (nfp organisation) per hour	$86.00	$82.73	$8.27	$91.00	FC
Commerical Hire (commercial organisation) per hour	$198.00	$190.00	$19.00	$209.00	FC
Seasonal training and matchplay (nfp organisation) per hour	$51.50	$49.55	$4.95	$54.50	FC
Half Field					
Casual training and matchplay (nfp organisation) per hour	$53.50	$51.36	$5.14	$56.50	FC
Commerical Hire (commercial organisation) per hour	$118.00	$113.18	$11.32	$124.50	RR
Seasonal training and matchplay (nfp organisation) per hour	$32.00	$30.91	$3.09	$34.00	FC
Others					
Local schools per hour (1.5 fields)	$27.00	$25.91	$2.59	$28.50	PC
Informal Community Use (Set Times)	$0.00	$0.00	$0.00	$0.00	PC
Category - Hockey					
St Lukes Hockey Complex					
Schools/Juniors (full field)/hour or part there of	$134.00	$129.09	$12.91	$142.00	FC
Schools/Juniors (half field)/hour or part there of	$75.00	$71.82	$7.18	$79.00	FC
Seniors (full field)/hour or part there of	$202.00	$193.64	$19.36	$213.00	FC
Seniors (half field)/hour or part there of	$115.00	$110.00	$11.00	$121.00	FC
Category - Netball, Basketball, Volleyball, Archery and Dog Training					
Netball Courts - Cintra Park					
Casual per hour per court	$29.60	$28.18	$2.82	$31.00	FC
Seasonal Mon-Friday per court per club per night	$310.00	$297.27	$29.73	$327.00	FC
Seasonal Saturday per court	$310.00	$297.27	$29.73	$327.00	FC
Archery					
Seasonal (Saturday only) per season	$870.00	$836.36	$83.64	$920.00	FC
Dog Training					
Yearly Fee Hire of St Lukes 1 only Sun 8am to 12pm. This does not include access to cricket nets	$770.00	$740.91	$74.09	$815.00	FC
Yearly Hire of St Lukes Clubhouse (This does not include cricket nets)	$770.00	$740.91	$74.09	$815.00	FC
Category – Baseball					
Baseball - Timbrell Park, Sid Richards					

* Cost per field per usage rate per season. Includes training and games.

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Baseball - Timbrell Park, Sid Richards [continued]

Casual per hour per field	$36.40	$35.00	$3.50	$38.50	FC
Seasonal weekends Saturday OR Sunday (max 6 hours) (per season per field)	$790.00	$759.09	$75.91	$835.00	FC
3 nights a week plus Saturday/Sunday (or as per licence agreement) (per season per field)	$1,580.00	$1,518.18	$151.82	$1,670.00	FC
Line marking for casual bookings (per season per field)	$408.00	$391.82	$39.18	$431.00	FC

Category – Cricket

Synthetic Cricket Wicket

Five Dock Park, Queen Elizabeth Park Field 1, Campbell Park Fields 1&2, Edwards Park, St Lukes Fields 1&2, Timbrell Park Fields 1&2, Arthur Walker Reserve, Powells Creek 1&2, Jessie Stewart Reserve, Russell Park, Greenlees Park

Casual per hour per field	$36.40	$35.00	$3.50	$38.50	FC
Seasonal training week night (max 4 hours) per night	$397.00	$380.91	$38.09	$419.00	FC
Seasonal weekends Saturday OR Sunday (max 6 hours)	$790.00	$759.09	$75.91	$835.00	FC
Seasonal (3 week day training and Saturday and Sunday) (per season per field)	$1,580.00	$1,518.18	$151.82	$1,670.00	FC

Turf Cricket Wicket

Goddard Park, Ron Routley Oval, Rothwell Park, St Lukes Oval

Casual per day per field	$790.00	$759.09	$75.91	$835.00	FC
Seasonal training week night (max 4 hours per night)	$495.00	$477.27	$47.73	$525.00	FC
Seasonal weekends Saturday OR Sunday (max 6 hours)	$2,620.00	$2,518.18	$251.82	$2,770.00	FC
Seasonal (Saturday AND Sunday) per season per field	$5,250.00	$5,036.36	$503.64	$5,540.00	FC

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Senior Fields - Soccer, AFL, Rugby Union, Rugby League, etc.

* Cost per field per usage rate per season. Includes training and games.
Five Dock Park, Goddard Park, Queen Elizabeth Park, Ron Routley Park, Rothwell Park, St Lukes Oval, Sid Richards Park, Taplin Park, Campbell Park, Greenlees Park, Timbrell Park, Edwards Park, St Lukes Park, Powells Creek, Nield Park, St Lukes North*

Casual per hour per field	$36.40	$35.00	$3.50	$38.50	FC
Seasonal training week night (max 4 hours) per night	$397.00	$380.91	$38.09	$419.00	FC
Seasonal weekends Saturday OR Sunday (max 6 hours)	$790.00	$759.09	$75.91	$835.00	FC
Seasonal (Max 25 hours, 3 week day training and Saturday and Sunday) (per season per field)	$1,580.00	$1,518.18	$151.82	$1,670.00	FC

Junior Fields - Mini Soccer, Rugby, AFL and Touch Football

* Cost per field per usage rate per season. Includes training and games.
Edwards Fields 3, 4 & 5, Nield Field 2, 3 & 4, QEP Field 3, Timbrell Fields 1, 2, 3, 4 & 5, Taplin Park Field 2

Casual per hour per field	$27.60	$26.36	$2.64	$29.00	FC
Seasonal training week night (max 4 hours per night)	$286.00	$274.55	$27.45	$302.00	FC
Seasonal weekends Saturday OR Sunday (max 6 hours)	$565.00	$540.91	$54.09	$595.00	FC
Seasonal (Max 25 hours, 3 week day training and Saturday and Sunday) (per season per field)	$1,130.00	$1,081.82	$108.18	$1,190.00	FC

Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Sports Field Lighting					
Field Lighting (50/100 lux) per field per hour	$30.50	$29.09	$2.91	$32.00	FC
Field Lighting (200 lux) per field per hour	$61.00	$58.18	$5.82	$64.00	FC
Cintra Park Lighting per netball court per hour	$15.25	$10.00	$1.00	$11.00	FC
Social Recreation					
Bayview Park Access Management					
Fisherman's Club Key Hire – (located at Concord Community Centre) Annual key hire	$40.60	$39.09	$3.91	$43.00	FC
Non-Residential – Annual Key Fee	$170.00	$163.64	$16.36	$180.00	FC
Park gate locked in release fee (Security patrol call out)	$132.00	$126.36	$12.64	$139.00	FC
Replacement Key – Residential & Non-Residential	$69.50	$66.82	$6.68	$73.50	FC
Residential – Annual Key Fee	$40.60	$39.09	$3.91	$43.00	FC
Ceremonies & Related Photography					
Additional pre-cleaning of Rotundas at Cabarita Park or Prince Edward Park (per hour)	$264.00	$253.64	$25.36	$279.00	FC
Booking Fee (per application, non-refundable)	$37.40	$35.91	$3.59	$39.50	FC
Ceremony/Ceremony Photography/Professional Photography (per hour)	$208.00	$200.00	$20.00	$220.00	FC
Personal Training and Commercial Activities					
Personal Trainers – Permit (Allows for up to 3 sessions per week, 1 hour per session)	$164.00	$157.27	$15.73	$173.00	FC
Additional Sessions in excess of 3 per week (maximum of 15 sessions per week) (per session)	$75 per additional session per year in excess of 3 per week				PC
Additional trainer on permit (Allows for up to 3 sessions per week, 1 hour per session)	$87.50	$84.09	$8.41	$92.50	FC
Booking Fee (per application, non-refundable)	$37.40	$35.91	$3.59	$39.50	FC
Fishing & Other Water Based Competitions (per day)					
Booking Fee (per application, non-refundable)	$37.40	$35.91	$3.59	$39.50	FC
<101 people	$308.00	$295.45	$29.55	$325.00	FC
>100 people	$565.00	$540.91	$54.09	$595.00	FC
Private, Corporate and Community Groups, Social Recreation					
Booking Fee – Private & Community Groups (per application, non-refundable)	$37.40	$35.91	$3.59	$39.50	FC
Community Groups< 80	$0.00	$0.00	$0.00	$0.00	Z
Community Groups 81-150	$279.00	$268.18	$26.82	$295.00	FC
Community Groups > 150 Booking at Council discretion	$690.00	$663.64	$66.36	$730.00	FC
Booking Fee – Corporate booking fee (per application, non-refundable)	$234.00	$224.55	$22.45	$247.00	FC
Corporate Groups< 80	$363.00	$348.18	$34.82	$383.00	FC
Corporate Groups 81-150	$725.00	$695.45	$69.55	$765.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Private, Corporate and Community Groups, Social Recreation [continued]

Corporate Groups > 150 Booking at Council discretion, this figure includes park hire approval of temporary structures (such as amusement devices, marquees & stages)	$1,710.00	$1,645.45	$164.55	$1,810.00	FC

Regattas - Rodd Point-Bayview Park

Booking Fee (per application, non-refundable) one-off Regatta	$79.00	$75.91	$7.59	$83.50	FC
Corporate Regatta – Per Regatta	$1,220.00	$1,172.73	$117.27	$1,290.00	FC
For Non Profit Community Org – Per Regatta	$515.00	$495.45	$49.55	$545.00	FC
School Regatta fee per day	$1,050.00	$1,009.09	$100.91	$1,110.00	FC

Event - (large scale provided to/for general community)

Bond				At Council Discretion	BAGS
Booking Fee (per application, non-refundable)	$225.00	$216.36	$21.64	$238.00	FC
Council staff Attendance & Labour				At Cost	PC
Low Impact event (up to 1000 people) - inclusive park hire & temporary structure	$1,300.00	$1,370.00	$0.00	$1,370.00	FC
Medium Impact Event (1000 to 2500 people) – inclusive park hire & temporary structure	$2,600.00	$2,750.00	$0.00	$2,750.00	FC
High Impact Event (more than 2500 people) – inclusive park hire & temporary structure	$3,900.00	$4,120.00	$0.00	$4,120.00	FC
Power Access per hour (where available)	$84.00	$80.45	$8.05	$88.50	FC
Water Access per hour (where available)	$84.00	$80.45	$8.05	$88.50	FC

Permit Fees for Temporary Installations (site fees only)

* Public Liability Insurance Policy of $20 Million dollars is required.
* As part of Council's Risk Management procedures Safe Work Method Statements (SWMS) will be required to be submitted to Council for temporary installations such as jumping castles, stages, large and commercial marquees. For amusement devices / rides all relevant Work Cover certification will need to be submitted to Council.

Amusement Devices Application	$250.00	$400.00	$0.00	$400.00	LR

Parks Hire of Schools

* Each booking must have at least 1 school residing in LGA.

Booking Fee (per application, non-refundable)	$37.40	$35.91	$3.59	$39.50	FC
Local School (weekday only)	$0.00	$0.00	$0.00	$0.00	Z
Non Local and Private Schools (weekday only)				50% of the normal usage rate	PC

Roads and Footpaths

Stormwater Drainage

Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Stormwater Drainage [continued]

Stormwater Drainage Works	At cost + 15% Estimate available prior to commencement.	FC

This item includes work to modify/reconstruct/construct as a stormwater drainage pit. Stormwater drainage pits are constructed or modified to comply with Council's Engineering Specification. This fee applies to drainage pits where the maximum dimension (H, W, D) exceeds 1.5m. This fee is charged per drainage pit modification/reconstruction or construction on a cost-plus. basis

General Conditions for Roads and Footpaths

1. All fees described include the basic provision of the service during normal business hours under normal circumstances. Other costs such as traffic control, night work and other unusual costs that may arise may require a variation. Where possible these variations will be agreed upon before works commences. If additional costs arise due to unforeseen circumstances, such as a poor subgrade for a road pavement, the costs will be passed on and the applicant will be advised as soon as practical.
2. The RMS may require specific requirements, including Road Occupancy Licences for State Roads, and these costs are not included in these fees. The costs associated with complying with the requirements of the RMS will be fully payable by the applicant.
3. RMS peak period time constraints are not included in the rates set out in this document. Where these constrains are imposed, the rates will be modified to reflect the limited access period to undertake the work. The applicant will be advised of the modified rate as soon as practical.
4. All of the pricing included in these fees are based on the underlying base, subbase and subgrade meeting AUSPEC standards. Works that have been undertaken that do not meet AUSPEC requirements, including the 306 Specification, will impact on the cost of the works to be provided and shall be fully borne by the applicant.
5. A charge for restoration work made under Section 101 and Section 102 of the Roads Act within the Council area is not subject to GST, whether charged direct to Telstra, Sydney Water, etc, or charged to a contractor engaged by them.

As listed above.	As listed above.	Z

Road Openings

In accordance with Division 3 of the Roads Act, a person must not carry out work in, on or over a public road without the consent of the Roads Authority. If you need to undertake any work between private property boundaries beside a public road you must obtain a Road Opening Permit from Council. This includes any work on a nature strip area, footpath, road pavement, or road island. For information on the Road Reserve Opening Permit and the process for applying for one, refer to Council's Fact Sheet at www.canadabay.nsw.gov.au/residents/your-home/driveway-and-ancillary-works/road-and-footpath-openings.
Any damage to Council's assets caused by the works proposed by the applicant for the Road Reserve Opening Permit, must be temporarily restored by the applicant in accordance with the condition of the Permit.
The applicant must pay Council the cost of permanently reinstating the damaged asset/s at the time of application together with a security deposit to cover the reinstatement of any unforeseen and unexpected damage to Council assets. Should additional permanent restoration work be required the applicant will be asked to make an additional payment. Any balance of the security deposit lodged by the applicant will be returned to the applicant once the permanent restoration work is completed.
Where a contractor is undertaking works on behalf of a recognised utility provider under Legislation, the contractor will be required to obtain and pay for a Road Opening Permit and comply with all of the conditions of the Permit, including the payment of expected reinstatement costs, unless they are able to have the utility provider who engaged them to provide Council with an undertaking to accept responsibility of the work performed by the contractor.

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Road Reserve Opening Permit

A Cost of Works will be issued upon determination of agreed scope of works prior to a Road Reserve Opening Permit being approved. Upon completion of the applicant's temporary restoration of the worksite, a pre-scheduled final inspection will be undertaken by Council to verify the extent of permanent reinstatement works required. The final Cost of Works for Council to undertake the permanent reinstatement will be invoiced to applicant. If the invoice for the permanent reinstatement work is not paid within 14 days, the security deposit will be used to fund the work.

In addition, the applicant will be required to lodge a security deposit which will be the full amount of the Assessed Cost of Works for Council's permanent reinstatement work. The security deposit will be returned to the applicant once Council has completed a satisfactory final inspection and where required an invoiced Cost of Works has been paid for Council to undertake the permanent reinstatement.

Road Reserve Opening Permit Application	$312.00	$329.00	$0.00	$329.00	FC
This fee will be calculated on the basis of each application (each). This fee is non-refundable once the Road Reserve Opening Permit has been issued, even if the works do not proceed by the applicant.					
Change of Private Contractor Application	$86.00	$91.00	$0.00	$91.00	FC
This fee is payable when the holder of an approved Road Reserve Opening Permit seeks to change the person undertaking the work that was nominated on the application form. This fee is calculated on an a per application (each) basis.					
Additional inspection / re-inspection	$364.00	$384.00	$0.00	$384.00	FC
Further inspection work could be necessary for a number of reasons, such as to review the extent of work being undertaken by the applicant or to review the extent of the permanent reinstatement work planned. Any inspection required will incur a fee which must be paid prior to the inspection. This fee is calculated on the basis of each inspection.					
Final Inspection	$364.00	$384.00	$0.00	$384.00	FC
Final Inspection fee is payable upon lodgement of Road Reserve Opening Permit Application (in al cases)					
Confirmation of Road Reserve Opening Permit Finalisation	$112.00	$118.00	$0.00	$118.00	FC
Once permanent reinstatement works have been completed by Council, the applicant of a Road Reserve Opening Permit can request confirmation of the finalization of the Permit. The finalization of the Permit releases the applicant from any further liability for the road opening.					
Security deposit - permanent reinstatement work valued at 100% of cost of works	Security Deposit (refundable after works completed to Council specification, and in accordance with the Council Standard Conditions for Openings)				BAGS
Security Deposit (refundable upon works being completed to Council specification, and in accordance with the Council Standard Conditions for Openings)					
Assessed Cost of works - this fee is calculated on the basis of the scope of works to be undertaken by Council for the permanent reinstatement	100% of the Cost of Works value for Council to undertake the permanent reinstatement work.				BAGS
Urgent/emergency fee (non-refundable; excludes inspections, application fee and re-arrangement of other inspections.	$630.00	$665.00	$0.00	$665.00	FC

Asset Integrity Charge - Road Openings (Permanent Restoration applications only)

Asset Integrity Charge - work valued from $3,000 to $7,999	30% of the value of assessed Cost of Works	FC
Asset Integrity Charge - work valued from $8,000 and greater	25% of the value of assessed Cost of Works	FC
Asset Integrity Charge - work valued up to $2,999	45% of the value of assessed Cost of Works	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Survey Marks					
Recovery / relocation of survey marks (State Survey Marks, Permanent Mark or Cadastral Marks) by Registered Surveyor				Cost + 15%	FC
Adjustment of Utility Service Assets					
Adjustment of service pipes to new level				Cost plus 15%	RR
Adjustment of utility service lids to new level				Cost plus 15%	RR
Placing streetlight shades				Cost plus 15%	RR
Reconstruction of Concrete Threshold to the nearest joint				Cost plus 15%	RR
Relocation or adjustment of utility service pits to new levels				Cost plus 15%	RR
Replacement of damaged utility service pits				Cost plus 15%	RR
Undergrounding of overhead power lines				Cost plus 15%	RR
phase a - design by ASP phase b - approval by authority phase c - installation of underground conduits, pulling of cables, jointing, installation of property access point					

Vehicular Crossing & Ancillary Works

Approval for a vehicular crossing or other ancillary type works such as kerb & gutter or footpath works must be obtained through a Vehicular Crossing &/or Ancillary Works application **(excluding stormwater connections)**. Approval for these type of works **must** be gained through the lodgement of a Road Reserve Opening Permit Application.

Vehicular Crossing &/or Ancillary Works Application

Approval for a vehicular crossing or other ancillary type works such as kerb & gutter or footpath works must be obtained through a Driveway Location &/or Ancillary Works application **(excluding stormwater connections)**. Approval for these type of works **must** be gained through the lodgement of a Road Reserve Opening Permit Application.

Vehicular Crossing &/or Ancillary Works Application - residential / duplex building up to 3 storey (non-refundable)	$364.00	$384.00	$0.00	$384.00	FC
Note: A Vehicular Crossing &/or Ancillary Works Application must be approved prior to the lodgement of a Vehicular Crossing Construction by a Private Contractor Application.					
Vehicular Crossing &/or Ancillary Works Application - industrial / commercial / residential above 3 storey (non-refundable)	$1,060.00	$1,120.00	$0.00	$1,120.00	FC
Note: A Vehicular Crossing &/or Ancillary Works application must be approved prior to the lodgement of a Vehicular Crossing Construction by Private Contractor Application.					
Pre-Commencement Damage Report Form	Refer to Asset Management - Pre-Commencement Damage Report Form				FC
Quote preparation fee for driveway work coordinated by Council	$198.00	$209.00	$0.00	$209.00	FC
Council can coordinate all the works necessary to construct a driveway from the kerb to the property boundary. This fee includes an onsite inspection and preparation of a quote. Additional inspections or requoting of work will incur a further inspection fee. If the quote validity period expires a new quote will need to be prepared and a new fee paid.					

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Vehicular Crossing &/or Ancillary Works Application [continued]

Urgent/emergency fee (non-refundable; excludes inspections, application fee and re-arrangement of other inspections.	$630.00	$665.00	$0.00	$665.00	MP
Confirmation of Finalisation of Vehicular Crossing works	$112.00	$118.00	$0.00	$118.00	FC
Re-assessment of driveway approval resulting from a section 96 being lodged	$134.00	$142.00	$0.00	$142.00	FC

Vehicular Crossing Construction by a Private Contractor

Vehicular Crossing Construction by Private Contractor Application – residential / duplex building up to 3 storey driveway (non-refundable)	$260.00	$275.00	$0.00	$275.00	LR
Vehicular Crossing Construction by Private Contractor Application – industrial / commercial / residential above 3 storey (non-refundable)	$580.00	$610.00	$0.00	$610.00	RR
Change of Private Contractor Application	$86.00	$91.00	$0.00	$91.00	FC

Security Deposit for Vehicular Crossing & Ancillary Works Undertaken by Private Contractor

When vehicular crossing and/or ancillary construction works are being undertaken by a private contractor, Council requires the submission of a security deposit. The security deposit is held until the works are completed and inspection by Council. Where Council assets, such as a concrete footpath, have been damaged during the driveway construction, Council will ask the applicant to pay for Council to reinstate the damaged assets. The security deposit can be used to pay for this work by Council. Should there be a balance outstanding then the applicant will be liable to pay the balance. If there is no damage to Council assets at the time of final inspection then the security deposit will be refunded.
Where an applicant for a vehicular crossing &/or ancillary works application seeks to have the works undertaken by a private contractor and the works are directly associated with a current development application where a Damage Deposit is currently held by Council, no security deposit will be required under this section provided that the Damage Deposit held by Council exceeds the value required by this section. If the value of the Damage Deposit is lower than the security deposit described in this section then the applicant for the driveway application will be required to submit the balance as a security deposit.

Security deposit - residential / duplex building up to 3 storey application	$3,150.00	$3,150.00	$0.00	$3,150.00	BAGS
Security deposit - industrial / commercial / residential above 3 storey application	$5,780.00	$5,780.00	$0.00	$5,780.00	BAGS

Driveway Inspections

Vehicular Crossing &/or Ancillary Works Inspections - 2 standard inspections	$730.00	$770.00	$0.00	$770.00	FC
This fee applies in all cases and is for the purpose of an inspection of the formwork and steel prior to the concrete pour and a final inspection when all construction works are completed.					
Vehicular Crossing inspections - for additional driveway entries	$364.00	$384.00	$0.00	$384.00	FC
This fee applies where two or more driveways are being constructed and are not able to be inspected at the same time as the first driveway entry.					
Additional Inspection / Re-inspection fee	$364.00	$384.00	$0.00	$384.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Roads Pavement Reinstatement

Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Asphaltic concrete surface roadway with DGB roadbase

Asphaltic Concrete laid with depth tolerances for construction purposes. Construction practices complying with Council's Engineering Specifications.
Quantity of work is calculated on a per m2 basis and will cover pavements of a depth up to 150mm

Asphaltic concrete surface roadway with DGB roadbase - up to 15m2	$410.30	$393.64	$39.36	$433.00	RR
Asphaltic concrete surface roadway with DGB roadbase - Greater than 15m2, up to 50m2	$343.20	$329.09	$32.91	$362.00	RR
Asphaltic concrete surface roadway with DGB roadbase - Greater than 50m2, up to 100m2	$313.50	$300.91	$30.09	$331.00	RR
Asphaltic concrete surface roadway with DGB roadbase - Greater than 100m2, up to 500m2	$291.50	$280.00	$28.00	$308.00	RR
Asphaltic concrete surface roadway with DGB roadbase - Greater than 500m2	At cost + 15% Estimate available prior to conmmencement				RR
Asphalt depths from 150mm to 250mm	Asphalt depths from 150mm to 250mm will incur a 10% increase to rates above				RR

Asphaltic Concrete (AC10) over Concrete

Asphaltic concrete laid within depth tolerances for construction purposes over a concrete base consisting of 230mm of 50MPa concrete with 2 layers of SL81 reinforcing mesh on 150mm of 5MPa lean mix sub-base. Construction practices to comply with Council's Engineering Specifications. The quantity of work is calculated on a per m^2 basis.

AC10 over a concrete base – up to 15m²	$1,090.00	$1,045.45	$104.55	$1,150.00	FC
AC10 over a concrete base – greater than 15m², up to 50m²	$765.00	$736.36	$73.64	$810.00	FC
AC10 over a concrete base – greater than 50m², up to 100m²	$670.00	$645.45	$64.55	$710.00	FC
AC10 over a concrete base – greater than 100m², up to 500m²	$645.00	$618.18	$61.82	$680.00	FC
AC10 over a concrete basis – greater than 500m²	At cost + 15% Estimate available prior to commencement.				FC

Concrete over Lean Mix

Concrete pavement slab consisting of 230mm of 50MPa concrete with 2 layers of SL81 reinforcing mesh on 150mm of 5MPa lean mix sub-base. Construction practices to comply with Council's Engineering Specifications. This fee is calculated on a per m^2 basis.

Concrete – up to 15m²	$955.00	$918.18	$91.82	$1,010.00	FC
Concrete – greater than 15m², less than 50m²	$695.00	$668.18	$66.82	$735.00	FC
Concrete – greater than 50m², less than 100m²	$645.00	$618.18	$61.82	$680.00	FC
Concrete – greater than 100m², less than 500m²	$620.00	$595.45	$59.55	$655.00	FC
Concrete – greater than 500m²	At cost + 15% Estimate available prior to commencement				FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Footpath Reinstatement

Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Concrete Footpath

Concrete footpath constructed in accordance with Council's Engineering Specifications. The quantity of work is calculated on a per m^2 basis.

Concrete Footpath – less than 15m²	$312.00	$299.09	$29.91	$329.00	FC
Concrete Footpath – greater than 15m², less than 50m²	$268.00	$257.27	$25.73	$283.00	FC
Concrete Footpath – greater than 50m², less than 100m²	$231.00	$221.82	$22.18	$244.00	FC
Concrete Footpath – greater than 100m², less than 500m²	$200.00	$191.82	$19.18	$211.00	FC
Concrete Footpath – greater than 500m²	At cost + 15% Estimate available prior to commencement				FC

Asphaltic Concrete Footpath

Asphaltic concrete (AC5) laid within depth tolerances for construction purposes. Construction practices to comply with Council's Engineering Specifications. The quantity of work is calculated on a per m^2 basis.

AC7 – up to 15m²	$253.00	$242.73	$24.27	$267.00	FC
AC7 – greater than 15m², up to 50m²	$171.00	$164.55	$16.45	$181.00	FC
AC7 – greater than 50m², up to 100m²	$135.00	$130.00	$13.00	$143.00	FC
AC5 – greater than 100m²	At cost + 15% Estimate available prior to commencement				FC

Asphaltic Concrete with Concrete Base Footpath

Asphaltic concrete (AC5) laid at 25mm depth with concrete base of 25MPa concrete, 100mm thick. Construction practices to comply with Council's Engineering Specifications. The quantity of work is calculated on a per m^2 basis.

AC7 with concrete base – up to 15m²	$540.00	$518.18	$51.82	$570.00	FC
AC7 with concrete base – greater than 15m², up to 50m²	$376.00	$360.91	$36.09	$397.00	FC
AC5 with concrete base – greater than 50m², up to 100m²	$284.00	$272.73	$27.27	$300.00	FC
AC5 with concrete base – greater than 100m²	At cost + 15% Estimate available prior to commencement				FC

Paving

Supply and laying pavers in a pattern to match surrounding area. Note: where a concrete slab under the paving is necessary in accordance with Council's Engineering Specifications, then the concrete slab is at additional cost. The quantity of work is calculated on a per m^2 basis.

Pavers – less than 15m²	$830.00	$795.45	$79.55	$875.00	FC
Pavers – greater than 15m², up to 50m²	$760.00	$731.82	$73.18	$805.00	FC
Pavers – greater than 50m², up to 100m²	$595.00	$572.73	$57.27	$630.00	FC
Pavers – greater than 100m², up to 500m²	$560.00	$536.36	$53.64	$590.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Paving [continued]

Pavers – greater than 500m²				At cost + 15% Estimate available prior to commencement	FC

Turfing

Turfing - supply and lay	$100.00	$96.36	$9.64	$106.00	FC
Where a grassed area is disturbed by works, Council may request that turf be replaced if the area is not reinstated in a reasonable fashion, or the area disturbed consists of high quality grass and/or presentation. The turf will be laid to match the surrounding grass type. In order to promote the establishment of the turf, it will require watering during its establishment and this will be charged separately. Council will defer the laying of turf from May to September to increase survivability and reduce establishment periods. This item is calculated on a per m² basis.					
Watering of turf to establish	$107.00	$102.73	$10.27	$113.00	FC
Where new turf is laid it will require regular watering for a minimum of 6 to 8 weeks for the turf to establish. The time required for watering the turf will be determined upon application based on the area of turf laid and prevailing weather conditions. This item is calculated on a per hour of watering basis.					

Driveway Reinstatement

Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Residential driveway - up to 15m²	$412.00	$395.45	$39.55	$435.00	FC
Residential driveway - greater than 15m², up to 50m²	$337.00	$323.64	$32.36	$356.00	FC
Residential driveway - greater than 50m², up to 100m²	$281.00	$270.00	$27.00	$297.00	FC
Residential driveway - greater than 100m²	$256.00	$245.45	$24.55	$270.00	FC
Driveway for residential flat building, commercial or industrial premises - up to 15m²	$443.00	$425.45	$42.55	$468.00	FC
Driveway for residential flat building, commercial or industrial premises - greater than 15m², less than 50m²	$368.00	$353.64	$35.36	$389.00	FC
Driveway for residential flat building, commercial or industrial premises - greater than 50m², less than 100m²	$312.00	$299.09	$29.91	$329.00	FC
Driveway for residential flat building, commercial or industrial premises - greater than 100m²	$281.00	$270.00	$27.00	$297.00	FC

Kerb & Gutter Reinstatement

per lineal metre
Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Kerb and Gutter

Construction of Council's standard kerb and gutter to comply with Council's Engineering Specification. Pricing is calculated per lineal metre.

Kerb and gutter - less than 15 metres	$530.00	$509.09	$50.91	$560.00	FC
Kerb and gutter - greater than 15 metres, up to 50 metres	$418.00	$400.91	$40.09	$441.00	FC
Kerb and gutter - greater than 50 metres, up to 100 metres	$387.00	$371.82	$37.18	$409.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Kerb and Gutter [continued]

Kerb and Gutter - greater than 100 metres, up to 500 metres	$356.00	$341.82	$34.18	$376.00	FC
Kerb and gutter - greater than 500 metres				At cost + 15% Estimate available prior to commencement	FC

Kerb only

Construction of the kerb only component of Council's standard kerb and gutter to comply with Council's Engineering Specification. Pricing is calculated per lineal metre.

Kerb only - less than 15 metres	$525.00	$504.55	$50.45	$555.00	FC
Kerb only - greater than 15 metres, up to 50 metres	$431.00	$413.64	$41.36	$455.00	FC
Kerb only - greater than 50 metres, up to 100 metres	$368.00	$353.64	$35.36	$389.00	FC
Kerb only - greater than 100 metres, up to 500 metres	$337.00	$323.64	$32.36	$356.00	FC
Kerb Only - greater than 500 metres				At cost + 15% Estimate available prior to commencement	FC

Concrete Layback

Construction of a standard concrete driveway layback to comply with Council's Engineering Specification. Pricing is calculated per lineal metre.

Layback – less than 15 metres	$665.00	$636.36	$63.64	$700.00	FC
Layback – greater than 15 metres, up to 50 metres	$590.00	$568.18	$56.82	$625.00	FC
Layback – greater than 50 metres, up to 100 metres	$510.00	$490.91	$49.09	$540.00	FC
Layback – greater than 100 metres	$449.00	$430.91	$43.09	$474.00	FC

Concrete Dish Drain at Intersections

Construction of a standard concrete dish drain to comply with Council's Engineering Specification. Pricing is calculated per lineal metre.

Concrete dish drain - less than 15 metres	$745.00	$713.64	$71.36	$785.00	FC
Concrete dish drain - greater than 15 metres, up to 50 metres	$650.00	$622.73	$62.27	$685.00	FC
Concrete dish drain - greater than 50 metres, up to 100 metres	$590.00	$568.18	$56.82	$625.00	FC
Concrete dish drain - greater than 100 metres	$510.00	$490.91	$49.09	$540.00	FC

Miscellaneous Kerb & Gutter Items

Construct a Standard 1.2m Pram Ramp (Billed per Pram Ramp)	$2,890.00	$2,772.73	$277.27	$3,050.00	FC
Construction of a standard concrete pram ramp to comply with Council's Engineering Specification. This fee is charged per pram ramp constructed (each).					
Gutter bridge crossing with hinged heavy duty steel grating	$4,690.00	$4,500.00	$450.00	$4,950.00	FC
Construction of a "gutter bridge crossing" with hinged heavy duty steel grating. Pricing is calculated per lineal metre, with a minimum of 4.5m. This fee is charged at a per lineal metre rate.					
Install kerb outlet	$324.00	$310.91	$31.09	$342.00	FC
Provision of a kerb outlet to allow for the connection of stormwater from private property to the Council's kerb and gutter. This work is performed to comply with Council's Engineering Specificiation. The fee is charged at a per kerb outlet (each).					

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Sawcutting

This is an additional charge for when it is necessary to saw cut for construction purposes or to obtain a straight edge with existing materials. Construction practices to comply with Council's Engineering Specifications. The quantity of work is calculated on a per lineal metre basis of saw cut with a site establishment fee for every site and every time the service is required.
Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Site establishment for saw cutting	$407.00	$390.91	$39.09	$430.00	FC
Saw cutting in asphalt - up to 100mm depth	$18.20	$17.45	$1.75	$19.20	FC
Saw cutting in asphalt - up to 250mm depth	$59.00	$56.82	$5.68	$62.50	FC
Saw cutting in concrete - up to 150mm depth	$40.70	$39.09	$3.91	$43.00	FC
Saw cutting in concrete - up to 300mm depth	$86.00	$82.73	$8.27	$91.00	FC
Saw cutting in reinforced concrete - up to 150mm depth	$28.90	$27.73	$2.77	$30.50	FC
Saw cutting in reinforced concrete - up to 300mm depth	$86.00	$82.73	$8.27	$91.00	FC

Crack Sealing

Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Crack sealing of asphaltic concrete (AC) per meter - up to 15m	$100.00	$96.36	$9.64	$106.00	FC
per metre					
Crack sealing of asphaltic concrete (AC) - greater than 15m, up to 50m	$66.00	$63.18	$6.32	$69.50	RR
Crack sealing of asphaltic concrete (AC) - greater than 50m	$33.00	$31.64	$3.16	$34.80	RR

Line Marking

Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Line marking - sprayed or thermoplastic application				At cost + 15% Estimate available prior to commencement.	FC
This fee is replacement of line marking that may have been removed during works, or where the condition has deteriorated due to works. This fee is charged on a cost of works to Council plus 15% basis.					
Parking lines perpendicular to driveway	$284.00	$272.73	$27.27	$300.00	FC
Installation of painted lines on either side of a driveway to aid in keeping the driveway clear of parked vehicles. Fee also applies to replace lines due to normal wear or fading.					

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Sign Posting

Where works are required to be undertaken on weekend or as night works as surcharge of 50% shall apply to these rates. This provision will apply where work is required on or close to major roads or in sensitive locations, such as commercial precincts or where access may need to be restricted due to the works. The application of this surcharge will be discussed with the applicant prior to commencing works.

Directional sign installation (Community based, non-profit & religious organisations only)	$252.00	$241.82	$24.18	$266.00	FC
Approved directional signs are erected in accordance with Council's Engineering Specification. The fee for this item is calculated on a per sign basis and includes a sign post if necessary.					
Street signage -supply and install	$381.00	$365.45	$36.55	$402.00	FC
This item includes the supply and installation of an Australian Standard, Road Rule Compliant sign when approved by Council. Note some signage may require the approval of the Traffic Committee and Council. The fee for this item is calculated on a per sign basis and includes a sign post if necessary.					

Miscellaneous Works

Business hours are from 7am to 4pm excluding weekend and public holidays.

Miscellaneous project - labour costs				Full cost + 25% Estimate available prior to commencement	FC
This fee will be applied where Council elects to undertake work on behalf of another person or organisation involving the Council's assets, that is not included in other fees or charges in this document. Such work may include the coordination of public utility adjustments, project management/coordination or work on unique assets. This fee will not apply to grants from Government agencies. This fee will include all labour costs associated with the works. This will be tracked by timesheet and will include all day-labour, professional and management staff involved in the work. This fee is calculated on an actual cost-plus basis.					
Miscellaneous project - material, plant, contract and professional service costs				Full cost + 15% Estimate available prior to commencement	FC
This fee will be applied where Council elects to undertake work on behalf of another person or organisation involving the Council's assets, that is not included in other fees or charges in this document. Such work may include the coordination of public utility adjustments, project management/coordination or work on unique assets. This fee will not apply to grants from Government agencies. This fee will include all costs associated with materials, plant, contract and professional services used for the works. This fee is calculated on an actual cost-plus basis.					
Traffic Control per hour per person (min 4 hours)	$229.00	$220.00	$22.00	$242.00	FC
Concrete/ Asphalt Plant Opening Fee	$3,850.00	$3,700.00	$370.00	$4,070.00	RR
ROL (Road Occupancy License) Application	$495.00	$477.27	$47.73	$525.00	RR
Where submission and approval of traffic management plan must be organised.					
Restoration Inspection Fee/ Scope and Signoff	$364.00	$384.00	$0.00	$384.00	RR
Additional scoping/ inspection fee for restoration works. Chargeable per site visit.					
Removal of dumped waste - including collection from site and disposal				At cost + 20%	FC
Asbestos removal – using Council coordinated accredited contractor				At cost + 50%	FC
Removal and disposal of damaged asbestos stormwater outlet pipes identified during restoration construction works by Council				At cost + 20%	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Swimming Pools

Cabarita and Drummoyne Swimming Centres

General Entry

Casual Adult Entry (16 years & over)	$7.80	$7.45	$0.75	$8.20	MP
Casual Child (4 -15 years)	$5.70	$5.45	$0.55	$6.00	MP
Casual Child (under 4 years)	$0.00	$0.00	$0.00	$0.00	Z
Casual Pensioner (with valid pension card)	$2.80	$2.68	$0.27	$2.95	MP
Casual Senior (with valid seniors card)	$5.30	$5.09	$0.51	$5.60	MP
Casual Student Concession	$5.30	$5.09	$0.51	$5.60	MP
Carer for a person with a disability	$0.00	$0.00	$0.00	$0.00	Z
Spectators	$4.60	$4.41	$0.44	$4.85	MP
Family Pass (2 Adults + 2 Children or 1 Adult + 3 Children)	$22.90	$22.00	$2.20	$24.20	MP
Additional Family Member	$5.40	$5.18	$0.52	$5.70	MP

Multi Visit Passes

Valid for 12 months from purchase

Spectator 20 Pass	$72.00	$69.09	$6.91	$76.00	RR
Spectator 50 Pass	$154.00	$148.18	$14.82	$163.00	RR
10 Adult Entry Pass	$68.00	$65.45	$6.55	$72.00	MP
10 Concession Entry Passes	$52.00	$50.00	$5.00	$55.00	MP
10 Pensioner Entry Pass (With valid pension card)	$0.00	$26.82	$2.68	$29.50	MP
20 Adult Entry Pass	$126.00	$120.91	$12.09	$133.00	MP
20 Concession Entry Passes	$94.00	$90.45	$9.05	$99.50	MP
20 Pensioner Entry Pass (With valid pension card)	$0.00	$53.64	$5.36	$59.00	MP
50 Adult Entry Pass	$268.00	$257.27	$25.73	$283.00	MP
50 Concession Entry Passes	$187.00	$179.09	$17.91	$197.00	MP
50 Pensioner Entry Pass (With valid pension card)	$0.00	$134.09	$13.41	$147.50	MP
10 Family Entry Pass	$195.00	$187.27	$18.73	$206.00	MP
20 Family Entry Pass	$358.00	$343.64	$34.36	$378.00	MP

Season Pass

Adult Season Pass	$530.00	$509.09	$50.91	$560.00	MP
Senior/Child/Student Season Pass	$428.00	$410.91	$41.09	$452.00	MP
Pensioner Season Pass	$304.00	$291.82	$29.18	$321.00	PC
Off Peak Season Pass (9am-3pm) Drummoyne & Cabarita	$269.00	$258.18	$25.82	$284.00	MP
Family Season Pass	$1,670.00	$1,600.00	$160.00	$1,760.00	MP
(2 Adults + 2 Children or 1 Adult + 3 Children)					
Additional Family Member (Family Season Pass)	$320.00	$307.27	$30.73	$338.00	MP

School Entry

Carnival Admission per attendee	$4.60	$4.41	$0.44	$4.85	MP
Carnival Hire per hour (LGA Schools)	$234.00	$224.55	$22.45	$247.00	MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
School Entry [continued]					
Carnival Hire per hour (Non LGA Schools)	$258.00	$247.27	$24.73	$272.00	PC
Dept of Education Special Swimming Scheme per hour	$4.30	$4.14	$0.41	$4.55	MP
General Swimming per hour	$6.00	$5.73	$0.57	$6.30	MP
Half Lane Hire (Drummoyne) – 25m per hour	$18.00	$17.27	$1.73	$19.00	MP
Half Pool Hire (Drummoyne) per hour	$66.00	$63.18	$6.32	$69.50	MP
Lane Hire – 50m per hour	$33.50	$32.27	$3.23	$35.50	MP
Pool and Function Room Hire					
Function Room (Cabarita only) per hour	$37.00	$40.91	$4.09	$45.00	MP
Half Pool Hire (Drummoyne) per hour	$90.00	$86.36	$8.64	$95.00	MP
Lane Hire – 50m per hour	$51.00	$49.09	$4.91	$54.00	MP
Olympic Pool per hour	$358.00	$343.64	$34.36	$378.00	MP
Water Polo Seasonal Pool Hire					
(For usage outside agreed licensed usage)					
Carnival Admission per attendee	$3.80	$3.64	$0.36	$4.00	MP
Carnival Hire per hour	$196.00	$188.18	$18.82	$207.00	MP
Half Lane Hire – 25m (Drummoyne) per hour	$15.00	$14.36	$1.44	$15.80	MP
Half Pool Hire (Drummoyne) per hour	$54.00	$51.82	$5.18	$57.00	MP
Programs					
Swim Program per lesson	$18.50	$17.73	$1.77	$19.50	MP
Swimming Lessons – Private – 1:1 (30 minute)	$51.00	$62.05	$6.20	$68.25	MP
Fitness 10 classes Pass	$152.00	$145.91	$14.59	$160.50	MP
Fitness Concession 10 Classes Pass	$106.00	$101.82	$10.18	$112.00	MP
Fitness Concession per class	$11.50	$11.00	$1.10	$12.10	MP
Fitness Class per class	$17.50	$16.82	$1.68	$18.50	MP
Birthday Parties per person (with a party host)	$20.00	$19.18	$1.92	$21.10	MP
Birthday Parties deposit (to be provided 48 hour before prior to booking)	$170.00	$163.64	$16.36	$180.00	MP
Learn to Swim Teaching (26 weeks) Direct debit or PIF option.	$482.00	$463.64	$46.36	$510.00	MP
Membership (3rd Child Discount)	$438.00	$420.91	$42.09	$463.00	MP
School Group Swim Lessons per lesson	$8.70	$8.36	$0.84	$9.20	MP
School Holiday Intensive Swim Program per lesson	$18.50	$17.73	$1.77	$19.50	MP
School Holiday Intensive Swim Program per week	$72.00	$69.09	$6.91	$76.00	MP
Squad Program per person per program (2 or more programs per week)	$9.00	$8.64	$0.86	$9.50	MP
Teens Fitness per class	$11.80	$11.36	$1.14	$12.50	MP
Promotions					
Swimming Centre Promotions			Available on Request		MP

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Use of Public Spaces

Administration of Traffic Management for Events, Filming or Construction Activities

Car Parking on Council Parks (Special Events) Per Field at discretion of Council		Hire Fee and Possible Renovation Fee			FC
Administration and assessment of Traffic Management Plan - low impact	$306.00	$323.00	$0.00	$323.00	RR
Low impact Traffic Management Plans include situations where the primary form of traffic management is not more than stop / go traffic control on a local, Council managed road. The fee includes the Council's consultation with the NSW Police. Fee is determined per Traffic Management Plan submission.					
Administration and assessment of Traffic Management Plan - medium impact	$580.00	$610.00	$0.00	$610.00	RR
Medium impact Traffic Management Plans include situations where the primary form of traffic management will include stop / go traffic control on a Regionally classified Road, State classified road or a multi-lane local, Council managed road. The fee includes Council's consultation with the NSW Police and Transport for NSW. The fee is applied per Traffic Management Plan submission.					
Administration and assessment of Traffic Management Plan - high impact	$995.00	$1,050.00	$0.00	$1,050.00	RR
High impact Traffic Management Plans include situations where the primary form of traffic management will generally include road closures on Local, Regional or State classified roads. The fee includes Council's consultation with the NSW Police and Transport for NSW. Fee is calculated per Traffic Management Plan submission.					
Temporary road closure application	$160.00	$169.00	$0.00	$169.00	RR
Fee is calculated per temporary road closure application submitted.					
Advertising for temporary road closures	$1,120.00	$1,180.00	$0.00	$1,180.00	RR
Fee is calculated per temporary road closure processed.					
Erection of parking and regulatory signs	$257.00	$246.36	$24.64	$271.00	FC
Fee is applicable for erection for any parking or Regulatory sign necessary for the implementation of a Traffic Management Plan. Fee is calculated per sign. Even if more than one sign is placed on a sign post.					

Temporary Road Closures

Full Closure

Full road closure fees to be applied to any width of road.
Full road closures to be limited to the length of the property street frontage unless otherwise approved by Council.
Fee is based on the length of the closure or the length of the property street frontage, whichever is the higher.
Fee is based on the range of the Length of Closure (e.g. a 25m closure shall be charged at the 21m-40m fee).
No additonal cost for road closures over 80 metres.

Length of full road closure - 0m to 20m	$1,660.00	$1,750.00	$0.00	$1,750.00	RR
Length of full road closure - 21m to 40m	$2,030.00	$2,140.00	$0.00	$2,140.00	RR
Length of full road closure - 41m to 60m	$3,060.00	$3,230.00	$0.00	$3,230.00	RR
Length of full road closure - 61m to 80m	$3,480.00	$3,670.00	$0.00	$3,670.00	RR
Length of full road closure - greater than 80m	$4,350.00	$4,590.00	$0.00	$4,590.00	RR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Partial Closure					
Partial road closure fees shown are per lane fees. Total fee to be charged as a multiple of the number of lanes closed (maximum of 3 lanes). Partial road closures are limited to the length of the property street frontage unless otherwise approved by Council. Fee is based on the length of the closure or the length of the property street frontage, whichever is the higher. Fee is based on the range of the Length of Closure (e.g. a 25m closure shall be charged at the 21m-40m fee). No additional cost for road closures over 80 metres.					
Length of partial road closure - 0m to 20m	$374.00	$395.00	$0.00	$395.00	RR
Length of partial road closure - 21m to 40m	$580.00	$610.00	$0.00	$610.00	RR
Length of partial road closure - 41m to 60m	$795.00	$840.00	$0.00	$840.00	RR
Length of partial road closure - 61m to 80m	$1,010.00	$1,070.00	$0.00	$1,070.00	RR
Length of partial road closure - greater than 80m	$1,210.00	$1,280.00	$0.00	$1,280.00	RR
Construction Works Zone					
Urgency Fee to issue permits for processing construction work zone without required notice	$306.00	$322.00	$0.00	$322.00	LR
Note processing will be restricted by schedule of Traffic Committee regardless of the Urgency Fee (other components of processing will be completed quicker).					
Application fee for a Construction Works Zone	$910.00	$960.00	$0.00	$960.00	FC
This fee applies to the assessment of an application for a construction work zone or an application to amend an existing application or approval. Further fees apply if application is approved on the basis of the circumstances as outlined in this section. Fee is calculated as per application per site the construction zone applies to.					
Manage approved Construction Works Zone in a commercial centre	$257/lineal metre/month or part thereof **Last year fee** $245/lineal metre/month or part thereof				FC
This fee applies after the approval of a Construction Works Zone application. The fee Includes placement and removal of signage as approved for implementation. Fee is calculated as per lineal metre per month (or part thereof).					
Manage approved Construction Works Zone in a residential area	$94/lineal metre/month or part thereof **Last year fee** $89/lineal metre/month or part thereof				FC
This fee applies after the approval of a Construction Works Zone application. The fee Includes placement and removal of signage as approved for implementation. Fee is calculated as per lineal metre per month (or part thereof).					
Construction Work Zone within a parking meter area – additional fee	80% of current parking rate for the period in operation.				RR
This fee applies when the construction Works Zone is to be implemented within an area with parking meters administered by the City of Canada Bay Council. This fee is in addition to application and management charges. This fee is calculated as a percentage of the maximum daily potential parking revenue from parking meters within the Construction Works Zone for the period the Construction Works Zone is applied in days.					
Permits for Construction Activities Within the Road Reserve					
Urgency Fee to issue permits for construction activities within the Road Reserve without required notice	$305.29	$322.00	$0.00	$322.00	LR
Permit to Stand Plant	$515.00	$545.00	$0.00	$545.00	FC
This fee is calculated as per work area (limited to 1 road frontage per application) per day.					

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Permits for Construction Activities Within the Road Reserve [continued]

Application for a Crane Permit for activity over a roadway	$750.00	$750.00	$0.00	$750.00	FC
This fee applies to any site based crane that results in activity over a roadway. This includes cranes, such as tower or internal cranes based within private property that result in activity over a public road reserve. Fee is calculated as per crane per application.					

Skip Bins Roadside Placements

Application Fee Skip Bins	$430 deposit plus $430.00 per week (maximum 1 week placement)				FC

Hoardings

Ground Level Hoarding – Type A (Temporary fencing, where any part of the fencing structure occupies the Public Domain. A minimum period of 6 months, paid in advance, applies. Once this period is reached, additional payments shall be made for 3 months in advance). (Periods of less than 3 months can be resolved by negotiation).	$330 plus an additional $125/metre/month (frontage) or part thereof **Last year fee** $330 plus an additional $120/metre/month (frontage) or part thereof				FC
Overhead Hoarding – Type B (A minimum period of 6 months, paid in advance, applies. Once this period is reached, additional payments shall be made for 3 months in advance). (Periods of less than 3 months can be resolved by negotiation).	$600 plus an additional $155/metre/month (frontage) or part thereof **Last year fee** $600 plus an additional $150/metre/month (frontage) or part thereof				FC
Urgency fee for Application within three working days	$500.00	$530.00	$0.00	$530.00	RR

Occupy or Access Through a Public Space

Fees to occupy or access through a public space are subject to an onsite inspection between the applicant and Council staff.

- * A refundable damage bond is required based on the nature of the work being undertaken. The minimum damage deposit is $3,000 and up to $10,000.
- # Access is likely to be denied across a park or reserve and will only be granted in exceptional circumstances.

Application Fee for Electric Vehicle Charging Infrastructure	$1,000.00	$1,000.00	$0.00	$1,000.00	FC
An application fee of $1,000 is proposed for requests to install Electric Vehicle Charging Infrastructure (EVCI) on Council property in accordance with Council resolution 221/23, Agenda Item 9.3 of 19 September 2023.					
Application Fee to Access Through or Occupy Public Space (Non Refundable)	$324.00	$342.00	$0.00	$342.00	RR
Urgency fee for Application within three working days	$432.00	$456.00	$0.00	$456.00	RR
Refundable Bond Associated with access to private property via council land (Park/Reserve/Public Land)#	$10,000.00	$10,000.00	$0.00	$10,000.00	RR
Public Open Space (per week) (Park, Reserves or Public Land)*	$3,180.00	$3,360.00	$0.00	$3,360.00	RR
Road Reserve (per m2 per week) (inclusive of footpaths)*	$18.00	$19.00	$0.00	$19.00	RR
Approval of Using Unused Roads				Fee negotiated	FC
Footpath Area (per m2 per week) (inclusive of Nature strips)*	$18.00	$19.00	$0.00	$19.00	RR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Parking Management

Cabarita Park and Bayview Park Parking Permits

PARKING PERMITS FOR CABARITA PARK AND BAYVIEW PARK
For more information about parking permits for Cabarita Park and Bayview Park please refer to the following link - www.canadabay.nsw.gov.au/community/parking-and-transport/parking-and-permits

Delivery of parking permit/s using Registered Post	$11.00	$11.60	$0.00	$11.60	FC
Fee is calculated on the number of mail items required. Multiple parking permits can be mailed to the one address for one fee if all the permits are requested at the same time.					
1st and 2nd Park Parking Permit (Per rateable property within the Council area)	$0.00	$0.00	$0.00	$0.00	Z
Additional Park Parking Permit (Per rateable property within the Council area)	$268.00	$283.00	$0.00	$283.00	FC
Park Parking Permit (Non-Residents & Non-Ratepayers)	$268.00	$283.00	$0.00	$283.00	FC
Replacement Permit	$45.60	$48.20	$0.00	$48.20	FC
Replacement Permit – Pensioners	$22.80	$24.10	$0.00	$24.10	PC

On-Street Parking Permit

ON-STREET PARKING PERMIT WITHIN CITY OF CANADA BAY
The issue of street parking permits is subject to eligibility criteria, and in particular the number of off street parking spaces available at the place of residence. Resident pensioners are entitled to a 50% reduction in the published fees for resident On-Street Parking Permits and replacement On-Street Parking Permits. For more information about parking permits for on-street parking permits please refer to the following link - www.canadabay.nsw.gov.au/community/parking-and-transport/parking-and-permits

Residence with no eligible onsite parking space

Residence with no eligible onsite parking space - 1st on street resident parking permit	$0.00	$0.00	$0.00	$0.00	Z
Residence with no eligible onsite parking space - 2nd on street resident parking permit	$0.00	$0.00	$0.00	$0.00	Z
Residence with no eligible onsite parking space - 3rd on street resident parking permit	$75.00	$79.00	$0.00	$79.00	PC

Residence with 1 eligible onsite parking space

Residence with 1 eligible onsite parking space - 1st on street resident parking permit	$0.00	$0.00	$0.00	$0.00	Z
Residence with 1 eligible onsite parking space - 2nd on street resident parking permit	$75.00	$79.00	$0.00	$79.00	PC
Residence with 1 eligible onsite parking space - 3rd on street resident parking permit	Not eligible for Residential Parking Permit.				Z

Residence with 2 eligible onsite parking spaces

Residence with 2 eligible onsite parking spaces - 1st on street resident parking permit	$0.00	$0.00	$0.00	$0.00	Z
Residence with 2 eligible onsite parking spaces - 2nd and 3rd on street resident parking permit	Not eligible for Residential Parking Permit.				Z

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code
Residence with 3 or more eligible onsite parking spaces					
Residence with 3 or more eligible onsite parking spaces - on street resident parking permit	Not eligible for Residential Parking Permit.				Z
Business Parking Permits					
https://www.canadabay.nsw.gov.au/community/parking-and-transport/parking-and-permits					
Business Parking Permit Area 1 to 5	$30 per permit per month or part thereof, minimum 2 months **Last year fee** $270 per year for 1st permit and $535 per year for 2nd permit				FC
Business Parking Permit Five Dock - Area 6	Free **Last year fee** $270 per year for 1st permit and $535 per year for 2nd permit				FC
On-Street Parking Permits – Other					
Delivery of Parking Permit/s using Registered Post	$11.00	$11.60	$0.00	$11.60	FC
Fee is calculated on the number of mail items required. Multiple parking permits can be mailed to the one address for one fee if all the permits are requested at the same time.					
Visitor Parking Permit – Limited to 1 only per residence	$0.00	$0.00	$0.00	$0.00	Z
Replacement Resident and Business Parking Permit	$30.60	$35.00	$0.00	$35.00	FC
Replacement Resident Parking Permit for pensioner	$15.30	$17.50	$0.00	$17.50	FC
Car Share Parking					
Trial car share parking space installation	$555.00	$585.00	$0.00	$585.00	FC
A trial of a car share space is required before permanent installation. Fee is calcuated as per car share parking space.					
Permanent car share parking space installation	$1,270.00	$1,340.00	$0.00	$1,340.00	FC
Applicable only after successful trial - includes linemarking and signposting. Fee is calculated per car share parking space.					
Car share parking space administration	$279.00	$295.00	$0.00	$295.00	FC
Includes all parking spaces, including those in parking meter areas. Fee is calculated as per car share parking space per year.					
Car share space in ticket parking area - additional fee	$965.00	$1,020.00	$0.00	$1,020.00	FC
This fee is in addition to the yearly administrative fee to recognise lost revenue in parking meter area. Fee is calculated as per car share parking space per year.					
Free Parking Agreements					
Less than 20 Parking Bays	$750.00	$790.00	$0.00	$790.00	RR
21 to 50 Parking Bays	$1,500.00	$1,580.00	$0.00	$1,580.00	RR
51 or More Parking Bays	$2,450.00	$2,590.00	$0.00	$2,590.00	RR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Pay Parking Locations

For more information about Council's On-Street Pay Parking please refer to the following link - www.canadabay.nsw.gov.au/community/parking-and-transport/parking-and-permits

Cabarita Park and Bayview Park (All Days)	$4.20/hr up to 3 hrs, then $2.10/hr up to 24 hrs max. **Last year fee** $4.00/hr up to 3 hrs, then $2.00/hr up to 24 hrs max.				FC
Rider Boulevard and Hospital Road (All Days) Per Hour	$4.00	$3.82	$0.38	$4.20	FC
Everton Road (Weekdays) Per Hour	$4.00	$3.82	$0.38	$4.20	FC
Everton Road (Weekends and public holidays) Per Hour	$2.00	$1.91	$0.19	$2.10	FC

Tree Management

Tree Preservation

Tree Permit Application Appeal fee	$249.00	$263.00	$0.00	$263.00	FC

Residential (Non-Strata)

Application for up to 2 trees (per tree dead or alive)	$91.00	$96.00	$0.00	$96.00	FC
Application for 3 trees (dead or alive)	$225.00	$238.00	$0.00	$238.00	FC
for each tree (dead or alive) in excess of 3 per property	$27.00	$28.50	$0.00	$28.50	FC

Eligible Pensioner - Residential Non-Strata Only

Application up to 2 trees (per tree dead or alive)	$45.20	$47.70	$0.00	$47.70	FC
Application for 3 Trees (dead or alive)	$112.00	$118.00	$0.00	$118.00	FC
for each tree (dead or alive) in excess of 3 trees per property	$13.50	$14.50	$0.00	$14.50	FC

Commercial Organisations and Other

Application up to 2 trees (per tree dead or alive)	$182.00	$192.00	$0.00	$192.00	RR
Application for 3 trees (dead or alive)	$450.00	$475.00	$0.00	$475.00	RR
for each tree (dead or alive) in excess of 3 trees per property	$53.50	$56.50	$0.00	$56.50	RR

Re-inspection of residential re-planting

Application for up to 2 trees (per tree dead or alive)	$0.00	$96.00	$0.00	$96.00	FC
Application for 3 trees (dead or alive)	$0.00	$238.00	$0.00	$238.00	FC
For each tree (dead or alive) in excess of 3 per property	$0.00	$28.50	$0.00	$28.50	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Waste Management Charges

Residential Waste Charges

Residential waste service inclusions

- Waste
- Recycling
- Garden organics
- Bulk household
- Chemical Clean Out
- E-waste Drop Off event
- Community Recycling Centre
- Recycling stations
- Illegal dumping
- Community engagement and education
- Strategic planning and advocacy
- Future proofing
- Corporate overheads

Residential Waste Standard Service

A Waste Management Charge will be levied on all domestic residential properties, entitling each property to the standard residential service which includes the following:

Residential Standard: 1 x 120L Waste (weekly) + 1 x 240L Recycling (fortnightly) + 1 x 240L Garden Organics Bins (fortnightly) + 2 x Bulk Household Collections per annum	$439.00	$460.00	$0.00	$460.00	FC

Residential Large Waste Service

Residents may apply to have their Residential Standard Waste Service replaced by a Residential Large Waste Service. This service includes the following:

Residential Large: 1 x 240L Waste (weekly) + 1 x 240L Recycling (fortnightly) + 1 x 240L Garden Organics Bins (fortnightly) + 2 x Bulk Household Collections per annum	$714.00	$749.00	$0.00	$749.00	FC
Residential Large (ECO option): 1 x 240L Waste (weekly) + 2 x 240L Recycling (fortnightly) + 1 x 240L Garden Organics Bins (fortnightly) + 2 x Bulk Household Collections per annum	$760.00	$797.00	$0.00	$797.00	FC

Residential Waste Additional Services

Upon application for additional services, an additional Waste Management Charge will be levied on a property for any additional bins. Each application for an additional service will be considered separately by Council's waste team and upon approval each property will be entitled to the additional services. The following additional services may be applied for:

Residential Extra Recycling - 1 x 240L (fortnightly)	$46.50	$57.00	$0.00	$57.00	FC
Residential Extra Garden Organics - 1 x 240L (fortnightly)	$59.00	$62.00	$0.00	$62.00	FC
Residential MUD Extra Recycling - 1 x 240L (weekly)	$93.00	$114.00	$0.00	$114.00	Z
Residential MUD Extra Recycling - 1 x 660L (weekly)	$265.00	$324.00	$0.00	$324.00	RR
Residential MUD Extra Recycling - 1 x 1100L (weekly)	$367.00	$448.00	$0.00	$448.00	RR
Residential MUD additional 660L: 1 x 660L Waste (weekly) + 1 x 660L Recycling (weekly)	$1,255.00	$1,532.00	$0.00	$1,532.00	FC

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Residential Waste Additional Services [continued]

Residential MUD additional 1100L: 1 x 1100L Waste (weekly) + 1 x 1100L Recycling (weekly)	$1,960.00	$2,392.00	$0.00	$2,392.00	FC

Boarding House Residential Waste Charge

Boarding House Residential Waste Charge - First 2 Residential Units/Rooms	$439.00	$460.00	$0.00	$460.00	FC
Boarding House Residential Waste Charge - For Each Additional Residential Unit/Room	$190.00	$200.00	$0.00	$200.00	FC

Residential Vacant lots

Residential properties where a dwelling has been demolished for the purpose of constructing a new dwelling may be eligible for a rebate of approx. 75% off the Domestic Waste Management Charge.
Upon application and approval this rebate will be applied for periods where the service will be removed by Council.

Waste Management Vacant Block	$111.00	$117.00	$0.00	$117.00	FC

Non-rateable properties

Upon application Council may provide non-rateable properties (including schools, churches, non-profit and/or community organisations) with a waste service at rates detailed in the table below.

Non-rateable Standard: 1 x 120L waste (weekly) 1 x 240L recycling (fortnightly) 1 x 240L garden organics (fortnightly)	$561.00	$592.50	$0.00	$592.50	RR
Non-rateable Large: 1 x 240L waste (weekly) 1 x 240L recycling (fortnightly) 1 x 240L garden organics (fortnightly)	$1,030.00	$1,090.00	$0.00	$1,090.00	RR
Non Rateable Large (ECO option): 1 x 240L waste (weekly) 2 x 240L recycling (fortnightly) 1 X 240L garden organics (fortnightly)	$1,112.00	$1,174.50	$0.00	$1,174.50	RR
Non-rateable 660L: 1 x 660L waste (weekly) 1 x 660L recycling (fortnightly) 1 x 240L garden organics (fortnightly)	$1,561.00	$1,648.50	$0.00	$1,648.50	RR
Non-rateable 1100L: 1 x 1100L waste (weekly) 1 x 1100L recycling (fortnightly) 1 x 240L garden organics (fortnightly)	$2,460.00	$2,598.00	$0.00	$2,598.00	RR
Non Rateable Extra Recycling - 1 x 240L (fortnightly)	$133.00	$163.00	$0.00	$163.00	RR
Non Rateable Extra Recycling - 1 x 660L (fortnightly)	$354.00	$432.00	$0.00	$432.00	RR
Non Rateable Extra Recycling - 1 x 1100L (fortnightly)	$490.00	$598.00	$0.00	$598.00	FC
Non Rateable Extra Garden Organics - 1 x 240L (fortnightly)	$173.00	$183.00	$0.00	$183.00	RR
Non Rateable Extra Waste - 1 x 240L (weekly)	$1,015.00	$1,072.00	$0.00	$1,072.00	RR

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Fee Description	Year 23/24 Fee incl. GST	Year 24/25 Fee excl.	GST	Fee incl.	Pricing Code

Commercial Waste Charges

Where an application is received and approved for a commercial service, a Waste Management Charge will be levied on the commercial (business) property rates to collect the applicable fee. The service for Commercial properties is optional and owners/occupiers may use Council's waste and recycling collection service or a private collection contractor. Council's service entitles each property to a weekly collection of waste and fortnightly collection of recyclables. These premises will be levied with one or more of the following charges depending upon the service/bin type(s) requested.

Commercial Waste Standard Service

Commercial Standard: 1 x 120L Waste (weekly) + 1 x 240L Recycling (fortnightly)	$561.00	$592.50	$0.00	$592.50	RR
Commercial Large: 1 x 240L Waste (weekly) + 1 x 240L Recycling (fortnightly)	$1,030.00	$1,090.00	$0.00	$1,090.00	RR
Commercial Large (ECO option): 1 x 240L waste (weekly) 2 x 240L recycling (fortnightly)	$1,112.00	$1,174.50	$0.00	$1,174.50	RR
Commercial 660L: 1 x 660L waste (weekly) 1 x 660L recycling (fortnightly)	$1,561.00	$1,648.50	$0.00	$1,648.50	RR
Commercial 1100L: 1 x 1100L waste (weekly) 1 x 1100L recycling (fortnightly)	$2,460.00	$2,598.00	$0.00	$2,598.00	RR

Commercial Additional Services

Commercial Extra Recycling - 1 x 240L (fortnightly)	$133.00	$163.00	$0.00	$163.00	RR
Commercial Extra Recycling - 1 x 660L (fortnightly)	$354.00	$432.00	$0.00	$432.00	RR
Commercial Extra Recycling - 1 x 1100L (fortnightly)	$490.00	$598.00	$0.00	$598.00	FC
Commercial Garden Organics - 1 x 240L (fortnightly)	$173.00	$183.00	$0.00	$183.00	RR
Commercial Extra Waste - 1 x 240L (weekly)	$1,015.00	$1,072.00	$0.00	$1,072.00	RR

Waste Services for Council Facilities, Parks & Special Events

1 x 240L Waste + 1 x 240L Recycling Bin per set Monday to Sunday	$45.00	$43.18	$4.32	$47.50	FC
Cost of replacement bin if damage occurs (each)	$133.00	$127.27	$12.73	$140.00	FC

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Attachment 2 – Investment Report MAY 2024

INVESTMENT
REPORT
MAY 2024

INVESTMENT REPORT MAY 2024

0BInvestment Report MAY 2024

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May 2024 Investment Report

Statement of Cash Investments as of 31 May 2024

STATEMENT OF CASH INVESTMENTS							
Maturity Date	Bank/Issuer	Long Term Rating	Fair Value	Term	Interest	Issue Date	Investment Type
06/06/24	Commonwealth Bank of Australia	AA-	$2,000,000.00	244	5.01%	06/10/23	Term Deposits
13/06/24	Bank of Queensland	A-	$2,000,000.00	266	5.25%	21/09/23	Term Deposits
18/06/24	ING Direct	A	$3,000,000.00	32	4.51%	17/05/24	Term Deposits
20/06/24	Commonwealth Bank of Australia	AA-	$2,500,000.00	266	5.25%	28/09/23	Term Deposits
24/06/24	Commonwealth Bank of Australia	AA-	$3,000,000.00	61	4.55%	24/04/24	Term Deposits
27/06/24	Commonwealth Bank of Australia	AA-	$2,000,000.00	258	5.07%	13/10/23	Term Deposits
27/06/24	Commonwealth Bank of Australia	AA-	$2,000,000.00	223	5.23%	17/11/23	Term Deposits
27/06/24	National Australia Bank	AA-	$2,000,000.00	112	5.07%	07/03/24	Term Deposits
04/07/24	Commonwealth Bank of Australia	AA-	$1,000,000.00	279	5.28%	29/09/23	Term Deposits
04/07/24	Commonwealth Bank of Australia	AA-	$2,500,000.00	259	5.19%	19/10/23	Term Deposits
04/07/24	Commonwealth Bank of Australia	AA-	$2,000,000.00	174	4.88%	12/01/24	Term Deposits
11/07/24	Commonwealth Bank of Australia	AA-	$2,500,000.00	252	5.31%	02/11/23	Term Deposits
11/07/24	National Australia Bank	AA-	$1,000,000.00	118	5.07%	15/03/24	Term Deposits
18/07/24	Commonwealth Bank of Australia	AA-	$3,000,000.00	252	5.30%	09/11/23	Term Deposits
25/07/24	National Australia Bank	AA-	$2,000,000.00	196	5.10%	11/01/24	Term Deposits
01/08/24	Commonwealth Bank of Australia	AA-	$2,000,000.00	195	4.91%	19/01/24	Term Deposits
08/08/24	National Australia Bank	AA-	$2,000,000.00	196	5.15%	25/01/24	Term Deposits
15/08/24	National Australia Bank	AA-	$2,000,000.00	196	5.08%	01/02/24	Term Deposits
22/08/24	ING Direct	A	$3,000,000.00	365	5.37%	23/08/23	Term Deposits
29/08/24	Commonwealth Bank of Australia	AA-	$3,000,000.00	241	4.99%	29/05/23	Term Deposits
05/09/24	Bank of Queensland	A-	$2,000,000.00	274	5.39%	06/12/23	Term Deposits
12/09/24	Bank of Queensland	A-	$3,000,000.00	287	5.40%	30/11/23	Term Deposits
19/09/24	National Australia Bank	AA-	$2,000,000.00	223	5.20%	09/02/24	Term Deposits
26/09/24	National Australia Bank	AA-	$2,000,000.00	217	5.13%	22/02/24	Term Deposits
03/10/24	National Australia Bank	AA-	$3,000,000.00	217	5.11%	29/02/24	Term Deposits
10/10/24	Suncorp	A+	$2,000,000.00	219	5.16%	05/03/24	Term Deposits
17/10/24	Suncorp	A+	$2,000,000.00	224	5.14%	07/03/24	Term Deposits
23/10/24	National Australia Bank	AA-	$5,000,000.00	183	5.10%	23/04/24	Term Deposits
07/11/24	National Australia Bank	AA-	$2,000,000.00	230	5.08%	22/03/24	Term Deposits
14/11/24	Suncorp	A+	$3,000,000.00	181	5.18%	17/05/24	Term Deposits
21/11/24	Commonwealth Bank of Australia	AA-	$1,500,000.00	363	5.39%	24/11/23	Term Deposits
29/11/24	Auswide Bank	BBB	$2,000,000.00	366	5.67%	29/11/23	Term Deposits
16/01/25	Suncorp	A+	$3,000,000.00	244	5.19%	17/05/24	Term Deposits
23/01/25	National Australia Bank	AA-	$5,000,000.00	275	5.10%	23/04/24	Term Deposits
13/03/25	National Australia Bank	AA-	$3,000,000.00	300	5.20%	17/05/24	Term Deposits
24/03/25	ING Direct	A	$4,000,000.00	335	5.20%	23/04/24	Term Deposits
23/04/25	ING Direct	A	$4,000,000.00	365	5.21%	23/04/24	Term Deposits
19/05/25	ING Direct	A	$3,000,000.00	367	5.23%	17/05/24	Term Deposits
16/02/26	National Australia Bank	AA-	$2,000,000.00	731	1.04%	16/02/21	Term Deposits
21/10/24	Westpac Bank	AA-	$1,500,000.00	182	5.25%	20/10/23	ESG TD
30/10/24	Westpac Bank	AA-	$1,000,000.00	183	5.41%	30/10/23	ESG TD
14/11/24	Westpac Bank	AA-	$1,500,000.00	185	1.62%	12/11/21	ESG TD
02/12/24	Westpac Bank	AA-	$1,500,000.00	273	1.62%	03/12/21	ESG TD
17/02/25	Westpac Bank	AA-	$2,000,000.00	273	2.02%	18/02/22	ESG TD
24/02/25	Westpac Bank	AA-	$2,500,000.00	273	2.10%	25/02/22	ESG TD
20/11/25	Westpac Bank	AA-	$1,500,000.00	549	1.87%	19/11/21	ESG TD
17/02/26	Westpac Bank	AA-	$2,500,000.00	638	2.24%	18/02/22	ESG TD
24/02/26	Westpac Bank	AA-	$2,000,000.00	638	2.31%	25/02/22	ESG TD
03/03/26	Westpac Bank	AA-	$2,000,000.00	729	2.22%	04/03/22	ESG TD
29/08/24	ANZ Bank	AA-	$1,500,000.00	92	5.11%	29/08/19	Floating Rate Notes
14/11/24	Citibank	A+	$1,000,000.00	184	5.25%	14/11/19	Floating Rate Notes
12/02/25	Macquarie Bank	A+	$2,000,000.00	275	5.21%	12/02/20	Floating Rate Notes
06/05/25	Royal Bank of Canada	AA-	$1,000,000.00	364	5.12%	06/05/22	Floating Rate Notes
17/10/25	Suncorp Covered	AAA	$1,000,000.00	548	5.24%	17/10/22	Floating Rate Notes
09/12/25	Macquarie Bank	A+	$2,000,000.00	638	4.83%	02/06/21	Floating Rate Notes
13/01/26	Commonwealth Bank of Australia	AA-	$1,500,000.00	638	5.25%	13/01/23	Floating Rate Notes
24/02/26	RACQ Bank	BBB+	$2,300,000.00	641	5.84%	24/02/23	Floating Rate Notes
15/05/26	Bendigo and Adelaide Bank	A-	$1,000,000.00	730	5.62%	15/05/23	Floating Rate Notes
15/06/26	Teachers Mutual Bank	BBB+	$850,000.00	819	5.03%	16/06/21	Floating Rate Notes
19/08/26	ING Bank Covered	AAA	$500,000.00	821	4.74%	19/08/21	Floating Rate Notes
14/09/26	Macquarie Bank	A+	$1,600,000.00	914	5.19%	14/09/23	Floating Rate Notes
23/12/26	Commonwealth Bank of Australia	AA-	$2,000,000.00	1003	4.76%	23/09/21	ESG FRN
22/03/27	ING Direct	A	$1,000,000.00	1095	5.30%	22/03/24	Floating Rate Notes
14/05/27	Bendigo and Adelaide Bank	A-	$800,000.00	1095	5.37%	14/05/24	Floating Rate Notes
18/08/27	Commonwealth Bank of Australia	AA-	$1,100,000.00	1185	5.36%	18/08/22	Floating Rate Notes
13/01/28	Commonwealth Bank of Australia	AA-	$1,500,000.00	1368	5.50%	13/01/23	Floating Rate Notes
19/01/28	Rabobank	A+	$1,000,000.00	1370	5.54%	19/01/23	Floating Rate Notes
16/02/28	Westpac Bank	AA-	$1,000,000.00	1371	5.33%	16/02/23	Floating Rate Notes
09/05/28	Bank of Queensland Covered	AAA	$1,250,000.00	1461	5.58%	09/05/23	Floating Rate Notes
17/08/28	Commonwealth Bank of Australia	AA-	$1,250,000.00	1553	5.30%	17/08/23	Floating Rate Notes
15/12/24	NTTC	AA-	$2,000,000.00	1206	1.00%	27/08/21	Fixed Rate Bond
15/06/25	NTTC	AA-	$2,000,000.00	1496	1.10%	11/05/21	Fixed Rate Bond
18/08/25	Commonwealth Bank of Australia	AA-	$1,500,000.00	1096	4.20%	18/08/22	Fixed Rate Bond
24/08/26	Suncorp Covered	AAA	$2,000,000.00	1587	3.25%	20/04/22	Fixed Rate Bond
	AMP Bank	BBB+	$16,000,000.00		5.20%		AMP
	AMP Bank	BBB+	$1,000.00		3.30%		AMP
	Macquarie Bank	A+	$2,007,898.63		4.65%		Macquarie CMA
	Macquarie Bank	A+	$15,971.08		4.15%		Macquarie CMA
	Commonwealth Bank of Australia	AA-	$1,863,392.30		4.35%		CBA BOS
	31/05/24		$170,538,262.01				
	TOTAL INVESTMENTS at 30/04/2024		$168,247,396.09				
	Net Increase/(Decrease) in Investments		$2,290,865.92				

Certificate of the Responsible Accounting Officer

I certify that as at the date of this report, the investments listed have been made and are held in compliance with Council's Investment Policy and applicable legislation.

Evan Hutchings

Date: 05 Jun 2024

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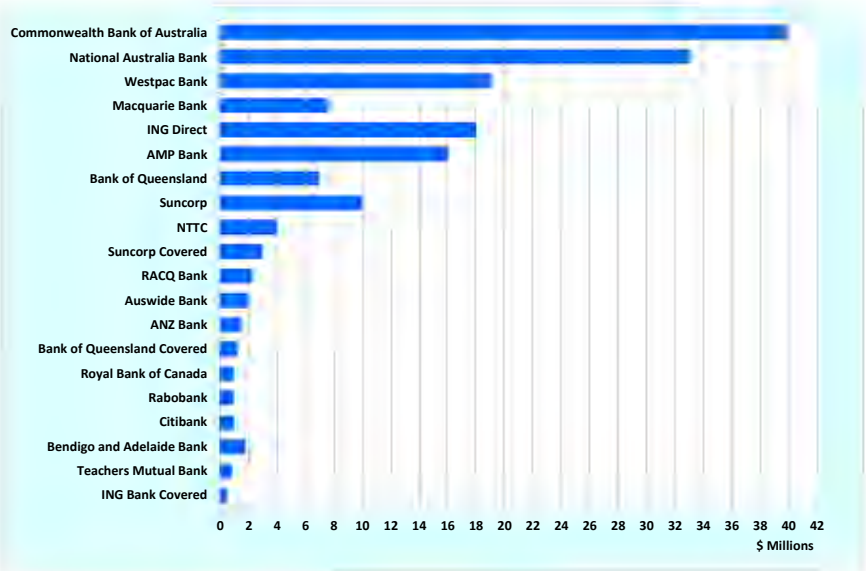
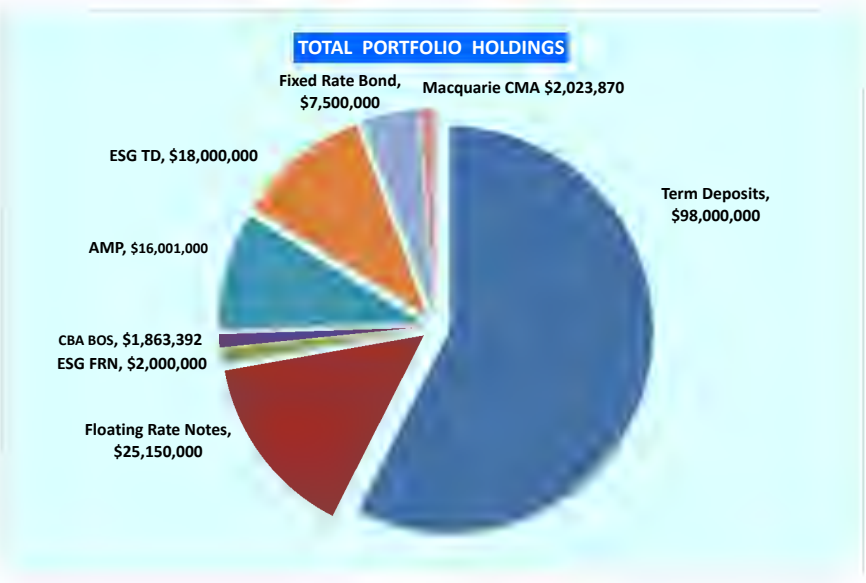
Total Investment Deposits by Institution as of 31 May 2024





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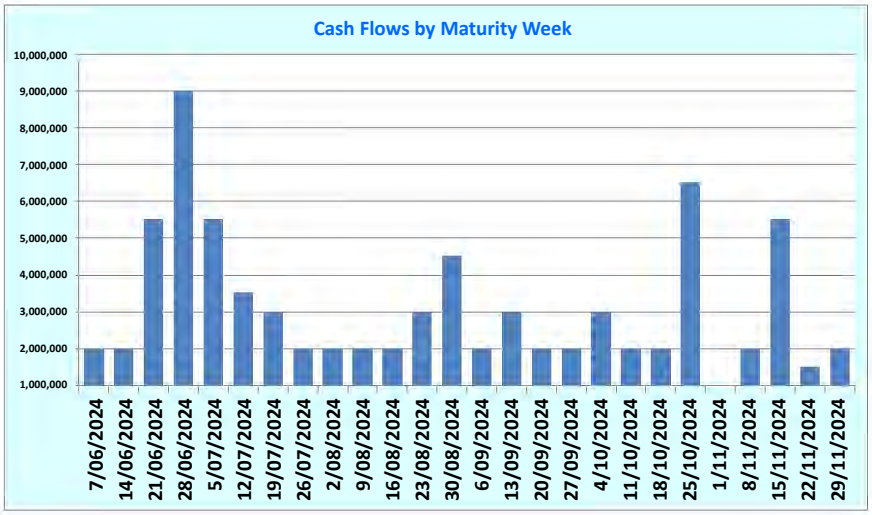
Weekly cash flow forecast for 6 months as of 31 May 2024



Individual Counterparty Limits for Term Deposits, Fixed Rate Notes, Floating Rate TDs, and FRNs as per Council Investment Policy

LT Ratings	ADI	Policy Limit	% of Portfolio
AAA	ING Bank Covered	45%	0.29%
	Bank of Queensland Covered	45%	0.73%
	Suncorp Covered	45%	1.76%
AA-	Royal Bank of Canada	45%	0.59%
	ANZ Bank	45%	0.88%
	NTTC	45%	2.35%
	Westpac Bank	45%	11.14%
	National Australia Bank	45%	19.35%
	Commonwealth Bank of Australia	45%	23.29%
A+	Rabobank	30%	0.59%
	Citibank	30%	0.59%
	Macquarie Bank	30%	4.47%
	Suncorp	30%	5.86%
A	ING Direct	30%	10.55%
A-	Bendigo and Adelaide Bank	20%	1.06%
	Bank of Queensland	20%	4.10%
BBB+	RACQ Bank	10%	1.35%
	AMP Bank	10%	9.38%
	Teachers Mutual Bank	10%	0.50%
BBB	Auswide Bank	5%	1.17%
	Total Portfolio		**100.00%**

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Counter Party Class Limits for Term Deposits, Fixed Rate Notes, Floating Rate TDs, and FRNs as per Council's Investment Policy (excluding At Call Deposits)

Type Long Term	Holdings	Policy Limit	% Portfolio
AAA	$4,750,000.00	45%	2.79%
AA-	$98,213,392.30	45%	57.59%
A+	$19,623,869.71	30%	11.51%
A	$18,000,000.00	30%	10.55%
A-	$8,800,000.00	20%	5.16%
BBB+	$19,151,000.00	10%	11.23%
BBB	$2,000,000.00	5%	1.17%
NR	$0.00	0%	0.00%
Total	**$170,538,262.01**		**100.00%**

Investment Transactions during May 2024

Date	Transaction	Bank/Issuer	Type	Term	Int Rate	Amount	Interest Paid
30/04/2024	Balance	Investment Balance Fair Value				$168,247,396.09	
2/05/2024	Maturity	Commonwealth Bank of Australia	Term Deposits	237	5.19%	($3,000,000.00)	$104,084.38
7/05/2024	Reset	Royal Bank of Canada	Floating Rate Notes	455	5.05%	($1,000,000.00)	$12,584.68
7/05/2024	Reset	Royal Bank of Canada	Floating Rate Notes	364	5.12%	$1,000,000.00	
9/05/2024	Reset	Bank of Queensland Covered	Floating Rate Notes	1551	5.54%	($1,250,000.00)	$17,086.44
9/05/2024	Reset	Bank of Queensland Covered	Floating Rate Notes	1461	5.58%	$1,250,000.00	
9/05/2024	Maturity	National Australia Bank	Term Deposits	244	5.15%	($2,000,000.00)	$68,854.80
13/05/2024	Reset	Macquarie Bank	Floating Rate Notes	366	5.19%	($2,000,000.00)	$25,864.94
13/05/2024	Reset	Macquarie Bank	Floating Rate Notes	275	5.21%	$2,000,000.00	
13/05/2024	Reset	Westpac Bank	ESG TD	276	1.62%	($1,500,000.00)	$6,058.36
13/05/2024	Reset	Westpac Bank	ESG TD	185	1.62%	$1,500,000.00	
14/05/2024	Purchase	Bendigo and Adelaide Bank	Floating Rate Notes	1095	5.37%	$800,000.00	
14/05/2024	Reset	Citibank	Floating Rate Notes	274	5.23%	($1,000,000.00)	$12,885.78
14/05/2024	Reset	Citibank	Floating Rate Notes	184	5.25%	$1,000,000.00	
15/05/2024	Reset	Bendigo and Adelaide Bank	Floating Rate Notes	820	5.60%	($1,000,000.00)	$13,802.30
15/05/2024	Reset	Bendigo and Adelaide Bank	Floating Rate Notes	730	5.62%	$1,000,000.00	
16/05/2024	Maturity	National Australia Bank	Term Deposits	251	5.15%	($2,000,000.00)	$70,830.14
17/05/2024	Purchase	ING Direct	Term Deposits	32	4.51%	$3,000,000.00	
17/05/2024	Purchase	Suncorp	Term Deposits	181	5.18%	$3,000,000.00	
17/05/2024	Purchase	Suncorp	Term Deposits	244	5.19%	$3,000,000.00	
17/05/2024	Purchase	National Australia Bank	Term Deposits	300	5.20%	$3,000,000.00	
17/05/2024	Purchase	ING Direct	Term Deposits	367	5.23%	$3,000,000.00	
17/05/2024	Reset	Commonwealth Bank of Australia	Floating Rate Notes	1641	5.29%	($1,250,000.00)	$15,942.47
17/05/2024	Reset	Commonwealth Bank of Australia	Floating Rate Notes	1553	5.30%	$1,250,000.00	
17/05/2024	Reset	Westpac Bank	Floating Rate Notes	1461	5.32%	($1,000,000.00)	$13,112.88
17/05/2024	Reset	Westpac Bank	Floating Rate Notes	1371	5.33%	$1,000,000.00	
20/05/2024	Reset	Commonwealth Bank of Australia	Floating Rate Notes	1276	5.36%	($1,100,000.00)	$14,699.62
20/05/2024	Reset	Commonwealth Bank of Australia	Floating Rate Notes	1185	5.36%	$1,100,000.00	
20/05/2024	Reset	ING Bank Covered	Floating Rate Notes	912	4.74%	($500,000.00)	$5,908.77
20/05/2024	Reset	ING Bank Covered	Floating Rate Notes	821	4.74%	$500,000.00	
20/05/2024	Reset	Westpac Bank	ESG TD	729	2.24%	($2,500,000.00)	$13,961.64
20/05/2024	Reset	Westpac Bank	ESG TD	638	2.24%	$2,500,000.00	
20/05/2024	Reset	Westpac Bank	ESG TD	364	2.02%	($2,000,000.00)	$10,072.33
20/05/2024	Reset	Westpac Bank	ESG TD	273	2.02%	$2,000,000.00	
20/05/2024	Reset	Westpac Bank	ESG TD	640	1.87%	($1,500,000.00)	$6,993.29
20/05/2024	Reset	Westpac Bank	ESG TD	549	1.87%	$1,500,000.00	
23/05/2024	Maturity	National Australia Bank	Term Deposits	231	5.14%	($2,000,000.00)	$65,059.73
27/05/2024	Reset	Westpac Bank	ESG TD	729	2.31%	($2,000,000.00)	$11,518.36
27/05/2024	Reset	Westpac Bank	ESG TD	638	2.31%	$2,000,000.00	
27/05/2024	Reset	Westpac Bank	ESG TD	364	2.10%	($2,500,000.00)	$13,089.04
27/05/2024	Reset	Westpac Bank	ESG TD	273	2.10%	$2,500,000.00	
27/05/2024	Reset	RACQ Bank	Floating Rate Notes	729	5.84%	($2,300,000.00)	$32,359.60
27/05/2024	Reset	RACQ Bank	Floating Rate Notes	641	5.84%	$2,300,000.00	
29/05/2024	Maturity	Commonwealth Bank of Australia	Term Deposits	366	5.03%	($3,000,000.00)	$151,313.42
29/05/2024	Reset	ANZ Bank	Floating Rate Notes	182	5.11%	($1,500,000.00)	$18,881.51
29/05/2024	Reset	ANZ Bank	Floating Rate Notes	92	5.11%	$1,500,000.00	
	Activity	Macquarie Bank	At Call (Macquarie)		4.65%	$7,898.63	$7,898.63
	Activity	Macquarie Bank	At Call (Macquarie)		4.15%	($7,506,060.58)	$15,971.08
	Activity	CBA Business Online Saver	CBA (BOS)		4.35%	$6,638.53	$6,638.53
	Activity	AMP Bank 31Day Notice	At Call (AMP)		5.20%	$5,982,573.62	$23,153.93
	Activity	AMP Business Saver	At Call (AMP)		3.30%	($184.28)	$3.21
31/05/2024		EOM Balance			Total	$170,538,262.01	$758,624.86

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Total Interest Received during May 2024

Ledger Account	Type	May
102623-1465-40068	Investments	$704,964.48
102623-1465-40067	At Call Accounts	$53,665.38
	Sub-Total	**$758,629.86**
102623-1465-40066	General Bank Account	$12,819.26
	Total	**$771,449.12**

Fossil Fuel Allocation (Green Funding) as at 31 May 2024

Sum of Fair Value		
Funding Fossil Fuel	Bank/Issuer	Total
Funding Fossil Fuel	Commonwealth Bank of Australia	39,713,392.30
	National Australia Bank	33,000,000.00
	Westpac Bank	19,000,000.00
	ING Direct	18,000,000.00
	AMP Bank	16,001,000.00
	Macquarie Bank	7,623,869.71
	NTTC	4,000,000.00
	ANZ Bank	1,500,000.00
	Rabobank	1,000,000.00
	Citibank	1,000,000.00
	ING Bank Covered	500,000.00
Funding Fossil Fuel Total		**141,338,262.01**
Not Funding Fossil Fuel	Suncorp	10,000,000.00
	Suncorp Covered	3,000,000.00
	RACQ Bank	2,300,000.00
	Auswide Bank	2,000,000.00
	Bendigo and Adelaide Bank	1,800,000.00
	Royal Bank of Canada	1,000,000.00
	Teachers Mutual Bank	850,000.00
Not Funding Fossil Fuel Total		**20,950,000.00**
Phasing out funding of fossil fuel	Bank of Queensland	7,000,000.00
	Bank of Queensland Covered	1,250,000.00
Phasing out funding of fossil fuel Total		**8,250,000.00**
Grand Total		170,538,262.01

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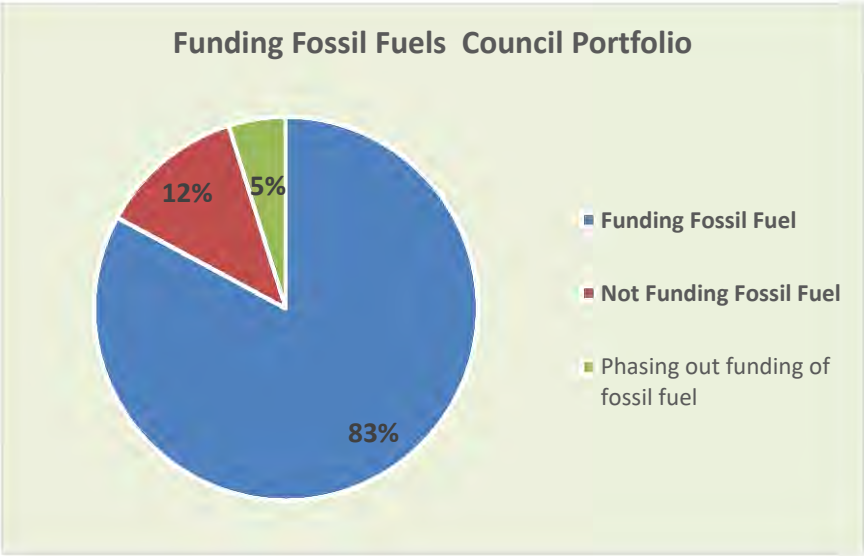

Statement of Consolidated Cash and Investments as of 31 May 2024

Consolidated Cash & Investments		
Cash & Investments		
Cash At Bank as at 31 May 2024	$13,921,725.49	
Investments at Fair Value as at 31 May 2024	$170,538,262.01	
Total Cash & Investments		**$184,459,987.50**
The above cash and investments are comprised of:		
Externally Restricted Reserves		
Externally restricted reserves refer to funds received that are restricted by externally		
Total External Restrictions		**$123,735,997.22**
Internally Restricted Reserves		
Internally restricted reserves are funds restricted in the use by resolution or policy of Council		
Total Internal Restrictions		**$43,620,857.12**
Unrestricted Cash & Investments		
Total Unrestricted Cash & Investments		**$17,103,133.16**
Total Cash & Investments		**$184,459,987.50**

Note: At the time of this report, reserve balances have yet to be finalised for 31 May 2024

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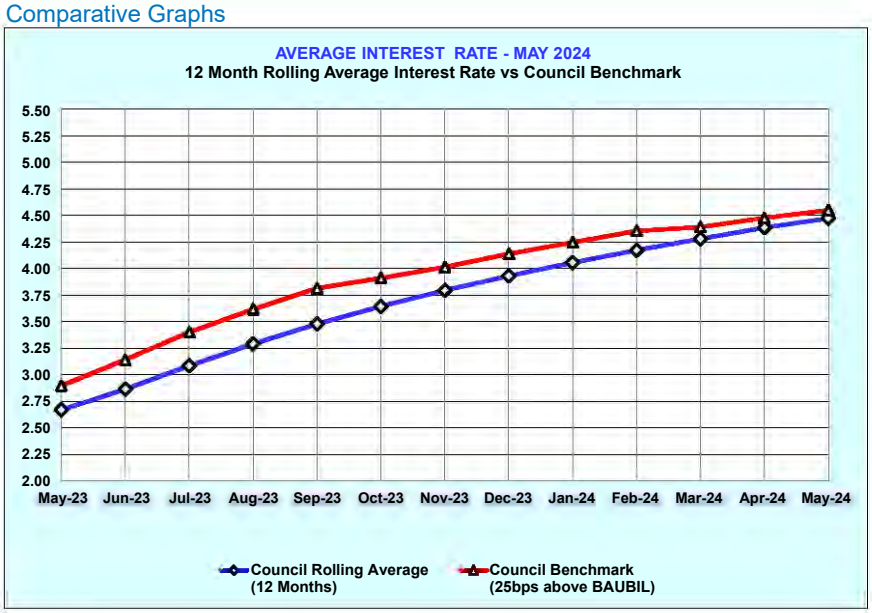
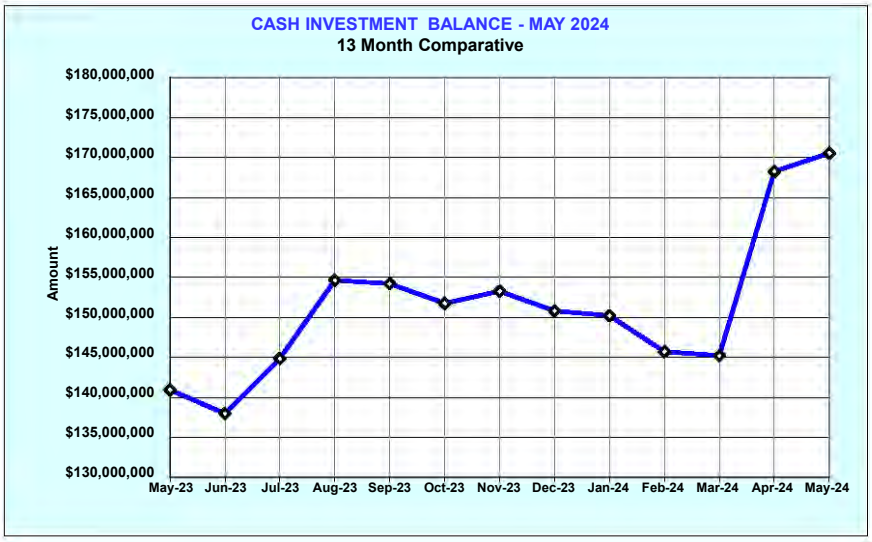
Comparative Graphs



The rolling 12 month portfolio return relative to the index is expected to remain less than benchmark until June 2024. This is the impact of some fixed interest investments held in the portfolio returning less than what is currently able to be achieved if purchased in the market today.

A contribution amounting to $15.1M was received during May as part of the planning agreement related to 34 Walker Street Rhodes. These funds have been invested for periods ranging up to 12 months at interest rates between 4.51% and 5.23%.

The original budget forecast interest earnings of $4.6M. As reported in the Third Quarter Budget Review, interest earnings are now forecast at $7.0m. The forecast growth in investment income, is a result of higher than anticipated cash balances, and favourable returns on investments.



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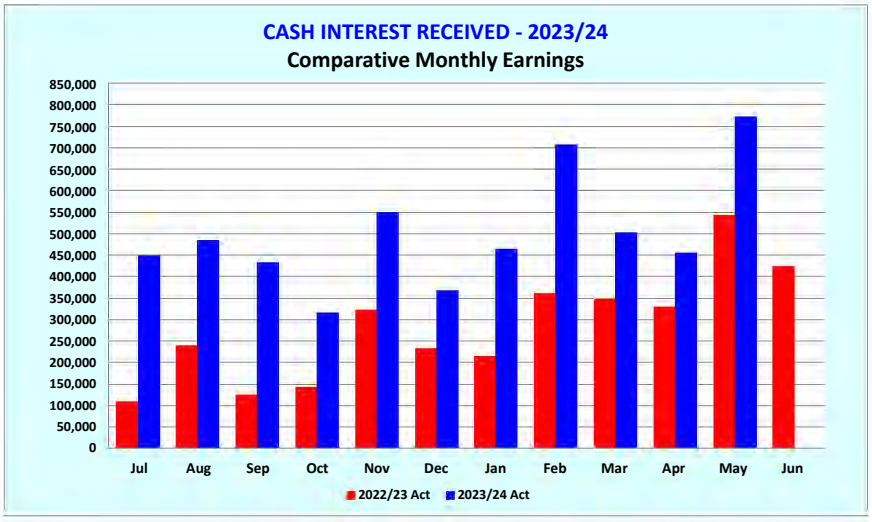

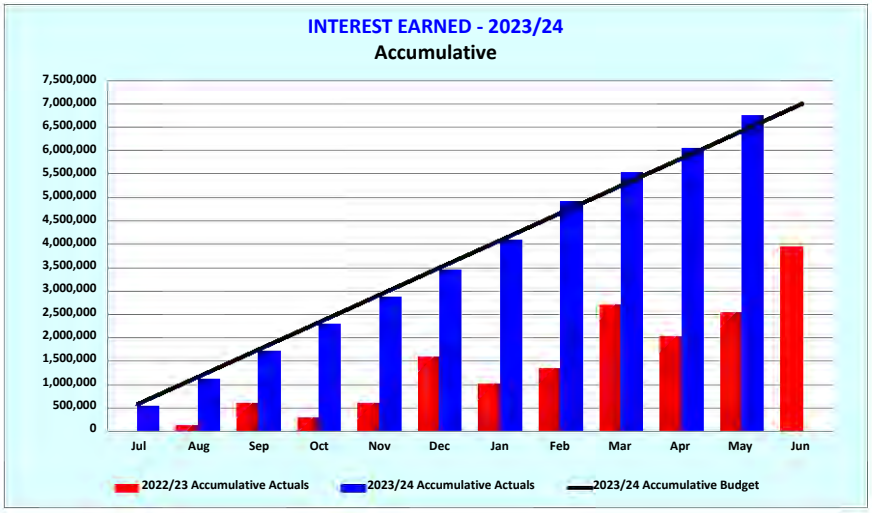

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1a Marlborough Street, Drummoyne NSW 2047
Tel 9911 6555 Fax 9911 6550 **www.canadabay.nsw.gov.au**