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14 October 2024

Enquiries: Steve Manton
Project No: 300304806

CO-OP Studio
406/46 Kippax Street
SURRY HILLS NSW 2010

Attention: Robert McFee (Associate)

Dear Robert

RE: Botany Aquatic Centre Redevelopment
Response to RFI's

A Development Application (DA-2024/50) was lodged with Bayside City Council (Council) for the proposed redevelopment of the Botany Aquatic Centre located at Myrtle Street, Botany. The proposal incorporates new indoor and outdoor pool and leisure facilities, a gymnasium, amenities and change rooms and a café.

Stantec was engaged to prepare a Transport Impact Assessment (TIA) to support the DA which was completed in February 2024[1].

Further to the above, Council has raised some Requests for Information (RFIs) via Creative Planning Solutions (CPS) which include, amongst other items, comments relating to traffic and transport issues for the proposed development. These RFIs comprise:

- CPS letter dated 07 August 2024
- CPS letter addendum dated 15 August 2024

The relevant traffic and transport related comments have been extracted from each of the above two letters and these are reproduced below in bold italics together with Stantec's responses.

1. Traffic and Transport Comments from CPS Letter (dated 07 August 2024)

Comment 1 - Traffic and parking impacts from the proposal** [need to be considered]**, including a suggestion for an upgrade to the carpark and other measures to reduce strain on on-street parking, or to prioritise resident parking.

Stantec's response – The traffic and parking impacts of the proposal have been considered in the aforementioned TIA prepared to support the DA for the proposal. As discussed in Section 2.6 of the TIA, the site currently provides a car park which is shared between the Aquatic Centre and the adjacent Boralee Park, providing a total of 164 parking spaces. As part of the redevelopment it is proposed that the car parking layout will be modified and improved to provide better circulation for vehicles and improved accessibility and safety for pedestrians, while also increasing the available parking supply to 175 spaces.

Car parking demand counts conducted in October 2023 indicated that the highest peak demand was 60 vehicles (37% of total capacity) at 1:00 PM on a Saturday. A desktop review of the car park in January 2019 also showed a peak demand of 120 spaces (75% of total capacity of 164 spaces), with an average surplus of 44 spaces. On this day, the Bureau of Meteorology reported a maximum temperature of 36 degrees Celsius near Sydney Airport. Given this and noting the Australia Day long weekend, this day is an appropriate representation of the likely 'peak of peak' demand for parking at the aquatic centre (with the exception of special events)[2].

The practical parking demand is expected to be up to 153 spaces, with an average summer demand of 172 spaces. Accordingly, it is anticipated that the typical parking demand will be accommodated on-site within the proposed car park, with any additional peak parking requirements expected to be minor.

Considering the above, it is clear that the car park is able to currently, and will continue to, accommodate the parking demand from both the Aquatic Centre and Boralee Park. From a traffic and parking perspective, the changes associated

[1] Botany Aquatic Centre, Transport Impact Assessment, Stantec, dated 29 February 2024.

[2] Botany Aquatic Centre Parking Assessment, Stantec, dated 26 May 2023.

with the proposed redevelopment are not expected to compromise the safety or function of the surrounding road network. Further analysis using recent patronage data is provided in a subsequent section of this letter which further demonstrates that the car park will provide sufficient parking.

Comment 6 (d) - The application fails to address the controls specified in Parts 3.7.5 of the BDCP 2022, and has not been designed with contrasting materials and finishes. Amended landscape plans are to include permeable paving, to break up large sections of paving and to delineate pedestrian areas/crossings, entries, car parks, special use areas or at transition zones between different uses.

Stantec's response - During the design development of the car park, various approaches to the material surface treatment were considered. Ultimately, it was decided that a single treatment with clear delineation of pedestrian priority at key locations within the car park would be the best approach to avoid confusion. Based on past experience, changing the material or color typically signifies a 'shared zone' approach, which can be confusing for road users, including pedestrians, cyclists, and vehicle operators, and may result in safety hazards. Therefore, a single material treatment was chosen to ensure clarity and safety for all users.

Comment 9 (a) - The bus/coach parking bays are to be line marked and shown on the plans in compliance with AS2890.2 2018.

Stantec's response - As discussed within the TIA, the existing bus loop will be retained for use by buses/ coaches during pick up and drop off activities and only during special events as per the existing arrangements. No changes are proposed to the existing bus/ coach parking bays within the site as part of the proposed redevelopment, noting that no issue with the operation of the current bus loop has previously been raised.

Comment 9 (b) - The Traffic Impact Report is to be revised to also survey a new aquatic centre, with a similar offering of facilities, to understand the car parking demand is met.

Stantec Response – It has not been possible to identify another new site with a similar offering of services to that proposed at the Botany Aquatic Centre. However, additional and more recent patronage data for the Botany Aquatic Centre between September 2023 and April 2024 has been analysed to understand the peak parking demand of the facilities. Analysis of the patronage data reveals simialr trends to the parking survey data previously examined, with only a minor increase in parking demand observed. With the implementation of Green Travel Plan (GTP) inititatives as part of the site's redevelopment, the overall demand for car parking spaces is expected to be reduced. Details of the analysis are provided further below.

Given the parking is not provided in accordance with BDCP 2022, a Workplace Green Travel Plan and Transport Access Guide is to be prepared, as specified in control C6 and C7 of Part 3.5.2 of the BDCP 2022.

Stantec's response - A Green Travel Plan (GTP) and a Transport Access Guide (TAG) have been prepared in accordance with Control C6 and C7 of Part 3.5.2 of BDCP 2022 to promote sustainable modes of transport and to reduce car-based trips and parking demand. The GTP and TAG are attached to this letter.

Note that the Traffic Committee also suggested that additional car parking could be provided on the southern side of the extend parking area at the north-western end of the carpark. Should further parking be required, the applicant should consider whether this location is suitable, having regard to the potential impacts on the landscaped scheme.

Stantec's response - While additional parking in the suggested location is noted, it is considered to be unnecessary. The TIA clearly demonstrates that the modified parking arrangements and associated increase in parking supply will be suffcient to accommodate the future parking demand for the site. Additionally, the north-western end of the car park is designated as staff-only to ensure safe operation by separating the chemical delivery and maintenance access from the general public. Staff parking has been allocated for this area to ensure the safe and smooth operation of the proposed loading dock area. Any additional parking spaces provided in this area would need to be similarly allocated to staff and therefore would provide no benefit to the general public. They would also be located in close proximity to the nearby swimming pool area and would require the removal of landscaping, both of which are considered to be undesirable.

2. Traffic and Transport Comments from CPS Letter (dated 15 August 2024)

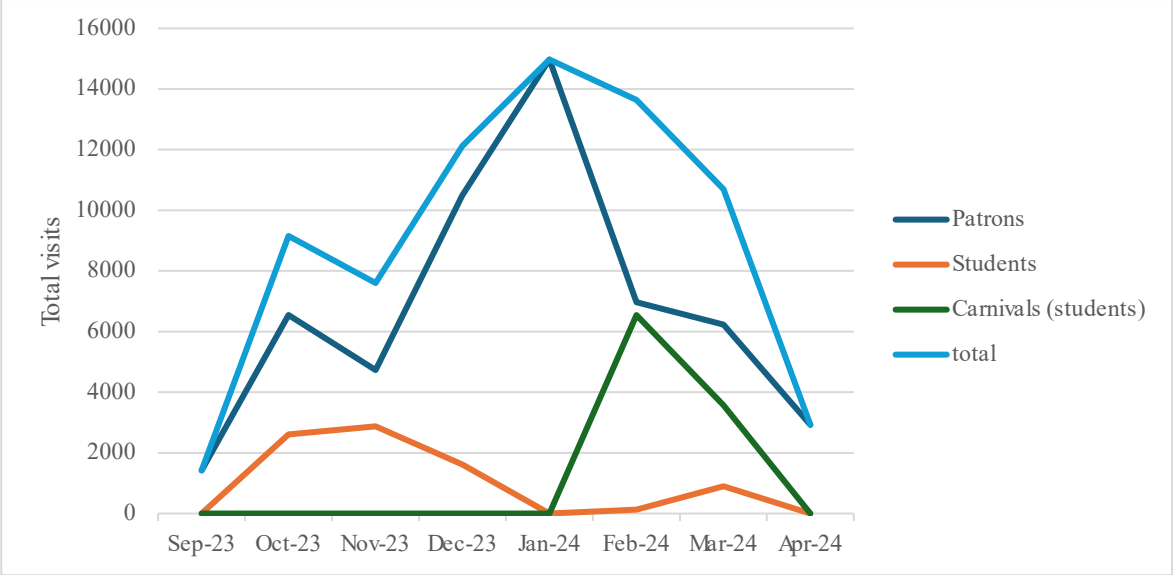
Comment 1 (a) - The traffic survey in section 2.6 of the traffic report prepared by Stantec provides insufficient survey data. It is noted that the survey was not completed during the busiest months of an aquatic centre (survey must be undertaken during peak summer periods), water slides were removed for 80% of the surveys and the surveys were of an old aquatic centre at the end of life. Hence, these issues indicate that this survey data is not sufficient to rely on for the traffic and parking assessment, a summer survey needs to be undertaken of a new aquatic centre in a similar locality with a similar offering to the development to understand peak car parking demands.

Stantec's response - As noted above it has not been possible to identify another new site with a similar offering of services to that proposed at the Botany Aquatic Centre. Furthermore, undertaking a new survey during the peak summer period (which is still some 2-3 months away) is not practicable at the current time of preparing this response. In lieu of these considerations, patronage data has been obtained from Council for the Botany Aquatic Centre for the period extending from September 2023 to April 2024 which includes the most recent summer peak period. A summary of this data is shown below along with the estimated average daily parking demand.

Figure *1* demonstrates that attendance at the centre peaks between January and March, which occurs as a result of a peak in school carnival activity that occured during this time. In Febuary and the beginning of March, 26 carnivals occured with over 10,000 students over the two month period. Most of these students arrived via bus/coach or via parent pick-up/ drop-off.

As expected, **Figure *1*** demonstrates that attendance peaks during the summer seasons, with dips in attendance during the winter seasons. The lowest attendance was recorded during September with 1,422 patrons.

Figure 1: Number of visits each month September 2023 to April 2024



Ther following assumptions have been made to estimate the number of vehicular trips per day:

- Car occupancy – 2.5
- Drop off/pick up – 5%
- Bus/walking – 5%

Using the above data, the patronage data and average daily parking demand is summarised below in Table 1.

Table 1: Historic patronage data summary

Month	Total number of patrons	Total number of students	Total monthly patron and student count	Average daily patrons [1]	Average vehicles per day [2]
Sep-23	1422	0	1422	47	17
Oct-23	6544	2613	9157	295	106
Nov-23	4732	2875	7607	254	92
Dec-23	10500	1621	12121	391	141

Month	Total number of patrons	Total number of students	Total monthly patron and student count	Average daily patrons [1]	Average vehicles per day [2]
Jan-24	14973	0	14973	483	174
Feb-24	6967	131	13643	254	92
Mar-24	6232	898	10696	230	83
Apr-24	2924	0	2924	97	35

[1] Average number of patrons is based on the average number of total patrons and students.
[2] The average daily vehicle count is calculated based on a car occupancy of 2.5 persons per vehicle and the average number of daily patrons. The number of students attending carnivals is not included in the average daily parking demand, as it is assumed that students are picked up and dropped off by buses or coaches or parents, which do not remain on site.

As seen in Table 1, the average daily vehicle demand peak occurs in January 2024, with an anticipated parking demand of 174 vehicles per day. Assuming that parking occupancy during the peak accounts for around 70% of the total daily parking demand, the peak hour demand is approximately 122 car spaces, equivalent to a demand of around 74 percent (122 out of 164 existing spaces). This is consistent with the “peak of peak” car parking demand reported in the TIA which was around 73 per cent (120 of 164 spaces) and accounted for all users of the shared car park.

As for special events such as carnivals, it is assumed that most students are either dropped off by parents/ carers or buses. As seen in Figure 1, students attending carnivals peak in February with a total of 6,545 students, this is equivalent to 234 students per day. Based on an occupancy of 36 students per bus, there will be around 7 buses per day during the peak carnival period. The buses will utilise the existing bus loop and will not be permitted to stay on site. Considering buses will utlise the bus loop and will only be present for short periods of time to pick up and drop off students, it is not expected that they will impact the parking demand.

On this basis, the parking assessment in the TIA has correctly estimated the parking demand and the statement that the car park operates with enough capacity to accommodate the parking demand from the Booralee Park and Aquatic Centre still stands.

Comment 1 (b) - Section 4 of the traffic report indicates the development has a significant shortfall in car parking from the Bayside DCP. The shortfall in car parking has yet to be fully justified. The following issues need to be addressed:

i. The first principles and empirical assessment for the Outdoor Aquatic Facilities & grandstand shall be further detailed and justified

Stantec’s response - A parking assessment of the site has been completed based on the Bayside Development Control Plan (DCP) 2022 and an empirical assessment using person density estimates and/or sporting attendance detailed in the TIA report. While there is a significant shortfall in parking when assessed against the DCP 2022, this is because each use is assessed individually.

However, considering that uses such as the grandstand will not independently generate visitors, it can be considered ancillary and therefore will not create increased parking demand. As stated in the Transport Impact Assessment, grandstand users are typically parents and carers observing the child pool, so the parking demand is already captured in outdoor pool use. Alternatively, users may have already participated in pool or gym activities, hence their parking demand is accounted for in the relevant use.

During special events, such as school swimming carnivals, it is assumed that the entire outdoor area would be hired by the school, with students primarily arriving by bus. On this basis, the outdoor facility generates little to no car parking demand. If parking is required, there is capacity within the car park to accommodate the demand generated by parents/carers using the grandstand and/or teachers and officials arriving by car. As for the Outdoor Aquatic Facilities, this has been assessed on a per lane density with 1 space per 19 square metres of pool area. This parking rate can be considered conservatively high compared to the requirements set out in DCPs across the Greater Sydney area. For example, the Rockdale DCP 2009 by Bayside Council requires 1 space per 40 square metres. Given the detailed empirical analysis and first principles assessment for the Outdoor Aquatic Facilities and grandstand, the actual parking demand is effectively managed through existing provisions and specific event planning, thereby justifying the current parking strategy despite the initial shortfall indicated by the Bayside DCP 2022.

ii. It’s not clear how the parking rate for Outdoor Leisure Aquatic Facilities (splash pads and water slides) was determined. A parking assessment of similar water slide & splash pad development is required.

Stantec's response - In the absence of any specific parking rate for Outdoor Leisure Aquatic Facilities (splash pads and water slides) in the DCP, the parking rate for an amusement centre has been used. It is assumed that both outdoor aquatic facilities and amusement centre provides a similar recreational trip pattern and as such, the associated parking demands are anticipated to be similar.

iii. Further evidence needs to be provided for the parking reductions associated with ancillary/complementary nature of the uses in table 4.2 and technical justification supporting this approach.

Stantec's response - Justification for the parking reductions associated with ancillary/ complementary uses has been given in response to Comment 1(b) above.

iv. The traffic report must also consider and survey the parking demand of nearby sporting fields & parks.

Stantec's response - The TIA has considered the parking demand of Booralee Park, Myrtle Street and Jasmine Street, based on desktop parking surveys conducted using Nearmap aerial imagery for weekdays during summer public holidays and weekends at times when the Aquatic Centre is fully operational. Three data points were reviewed when Booralee Park was in use, including Sunday 20 November 2022, Friday 28 October 2022 and Saturday 29 November 2014. Two data points were also reviewed at times when the old water slides were open, including Monday 16 January 2018 and Saturday 29 November 2014.

I trust the above satisfactorily addresses the issues raised. However, should you have any questions please do not hesitate to contact me directly.

Yours sincerely

Stantec Australia Pty Ltd

Steve Manton
Senior Principal Transport Engineer

Encl

Attachment A – GTP and TAG

Attachment A – GTP and TAG

Botany Aquatic Centre
Green Travel Plan

Prepared for:
CO.OP Studio

14 October 2024

Prepared by:
Stantec

Project/File:
300304806

Stantec Australia Pty Ltd

Revision	Author	Date	Quality Check	Date	Independent Review	Date
v1	John Lim	08/10/24	Matt Todd	08/10/24	Volker Buhl	08/10/24
v2	John Lim	14/10/24	Matt Todd	14/10/24	Matt Todd	14/10/24

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Prepared by

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Table of Contents

List of Tables

List of Figures

List of Appendices

1 Introduction

Stantec was commissioned by CO-OP Studio to prepare a Green Travel Plan (GTP) for the Botany Aquatic Centre (BAC) redevelopment located at Myrtle Street, Botany. The redevelopment incorporates adventure waterplay and slides, a 50-metre outdoor competition pool and 25 metre indoor lap pool, an indoor learn to swim pool, a new building with entrance, amenities, gym space, change rooms and kiosk, a new grandstand, and landscaping of the open green space.

1.1 Response to Council's DCP Controls

This GTP has been prepared in response to Controls C6 and C7 in Part 3.5.2 of the Bayside Development Control Plan 2022[1], as referenced in Table 1-1.

Table 1-1: Bayside DCP 2022 objectives and controls relating to sustainable transport management under Traffic Impact Assessment and Transport Plans

Objective		Control		Response
O3	Ensure that the demand for transport generated by development is managed in a sustainable manner.	C6	Commercial developments with more than 10 employees and a GFA greater than 1000m2 are required to prepare a Workplace "Green" Travel Plan. It is to be prepared accordance with Bayside Technical Specification - Traffic, Parking & Access and generally incorporate the following:	
			a. Encourage staff to use public transport, cycle and/or walk to the workplace;	Section 4.2, 4.3 and 4.4
			b. Adopt car sharing and/or carpool scheme;	Section 4.4
			c. Provide priority parking for staff with carpool;	Section 4.4
O4	Encourage staff to make good use of public transport, cycling, walking and car sharing for commuting work-related journeys and hence reduce car based travel demand.		d. Provide bike storage area and end-of-trip facilities in convenient locations and encourage the use of these facilities;	Section 4.3
			e. Adopt an implementation strategy and set success measures;	Section 4
			f. Establish clear and time bound measurable targets, actions, measurements, and monitoring framework on the number of staff travelling to work by public transport, cycling and walking.	Section 3.2 4 and 5
		C7	Council may reduce the requirement for onsite parking provisions (up to 10% of total parking spaces required) for commercial and industrial developments when both Workplace "Green" Travel Plans and Transport Access Guides are provided.	-

[1] *Source: Bayside DCP 2022*

1.2 What is a Green Travel Plan?

Transport is a necessary part of life which has effects that can be managed. The transport sector is one of the fastest growing emissions sectors in Australia and therefore a travel plan provides an opportunity for reducing greenhouse gases, and for managing traffic congestion (which has adverse economic, health and social outcomes). As well as delivering better environmental outcomes, providing a range of travel choices with a focus on walking, cycling and public transport will have major public health benefits and will ensure strong and prosperous communities.

The physical infrastructure being provided as part of the development is only part of the solution. Here, a green travel plan will ensure that the transport infrastructure, services and policies both within and external to the site are tailored to the users and co-ordinated to achieve the most sustainable outcome possible.

Simply put, a GTP is a package of initiatives and strategies aimed at encouraging sustainable modes of transport such as walking, cycling, public transport and higher-occupancy car use for travel. The GTP for Botany Aquatic Centre aims to mitigate (as far as possible) private car travel to allow people to carry out their daily business in a more sustainable manner using the following measures:

- measures which encourage reduced car use (disincentives or ‘sticks’)
- measures which encourage or support sustainable travel (such as active transport, public transport and multi-occupant vehicle use)
- reduce the need to travel or make travelling more efficient (incentives or ‘carrots’).

A GTP will allow staff and visitors to the facility to achieve the above outcomes by providing flexibility about how and when they travel. As part of the Botany Aquatic Centre redevelopment, this GTP would be implemented after the re-opening of the facility.

The GTP seeks to understand the existing public transport, cycling and walking infrastructure to identify gaps in the network for improvement. Future travel conditions, including expected mode shares for different scenarios have been considered prior to the development of the initiatives and actions.

1.3 Objectives

The aim of the GTP is to bring about better transport arrangements for living and working at the site – specifically to minimise the reliance on single occupancy car journeys to and from the site given its location and accessibility to alternative travel modes.

The key objectives of the GTP are:

- to encourage walking
- to encourage cycling
- to encourage the use of public transport
- to reduce the use of the car, in particular single car occupancy
- where it is necessary to use the car, encourage more efficient use.

It is the intention therefore that the GTP would deliver the following benefits:

- enable higher public and active travel mode share targets to be achieved
- contribute to greenhouse gas emission reductions and carbon footprint minimisation
- contribute to healthy living for all
- contribute to social equity and reduction in social exclusion
- improve knowledge and contribute to learning.

1.4 Site Context

The Botany Aquatic Centre comprises a range of aquatic and recreational facilities, and is located on the corner of Myrtle Street and Jasmine Street, Botany. The site is located approximately nine kilometres south of Sydney CBD. The site has a primary frontage to Myrtle Street and is approximately 3.02 hectares in area. It is bounded by commercial establishments to the north and north-west, railway line and Eastlake Public Golf Club to the east, a mix of low-medium density residential dwellings to the south and Booralee Park to the west.

The site and surrounding places of interest are illustrated in Figure 1-1.

Figure 1-1: Site location and surrounding places of interest

With respect to land use zoning, the site is located within the RE1 Public Recreation zone and is surrounded by R3 Medium-density Residential, B7 Business Park and SP2 Railway zoning, as shown in Figure 1-2.

Figure 1-2: Subject site and surrounding land use zoning[2]

1.5 Proposed Development

1.5.1 Overview

The key facilities to be delivered as part of the redevelopment of the Botany Aquatic Centre are outlined in Table 1-2.

Table 1-2: Area Schedule

Use	Description	GFA	Other
Office	Reception, Administration	95m^2	
Café	Kiosk	76m^2	
Aquatic Facilities	Indoor Learn to Swim	160m^2	
	Indoor 25m pool	386m^2	6 lanes
	Outdoor 50m pool	920m^2	8 lanes

[2] *Source: NSW Planning Portal Spatial Viewer, accessed September 2024*

Use	Description	GFA	Other
	Sub-total	1,466m^2	
	Outdoor water play	405m^2	
	Outdoor water slides	62m^2	2 slides
	Sub-total	467m^2	
Grandstand		-	500 seats
Gymnasium	General	430m2	

Overall, the key changes from the existing facility include the addition of a 25-metre indoor pool, reduction of one lane from the 50-metre pool, conversion of the learn to swim pool from outdoor to indoor with a reduction in size, addition of a gym and re-instatement of the water slides. In addition, given provision of an indoor pool area, the facility is planned to remain open all year with no winter closure period.

The proposed site layout and general arrangement plans for the redevelopment are shown in Figure 1-3.

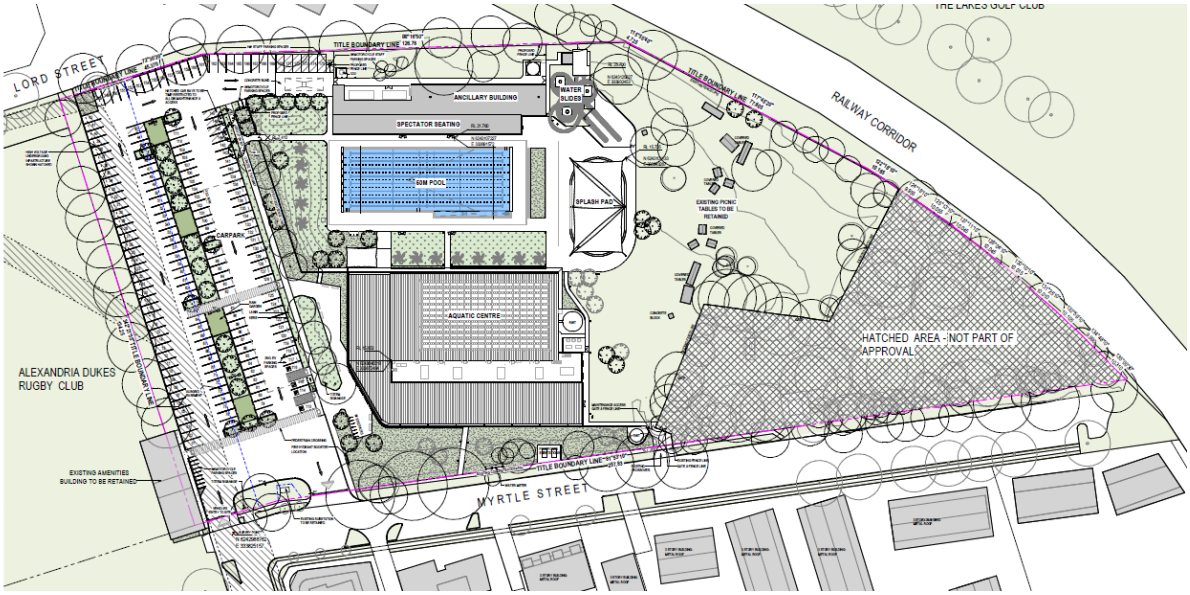

Figure 1-3: Proposed site layout[3]

1.5.2 Vehicle Access and Parking

The existing car park and vehicle access arrangements will be retained; however, the car park will be modified to improve circulation of both cars and service vehicles, and proposes to revise the accessible parking bays to comply with relevant standards and improve access to the main entry. The proposed modifications will result in an increase of parking supply to 175 spaces. A single aisle of

[3] *Source: Site Plan, Botany Aquatic Centre, Drawing No. A101, issued 23 February 2024*

parking comprising 14 spaces that extends off the main parking loop at the northern edge of the site will be restricted for use by staff only.

The existing bus drop-off loop will be retained. As such, all vehicles will continue to seek access to the site via the two driveway crossovers along Myrtle Street.

1.5.3 Walking and Cycling Infrastructure

An expansive public domain adjacent to the main entrance would ensure appropriate space to allow for peak events and gathering of people. Connecting paths provide access directly to the at-grade car park, as well as the bus loop and pedestrian facilities along Myrtle Street.

Eight bicycle parking spaces are proposed near the main entry, with end-of-trip facilities including showers, change rooms and lockers forming part of the facility.

2 Existing Conditions

2.1 Walking

Well established footpaths are provided on both sides of most surrounding roads, connecting pedestrians with the surrounding residential areas and to bus stops along Banksia Street (approximately 400m walk south of the site) and Botany Street (approximately 900m walk west of the site). Figure 2-1 shows the existing walk catchment from the site at up to a 1,600m on-path walk distance, equivalent to a 20-minute walk.

Figure 2-1: Existing walking catchment (1,600m on-path / 20-minute walk)

Pedestrian crossing points near the site include:

- Myrtle Street, east of Jasmine Street (kerb ramp crossing)
- Bay Street / Jasmine Street roundabout (kerb ramp crossing on each leg)
- Bay Street / Daniel Street intersection (refuge crossings on northern and eastern legs)
- Banksia Street, east of Jasmine Street (wombat crossing)
- Banksia Street, east of Daniel Street (wombat crossing)
- Botany Road / Bay Street intersection (signalised crossing on each leg)
- Botany Road / Banksia Street intersection (signalised crossing on each leg)
- Railway overpass south-east of the site on Banksia Street

2.2 Cycling

Figure 2-2 shows the surrounding cycling network is primarily a mixed traffic arrangement. Within vicinity of the site, bicycle friendly roads with lower traffic volumes are provided on Jasmine Road, Daniel Street, Daphne Street and Lord Street. Off-road cycling infrastructure is located further north along Wentworth Avenue and Botany Road and south-west on Banksia Street across the railway line.

Figure 2-2: Surrounding cycling network[4]

[4] *Source: TfNSW Bicycle Network (Infrastructure Cycleway Data), accessed September 2024*

2.3 Public Transport

The site is supported by bus services that operate along Banksia Street and Botany Road, which facilitate travel from surrounding suburbs and major transport nodes such as Redfern Station and Mascot Station. The closest bus stop is approximately a 400-metre walk south of the site. The surrounding bus network services are summarised in Table 2-1 and illustrated in Figure 2-3.

Table 2-1: Public transport provision[5]

Route no.	Route description	Location of nearest stop	Distance to nearest stop	AM/ PM peak frequency	Off-peak frequency
307	Eastgardens to Mascot Station (Loop Service)	Banksia Street	400m	20 minutes / 20 minutes	30 minutes
309	Redfern to/from Port Botany	Botany Road	900m	10 minutes	10 minutes
310	Central Railway Square to/from Botany	Banksia Street	400m	10 minutes	10 minutes

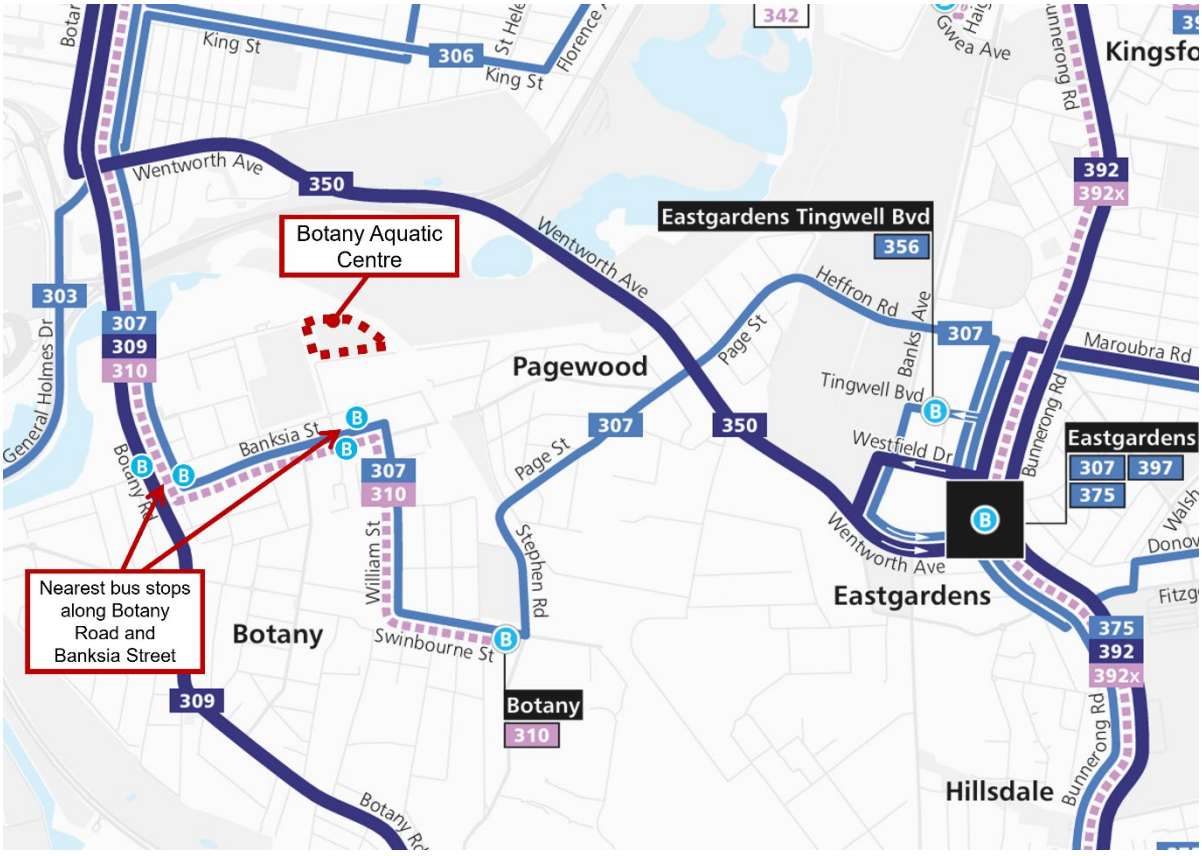

Figure 2-3: Surrounding bus network and nearest bus stops[6]

[5] *Source : Transport for NSW Trip Planner, accessed September 2024*
[6] *Source: Adapted from Transport for NSW, accessed September 2024*

2.4 Road Network

Transport for NSW (TfNSW), in partnership with local government, have established an administrative framework of State, Regional and Local Road categories to help manage the extensive network of roads. State Roads are managed and financed by TfNSW and Regional/ Local roads under Council responsibility. In this regard, the key roads in the vicinity of the site include Myrtle Street, Jasmine Street, Botany Road, Banksia Street and Bay Street. A summary of the surrounding road network is tabulated in Table 2-2.

Table 2-2: Surrounding road network

Road Name	Class	Description
Myrtle Street	Local Road	• East-west orientation between Jasmine Street and terminates as a cul-de-sac • Provides access to the site at its intersection with Jasmine Street • Two-lane, two-way road • Posted speed limit of 50km/hr • Parking is unrestricted on both sides of the road, with the exception of three time-restricted (1-hour) spaces opposite the site access. Parallel parking is provided on the northern side and angled parking on the southern side. • Myrtle Street is shown in Figure 2-4
Jasmine Street	Local Road	• North-south orientation between Banksia Street and Myrtle Street • Provides access to the site at its intersection with Myrtle Street • Two-lane, two-way road • Posted speed limit of 50km/hr • Parking is unrestricted on both sides of the road; whereby parallel parking is provided on the eastern side and angled parking on the western side • Jasmine Street is shown in Figure 2-5
Botany Road	Arterial Road	• North-south orientation between Redfern in the north and Port Botany in the south • Two-lane, two-way road as it relates to the site • Posted speed limit of 50km/hr, with 40km/hr school zoning operating during standard school peak times • Parking is time-restricted on both sides of the street
Bay Street	Collector Road	• East-west orientation between Botany Street and Wentworth Avenue • Two-lane, two-way road • Posted speed limit of 50km/hr • Parking is unrestricted on both sides of the road
Banksia Street	Collector Road	• East-west orientation between Botany Street and Page Street • Two-lane, two-way road • 12m carriageway • Posted speed limit of 50km/hr • Parking is unrestricted on both sides of the road

Figure 2-4: Myrtle Street (looking west)

Figure 2-5: Jasmine Street (looking south)

2.5 Car Parking

The public at-grade car park shared between Aquatic Centre and Booralee Park users is located immediately west of the site and provides 164 parking spaces, including four accessible spaces. Access to the car park is via two driveway crossovers on Myrtle Street as shown in Figure 2-6. The car park has two central aisles as shown in Figure 2-7. A gate is provided between the aisles to allow heavy vehicles to circulate the car park and access the existing loading and waste collection areas at the northern edge of the car park. No connection is provided between each aisle for cars to circulate through the car park.

As part of the redevelopment, the car park will be modified to provide improved internal circulation, an increased parking supply to 175 spaces (including 14 spaces restricted for use by staff only), and a one-way entry and exit configuration from Myrtle Street. The proposed modifications to the car park are illustrated in Figure 1-3.

Figure 2-6: Existing site entry driveway (looking south)

Figure 2-7: On-site car park, eastern aisle (looking south)

Unrestricted kerbside parking is available within the surrounding streets, with a supply of around 110 spaces within a 200-metre walk of the site along Myrtle Street and Jasmine Street.

3 Mode Share Targets

3.1 Baseline Mode Shares

'Method of Travel to Work' data has been sourced from the Australian Bureau of Statistics 2021 Census to provide an insight into existing travel patterns for people working in the local area and establish baseline mode shares for employees at the subject site. Figure 3-1 shows the catchment of census data analysed which corresponds to the Australian Bureau of Statistics 2021 Destination Zones (DZN) 113211487 and 113211488.

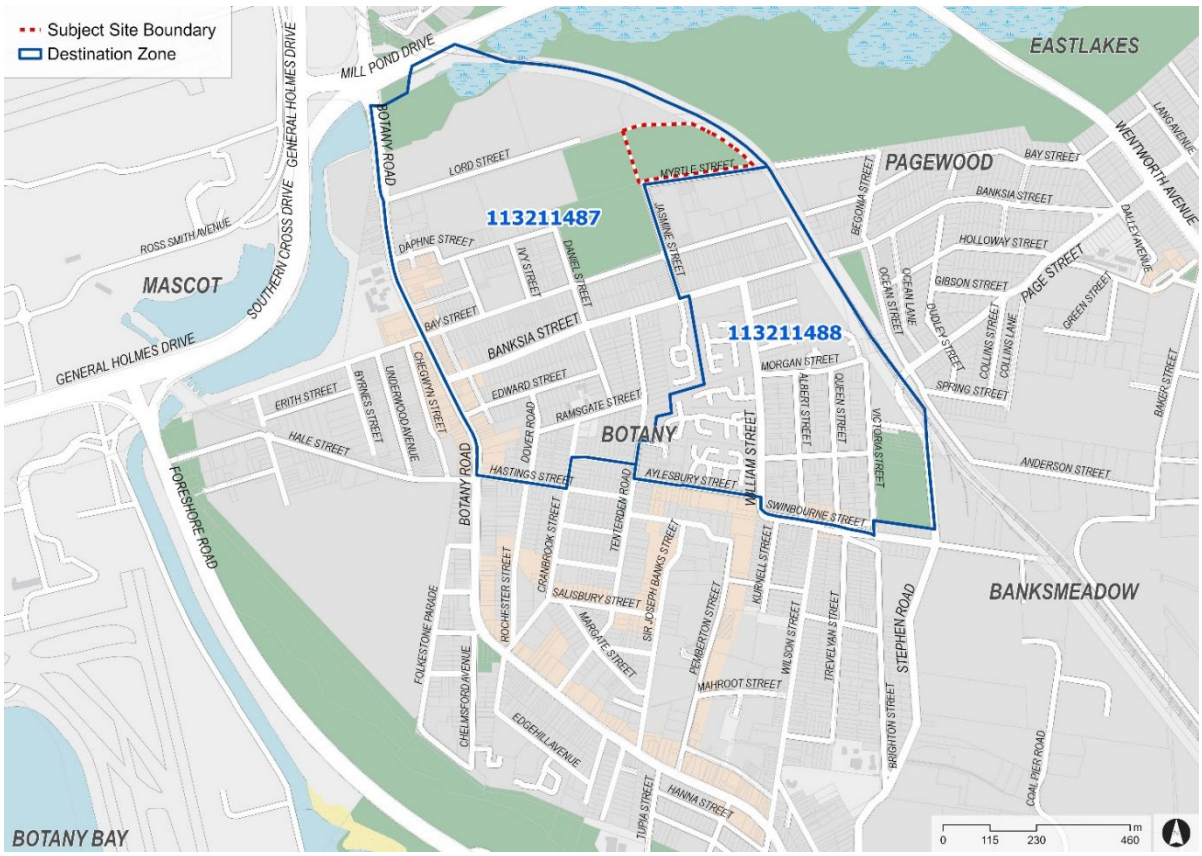

Figure 3-1: Selected destination zones containing the subject site

The mode shares based on 2021 Journey to Work (JTW) data indicate that 9% of employees took a form of public transport, while 3% and 1% travelled to work by walking and cycling respectively. 87% of employees were reported to use private vehicle as their method of travel. The mode share results, serving as baseline employees' mode choices for the subject site, are summarised in Table 3-1.

Table 3-1: Baseline employees' mode shares for the subject site

Travel Mode	Mode Share
Walking	3%
Cycling	1%
Public Transport	9% (5% by train and 4% by bus)
Private Vehicle	87%

3.2 Future Mode Shares

3.2.1 Scenarios

The following section provides a set of scenarios based on action implementation, as changes in mode choice for employees will be heavily reliant on behavioural changes. Behavioural changes can be enabled through a combination of initiatives and infrastructure interventions to encourage sustainable travel.

3.2.1.1 Scenario 1: No Action

If no green travel actions are taken, it is likely that new employees are likely to make travel choices in alignment with the current mode split for the site.

3.2.1.2 Scenario 2: Passive Approach

By targeting employee behaviour with wayfinding information and details about their public transport options, more employees can be encouraged to shift their travel behaviour and achieve a greater proportion of cycling and public transport use.

A passive approach would also involve the provision of bicycle parking and end-of-trip facilities (e.g. showers and lockers), however, these components are already addressed by the DCP requirements for the site.

3.2.1.3 Scenario 3: Active Approach

The active approach would build upon the passive approach of providing bicycle parking and end-of-trip facilities by proactively pursuing initiatives to encourage employees to walk, cycle and use public transport. To reduce the existing high reliance on private vehicles, prototype projects and initiatives which promote 'active transport' would be required to minimise car use by employees.

3.2.2 Target Mode Shares (Active Approach)

This GTP sets quantitative targets for on-site employees and visitors that is cognisant of the existing trajectory towards more sustainable transport, but also ambitious to exceed the status quo.

Table 3-2 contains the existing and target mode share for employees travelling to work at the subject site. Target mode shares have been based off the following assumptions and analysis:

- Public transport connectivity is above average, with bus services providing travel opportunities to Botany and connections from major transport nodes, such as train stations.
- Cycling is expected to increase with the implementation of cycling infrastructure identified in Bayside Bike Plan, including the Bayside Priority Cycleway Network.
- End-of-trip facilities, including bicycle parking, as well as showers are to be provided as part of the redevelopment.

Table 3-2: Recommended target mode shares for employees

Travel Mode	Baseline Mode Shares	Target Mode Shares	Changes
Walking	3%	5%	+2%
Cycling	1%	2%	+1%
Public Transport	9%	15%	+6%
Private Vehicle	87%	77%	-10%

3.3 Other Considerations

No existing mode share data is available for visitors travelling to Botany Aquatic Centre. Travel surveys can be conducted at the opening of the new facility to establish baseline mode shares and the setting of relevant targets, with surveys conducted annually to monitor the success of the GTP.

4 Actions

To achieve the intended outcomes, the appointment of a Travel Plan Coordinator (TPC) is paramount for the implementation of GTP initiatives and should be completed prior to the opening of the development. The proposed general, walking, cycling, public transport and car-related measures are provided in the following sections.

4.1 General Measures

Table 4-1 sets out the actions that are required to be met for this GTP with regards to general measures.

Table 4-1: General Measures Actions

Action	Implementation	Target Group	Responsibility
Appoint a Travel Plan Coordinator to ensure the successful implementation and monitoring of the GTP.	At year of opening with annual review	Employees, Visitors	Aquatic Centre
Undertake a travel survey to establish travel patterns of staff and assess the implementation of the GTP.	One year after reopening	Employees	External Consultant
Revise the GTP one year after the opening of the site to amend actions based on the outcomes of the travel survey.	One year after reopening	Employees	External Consultant
Distribute the Transport Access Guide (TAG) (see Appendix A) to every employee. The TAG can be updated annually to reflect employee travel patterns.	At year of opening and ongoing with annual review	Employees, Visitors	Travel Plan Coordinator

4.2 Walking

Table 4-2 sets out the actions that are required to be met for this GTP with regards to walking.

Table 4-2: Walking Actions

Action	Implementation	Target Group	Responsibility
Identify employees living near work that may be interested in walking to work.	At year of opening and ongoing	Employees	Travel Plan Coordinator
Distribute the TAG showing safe walking routes to and from the site	At year of opening with regular review	Employees, Visitors	Travel Plan Coordinator
Botany Aquatic Centre to include the TAG (see Appendix A) and other relevant walking information on their website.	At year of opening with regular review	Employees, Visitors	BAC Site Management
Encourages employees to take part in 'National Walk to Work Day'.	Annually	Employees	Travel Plan Coordinator
Hold some 'TravelSmart Get to Work' days encouraging employees to come by alternative modes of transport.	Annually	Employees	Travel Plan Coordinator

4.3 Cycling

Table 4-3 sets out the actions that are required to be met for this GTP with regards to cycling.

Table 4-3: Cycling Actions

Action	Implementation	Target Group	Responsibility
Encourage employees within the local cycling catchment to cycle to work.	At year of opening and ongoing	Employees	Travel Plan Coordinator
Ensure bicycle parking is clearly visible or provide signage to direct people to cycle bays.	At year of opening	Employees, Visitors	Developer
Ensure bicycle parking is located at convenient locations.	At year of opening	Employees, Visitors	Developer
Review demand for bicycle parking and end-of-trip facilities and make adjustments as necessary.	At year of opening with regular review	Employees, Visitors	External Consultant
Establish an internal Bicycle Users Group (BUG). BUGs are formed by people who want to work together to improve facilities for cyclists and encourage cycling.	At year of opening with regular check-ins	Employees, Visitors	Travel Plan Coordinator
Organise a cyclists' breakfast (for BAC and on-site businesses' staff combined).	Once a month	Employees	Travel Plan Coordinator/ BAC Site Management
Provide lockers for keeping a change of clothes for employees and visitors.	At year of opening	Employees, Visitors	BAC Site Management
Supply a workplace toolkit consisting of puncture repair equipment, a bike pump, a spare lock and lights.	At year of opening with regular review	Employees	BAC Site Management
Encourage employees to participate in annual events such as 'Ride to Workday'.	Annually	Employees	Travel Plan Coordinator

4.4 Public Transport

Table 4-4 sets out the actions that are required to be met for this GTP with regards to public transport.

Table 4-4: Public Transport Actions

Action	Implementation	Target Group	Responsibility
Put up a notice board with leaflets and maps (TAG) showing the main public transport routes to and from work.	At year of opening with regular review	Employees, Visitors	Travel Plan Coordinator
BAC and tenant businesses to include TAG (see Appendix A) and other relevant public transport information (e.g. TfNSW Trip Planner) on their website.	At year of opening with regular review	Employees, Visitors	Travel Plan Coordinator

4.5 Car

Table 4-5 sets out the actions that are required to be met for this GTP with regards to car-based travel.

Table 4-5: Car Actions

Action	Implementation	Target Group	Responsibility
Investigate the opportunity to provide car share spaces in cooperation with a car share provider. Car share spaces are to be provided at designated areas that are easily accessible to users.	At year of opening	Employees, Visitors	BAC Site Management
Promote nearby fleet cars (such as GoGet) to employees and visitors.	At year of opening and ongoing	Employees, Visitors	Travel Plan Coordinator
Encourage BAC and tenant businesses to develop a car-pool system that allows employees to car-pool with those living in the same area.	At year of opening and ongoing	Employees	Travel Plan Coordinator/ BAC Site Management
Provide priority parking for employees with carpool.	At year of opening and ongoing, with regular review	Employees	Travel Plan Coordinator/ BAC Site Management

5 Monitoring and Review

5.1 Monitoring

In order for the GTP to be effective, it must be reviewed on a regular basis. It is important to ensure that the GTP is meeting its objectives and having the intended impact on car use and transport choices for the employees and visitors to BAC. The Plan should be reviewed on a yearly basis with staff travel surveys and in consultation with Council. The Plan should be updated and changed to reflect changing circumstances.

Initiatives and actions should also be monitored annually by carrying out travel surveys. Travel surveys will allow the most effective initiatives of the GTP to be identified, and conversely fewer effective initiatives can be modified or replaced to ensure the best outcomes are achieved. It will clearly be important to understand people's reasons for travelling the way they do, any barriers to changing their behaviour, and their propensity to change.

To ensure the successful implementation of the GTP, a Travel Plan Coordinator (TPC) should be appointed to ensure the successful implementation of the GTP.

5.2 Review In-House Programs

The annual employee travel survey would assist the Travel Plan Coordinator in the review of the GTP. If required, the plan would be updated, in consultation with Council.

Other feedback provided to the travel coordinator should be used to update programs as well. Sample feedback could include email responses to programs, monitoring the bike/car parking spaces used and employee feedback related to transport.

People in any organisation like to be part of a successful plan. Employees should be kept informed of green travel achievements, e.g. send out email bulletins, make announcements during meetings, or have a dedicated column within internal/external publications. An example format for the annual survey is shown below.

Table 5-1: Annual survey questionnaire

Question	Options	
1. How do you usually travel to Botany Aquatic Centre?	• Private car (driver) • Private car (passenger) • Dropped off (driver does not stay) • Motorcycle • Public bus then shuttle bus	• Train then shuttle bus • Walk • Cycle • Other (please specify)
2. How do you usually travel from Botany Aquatic Centre?	• Private car (driver) • Private car (passenger) • Dropped off (driver does not stay) • Motorcycle • Public bus then shuttle bus	• Train then shuttle bus • Walk • Cycle • Other (please specify)

Question	Options	
3. How long does it usually take for you to get to/from Botany Aquatic Centre?	• 1-10 minutes • 11-20 minutes • 21-30 minutes • 31-40 minutes	• 41-50 minutes • 51-60 minutes • 61+ minutes
4. What time do you typically arrive at Botany Aquatic Centre?	• Before 6:30am • 6:30am to 6:59am • 7:00am-7:29am • 7:30am-7:59am	• 8:00am-8:29am • 8:30am-8:59am • 9:00am-9:29am • 9:30am or later
5. What time do you typically leave Botany Aquatic Centre?	• Before 3:30pm • 3:30pm-3:59pm • 4:00pm-4:29pm • 4:30pm-4:59pm	• 5:00pm-5:29pm • 5:30pm-5:59pm • 6:00pm-6:29pm • 6:30pm or later
6. If you travel by car, how many people are in the car (including the driver)?	• Driver alone • 2 people • 3 people	• More than 3 people • N/A (do not drive)
7. If you travel by car, how many other staff members share a car with you?	• *Numerical answer entry*	
8. If you travel by car, what is your main reason for doing so? Select all that apply.	• Car required before/after work • Health reasons • Convenience • Lack of other alternatives	• Lack of wheelchair accessibility to public transport • N/A (do not drive) • Other (please specify)
9. What is your postcode?	• *4-digit number*	

Appendix A

Travel Access Guide

Travel Access Guide

Botany Aquatic Centre

Myrtle Street & Jasmine St, Botany NSW

Bayside Council
Serving Our Community

This Travel Access Guide outlines the many travel choices available to you to travel to and from Botany Aquatic Centre. The area is well serviced by public transport connecting with the rest of Sydney. In many cases it is faster and more convenient to travel to Botany Aquatic Centre by active or public transport than private vehicle.

Plan Ahead

Planning ahead is key. The Trip Planner on transportnsw.info and public transport apps like Opal Travel, TripView or Citymapper provide real-time service updates, detailed service information, walking and cycling distances and accessibility details.

Prioritise Public Transport

- Frequent, turn-up-and-go services are available from Mascot Station.
- Bus services are available at nearby stops at Banksia Street and Botany Street.
- Using public transport can be a comfortable alternative to driving; it allows you time to concentrate on something other than being at the wheel and enjoy activities such as reading or relaxing.
- Catching public transport helps contribute to your daily physical activity. People who regularly catch public transport get about 25 minutes more physical activity a day, compared to people who drive.

Walk or Ride Your Bike for All or Some of Your Journey

- Walking or riding your bike as part of your daily commute is a great way to improve and maintain your physical health and mental well-being. It keeps you active without the need for a gym membership and gives you some me-time in your busy day.

Walking

Botany Aquatic Centre is located a 10-minute walk from Botany Town Centre, which has bus stops located along Banksia Street and Botany Road.

Cycling

Bicycle parking racks are provided near the main entry, with end-of-trip facilities such as showers, change rooms and lockers provided within the facility. For all cycleways within the Sydney region, visit the Transport for NSW Cycleway Finder.

Bus

Botany Aquatic Centre is supported by bus services that operate along Banksia Street and Botany Road, which facilitate trips from surrounding suburbs and major transport nodes.

- Banksia Street bus stops are located a 5-minute walk to the facility.
- Botany Street bus stops are located a 10-minute walk to the facility.

Regular Bus Services

- 307 – Eastgardens to Mascot Station (Loop Service)
- 309 – Redfern to/from Port Botany
- 310 – Central Railway Square to/from Botany

Car Pooling

Carpooling involves two or more people sharing a private car to travel together to the same destination, a stop along the route, or a location near the driver's destination. Talk to you colleagues and friends about sharing your journeys to save time and the cost of travelling to Botany Aquatic Centre.

Stantec

Stantec is a global leader in sustainable architecture, engineering, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.