

TRAFFIC IMPACT ASSESSMENT

Warringah Recreation Centre

PREPARED FOR:

Webber Architects Pty Ltd

REFERENCE:

0979r01v02

DATE:

19/07/2024



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Revision History

VERSION	DATE	PREPARED	REVIEWED	APPROVED	SIGNED
01	29/05/2024	Tianyi Li	Hayden Calvey	Paul Corbett	Original Signed
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PDC Consultants

info@pdcconsultants.com.au | www.pdcconsultants.com.au

+61 2 7900 6514 | Level 14, 100 William Street, Woolloomooloo NSW 2011



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1. Introduction

1.1. Overview

PDC Consultants has been commissioned by Webber Architects Pty Ltd to prepare a traffic impact assessment (TIA) of a Development Application (DA) relating to the proposed New Squash Building within the redevelopment of the proposed Warringah Recreational Centre located at the corner of Kentwell & Pittwater Road, consisting of:

- New Squash Building incorporating:
 - 3-5 Squash Courts
 - Circulation corridor
 - Ancillary facilities
 - Access to car park

Having regard for the above, referral of the DA to Transport for NSW (TfNSW) under the provisions of the State Environmental Planning Policy (Transport & Infrastructure) 2021 is not required.

It is noted that a separate application will be made under Part 5 of the Environmental Planning and Assessment (EP&A) Act 1979 as 'development without consent' through the preparation of a Review of Environmental Factors (REF). The REF will be for the remaining portions of the redevelopment of the proposed Warringah Recreational Facility as follows:

- New Tennis Court Facilities incorporating:
 - 5 Tennis Courts
 - Circulation corridor
 - Access to car parking
- New Pedestrian Bridge across Brookvale Creek
- Soft and Hard Landscaping Elements
- Eastern and western car parking area for 125 car parking spaces.
- Footpath connection between the proposed Warringah Recreational Centre and approved Warringah Golf Club Building and two carparking areas

The site subject of this DA is located within the Northern Beaches local government area (LGA); however, a consolidated Development Control Plan (DCP) is yet to be enacted. As such, the DA has been assessed in

accordance with the Warringah DCP 2011 (WDCP 2011) and Warringah Local Environmental Plan 2011 (WLEP 2011).

1.2. Background

This site is owned and operated by Northern Beaches Council (Council) and a masterplan has been devised by Council to regenerate the site. The Warringah Golf Club, currently located at 292 Condamine Street, North Manly, has approval for relocation to the northern portion of the development site. This aspect of the masterplan is not being reassessed, however for reference, PDC previously provided assessment of the Warringah Golf Club and cumulative use and impact with the Warringah Recreational Facility as part of the TIA (reference 0623r01v04) for DA 2022/2081.

The approved Warringah Golf Club on the northern portion of the site is to provide a loading dock, porte-cochere for pick-up / drop-off activities and 12 car parking spaces (of which nine are located within the loading dock area).

The existing recreational facilities , proposed recreation centre e, and adjacent land for golf club are shown on **Figure 1** and within the architectural drawings included as **Appendix A**.



Figure 1: Site Plan

1.3. Structure of this Report

This report documents the findings of our investigations in relation to the anticipated traffic and parking impacts of the proposed development and should be read in the context of the Statement of Environmental Effects (SEE) prepared separately. The remainder of this report is structured as follows:

- Section 2: Describes the site and existing traffic and parking conditions in the locality.
- Section 3: Describes the Proposal.
- Section 4: Assesses the parking requirements of the Proposal.
- Section 5: Assesses the traffic impacts of the Proposal.
- Section 6: Discusses the proposed access and internal design arrangements.
- Section 7: Presents the overall study conclusions.

1.4. References

In preparing this report, reference has been made to the following guidelines / standards:

- Warringah Local Environmental Plan 2011 (WLEP 2011).
- Warringah Development Control Plan 2011 (WDCP 2011).
- State Environmental Planning Policy (Transport & Infrastructure) 2021 (SEPP Transport & Infrastructure 2021).
- Disability (Access to Premises – Buildings) Standards 2010 (Disability Standard 2010).
- Australian Standard AS 2890.1-2004, Part 1: Off-Street Car Parking (AS 2890.1).
- Australian Standard AS 2890.2-2018, Part 2: Off-Street Commercial Vehicle Facilities (AS 2890.2).
- RMS Guide to Traffic Generating Development 2002 (RMS Guide).
- RMS Technical Direction TDT 2013/04a – Guide to Traffic Generating Developments, Updated Traffic Surveys (RMS Guide Update).

2. Existing Conditions

2.1. Location and Site

2.1.1. Existing Warringah Recreation Centre

The Warringah Recreation Centre currently has an existing mixed array of sporting facilities including, tennis courts, volleyball courts, futsal playing grounds and squash building, which is located at 433 Pittwater Road, North Manly, being approximately 11.6 kilometres north-east of Sydney CBD and 2.8 kilometres north-west of Manly Beach. More specifically, the site is located on the west of Pittwater Road and north of Kentwell Road, consisting of:

- Seven outdoor tennis courts.
- Two outdoor futsal courts.
- Three indoor squash courts.
- Approximately 36 on-site car parking spaces.
- Two combined entry / exit vehicle access onto Kentwell Road.

2.1.1. Existing Golf Course

The existing golf course is an 18-hole course with an approximate area of 29 hectares and is located to the north, west and south of the existing recreation centre, between Pittwater Road and Condamine Street and on either side (north and south) of Kentwell Road. The golf course is in operation during daylight hours and typically accommodates a peak of 150 patrons per day during summer periods. There is no on-site parking, and as such all golf course users park on-street, primarily along Kentwell Road.

There are no proposed changes to the existing golf course as part of the subject DA, nor any proposed changes to the approved Warringah Golf Club and therefore it is anticipated its current use, patronage numbers and operation will remain unchanged to that previously considered and assessed.

2.2. Road Network

The road hierarchy in the vicinity of the site is shown by **Figure 2**, with the following roads considered noteworthy:

- **Pittwater Road:** forms part of a TfNSW Main Road, MR 159 & MR 164. Pittwater Road generally runs in a north-south direction between Barrenjoey Road, Mona Vale in the north and Belgrave Street, Manly in the south. Near the site, Pittwater Road is subject to 60km/h speed zoning restrictions and accommodates two (2) northbound traffic lanes and three (3) southbound traffic lanes, within a 21-metre-wide divided carriageway.
- **Condamine Street:** forms part of a TfNSW Main Road, MR 164. Condamine Street generally runs in a north-south direction between Pittwater Road in the north and Burnt Bridge Creek Deviation in the south. Near the site, it is subject to 60km/h speed zoning restrictions and accommodates two (2) traffic lanes and one (1) bus lane in each direction, within a 21-metre-wide divided carriageway.

- **Kentwell Road:** an unclassified regional road that typically runs in an east-west direction intersecting Binalong Avenue in the west and Pittwater Road in the east. It is subject to 60km/h speed zoning restrictions and carries a single lane of traffic in each direction within a 15-metre-wide undivided carriageway. Unrestricted parallel parking is permitted along the northern kerbside and unrestricted 90-degree angled parking is permitted along the southern kerbside.

2.3. Public and Active Transport

2.3.1. Bus Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, states that the walking catchment for metropolitan bus services includes all areas within a 400-metre radius of a bus stop. As can be seen from **Figure 3**, the proposed site is situated within 400 metres of several bus stops located along Pittwater Road and Condamine Street, servicing 10 bus routes. Accordingly, the proposed site falls within the typical walking catchment area, with staff and visitors expected to utilise these services for journeys to and from the proposed development. Additional bus stops are also available within 800 metres from the site as shown by **Figure 3**.

Table 1 below shows the notable town centres that are accessible via these bus services, and the average service headways during peak and off-peak periods.

Table 1: Bus Services

ROUTE NO.	ROUTE (TO / FROM)	ROUTE DESCRIPTION	AVERAGE HEADWAY
142	Allambie Heights to Manly	Via Manly Vale, Fairlight	Weekdays: 1 hour Weekends: 1 hour
145	Warringah Mall to Seaforth	Via North Manly, Manly Vale, Balgowlah	Weekdays: 5 Services only Weekends: No Services
167	Warringah Mall to Manly	Via Brookvale, North Manly, Freshwater, Curl Curl, Queenscliff	Weekdays: 20 minutes Weekends: 30-60 minutes
172X	Warringah Mall to City Wynyard	Via North Manly, Manly Vale, North Balgowlah, Seaforth, Cremorne, Neutral Bay, Milsons Point, Dawes Point	Weekdays: 1 hour Weekends: 1 hour on Saturdays & No Services on Sundays
173X	Warringah Mall to City Wynyard	Via North Manly, Manly Vale, Bargowlah, Milsons Point	Weekdays: 15-20 minutes Weekends: 15-30 minutes
174X	Narraweena to City Wynyard (Express Service)	Via Beacon Hill, North Manly, Manly Vale, Balgowlah, Neutral Bay, Milsons Point	Weekdays: 10 minutes Weekends: No Services
176X	Dee Why to City Wynyard	Via Brookvale, North Manly, Manly Vale, Cremorne, Kirribilli, Millers Point	Weekdays: 10-20 minutes Weekends: No Services
177X	Dee Why to City Wynyard	Via Brookvale, North Manly, Manly Vale, Milsons Point, Millers Point	Weekdays: 10-20 minutes Weekends: No Services
199	Palm Beach to Manly	Via Whale Beach, Avalon Beach, Bilgola Beach, Newport, Mona Vale, North Narrabeen, Narrabeen, Collaroy, Dee Why, Brookvale, North Manly, Manly Vale, Queenscliff, Manly	Weekdays: 10 minutes Weekends: 20-30 minutes

280	Warringah Mall to Chatswood	Via North Manly, Allambie Heights, Frenchs Forest, Forestville, Roseville Chase, Roseville	Weekdays: 30 minutes Weekends: 30 minutes on Saturdays & No Services on Sundays
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2.3.2. Rail & Ferry Services

The Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, states that the walking catchment for metropolitan railway stations and ferry wharves includes all areas within an 800-metre radius of a station. The subject site is situated well outside the walking catchment area, with the nearest railway station being Roseville Railway Station located some 8.4 kilometres south-west of the site and the nearest ferry wharf being Manly some 3.0 kilometres to the south-east. With this in mind, there is expected to be little to no reliance on the use of rail or ferry services by staff and visitors of the proposed development, although these services may be used for journeys to and from the Greater Sydney Area as part of a multi-modal trip.

2.3.3. Cycle Network

Figure 3 shows the proposed site has good access to the local bicycle network with off-road cycle paths provided along Pittwater Road, Kentwell Road, Campbell Parade and William Street. On-road cycle paths are also provided along Short Street, Wyadra Avenue, Allambie Road and Campbell Parade. All these cycle paths provide a connection to the wider cycle path network.



Figure 2: Location and Road Hierarchy

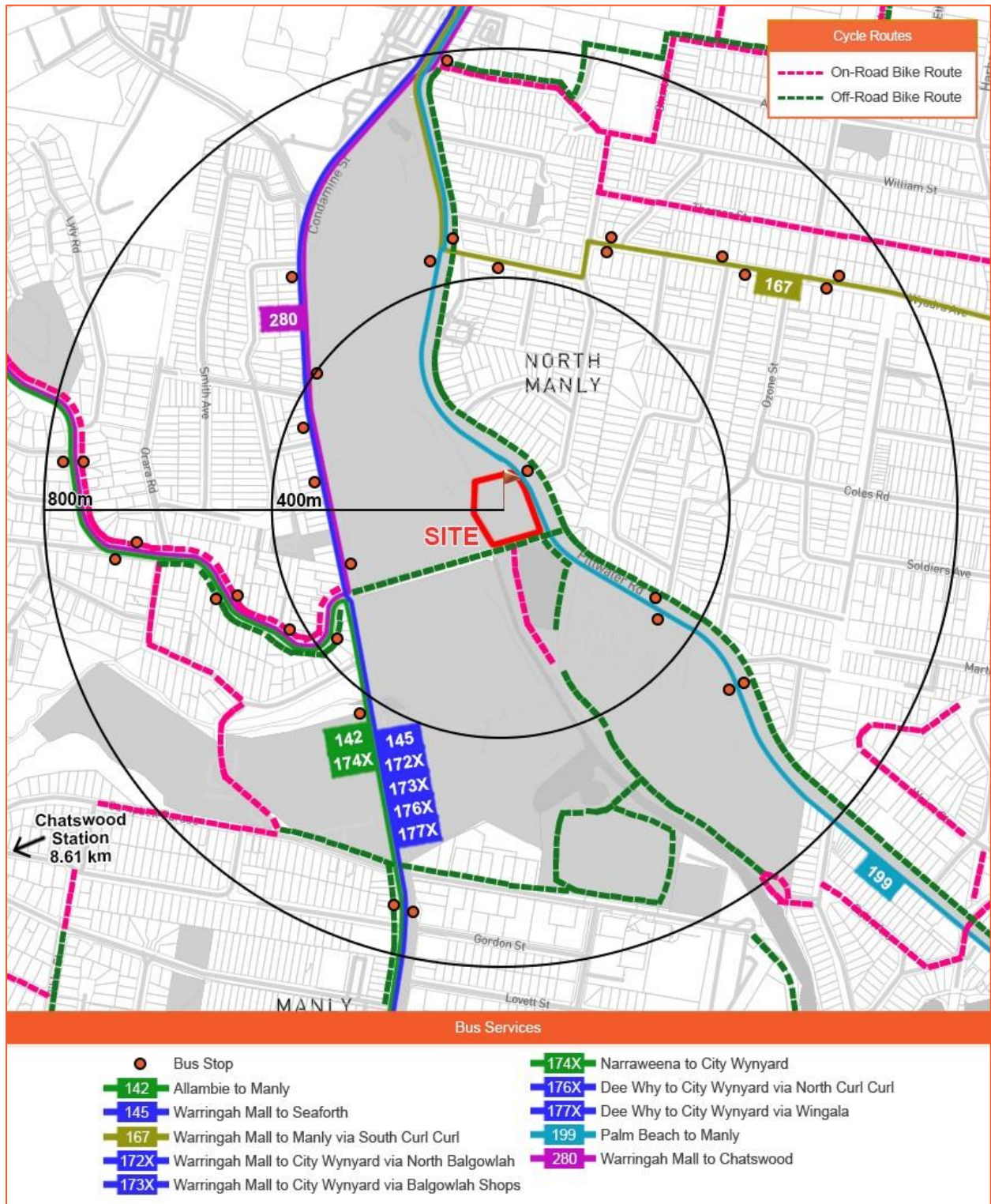


Figure 3: Public & Active Transport Services

2.4. Existing Trip Generation

The existing Warringah Recreation Centre is utilised and its main form of use is by people using the associated courts. The RMS Guide stipulates the following rates for recreational facilities:

- Squash Courts: 3 vehicle trips / hour during the evening peak hour.
- Tennis Courts: 4 vehicles trips / hour during the evening peak hour.

The RMS Guide does not stipulate any rate for futsal courts and therefore, the rate of 4 vehicles trips / hour are adopted as a conservative estimation.

By applying these rates, the existing Warringah Recreation Centre generates a traffic of 45 vehicles trips / hour during the evening peak hour.

Notwithstanding, it is considered that the most relevant use of identifying the existing traffic generation is to determine the net change in traffic generation as a result of the proposed development, as is discussed in Section 5.1 of this report.

2.5. Existing Parking Demand Near the Site

To gain an understanding of the existing parking demands within the vicinity of the site, car parking surveys and patronage surveys were undertaken on Thursday 18th and Saturday 20th August 2022 (refer to **Appendix B**). The surveys captured typical weekday and Saturday operations and parking demands in the locality. Whilst these surveys are circa two-years old, the patterns of recreational sport are not anticipated to have changed given the number of courts and useage has not changed.

The surveys included counts every 90 minutes between 4pm-10pm on Thursday 18th August 2022 and 10:30am-3pm, 6pm-10:30pm on Saturday 20th August 2022. These times were chosen as the times of day that the proposed recreational centre and the adjacent golf club would be expected to generate its peak car parking demand. The car parking survey was undertaken along Kentwell Road, within the Warringah Recreation Centre car park, and at the vacant bowling green / Council's car park, as shown in **Figure 4**.

The patronage survey counted the number of patrons within Warringah Recreation Centre. At the time of the surveys the Bowling Green was vacant, therefore patron counts were excluded for this area.

A total of 279 unrestricted car parking spaces are provided in the three separate locations within the vicinity of the site illustrated by **Figure 4**. The number of car parking spaces in each area is detailed below:

- Kentwell Road 93 car parking spaces.
- Warringah Recreation Centre 36 car parking spaces.
- Bowling Green / Council Car Park 150 car parking spaces.

During a site inspection it was observed that Kentwell Road parking was typically occupied by users of the golf course, Warringah Recreation Centre parking was typically occupied by patrons utilising the tennis, futsal and squash courts, and the Bowling Green / Council Car Park was used primarily by dog walkers / sports teams using Council pitches south of Kentwell Road.

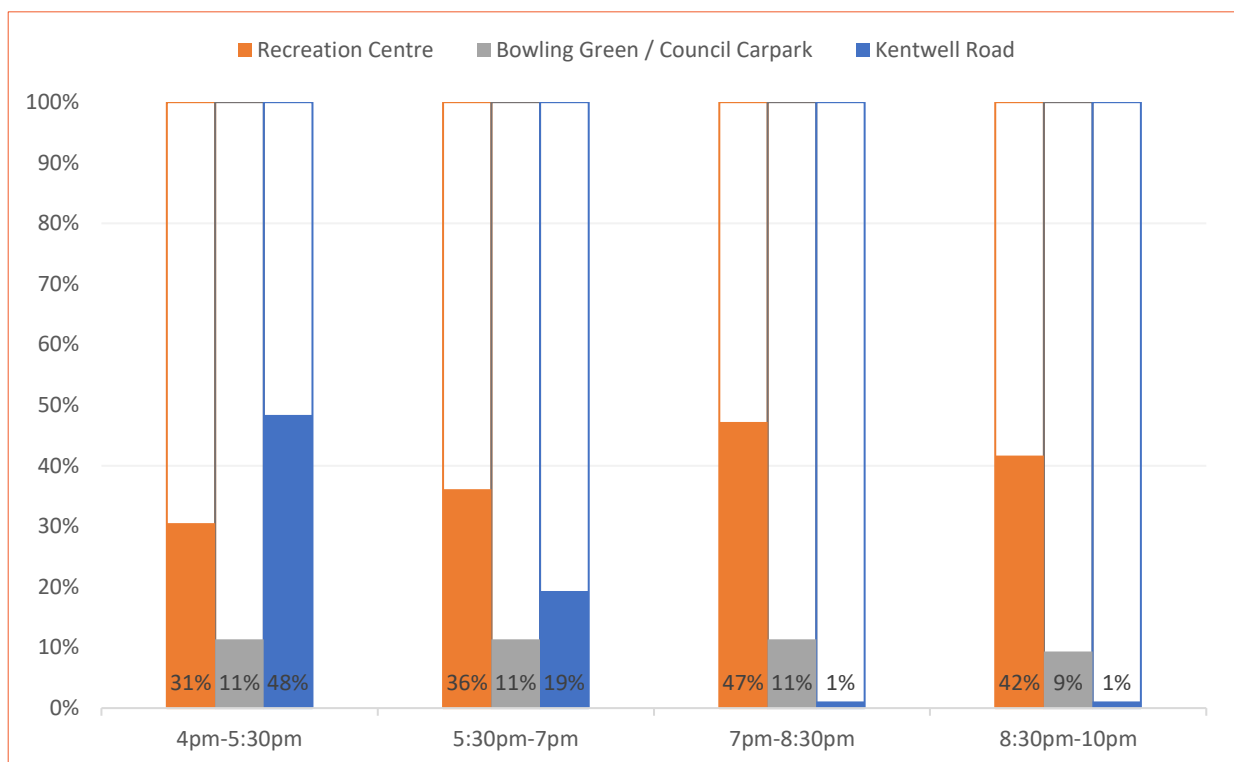


Figure 4: On-Street and Car Park Survey Locations

2.5.1. Existing Weekday Parking Demands & Patronage Numbers

Chart 1 Illustrates the existing car parking occupancy and vacancy within the vicinity of the site during a typical weekday.

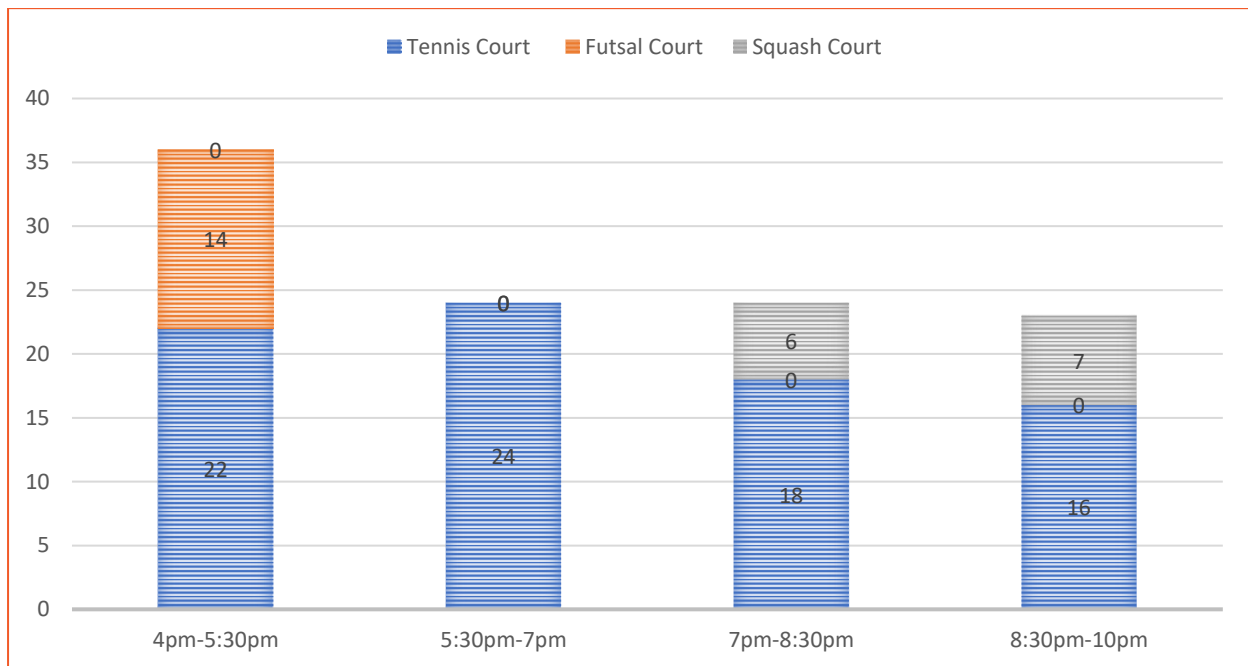
Chart 1: Weekday Existing Parking Demand and Occupancy



It can be seen from **Chart 1** that the existing peak parking demand within Warringah Recreation Centre is 47% capacity (17 cars parked). Along Kentwell Road the existing peak parking demand reached 48% capacity (45 cars parked) and the Bowling Green / Council car park reached 11% capacity (17 cars parked) during a typical weekday evening period, when the proposed recreational centre would be expected to generate its peak car parking demand.

Chart 2 illustrates the existing on-site patronage numbers at Warringah Recreation Centre at the same time the car parking survey was undertaken.

Chart 2: Weekday Existing Patronage Numbers



It can be seen from **Chart 2** that the existing peak patronage demand reached 36 occupants between 4pm-5:30pm, with 22 patrons utilising the tennis courts, 14 patrons utilising the futsal courts and nil (0) patrons using the squash courts. Between 5:30pm-10pm the total on-site patronage numbers ranged between 24 and 23 patrons.

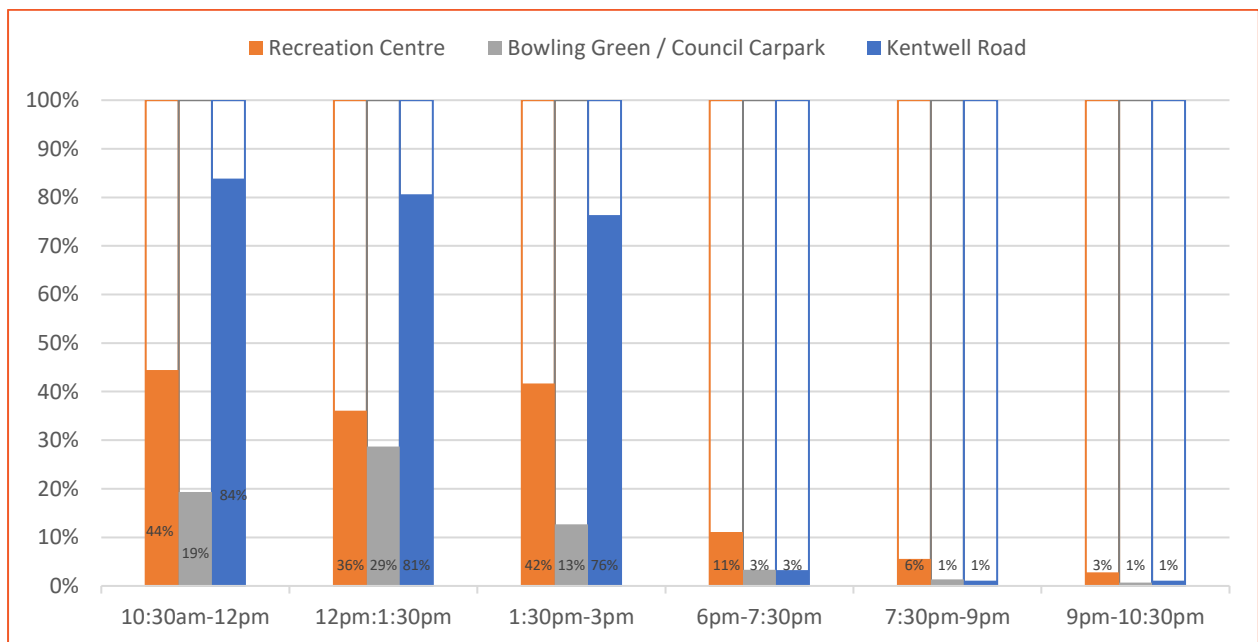
In comparison, between 4pm-5:30pm when the patronage demand reaches a peak of 36 occupants the on-site car parking demand within Warringah Recreation Centre reaches a maximum of 11 cars parked on-site. In addition, between 7pm-8:30pm when the patronage demand reaches a peak of 24 occupants the on-site car parking demand within Warringah Recreation Centre reaches a maximum of 17 cars parked on-site.

These findings are a product of the type of users of the facilities at different times, with a larger proportion of children using the facilities in the early evening who are dropped off and picked up, thereby not generating longer term car parking demand, and more adults using the facilities later into the evening who are more likely to drive private cars to the site.

2.5.2. Existing Saturday Parking Demands & Patronage Numbers

Chart 3 Illustrates the existing car parking occupancy and vacancy within the vicinity of the site during a typical Saturday.

Chart 3: Weekend Existing Parking Demand and Occupancy

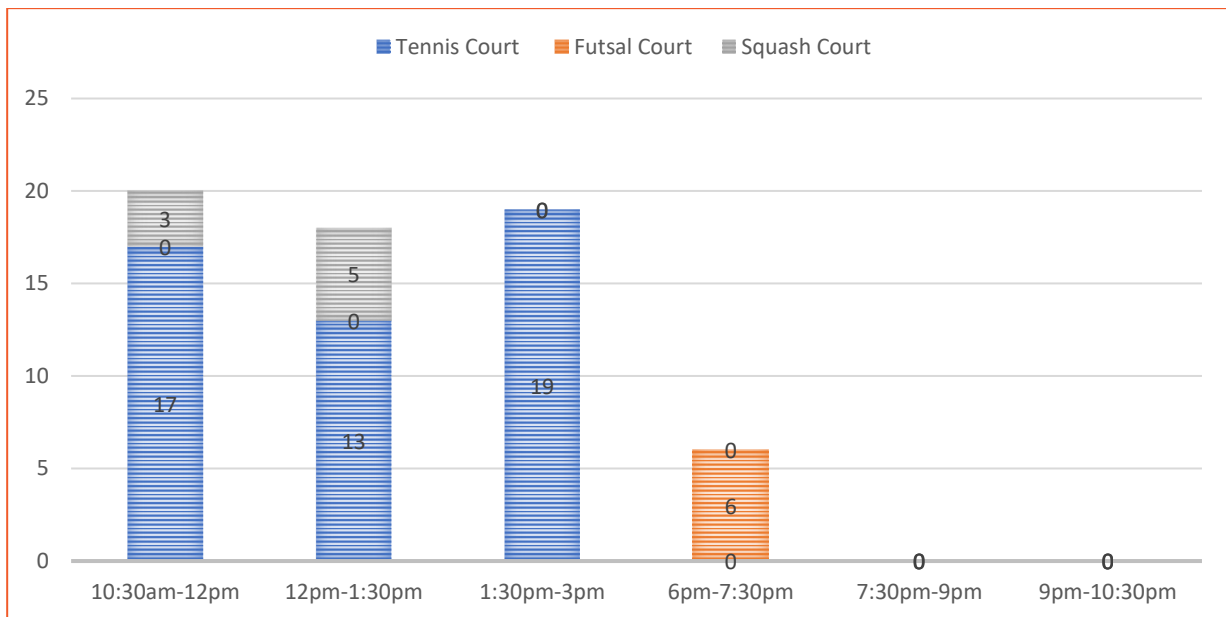


It can be seen from **Chart 3** that the existing peak parking demand within Warringah Recreation Centre reaches 44% capacity (16 cars parked) on a typical Saturday. The Bowling Green / Council car park reaches 29% capacity (43 cars parked), while the existing peak parking demand along Kentwell Road reaches 84% capacity (78 cars parked) and is generally high throughout hours of daylight when the golf course is open.

Car parking demand at all three locations is significantly lower on the Saturday evening after 6pm, when the proposed recreational centre would likely be experiencing its peak car parking demand, with car space occupancy ranging 1 – 11% of all available car spaces.

Chart 4 illustrates the existing on-site patronage numbers at Warringah Recreation Centre at the same time the car parking survey was undertaken.

Chart 4: Weekend Existing Patronage Numbers



It can be seen from **Chart 4** that the existing peak patronage demand reached 20 occupants between 10:30am-12pm, with 17 patrons utilising the tennis courts, three (3) patrons utilising the squash courts and nil (0) patrons using futsal courts. No patrons attended the site after 7:30pm.

In comparison, between 10:30am-12pm when the patronage demand reaches a peak of 20 occupants the on-site car parking demand within Warringah Recreation Centre reaches a maximum of 16 cars parked on-site. In addition, between 6pm-7:30pm when the patronage demand reaches a peak of six (6) occupants the on-site car parking demand within Warringah Recreation Centre reaches a maximum of four (4) cars parked on-site.

2.5.3. Summary

In summary, it is evident that in the vicinity of the site there is an abundance of spare car parking spaces on both a typical weekday and Saturday, noting that the parking demand does not exceed 48% along Kentwell Road and 11% within the bowling club during a typical weekday, while during the weekend, the parking demand did not exceed 84% along Kentwell Road and 29% within the bowling club car park during a typical weekday.

Users of the proposed Warringah Recreational Facility would therefore likely be able to park at any of these locations, should demand exceed that provided by the proposed off-street car parks to be delivered by Council.

3. Proposed Development

3.1. Overview

A detailed description of the proposed development for which approval is now sought, is outlined in the SEE prepared separately. In summary, the DA seeks consent for the proposed New Squash Building within the redevelopment of the proposed Warringah Recreational Centre located at the corner of Kentwell & Pittwater Road, consisting of:

- New Squash Building incorporating:
 - 3-5 Squash Courts
 - Circulation corridor
 - Ancillary facilities
 - Access to car park

The parking and traffic implications arising from the proposed development are discussed in Sections 4 and 5, respectively. It is acknowledged that a separate REF will be lodged for other areas of the site redevelopment, including the car parking. Whilst the provision of car parking is not proposed under this DA, a cumulative assessment is made to ensure the DA is consistent with the overall master planning of the site. The architectural drawings are included in **Appendix A**.

4. Parking Requirements

4.1. Car Parking

The WDCP 2011 does not specify car parking rates for recreational facilities; however, the RMS Guide provides clear guidelines:

- three spaces per squash court
- three spaces per tennis court

With respect to the DA, the Squash Building will provide three permanent squash courts, however the building design does allow for five if future demand warranted this. Therefore, based on five squash courts, a total of 15 car parking spaces are required. The provision of 120 car spaces under the REF would adequately cater for the required 15 spaces and is therefore compliant with Council's DCP.

With regards to the cumulative parking requirement (taking into consideration the REF requirements) the proposed five tennis courts require 15 car parking spaces also. Therefore, the cumulative car parking requirement of the Warringah Recreational Facility is 30 car spaces of which the 120 car parking spaces provided under the REF would satisfy this demand.

As mentioned in Section 1.2, the proposed recreational centre redevelopment will share the site access with the proposed Warringah Golf Club development, which is approved.

A Traffic Impact Assessment was prepared by PDC Consultants in November 2022, associated with the DA of the golf club. It was identified that the Warringah Golf Club development will generate the demand for the following number of car parking spaces:

- 58 car parking spaces during 'typical operations'.
- 73 car parking spaces during a function event.

Therefore, the proposed redeveloped Warringah Recreational Centre under both DA and REF applications, combined with the approved Warringah Golf Club development, are expected to generate a peak demand for 103 car parking spaces.

In response, the development of two car parking facilities proposed under the REF will provide a total of 125 car parking spaces. The two car parks are located at the eastern and western sides of the proposed recreational centre redevelopment respectively (namely eastern and western car park). The eastern car park consists of 52 car parking spaces and will have direct access to the proposed recreational centre redevelopment and the golf club; the western car park consists of 73 car parking spaces and will have access to the Warringah Recreational Facility and Warringah Golf Club via the proposed pedestrian bridge across Brookvale Creek (subject to the REF).

4.2. Bicycle Parking

The WDCP 2011 stipulates the following bicycle parking rates for recreational facilities and the subject DA has been assessed against the requirement in WDCP 2011. It is noted that the Squash Building will be generally self-serve and not accommodate permanent staff on-site at all-hours. Additionally, spectators to squash games are anticipated to be low and generally consistent with the existing Warringah Recreational Facility patronage.

The bicycle parking requirements under WDCP 2011 are listed below and are not considered onerous

High – Medium Security Level

One space per four employees

One space per 1,500 spectator places

High – Low Security Level

One space per 200 m² gross floor area (GFA)

One space per 250 spectators

Due to the relatively small scale building in comparison to the bicycle parking rates, and fluctuation of any staff or spectator attendance, it is recommended that at least four bicycle spaces be provided for the Squash Building to satisfy WDCP 2011 requirements.

For cumulative bicycle parking considerations, bicycle parking for the Tennis Courts could share provisions made for the Squash Building. Noting that there is no GFA associated with the Tennis Courts, a further three bicycle spaces is suggested for the Tennis Courts.

4.3. Motorcycle Parking

The WDCP 2011 does not stipulate motorcycle parking rates for recreational facilities and so the subject DA would not need to provide any motorcycle parking spaces. Notwithstanding, provision of one motorcycle space would be considered beneficial to support the operation of the Squash Building and overall Warringah Recreational Facility.

4.4. Service Vehicle Parking & Waste Collection

It is understood that servicing of the site will consist of the following:

- 10.5 metre long Council waste truck
- 8 tonne (t) Council truck assumed to be no greater than 8.8 metres in length, equivalent to a medium rigid vehicle (MRV).

Neither of the WDCP 2011 nor RMS Guide policies stipulate a service vehicle parking rate for recreational facilities. There are no proposed separated waste / loading areas for the Squash Building within the redeveloped Warringah Recreational Facility. Service for the site is likely to occur once or twice a week and will be undertaken outside of peak times for the car parking area.

Subject to the appropriate implementation of a Traffic Management Plan (TMP), servicing trucks that come on-site are to undertake a three-point turn within the Warringah Golf Club loading / servicing area. This will result in forward entry and forward exit from the eastern car park.

Swept path analysis has been undertaken of the proposed service vehicle parking arrangements, with the use of a 10.5 metre rigid truck. The results are provided as **Appendix C** and confirm that satisfactory entry and exit manoeuvres will be achieved to the loading bay. It is noted that vehicles 8.8 metres in length and longer are required to turn right only upon exiting, as vehicles this size and larger whom attempt to turn left upon exit will cross the centreline on Kentwell Road.

4.5. .Design

The car park is being delivered under the REF and as such, the design compliance is reviewed and provided within the REF documentation.

5. Traffic Impacts

5.1. Trip Generation

Neither the RMS Guide stipulates the following traffic generation rates recreational facilities developments:

- Squash Courts: 3 vehicle trips / hour during the evening peak hour.
- Tennis Courts: 4 vehicles trips / hour during the evening peak hour.

Therefore, based on five squash courts provided under this DA within the redeveloped Warringah Recreational Centre, a total of 15 vehicles per hour will be generated during peak periods.

With regards to the cumulative parking requirement (taking into consideration the REF requirements) the proposed five tennis courts generate 20 vehicles per hour during peak periods.

Accordingly, the traffic generation of the proposed redeveloped Warringah Recreational Centre (accounting for both the DA and REF) has been determined as a peak traffic generation of 35 vehicles per hour.

5.2. Traffic Distribution & Impacts

Compared with the existing Warringah Recreation Centre, the proposed recreational centre redevelopment will result in a net decrease in traffic generation of 10 vehicle trips / hour during the evening peak hour and accordingly, no external improvements will be required to facilitate the development.

These trips will be distributed to the west and east of Kentwell Road as motorists seek to access Pittwater Road and Condamine Street and split in both directions due to the inbound and outbound movements.

6. Conclusions

In summary:

- PDC Consultants has been commissioned by Webber Architects Pty Ltd to prepare a TIA of a DA relating to the Squash Building within the proposed redevelopment of the Warringah Recreational Centre. Section 3 of this report provides a summary of which the DA seeks approval for, with a detailed description of the works provided in the SEE separately prepared.
- The WDCP does not stipulate car parking rates for recreational facilities. Accordingly, the car parking provision is assessed against the RMS Guide. Under the RMS guide, the Squash Building is expected to generate a demand for 15 car parking spaces and combined with the tennis courts (separate REF application) and approved Warringah Golf Club, a total demand for 103 car parking spaces is required to be accommodated. The joint demand for 103 car parking spaces will be served by the two-off streetcar parks, which will provide a total of 125 car parking spaces.
- Due to the relatively small scale building in comparison to the bicycle parking rates, and fluctuation of any staff or spectator attendance, it is recommended that at least four bicycle spaces be provided for the Squash Building to satisfy WDCP 2011 requirements.
- The WDCP 2011 does not stipulate motorcycle parking rates for recreational facilities and so the subject DA would not need to provide any motorcycle parking spaces. Notwithstanding, provision of one motorcycle space would be considered beneficial to support the operation of the Squash Building and overall Warringah Recreational Facility.
- Subject to the appropriate implementation of a Traffic Management Plan (TMP), servicing trucks up to 10.5 metres in length that come on-site are to undertake a three-point turn within The Warringah Golf Club loading / servicing area. This will result in forward entry and forward exit from the eastern car park. Vehicles 8.8 metres in length and longer are required to turn right only upon exiting, as vehicles this size and larger whom attempt to turn left upon exit will cross the centreline on Kentwell Road.
- Under RMS Guide, the proposed Squash Building within the redevelopment of the Warringah Recreational Centre is expected to generate a maximum of 15 vehicles per hour. In terms of cumulative impacts, the Warringah Recreational Centre is forecast to generate 35 vehicle trips per hour during the evening peak hour, resulting a net decrease of 10 vehicle trips per hour compared to the existing Warringah Recreation Centre. These trips will be distributed to the west and east of Kentwell Road as motorists seek to access Pittwater Road and Condamine Street and split in both directions due to the inbound and outbound movements.
- The traffic impacts of the proposed development are therefore acceptable, and no external improvements will be required to facilitate the development.

It is therefore concluded that the proposed development is supportable on traffic planning grounds.

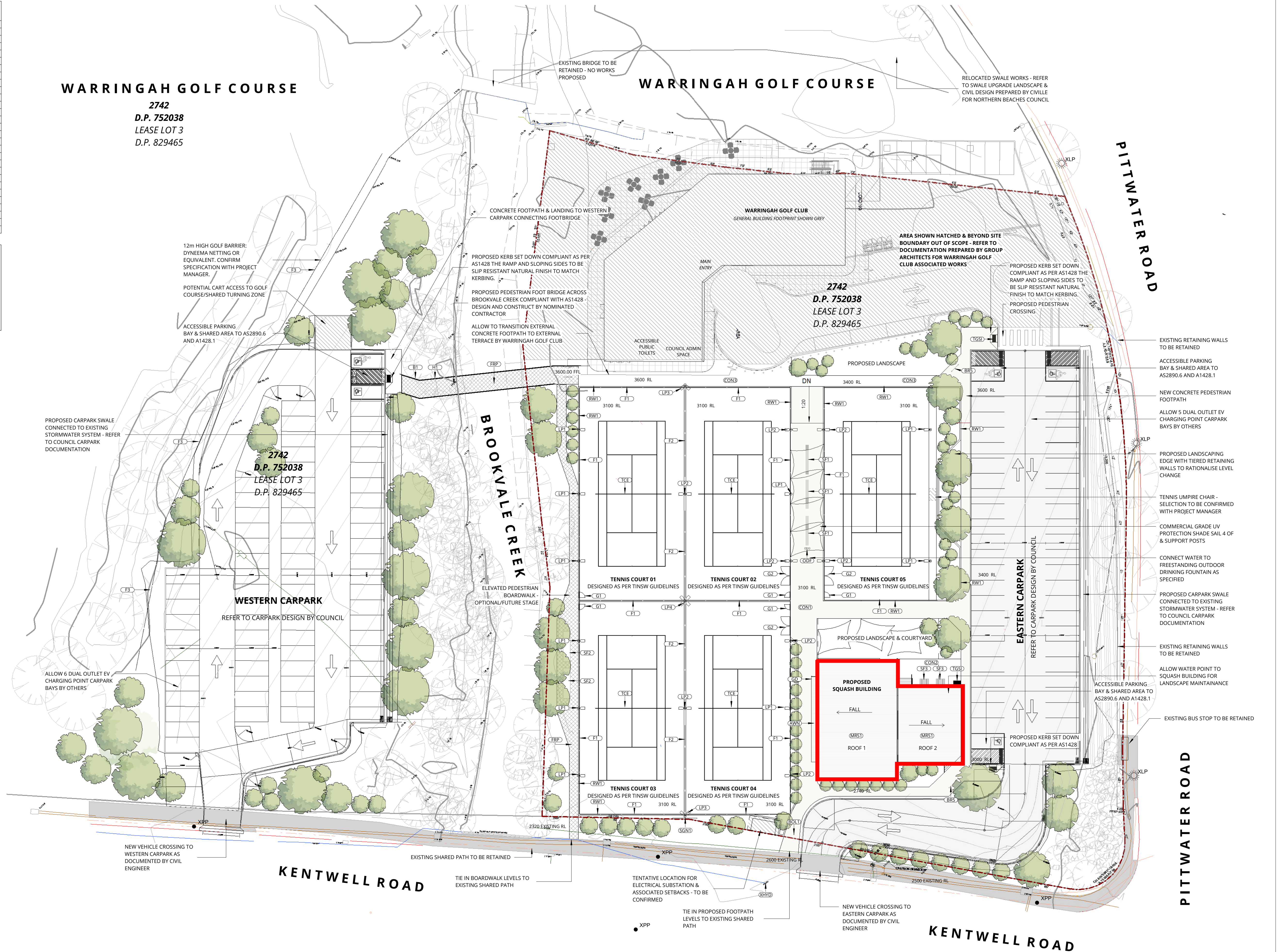


Appendix A

KEYNOTES	
AWN	
B1	BALUSTRADE - TYPE 1
BOL1	BOLLARD - TYPE 1
BR5	BIKE RACK - 5 BIKES
CON1	CONCRETE - TYPE 1
CON2	CONCRETE - TYPE 2
CON3	CONCRETE - TYPE 3
F1	FENCE - TYPE 1
F2	FENCE - TYPE 2
F3	FENCE - TYPE 3
FRP	FIRE PLACE
G1	GATE - TYPE 1
G2	GATE - TYPE 2
GD	GRATED DRAIN
H1	HANDRAIL - TYPE 1
LP1	LIGHT POLE - TYPE 1
LP2	LIGHT POLE - TYPE 2
LP3	LIGHT POLE - TYPE 3
LP4	LIGHT POLE - TYPE 4
MRS1	METAL ROOF SHEETING - TYPE 1
ODF	OUTDOOR DRINKING FOUNTAIN
RW1	RETAINING WALL - TYPE 1
SF1	STREET FURNITURE - TYPE 1
SF2	STREET FURNITURE - TYPE 2
SF3	STREET FURNITURE - TYPE 3
SGN1	SIGN - TYPE 1
TCE	TENNIS COURT EQUIPMENT
TGSI	TACTILE GROUND SURFACE INDICATOR
XHYD	EXISTING HYDRANT

SITE PLAN LEGEND	
	PROPOSED TREES & LANDSCAPING REFER TO LANDSCAPING PLAN FOR FURTHER DETAIL
	EXISTING POWER POLE
	EXISTING LIGHT POLE

SQUASH BUILDING SUBJECT OF DEVELOPMENT APPLICATION	
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REV	DATE	DESCRIPTION	BY	CHK
A	10.05.2024	ISSUED FOR COORDINATION		

**DRAWINGS COLOUR CODED
PRINT ALL COPIES IN COLOUR**

BUILDER TO CONFIRM ALL DETAILS, SETOUTS (FILE, BUILDING, ETC.),
FALLS, DIMENSIONS & CONNECTIONS ON SITE PRIOR TO CONSTRUCTION

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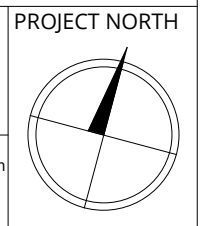
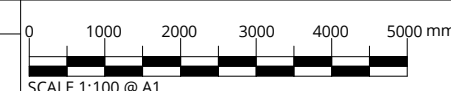


webber

Phone 02 4926 1078
PO Box 607 The Junction NSW 2201
www.webberarchitects.com
Suite 3, Level 1, 426 Hunter Street Newcastle NSW 2300
newcastle@webberarchitects.com
Suite 206, 9 Clarke Street Crows Nest NSW 2056
sydney@webberarchitects.com

ISSUED
PRELIMINARY ONLY
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**SITE PLAN - PROPOSED
WARRINGAH RECREATION CENTRE**
KENTWELL RD AT PITTWATER RD, NORTH MANLY
Lot 2742 DP 752038
COMMENCEMENT DATE: SEPT 2023



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Appendix B



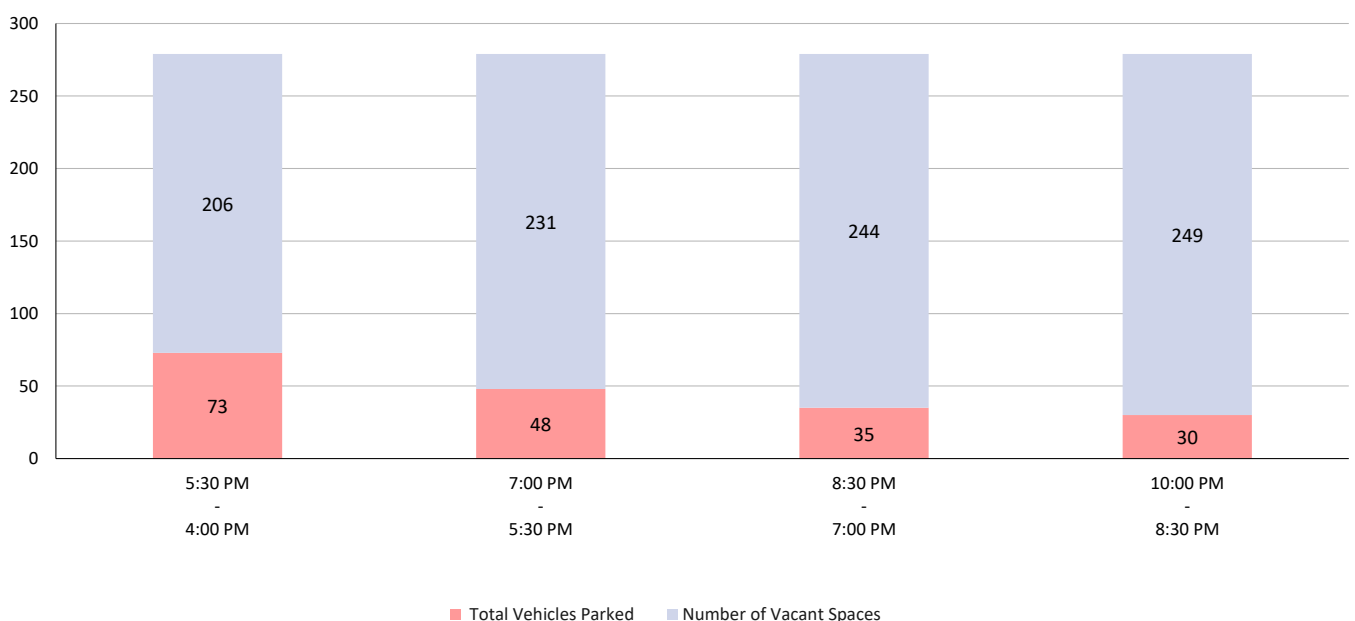
WARRINGAH GOLF CLUB

ZONE	UID	Street Name	Parking Restrictions	No. of Spaces			
A	A1	Tennis Court Carpark	At Grade	6	Bays	2.15%	of Total Capacity
A	A2	Tennis Court Carpark	At Grade	7	Bays	2.51%	of Total Capacity
A	A3	Tennis Court Carpark	At Grade	23	Bays	8.24%	of Total Capacity
B	B1	Bowling Court Carpark	At Grade	34	Bays	12.19%	of Total Capacity
B	B2	Bowling Court Carpark	At Grade	43	Bays	15.41%	of Total Capacity
B	B3	Bowling Court Carpark	At Grade	73	Bays	26.16%	of Total Capacity
C	C1	Kentwell Road	No Restrictions	32	Bays	11.47%	of Total Capacity
C	C2	Kentwell Road	No Restrictions	61	Bays	21.86%	of Total Capacity
Total Capacity				279	Bays	100.00%	of Total Capacity

Location	WARRINGAH GOLF CLUB
Suburb	NORTH MANLY
Client	PDC
Job No/Name	22106
Survey Duration	4 HOURS
Day/Date	Thursday, 18 August 2022

Zone	UID	Street Name	Parking Configuration	Parking Restriction	Capacity	4:00 PM - 5:30 PM	5:30 PM - 7:00 PM	7:00 PM - 8:30 PM	8:30 PM - 10:00 PM
A	A1	Tennis Court Carpark	Perpendicular	At Grade	6	2	5	6	4
A	A2	Tennis Court Carpark	Perpendicular	At Grade	7	2	7	6	5
A	A3	Tennis Court Carpark	Perpendicular	At Grade	23	7	1	5	6
B	B1	Bowling Court Carpark	Perpendicular	At Grade	34	0	0	2	1
B	B2	Bowling Court Carpark	Perpendicular	At Grade	43	0	0	0	0
B	B3	Bowling Court Carpark	Perpendicular	At Grade	73	17	17	15	13
C	C1	Kentwell Road	Parallel	No Restrictions	32	15	7	0	0
C	C2	Kentwell Road	Perpendicular	No Restrictions	61	30	11	1	1
Total Vehicles Parked					279	73	48	35	30
Number of Vacant Spaces						206	231	244	249
% of Capacity Used						26.2%	17.2%	12.5%	10.8%

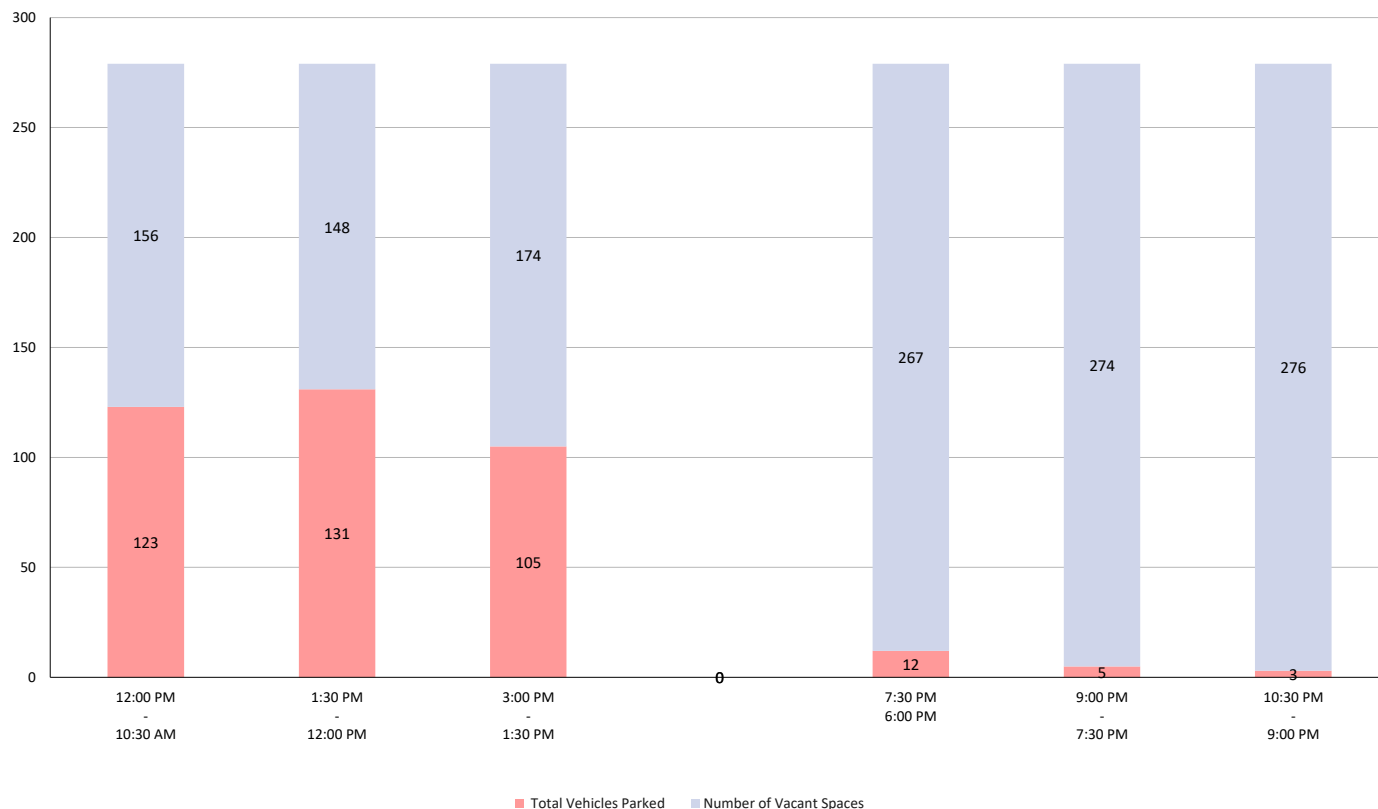
Parking Occupancy - WARRINGAH GOLF CLUB



Location	WARRINGAH GOLF CLUB
Suburb	NORTH MANLY
Client	PDC
Job No/Name	22106
Survey Duration	9 HOURS
Day/Date	Saturday, 20 August 2022

Zone	UID	Street Name	Parking Configuration	Parking Restriction	Capacity	10:30 AM - 12:00 PM	12:00 PM - 1:30 PM	1:30 PM - 3:00 PM		6:00 PM - 7:30 PM	7:30 PM - 9:00 PM	9:00 PM - 10:30 PM
A	A1	Tennis Court Carpark	Perpendicular	At Grade	6	3	3	3		2	1	1
A	A2	Tennis Court Carpark	Perpendicular	At Grade	7	5	4	6		2	0	0
A	A3	Tennis Court Carpark	Perpendicular	At Grade	23	8	6	6		0	1	0
B	B1	Bowling Court Carpark	Perpendicular	At Grade	34	4	6	3		2	1	1
B	B2	Bowling Court Carpark	Perpendicular	At Grade	43	25	37	16		0	0	0
B	B3	Bowling Court Carpark	Perpendicular	At Grade	73	68/1	48/1	40/1		3	1	0
C	C1	Kentwell Road	Parallel	No Restrictions	32	24	23	26		0	0	0
C	C2	Kentwell Road	Perpendicular	No Restrictions	61	54	52	45		3	1	1
Total Vehicles Parked					279	123	131	105		12	5	3
Number of Vacant Spaces						156	148	174		267	274	276
% of Capacity Used						44.1%	47.0%	37.6%		4.3%	1.8%	1.1%

Parking Occupancy - WARRINGAH GOLF CLUB



Location	WARRINGAH GOLF CLUB
Suburb	NORTH MANLY
Client	PDC
Job No/Name	22106
Survey Duration	4 HOURS
Day/Date	Thursday, 18 August 2022

PATRON COUNT

Zone	Street Name	4:00 PM - 5:30 PM	5:30 PM - 7:00 PM	7:00 PM - 8:30 PM	8:30 PM - 10:00 PM	<i>Total Patronage</i>
A	Tennis Court	22	24	18	16	80
B	Squash Court	0	0	6	7	13
C	Bowling Court	0	0	0	0	0
D	Futsal Court	14	0	0	0	14
Total Patronage		36	24	24	23	

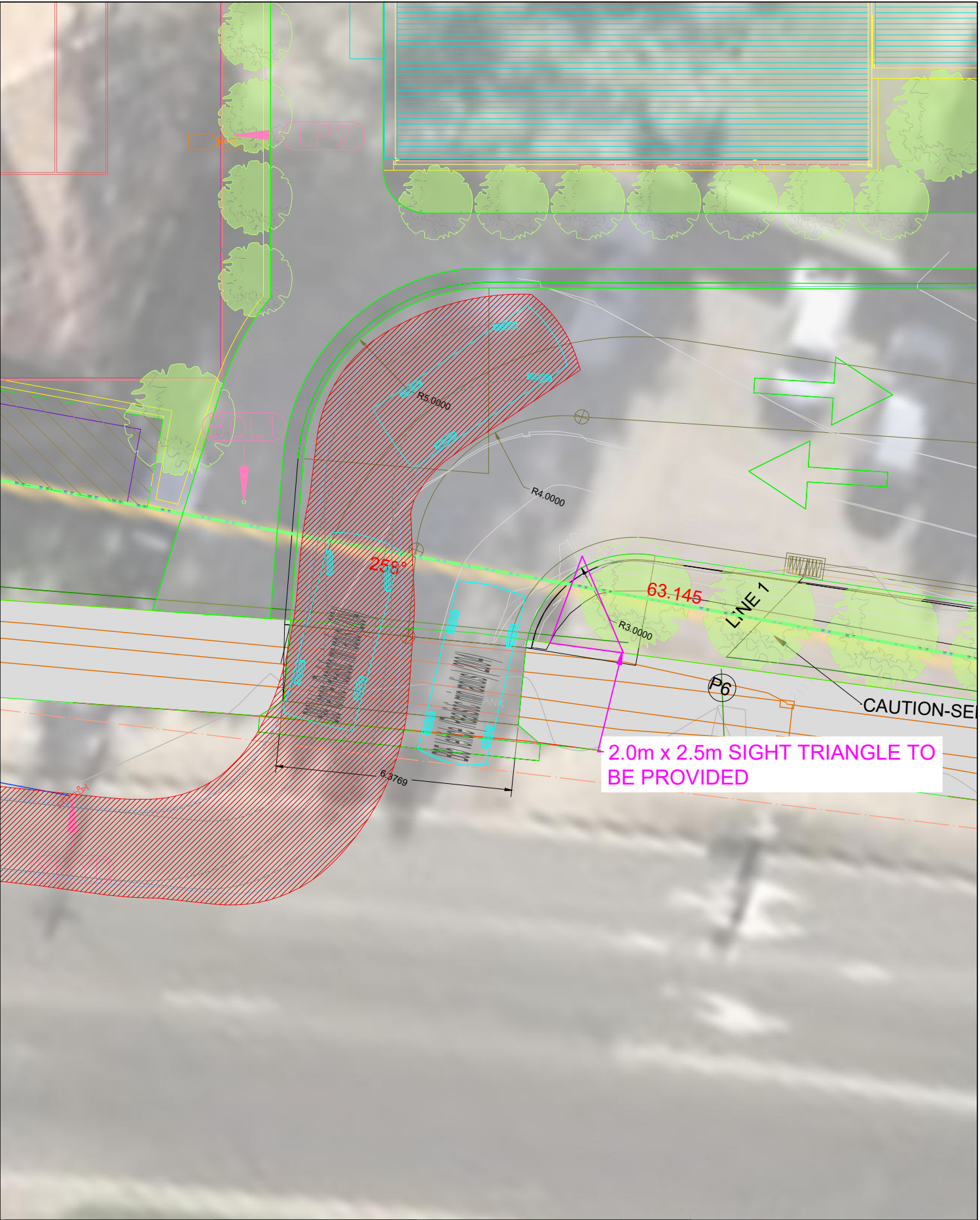
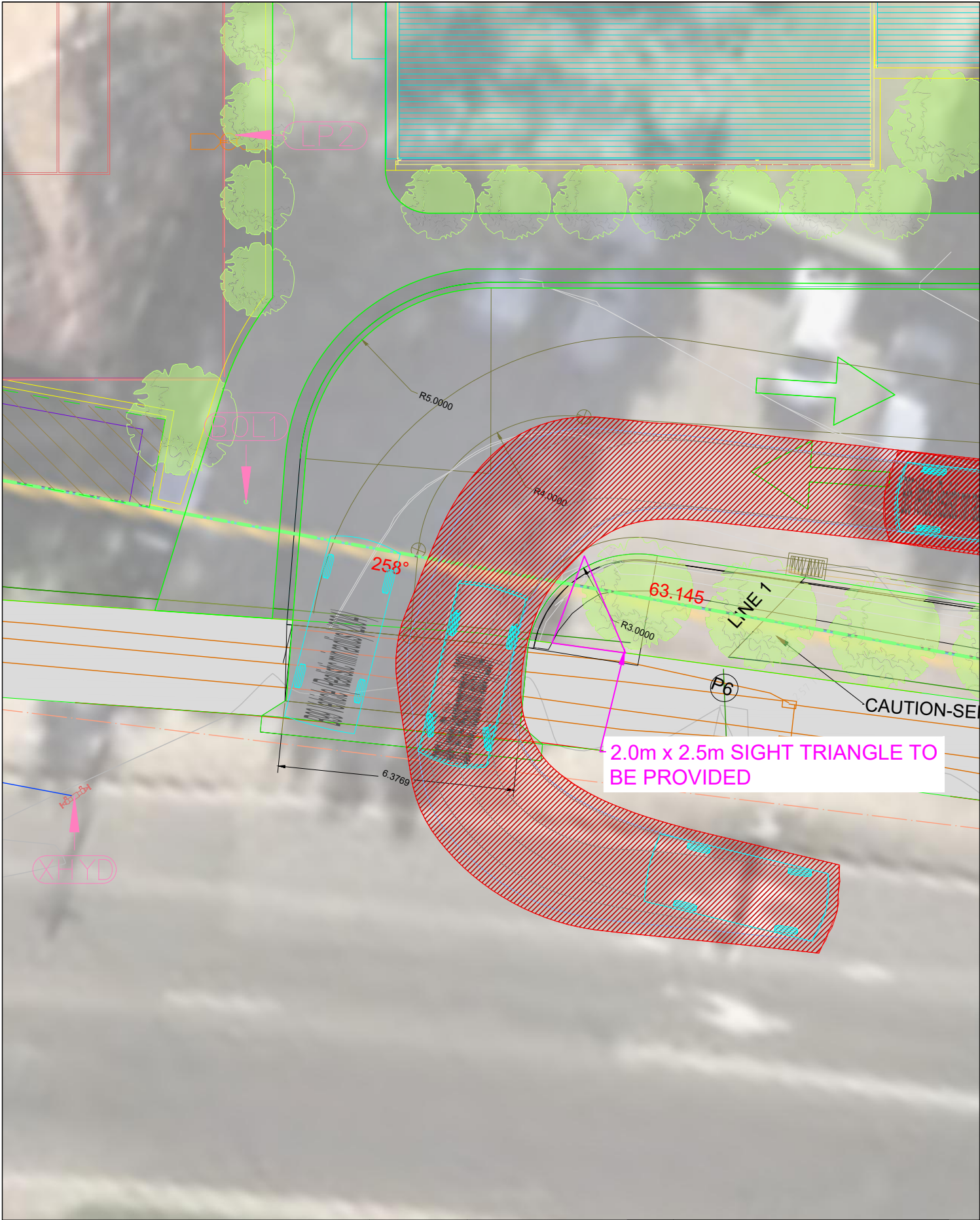
Location	WARRINGAH GOLF CLUB
Suburb	NORTH MANLY
Client	PDC
Job No/Name	22106
Survey Duration	9 HOURS
Day/Date	Saturday, 20 August 2022

PATRON COUNT

Zone	Street Name	10:30 AM - 12:00 PM	12:00 PM - 1:30 PM	1:30 PM - 3:00 PM		6:00 PM - 7:30 PM	7:30 PM - 9:00 PM	9:00 PM - 10:30 PM	<i>Total Patronage</i>
A	Tennis Court	17	13	19		0	0	0	49
B	Squash Court	3	5	0		0	0	0	8
C	Bowling Court	0	0	0		0	0	0	0
D	Futsal Court	0	0	0		6	0	0	0
	Total Patronage	20	18	19		6	0	0	



Appendix C



<div>Drawing Prepared By</div> <div></div>	<div>North</div> <div></div>	<div>Swept Path Key</div> <div><div>-----</div> Vehicle Wheel Path</div> <div><div>—</div> Vehicle Body Envelope</div> <div><div>—</div> 300mm Vehicle Clearance</div>
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Project

Warringah Recreational Centre

Project No

0979

Drawing Title

EASTERN CARPARK
B99 & B85 ENTERING & EXITING
SWEEP PATHS

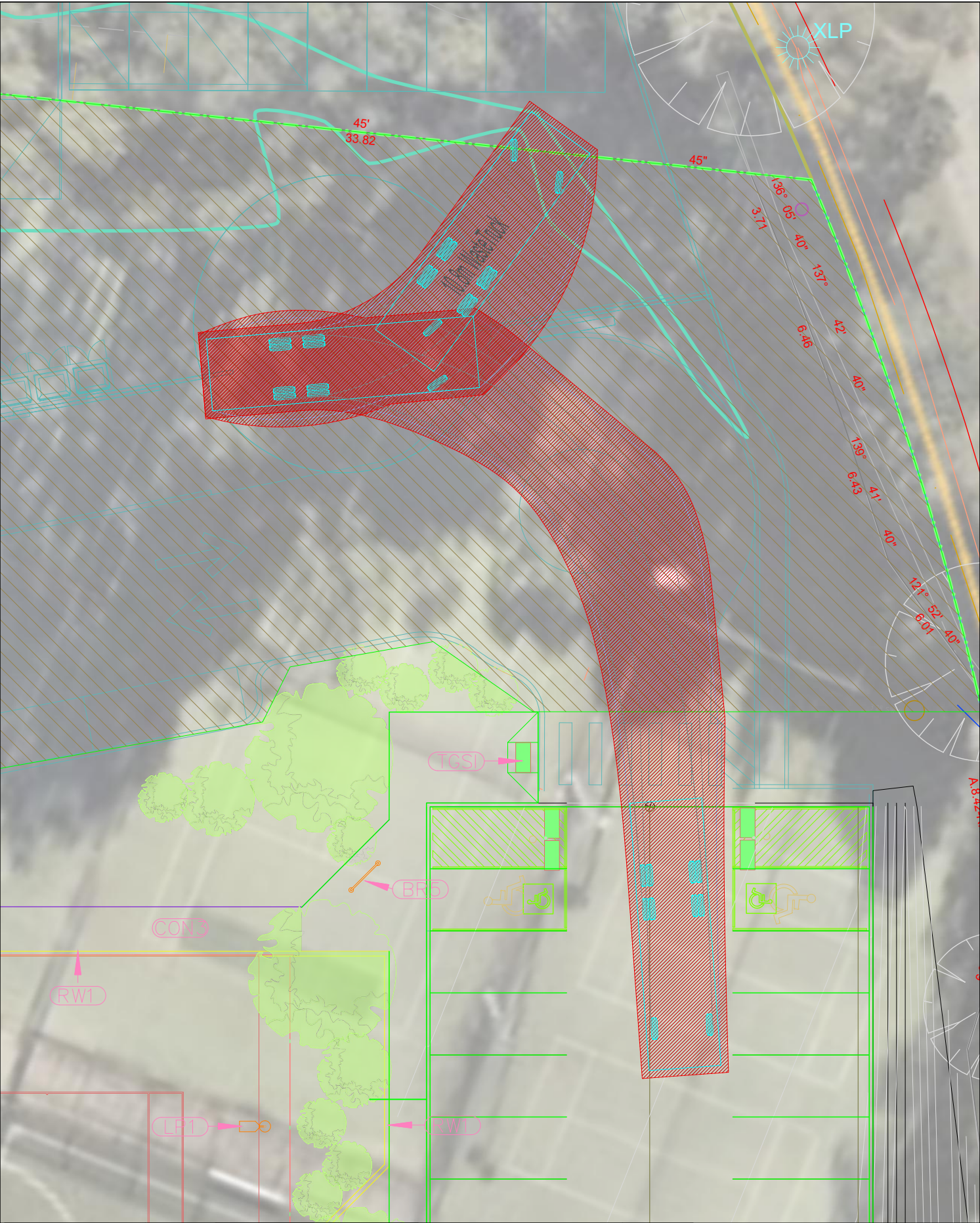
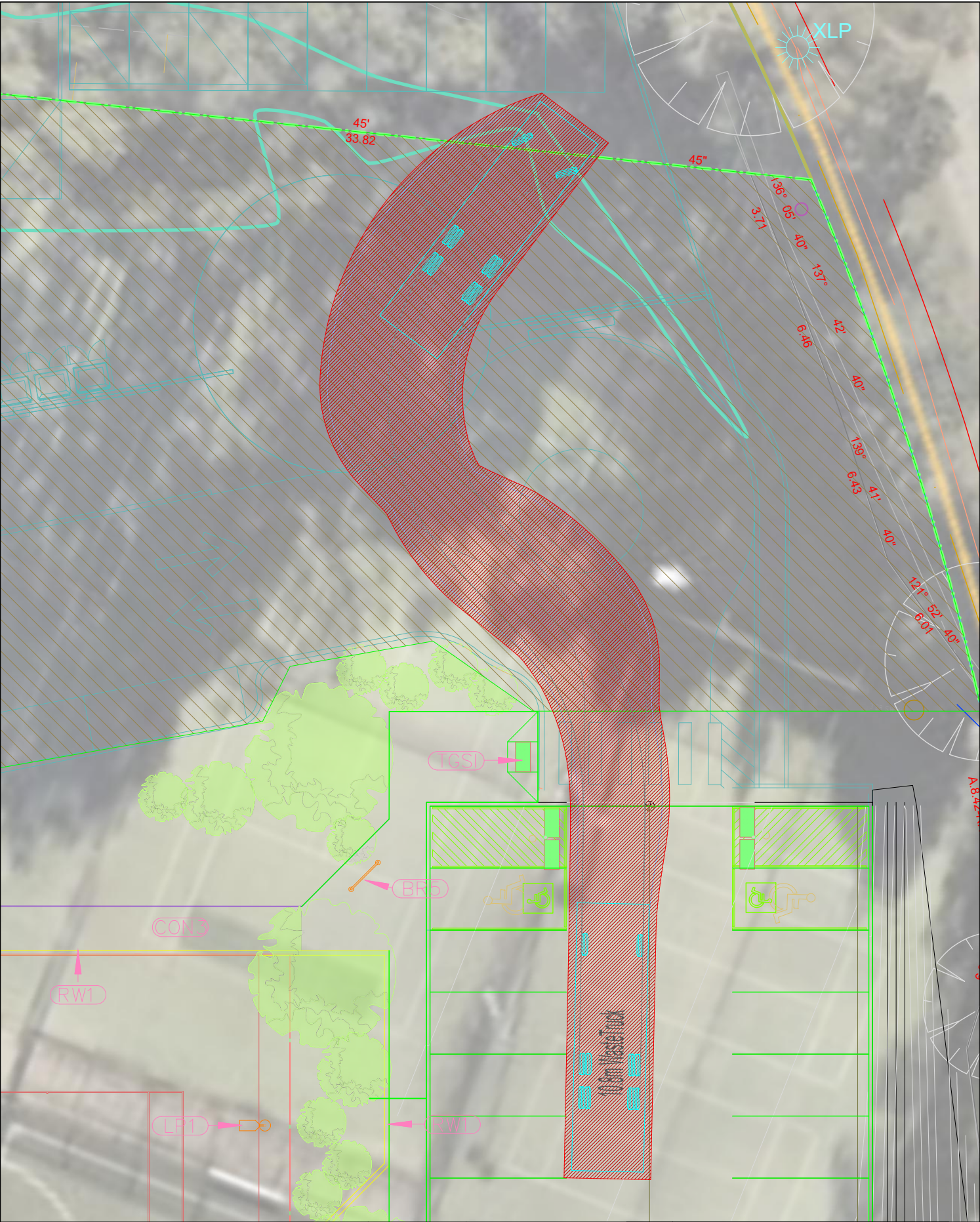
Sheet Status

NOT FOR CONSTRUCTION

 Drawing No. 001 Drawn By TL Revision No. - Date 18/07/2024 Scale 1:200 @ A3 |



<div>Drawing Prepared By</div> <div></div>	<div>North</div> <div></div>	<div>Swept Path Key</div> <div><div>Vehicle Wheel Path</div><div>Vehicle Body Envelope</div><div>300mm Vehicle Clearance</div></div>	<div>Project</div> <div>Warringah Recreational Centre</div> <div>Project No</div> <div>0979</div>	<div>Drawing Title</div> <div>EASTERN CARPARK 10.8 M WASTE TRUCK ENTERING & EXITING SWEEP PATHS</div> <div>Sheet Status</div> <div>NOT FOR CONSTRUCTION</div>	<div>Drawing No.</div> <div>003</div> <div>Drawn By</div> <div>TL</div> <div>Revision No.</div> <div>-</div> <div>Date</div> <div>18/07/2024</div> <div>Scale</div> <div>1:400 @ A3</div> <div></div>
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<div>Drawing Prepared By</div> <div></div>	<div>North</div> <div></div>	<div>Swept Path Key</div> <div><div>-----</div> Vehicle Wheel Path</div> <div><div>-----</div> Vehicle Body Envelope</div> <div><div>-----</div> 300mm Vehicle Clearance</div>
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