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TRAFFIC IMPACT ASSESSMENT

37-43 HAY STREET COLLAROY NSW 2097

Proposed Seniors Living

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INTRODUCTION

AusWide Consulting was engaged by DMPS Planning to prepare a Traffic and Parking Impact Assessment report for the construction of seniors living development located at 37-43 Hay Street, Collaroy.

The proposal involves the demolition of the existing four dwelling houses and the construction of a seniors living development accommodating 11 units. Lastly, the site will be accessible via a new combined entry and exit driveway located on the Hay Street frontage.

This report will assess the implications of the proposed development on existing traffic and transport conditions surrounding the site. The following items have been included in the subsequent sections of this report:

- Existing Traffic conditions surrounding the site;
- Expected traffic generation characteristics of the proposed development and their impact on the surrounding road network;
- Parking requirement for the proposed development;
- Suitability of the proposed access arrangements for the site;
- Conclusions of the above findings.
- The following documents were referenced for the preparation of this report:
 - Northern Beaches Development Control Plan
 - The Transport for New South Wales (TfNSW) Guide to Traffic Generating Development;
 - Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1-2004); and
 - Australian Standard for Parking Facilities Part 6: Off-Street Parking for People with Disabilities (AS2890.6-2009).

BACKGROUND AND EXISTING CONDITIONS

Subject Site Location

The proposed development is addressed as 37-43 Hay Street, Collaroy and is part of Northern Beaches Council LGA. The site is located on the south-eastern corner of the intersection of Anzac Avenue and Hay Street.

The site occupies an area of 2839.1sqm and has frontages located on Anzac Avenue and Hay Street. The site is regular in shape and is surrounded by residential dwelling houses to the east and south, Anzac Avenue to the north and Hay Street to the west.

The site is currently occupied by four residential dwelling houses which are serviced by a dedicated driveway – thus, resulting in a total of four driveways.

The location of the subject site and its surrounding suburbs are depicted in **Figure 1**.

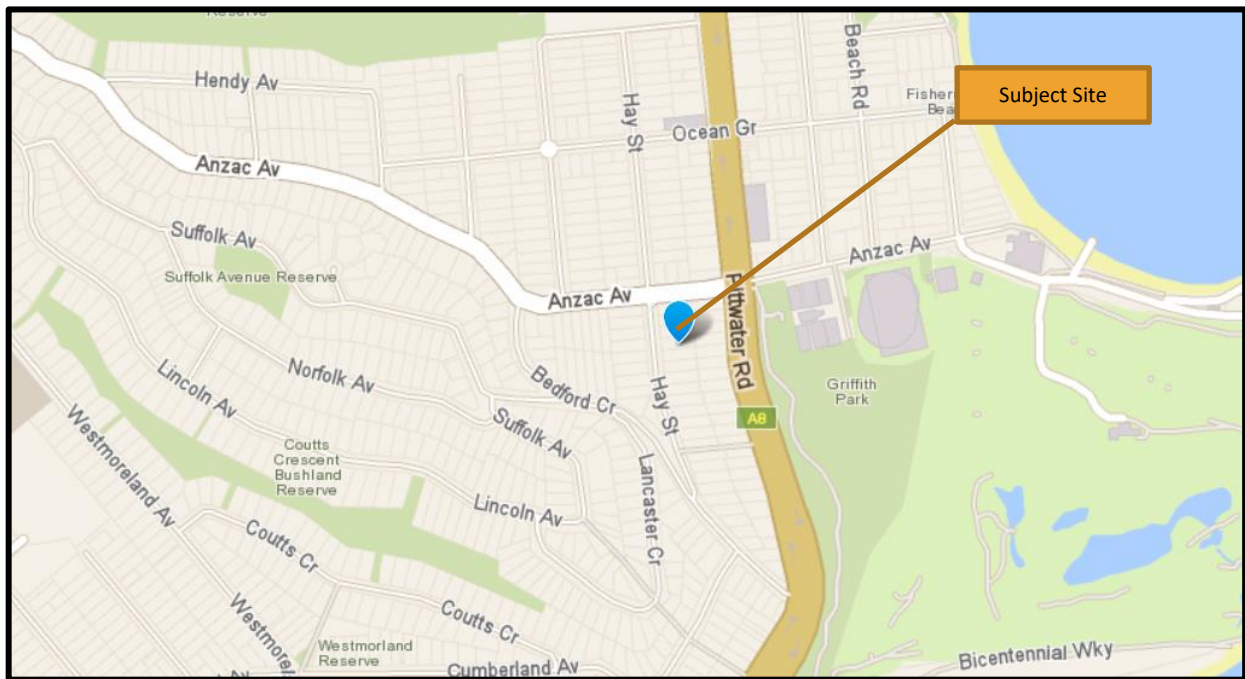


Figure 1- Surrounding Suburbs (Source: Whereis Maps – Map data@2023)

Figure 2 on the following page portrays an aerial view of the site.

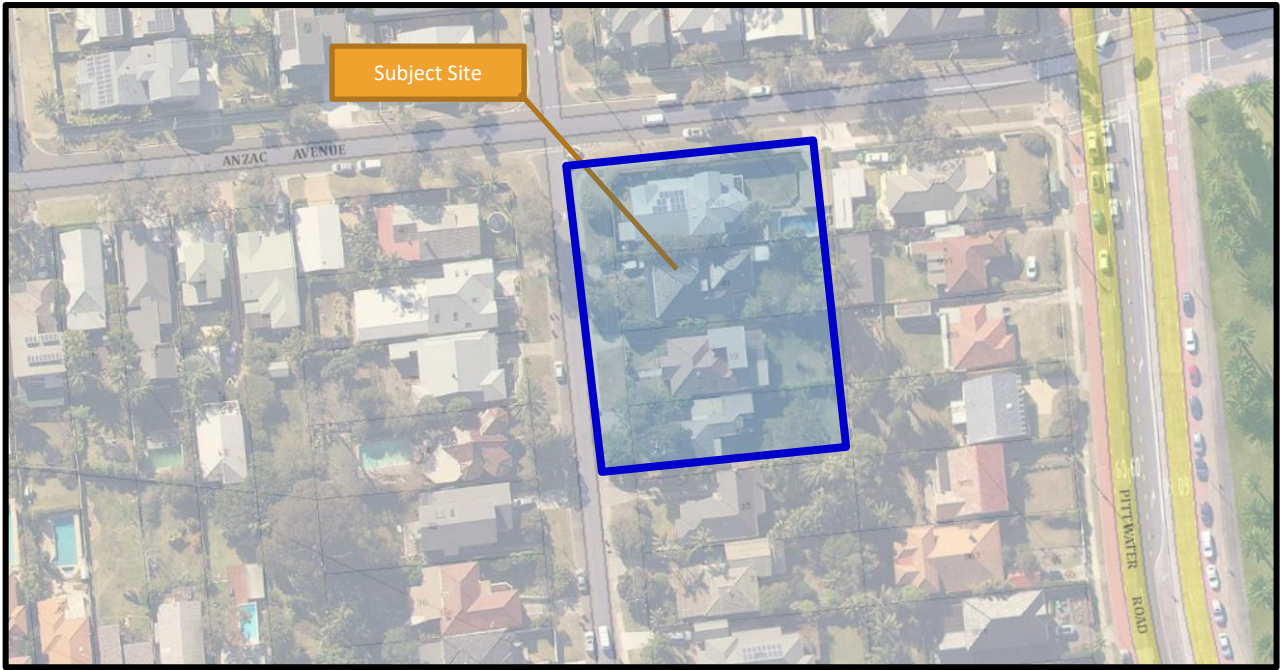


Figure 2 - Aerial View of Subject site (Source: Six Maps)

Planning Zones & Overlay

The subject site is zoned as a R2-Low Density Residential. An extract of the subject site’s Planning Scheme Zones is shown in **Figure 3**, and **Figure 4** provides a summary of planning control within the planning database.

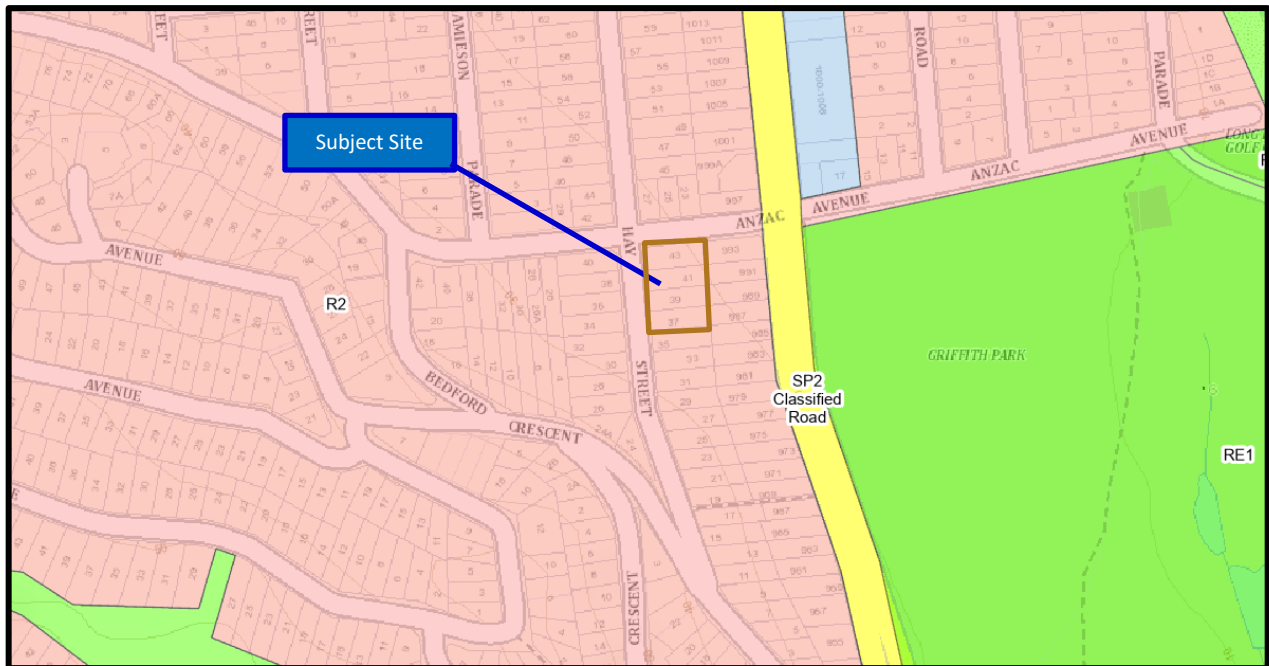


Figure 3 - Subject Site Planning Zones & Overlay (Source: <https://www.planningportal.nsw.gov.au/spatialviewer>)

Features	
Local Government Area (Council)	Northern Beaches Council (Warringah Council)
Zone	R2 - Low Density Residential

Figure 4- Summary of Planning controls (Source: <https://www.planningportal.nsw.gov.au/spatialviewer>)

Existing Traffic Conditions

Public Transport

The subject site is located in an area with limited access to public transportation via buses. Buses are accessible via the bus stop located along Pittwater Road - approximately 100m away and a 1-minute walk from the subject site. Bus Route 199 (**Figure 5**) operates between Manly and Palm Beach via Mona Vale & Dee Why. It is a regular service operating throughout the day, at a frequency of one service every 15 minutes during commuter peak period.

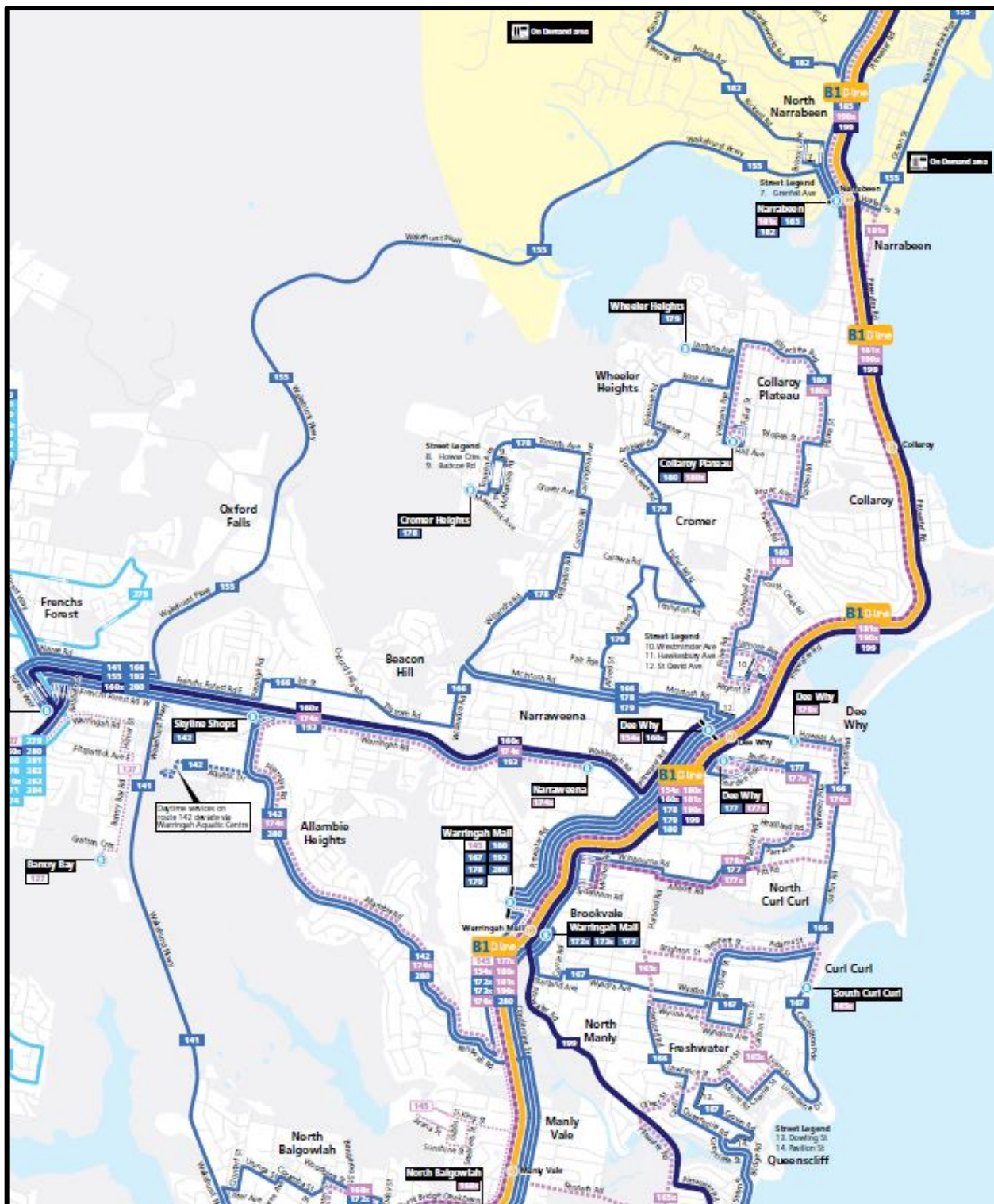


Figure 5- Bus Route 199 Route Map (Source – Transport Infoline website)

Walkability

The locality was assessed for nearby features that would encourage employees and visitors to walk/cycle. Reference is made to the 15-minute walking catchment area outlined in **Figure 6**.

The 'walkability' of a site is a measure of its proximity to other facilities by walking and can be ascertained from www.walkscore.com. The subject site is rated as "Somewhat Walkable" (meaning that some errands can be accomplished on foot) and with a score of 53 out of 100 (obtained from the 'Walk Score' web tool), it provides a lower ranking compared to the average Sydney metropolitan score of 63 out of 100.

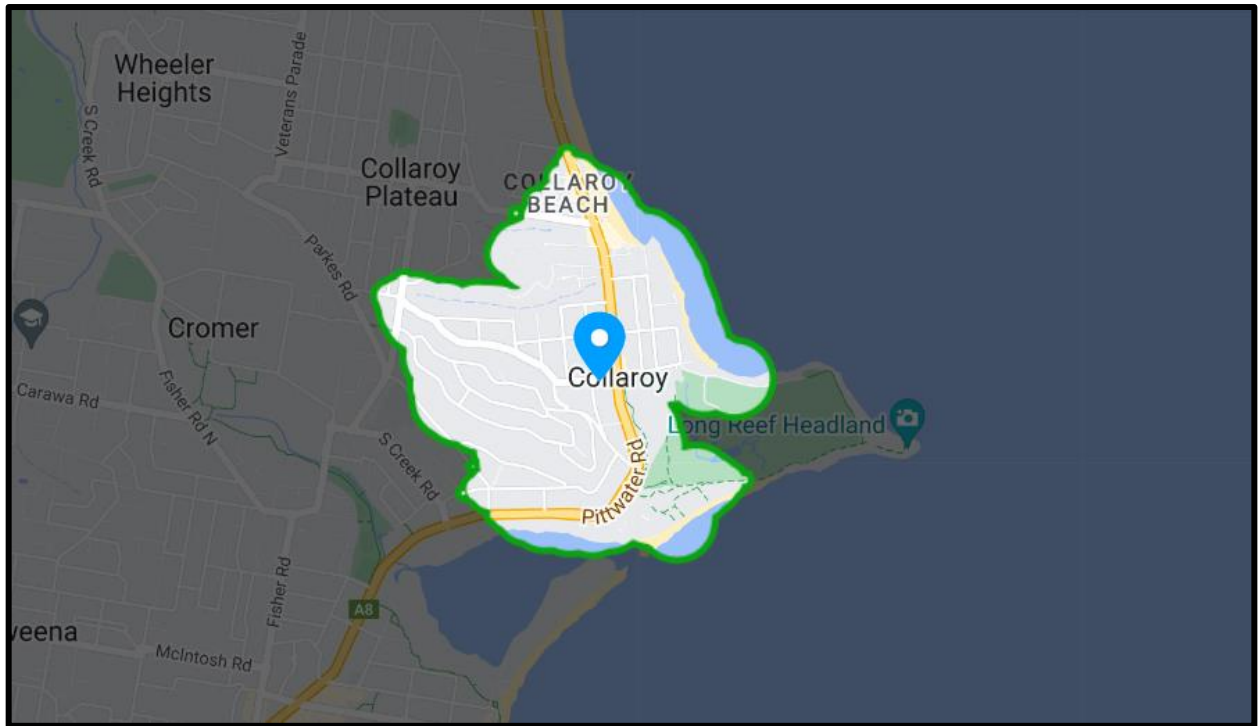


Figure 6- illustrates a 15-minute walkable catchment area from the site.

Road Network

The following section provides detailed description about the surrounding roads. The road classification map is presented as **Figure 7** presented overleaf.

Pittwater Road is classified as a State Road and follows a North-South alignment. The carriageway is divided and comprises of three traffic lanes, including a bus lane, in each direction. Within the vicinity of the subject site, Pittwater Road has a posted speed limit of 60kph.

Anzac Avenue is classified as a local road connecting Pittwater Road with Parkes Avenue. It follows an East-West alignment. The carriageway is undivided and comprises of one traffic lane in each direction. It has a posted speed limit of 50kph. The intersection of Anzac Avenue with Pittwater Road operates as a signalised intersection.

Hay Street is undivided and comprises one lane each for travelling in either direction with on-street parking permitted. Hay Street is wide enough to allow for kerbside parking and vehicle movements in both directions. A 50 km/h speed limit applies to this road near the development.

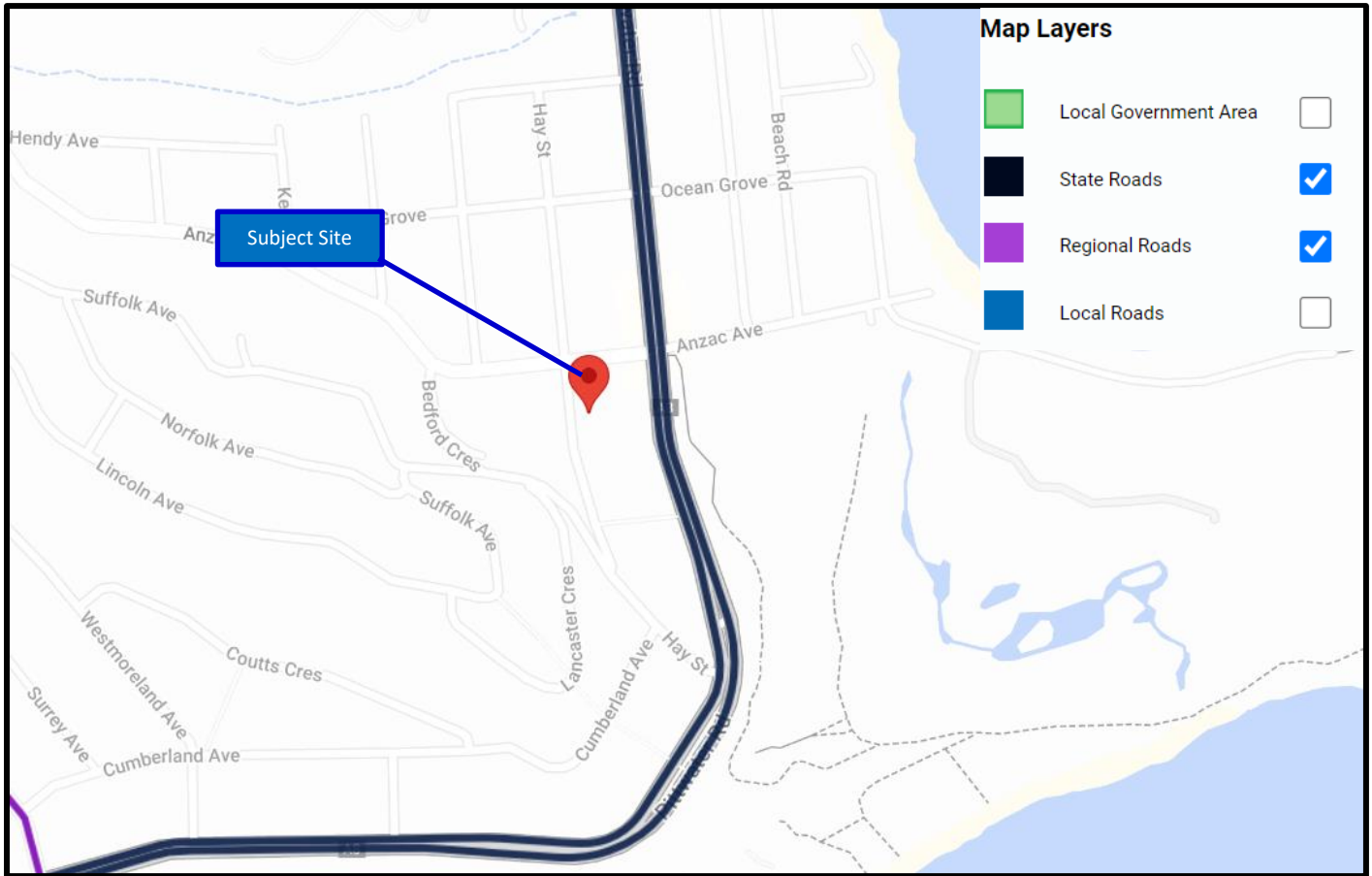


Figure 7- TfNSW Road Classification Map (Source <https://roads-waterways.transport.nsw.gov.au/classification/map/>)

PROPOSED DEVELOPMENT

The proposal involves the construction of a double storey seniors living development that will accommodate a total of 11x three bedroom units. As part of the proposal a total of 24 car spaces will be provided within the basement level car park. Vehicular access to the residential development will be restricted to passenger cars.

All vehicular access to the residential development will be provided via a combined entry/exit driveway located on the Hay Street frontage.

Architectural plans associated with the proposal have been prepared by Popov Bass Architects, and the plans indicating the car park are presented as **Appendix A**.

TRAFFIC IMPACT ASSESSMENT

The following subsections discuss the impact of the expected traffic generation levels associated with the subject proposal.

Trip Generation

The standard engineering practice is to determine the traffic activity associated with the proposal with reference to the 'TfNSW Guide to Traffic Generation Developments' (the Guide). The proposal involves the construction of a double storey Seniors Housing that will accommodate a total of 11 residential units.

In relation to the residential component, the RMS has published a Technical Direction for traffic, safety and transport practitioners. This document serves to update the existing Section 3 of the RMS Guide which was originally published in October 2002. The TDT classifies Seniors Housing as Housing for aged and disabled persons and specifies the following traffic generation rates:

Daily vehicle trips = 2.1 per dwelling

Peak hour vehicle trips = 0.4 per dwelling

Application of the above trip generation rates to the proposed development results in approximately 4.4 (say 4) vehicle trips, during both morning and evening peak hour – representing a vehicle trip every 13 minutes or so.

The level of traffic generated by the proposed development will have no adverse effect on any nearby intersections and can be readily accommodated within the existing road network with minimal impact in terms of traffic flow efficiency and road safety considerations.

PROVISION OF CAR PARKING SPACES

Number of car parking spaces required for the Development.

The subject site is located at 37-43 Hay Street, Collaroy and is part of Northern Beaches Council LGA (formerly known as Warringah Council). In relation to the on-site parking requirements Appendix 1 of the Warringah Council Development Control Plan (DCP) specifies the following on-site parking requirements:

*General Residential - 1.5 spaces per 3 bedroom dwelling
1 visitor space per 5 units or part of dwellings*

A review of the plan indicates that the proposed development will include a total of 11 x three bedroom units. Application of the parking provision rates to the proposal results in 18.5 (say 19) car spaces including two visitor spaces.

The proposal includes a provision of 24 car spaces comprising of 22 spaces and two visitor car space - thus, complying with the planning requirements.

The proposed development has ample on-site parking and complies with the planning requirements.

Car Park Arrangements

Number of car parking spaces required for the development

This section will investigate the compliance of the basement level car parking spaces with the specific requirements outlined in AS2890.1-2004 and AS2890.6-2009. The following shall be read in conjunction with the car parking layout plans submitted as part of the development application.

AS/NZS 2890.1-2004 Compliance

This section will investigate the compliance of the proposed car park with the requirements outlined in AS/NZS 2890.1-2004 Off street parking facilities.

Car Space Dimensions

The minimum parking space and aisle dimensions have been outlined within this section. The following figure depicts the minimum requirements for User Class 1A (residential, domestic and employee parking).

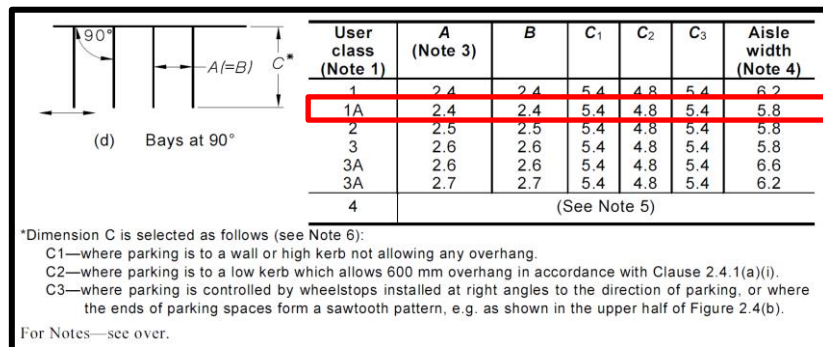


Figure 8 : Layouts for Angle Parking Spaces (AS2890.1)

As shown within the site plans, the widths of the on-site car parking are 2.4m and the lengths of all parking spaces are 5.4m.

The need for the following principle controls should be considered for the site

1. Kerbs: On one or more sides of a parking space to protect pedestrian walkways, landscaped areas and any other non-trafficable areas generally at or above pavement level, from encroachment.
2. Barriers: to contain vehicles at the edges of platforms or decks or to prevent encroachment onto pedestrian facilities.
3. Wheel stops: to limit the travel of vehicles when manoeuvring into the parking space.

Blind Aisles

Blind Aisle is a parking aisle closed at one end. At blind aisles, the aisle shall be extended a minimum of 1m beyond the last parking space and the last parking space widened by at least 300mm if it is bounded by a wall or fence.

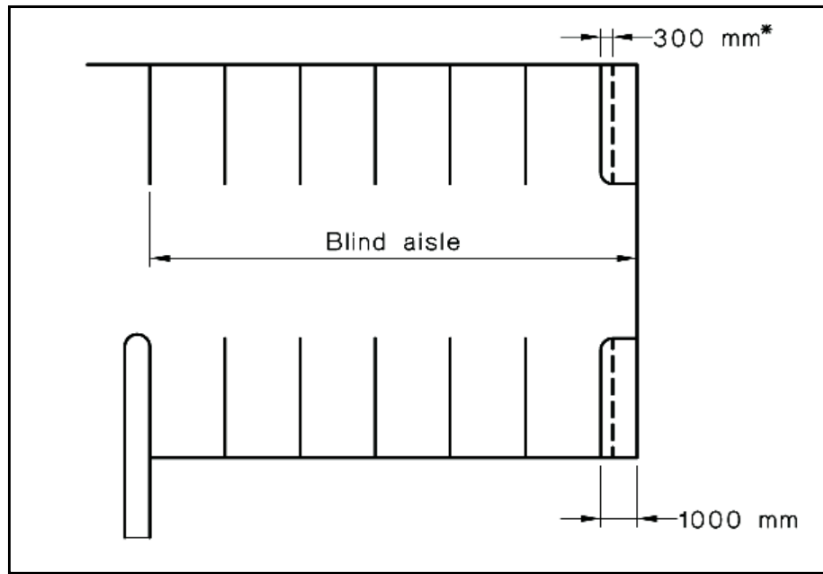


Figure 9 Blind Aisle extension requirement

Width of parking space provided for spaces at the end of the blind aisle is 1.0m which complies with the requirements in the code.

Sight Distance at Access Driveway Exit

Access driveways need to be located and constructed so that there is adequate entering sight distance to traffic on the frontage road and sight distance to pedestrians on the frontage road footpath for traffic entering the frontage road.

The vehicle entry/exit from the site is off Hay Street, which is a local road with a speed limit of 50km/hr. The sight distances have been assessed for an operating speed of 50km/hr. Referring to Figure 3.3 of AS 2890.2:2018, it is recommended to leave the shaded area in the figure below (except from AS 2890.2:2018) free of permanent obstacles for a length 'Y' of 69 metres.

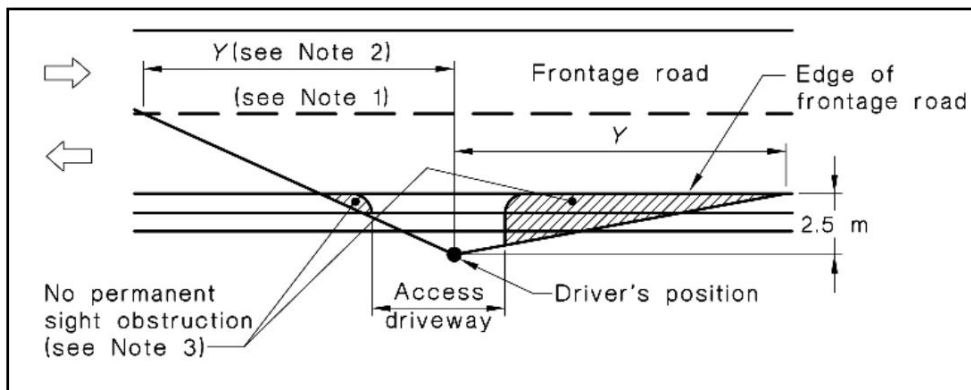


Figure 10 Sight Distance Requirements

Frontage road speed (Note 4) km/h	Distance (Y) along frontage road m		
	Access driveways other than domestic (Note 5)		Domestic property access (Note 6)
	Desirable 5 s gap	Minimum SSD	
40	55	35	30
50	69	45	40
60	83	65	55
70	97	85	70
80	111	105	95
90	125	130	Use values from 2 nd and 3 rd columns
100	139	160	
110	153	190	

Figure 11 : Minimum Sight Lines for Pedestrian Safety

The sight distances observed along Hay Street from the proposed vehicle exit to Hay Street is more than 69 metres. The sight distances observed exceed the desirable sight distance required of 69 metres from the table above. The sight distances from the proposed vehicle crossing comply with the standard requirement.

Sight distance for pedestrians

The required splay of 2.5 metres x 2 metres on either side of the driveway behind the property boundary can be achieved from the proposed driveways. Any proposed planting at the front boundary should be kept at a maximum height of 800mm, within the sight triangle area of 2.5 metres x 2 metres to ensure visibility of approaching pedestrians on the footpath.

Door Opening width.

Multiple vehicle garage with no internal walls. Parking spaces shall be 2.4 m wide minimum. These shall be spaced as follows:

Single door for all spaces. The spaces shall be contiguous with a further car door clearance of 300 mm minimum on the outside of each outer space, and the door width shall be the space width times the number of spaces (in metres). Apron widths for angled entry shall be at least equal to the aisle widths specified in Figure 2.2(of AS2890.1-2004) for the corresponding parking angle and user class.

In relation to the width of the opening door, the Standard recommends the door opening width shall be a minimum of 4.8m with corresponding apron width. The review of the proposed car park layout indicates the door opening width was measured to be 5.2 metres and thereby, meeting the requirements of the Standard.

SWEPT PATH DIAGRAMS

Swept path diagrams have been prepared to check the proposed parking layout for parked cars to manoeuvre on site and drive out in a forward direction. Swept path diagrams are attached in **Appendix B**.

CONCLUSIONS

Based on the assessment presented in this report, it is considered that:

- The proposed development for the site at 37-43 Hay Street, Collaroy is for the construction of a double storey residential development;
- The site has great access to the local area and greater Sydney region through public transport. With public transport options within reasonable walking distance to the site, it is likely for patrons to use public transport when travelling to and from the site;
- The site has walkability score of 53 out of 100, which indicates that it is “somewhat walkable”;
- The proposed development will generate additional, but low levels of trips throughout the day. It is expected that these trips can be accommodated at the nearby intersections without affecting intersection performance or increasing delays and queues; and
- Through car parking layout plan assessment, it is determined that the proposed development’s car parking design is compliant with the specific requirements outlined in AS2890.1-2004.

In conclusion, this study indicates that the proposed development is not envisaged to have adverse impacts on the surrounding traffic or parking conditions. Therefore, the proposed development changes should be supported on traffic and parking grounds.