Proposed Mixed-Use Development

77-81 Auburn Road & 19 Neutral Avenue, Birrong

TRAFFIC AND PARKING ASSESSMENT REPORT

3 February 2025

Ref 24057



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### 1. INTRODUCTION

This report has been prepared to accompany a development application to Canterbury-Bankstown Council for a proposed mixed-use development to be located at 77-81 Auburn Road & 19 Neutral Avenue, Birrong (Figures 1 and 2).

The proposed development involves the demolition of the existing buildings on the site to facilitate the construction of a new five-storey mixed-use residential apartment building, with a ground floor commercial/retail component.

Off-street parking is proposed for a total of 88 cars in a new two-level basement car parking area, in accordance with Council *DCP* requirements. Vehicular access to the site is to be provided via the existing right-of-carriageway (ROW) easement connecting off Neutral Avenue.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking and loading facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking and loading provided on the site



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### 2. PROPOSED DEVELOPMENT

#### Site

The subject site is located on the southeastern corner of the Auburn Road and Neutral Avenue intersection. The site is irregular in shape and has street frontages of approximately 45.41m to Auburn Road and 52.25m to Neutral Avenue, and occupies an area of approximately 2323m<sup>2</sup>.

The site is zoned *B1 Neighbourhood Centre* under the *Canterbury-Bankstown Local Environmental Plan 2023* and is situated approximately 300m walking distance north-west of the Birrong Railway Station pedestrian entrance. A recent aerial image of the site and its surroundings is reproduced below.



Source: Nearmap (Dated Wed May 29 2024)

No. 77-81 Auburn Road is currently occupied by three retail buildings, comprising a total of 7 retail tenancies fronting Auburn Road. The cumulative floor area of the existing buildings is approximately 840m<sup>2</sup>. Informal off-street parking is provided at the rear of the site, with vehicular access provided via the ROW connecting off Neutral Avenue.

No. 19 Neutral Avenue is currently *vacant* of structures and is currently used as a material storage yard. Vehicular access to the site is provided via an entry/exit driveway located off the Neutral Avenue site frontage.

#### **Proposed Development**

The proposed development involves the demolition of the existing buildings on the site to facilitate the construction of a new five-storey mixed-use building. A total of 50 residential apartments are proposed, as follows:

Eight commercial/retail tenancies are also proposed on the ground floor level fronting both Auburn Road and Neutral Avenue, with a cumulative floor area of approximately 681.25m<sup>2</sup>.

Off-street parking is proposed for a total of 88 cars, in a new two-level basement parking area, in accordance with Council *DCP* requirements. Vehicular access to the site is to be provided via the existing right-of-carriageway (ROW) located along the eastern boundary of the site, connecting onto Neutral Avenue.

That proposed vehicular access driveway is to be located in Neutral Avenue in accordance with *Section 2.119* of the *State Environmental Planning Policy (Transport and Infrastructure) 2021*, given its frontage to Auburn Road which requires the following:

#### 2.119 Development with frontage to classified road

- (1) The object of this section are-
  - (a) to ensure that new development does not compromise the effective and ongoing operation and function of classified roads, and
  - (b) to prevent or reduce the potential impact of traffic noise and vehicle emission on development adjacent to classified roads.

- (2) The consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that–
  - (a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and
  - (b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of-
    - (i) the design of the vehicular access to the land, or
    - (ii) the emission of smoke or dust from the development, or
    - (iii) the nature, volume or frequency of vehicles using the classified road to gain access to the land, and
  - (c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road.

Consistent with the requirements of *Section 2.119(2)*, vehicular access to the site is to be provided via the ROW access off Neutral Avenue, rather than Auburn Road, and the proposed development therefore complies with the requirements of the *SEPP (Transport and Infrastructure) 2021*.

Loading/servicing for the commercial/retail component is expected to be undertaken by a variety of commercial vehicles up to and including 6.4m long SRV trucks subject to a height clearance of 3.5m. A dedicated loading bay is to be provided on the ground floor, at the rear of the retail tenancies and adjacent the bin holding rooms. These trucks are able to enter and exit the site in a forward direction and utilise the ROW for manoeuvring into and out of the collection area.

Garbage collection for the residential component is expected to be undertaken by Council's waste contractor and their 'collect and return service', with bins to be stored on-site within 10 metres of the bin collection point, in accordance with Council's pre-DA recommendations.

Plans of the proposed development have been prepared by *Olsson Architects Pty Ltd* and are reproduced in **Appendix A**.

### 3. TRAFFIC ASSESSMENT

#### **Road Hierarchy**

The road hierarchy allocated to the road network in the vicinity of the site by Transport for New South Wales (TfNSW) is illustrated on Figure 3.

Joseph Street / Rookwood Road / Stacey Street are classified by TfNSW as *State Roads* and form part of the A6 road corridor, linking Cumberland Highway in the north to Princes Highway in the south. They typically carry three traffic lanes in each direction in the vicinity of the site with opposing traffic flows separated by a centre median island and turning bays provided at key locations. Clearway restrictions apply during commuter peak periods.

Hume Highway is classified by TfNSW as a *State Road* and is one of Australia's major intercity highways, linking Sydney and Melbourne. It typically carries three traffic lanes in each direction separated by a raised central median island, with turning bays provided at key locations. Clearway restrictions apply along both sides of the road during commuter peak periods.

Auburn Road / Amy Street is classified by TfNSW as a *Regional Road* and performs the function of a north-south *collector route* through the area, linking the A6 Joseph Street in north at Berala to the Hume Highway in the south at Yagoona. It typically carries one traffic lane in each direction in the vicinity of the site, with kerbside parking subject to signposted restrictions.

Wellington Road (east of Woods Road) / Woods Road (north of Wellington Road) is classified by TfNSW as a *Regional Road* and provides a key east-west road link in the area, linking Auburn Road in the east at Birrong to Carlingford Street in the west at Sefton. It typically carries one traffic lane in each direction in the vicinity of the site, with kerbside parking generally permitted on both sides of the road.

Neutral Avenue is a local, unclassified 'dead-end' road, which terminates approximately 150m east of the site and is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.



#### **Existing Traffic Controls**

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 60 km/h SPEED LIMIT which applies to Auburn Road and Wellington Road
- a 50 km/h SPEED LIMIT which applies to Neutral Avenue and all other local roads in the area
- a 40 km/h SCHOOL ZONE SPEED LIMIT which applies to all streets in the vicinity of Birrong Boys and Birrong Girls High School, and Regents Park Public School
- SPEED HUMPS and RAISED PEDESTRIAN CROSSINGS located at regular intervals along Auburn Road in the vicinity of Birrong Neighbourhood Centre
- ROUNDABOUTS in Auburn Road where it intersects with Rodd Street and with Wellington Road/Tewinga Road
- GIVE WAY SIGNS in Neutral Avenue, Stephenson Street, Wentworth Street, Foyle Avenue, Birrong Avenue, and Moller Avenue where they intersect with Auburn Road
- GIVE WAY SIGNS in Hill Road where it intersects with Wentworth Street, Stephenson Street, and Wellington Road

#### **Existing Public Transport Services**

The existing public transport services available in the vicinity of the site are illustrated on Figure 5.

The 909 bus service currently operates in the vicinity of the site, with the nearest bidirectional bus stops located on Auburn Road 130m walking distance south of the subject site.

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The 909 service operates between Bankstown to Parramatta via Birrong & Auburn. This service has a frequency of approximately 30 minutes during weekdays, reducing to approximately 1 hour on weekends.

In summary there are approximately 59 bus services per day traversing the road network within the vicinity of the site on weekdays, reducing to approximately 43 bus services per day on Saturdays and approximately 21 bus services per day on Sundays and Public Holidays, as set out in the table below.

Bus Routes and Frequencies							
Danta Na	D. (	Weekdays Saturday Sunday		day			
Route No.	Route	IN OUT IN OUT IN OU	OUT				
909	909 Parramatta to Bankstown via Auburn & Birrong		29	22	21	11	10
TOTAL		30	29	22	21	11	10

The abovementioned bus service connects to several key locations including Westfield Parramatta Shopping Centre, Bankstown Central Shopping Centre, as well as several *suburban railway stations* such as Parramatta, Auburn, Regents Park, and Bankstown Railway Station.

In addition, the site is located approximately 320m northwest of Birrong Railway Station. Birrong Railway Station operates on the T3 – Bankstown Line, operating between Liverpool or Lidcombe to City via Bankstown. The typical journey time to/from Central station is approximately 43 minutes, with a frequency of 10-15 minutes at all times seven days a week.

The site is therefore considered to be readily accessible to essential services and public transport options.

#### **Projected Traffic Generation**

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of a development and its impact on the operational performance of the adjacent road network.



An indication of the traffic generation potential of the development proposal is provided by reference to the Transport for NSW's publication *Guide to Transport Impact Assessment Version 1.1, Chapter 5 – Land Use Trip Generation (September 2024)* document.

The TfNSW *Guide to Transport Impact Assessment* document notes that it replaces the *Guide to Traffic Generating Developments v2.2 (October 2002)* and the updated traffic generation rates in the *Technical Direction TDT 2013/04a (August 2013)* document.

The TfNSW *Guide to Transport Impact Assessment* document is based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

- High Density Residential Dwellings (High Public Transport Accessibility)
- AM: 0.19 peak hour vehicle trips per unit
- PM: 0.15 peak hour vehicle trips per unit

The TfNSW *Guide to Transport Impact Assessment* also makes the following observation in respect of high density residential flat buildings:

#### Definition

High density residential is a building containing more than 20 dwellings, 3 or more storeys (not including levels below ground level (existing) or levels that are less than 1.2 metres above ground level (existing) that provide for car parking) and applies to residential components of residential flat building, shop top housing and mixed use developments.

The TfNSW *Guide to Transport Impact Assessment* document does not nominate a traffic generation rate for small, local shops, referring only to shopping centres incorporating supermarkets and department stores. Therefore, for the purpose of this assessment, the traffic generation rate for "offices" has been adopted in respect of the retail uses of the development proposal as follows:

#### Offices

AM:	1.69 peak hour vehicle trips per 100m <sup>2</sup> GFA
PM:	1.20 peak hour vehicle trips per 100m <sup>2</sup> GFA

Application of the above traffic generation rates to the development proposal yields a traffic generation potential of approximately 21 vehicles per hour (vph) during the weekday AM peak period and approximately 16 vph during the weekday PM peak period, as set out below:

<b>Projected Future Traffic Generation Potential</b>			
	AM	PM	
Residential (50 apartments):	9.5 vph	7.5 vph	
Commercial (681.25m <sup>2</sup> ):	11.5 vph	8.2 vph	
TOTAL TRAFFIC GENERATION POTENTIAL:	21.0 vph	15.7 vph	

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential of the site expected to occur as a consequence of the development proposal when compared with the existing development on the site.

Application of the above traffic generation rate for "offices" to the existing buildings, with a cumulative floor area of approximately 840m<sup>2</sup>, yields a traffic generation potential of approximately 14 vph during the weekday AM peak period, and approximately 10 vph during the weekday PM peak period.

Accordingly, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential of approximately 7 vph during the weekday AM peak period and approximately 6 vph during the PM peak period, as set out below:

Projected Nett Change in Peak Hour Traffic Generation Potential	
of the site as a consequence of the Development Proposal	
AM	

	AM	PM
Projected Future Traffic Generation Potential:	21.0 vph	15.7 vph
Less Existing Traffic Generation Potential:	-14.2 vph	-10.1 vph
NETT INCREASE IN TRAFFIC GENERATION POTENTIAL:	6.8 vph	5.6 vph

That projected change in the traffic generation potential of the site as a consequence of the development proposal is *minimal* and will clearly not have any unacceptable traffic implications in terms of road network capacity.

### 4. PARKING IMPLICATIONS

#### **Existing Kerbside Parking Restrictions**

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 6 and comprise:

- <sup>1</sup>/<sub>2</sub> HOUR PARKING on both sides of Auburn Road and Wentworth Street in the vicinity of Birrong Neighbourhood Centre, including along the site frontage
- BUS ZONES located at regular intervals along both sides of Auburn Road
- generally UNRESTRICTED PARKING along both sides of Neutral Avenue and elsewhere throughout the local road network, where shoulder widths permit

#### **Off-Street Parking Provisions**

The off-street parking requirements applicable to the development proposal are specified in Council's *Canterbury-Bankstown Development Control Plan 2023 Chapter 3.2 Parking* document in the following terms:

#### Residential Flat Buildings – Zones R4, B1, B2 and B6

1 car space per 1 bedroom dwelling

- 1.2 car spaces per 2 bedroom dwelling
- 1.5 car spaces per 3 or more bedroom dwelling
- 1 visitor car space per 5 dwellings

#### Retail Premises - Other locations in the former Bankstown LGA

1 per  $40m^2$  gross floor area

- Note: 80% of parking rate to be allocated for visitors and short-stay parking,
  - 20% of the parking rate is to be allocated for staff and long-stay parking.

Application of the above parking requirements to the various components of the development yields an off-street car parking requirement of 87 spaces (rounded up), as set out in the table on the following pages:

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Residents (12 x 1-bedroom dwellings):	12.0 spaces
Residents (33 x 2-bedroom dwellings):	39.6 spaces
Residents (5 x 3-bedroom dwellings):	7.5 spaces
Visitors (50 dwellings):	10.0 spaces
Commercial/Retail (681.25m <sup>2</sup> ):	17.0 spaces
TOTAL PARKING REQUIREMENT:	86.1 spaces

#### **DCP Car Parking Requirements**

The proposed development makes provision for a total of 88 cars, comprising 60 residential spaces, 10 visitor spaces, and 18 commercial/retail spaces, thereby satisfying Council's *DCP* car parking requirements.

The geometric design layout of the proposed car parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6* in respect of parking bay dimensions, ramp grades, and aisle widths.

In addition, a number of *swept turning path* diagrams have been prepared which are reproduced in **Appendix B**, demonstrating that B85 and B99 design vehicles are able to pass each other, as specified in *AS2890.1*, whilst travelling in a forward direction at all times.

#### **Off-Street Bicycle Parking Provisions**

The off-street bicycle parking requirements applicable to the development proposal are also specified in Council's *Canterbury-Bankstown Development Control Plan 2023 Chapter 3.2 Parking* document in the following terms:

#### **Residential Flat Buildings**

1 visitor space per 10 dwellings

Retail Premises – Other locations in the former Bankstown LGA Staff: 1 space per 300m<sup>2</sup> gross floor area Visitors: 1 space per 500m<sup>2</sup> gross floor area over 1000m<sup>2</sup> Application of the above bicycle parking requirements to the various components of the development proposal yields an off-street bicycle parking requirement of 7 spaces as set out below:

<b>Bicycle Parking Requirements</b>			
Visitors (50 dwellings):	5.0 spaces		
Retail Employees (681.25m <sup>2</sup> GFA):	2.3 spaces		
Retail Customers:	0.0 spaces		
TOTAL PARKING REQUIREMENT:	7.3 spaces		

The proposed development makes provision for a total of 19 off-street bicycle parking, comprising 10 residential spaces, 5 visitor spaces, and 4 commercial/retail spaces, thereby *comfortably* satisfying Council's *DCP* bicycle parking requirements.

The geometric design layout of the proposed bicycle parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 3 - Bicycle Parking AS2890.3* in respect of bicycle bay dimensions, and aisle widths.

#### **Loading/Servicing Provisions**

The commercial/retail tenancies of the proposed development are expected to be serviced by a variety of commercial vehicles up to and including 6.4m long SRV trucks, subject to a height clearance of 3.5m. In this regard, a dedicated loading bay is proposed on the ground floor level, at the rear of the retail tenancies and adjacent the bin holding rooms.

The manoeuvring area has been designed to accommodate the *swept turning path* requirements of a 6.4m long SRV truck, allowing them to enter and exit the site in a forward direction at all times, as shown in the attached *swept turning path* diagrams which are reproduced in **Appendix B**.

The geometric design layout of the proposed loading facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 2 - Off-Street Commercial Vehicle Facilities AS2890.2 - 2002* in respect of loading dock dimensions, overhead clearances and service area requirements.

### 5. CONCLUSION

Based on the analysis and discussions presented within this report, the following conclusions are made:

- the proposed development involves the demolition of existing buildings on the site to facilitate the construction of a new five-storey mixed-use development comprising 50 residential units, and 681.25m<sup>2</sup> of commercial/retail floor space
- the traffic generation potential of the development will result in a *nett increase* of approximately 6-7 vph during the AM and PM peak periods based on the rates published in the TfNSW *Guide to Transport Impact Assessment*. This change in traffic generation is consistent with the zoning objectives of the site and will not have any unacceptable traffic implications in terms of road network capacity
- the parking requirement of the site has been assessed with regards to Council's *DCP*, resulting in a minimum requirement of 87 parking spaces. In response the development provides 88 parking spaces, comprising 60 residential spaces, 10 visitor spaces, and 18 commercial/retail spaces, thereby satisfying the *DCP* car parking requirements
- the proposed access and internal design arrangements comply with the relevant requirements specified in the Standards Australia *AS2890* series. In addition, the proposed manoeuvring area will satisfactorily allow a 6.4m long SRV truck to enter and exit the site whilst travelling in a forward direction at all times, as demonstrated by the *swept turning path* diagrams

It is therefore reasonable to conclude that the proposed development will not have any unacceptable implications in terms of road network capacity, vehicular access or off-street parking/loading requirements.

## APPENDIX A

### **ARCHITECTURAL PLANS**









Russell Olsson Registered Architect 7079
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Level 4 68-72 Wentworth Avenue Surry Hills NSW 2010

25/5/21	For Consultants	Mixed-Use Development	77-8
12/3/24	Consultant Co-ordination		19
13/6/24	For Co-ordination		
22/7/24	For Pre-DA		
5/12/24	For consultant co-ordination		
12/12/24	For consultant co-ordination	CLIENT	
16/12/24	For consultant co-ordination	SDT Constructions Pty Ltd	
19/12/24	For consultant co-ordination	-	



### **APPENDIX B**

### SWEPT TURNING PATH DIAGRAM

















