ParkTransit

Traffic and Parking Impact Assessment

323 - 337 Boorowa Street Young

For: Mellross Investments

8th May 2025

ParkTransit Australia Pty Ltd
PH: 1300 854 179
ABN: 16 627 168 290
E: parktransit@parktransit.com

Traffic and Parking Impact Assessment
Proposed Commercial Building at
323-337 Boorowa Street, Young
For: Mellross Investments

Version No.	Author	Reviewed by:	Date:
1	A. Mohammad	G Caldwell	29.04.2025
2	A. Mohammad	Client	08.05.2025

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ABBREVIATIONS

DA:	Development Application
Council:	Hilltops Council, NSW
Proposal:	Construction of Commercial Building
DCP:	Hilltops Council, NSW Development Control Plan 2011
GFA:	Gross Floor Area
TfNSW Guide:	TfNSW Guide to Traffic Generating Development 2002
AS2890.1:	Australian Standard for Off-Street Parking Facilities AS2890.1-2004
AS2890.6:	Australian Standard for Off-Street Parking for People with Disabilities AS2890.6

1. Introduction

ParkTransit Australia (PT) was engaged by Mellross Investments to assist with the Development Application process for the expansion of the existing commercial/retail facility to include an additional floor area of 1,786 sqm. The subject site is located at 323-337 Boorowa Street, Young, within the Hilltops Council LGA.

The proposal involves the construction of a commercial/retail building accommodating two units. Unit 1 will occupy an area of 856 sqm, while Unit 2 will cover 930 sqm. As part of the proposal, the existing at-grade car park will be extended to accommodate an additional 72 car spaces. The figure below shows the site's location.

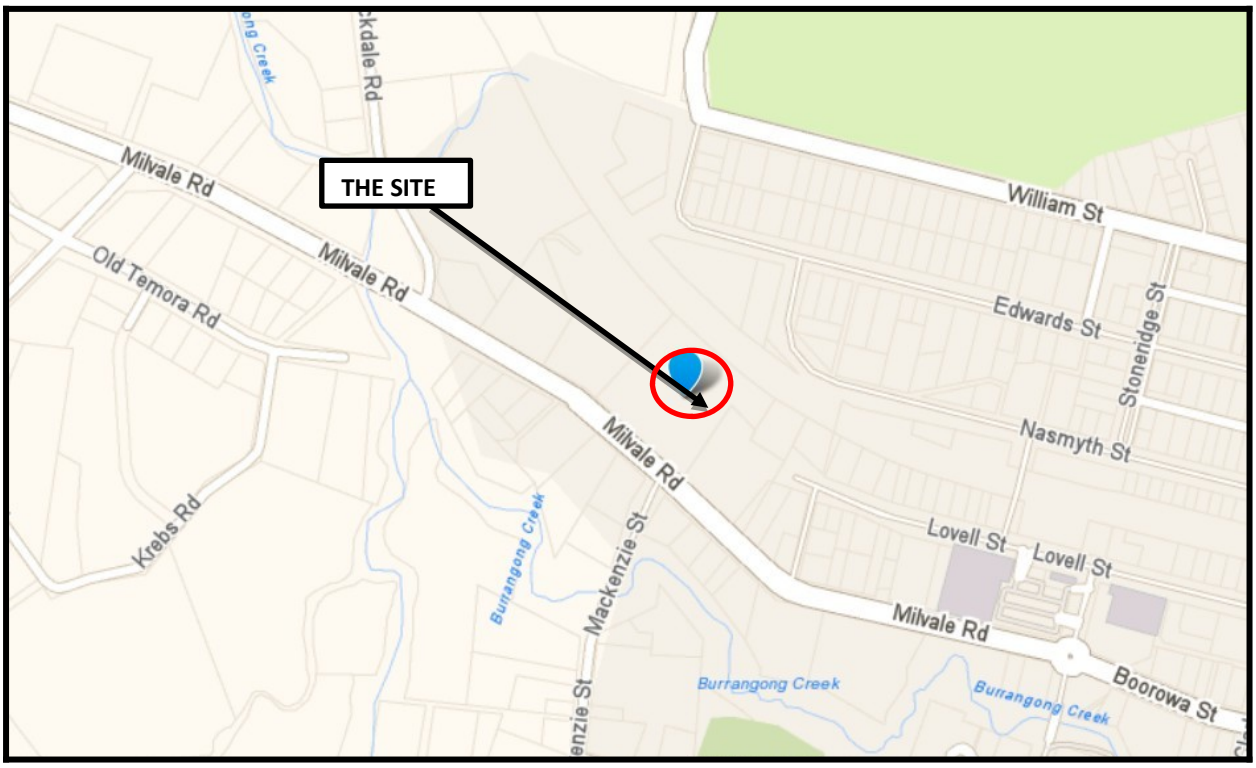

Figure 1: Site Location (source- Whereis Maps)

The purpose of this report is to present the traffic and parking assessment associated with the proposal and to determine the implications of the projected change in traffic activity on the surrounding road network. The report is structured as follows:

Section 2: Site Description

Section 3: Overview of Existing Traffic Conditions

Section 4: Description of the Proposed Development

Section 5: Traffic Impact Assessment

Section 6: Parking Provision

Section 7: Access Arrangements

Section 8: Conclusions and Recommendations

Section 9: Attachments

The following documents were referenced for the preparation of this report:

- Hilltops Council, NSW Development Control Plan (DCP 2025);
- Transport for New South Wales Guide to Traffic Generating Development;
- Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1-2004);
- Australian Standard Parking Facilities Part 2: Off-street commercial vehicle AS2890.2-2018 and
- Australian Standard for Parking Facilities Part 6: Off-Street Parking for People with Disabilities (AS2890.6-2022).

2. Site Description

The subject site is located at 323-337 Boorowa Street, Young, and is part of the Hilltops Council LGA. The site is legally referred to as Lot 1 DP1202085 and occupies an area of 1.96 hectares. The site has a sole frontage along Boorowa Street and is irregular in shape.

The subject site is located on the northern side of Boorowa Street. It is surrounded by commercial/retail developments on the east and west; Boorowa Street to the south; and the railway track to the north.

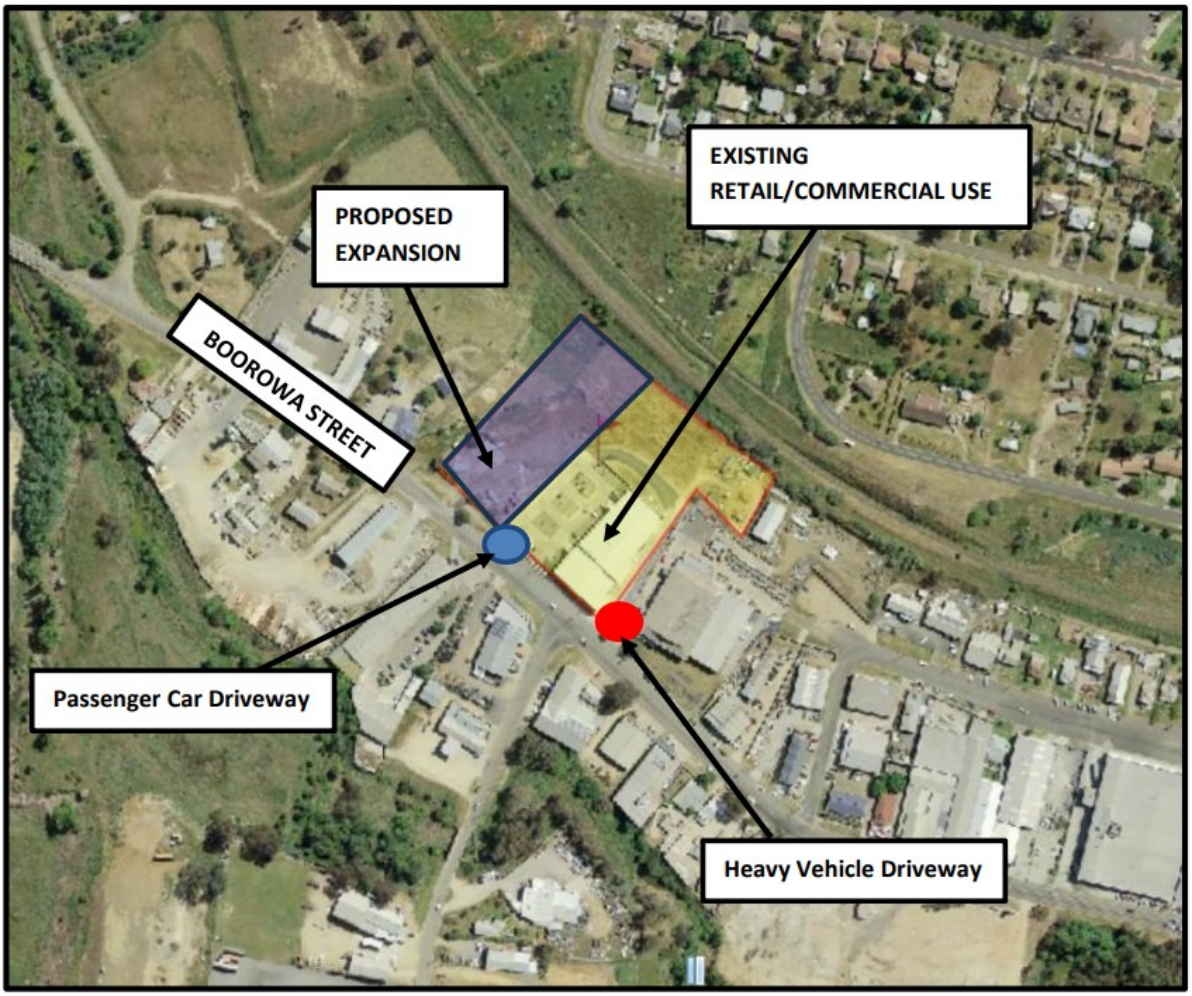

Figure 2: The Site (source- NSW Imagery Website Six Maps)

The site is currently occupied by retail/commercial uses and includes vacant land along the western boundary. The site includes an on-site parking provision of 56 car spaces. The site is accessible via its two driveways located on the Boorowa Street frontage and are shown in the figure above.

The following map shows the hierarchy of the surrounding road network as classified by Transport for New South Wales (TfNSW).

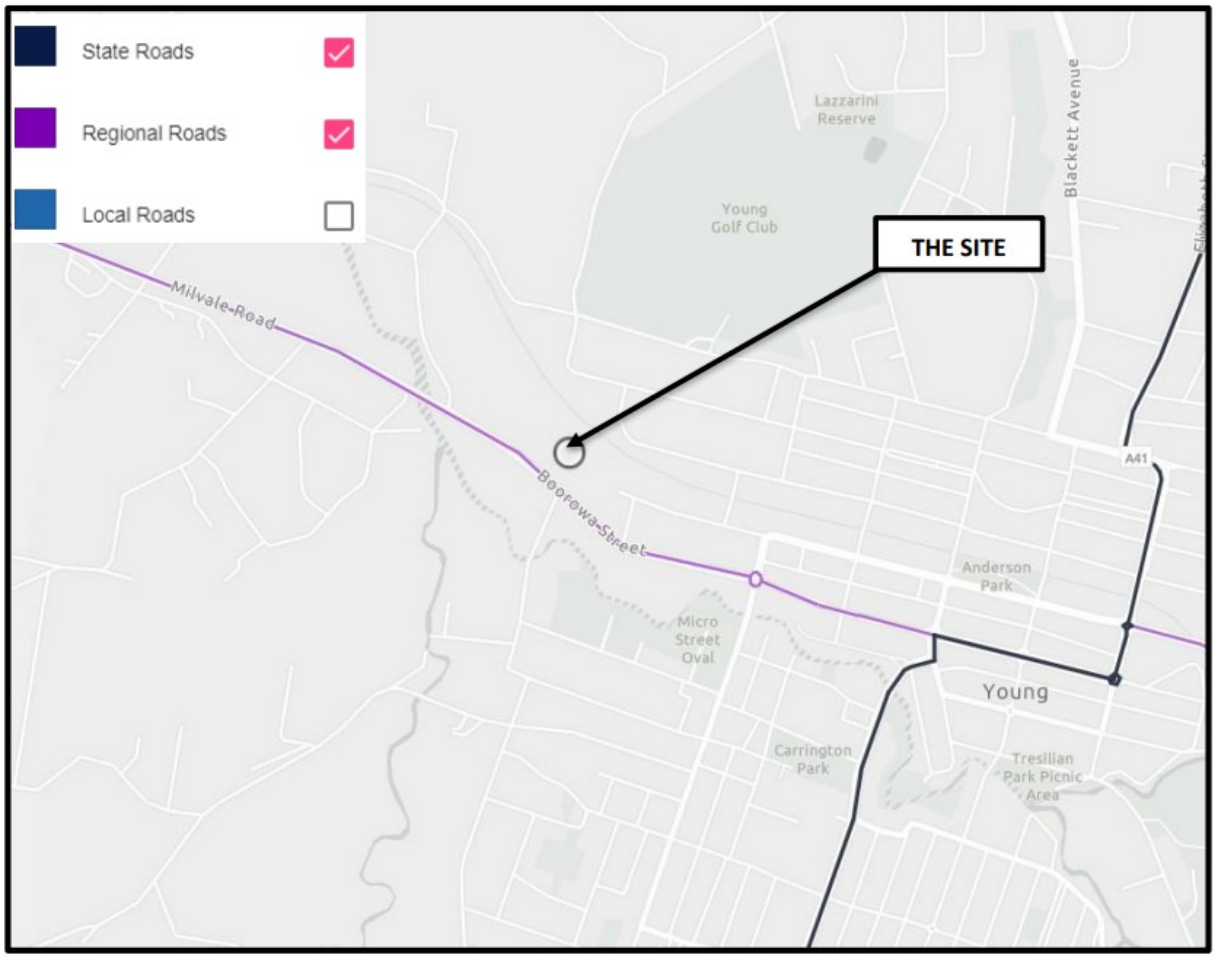

Figure 3: Surrounding Road Network (Source TfNSW Website)

3. Overview of the Existing Traffic Conditions

3.1. Description of Road Environment

Boorowa Street

Boorowa Street is classified as a Regional Road that runs from east to west. It connects Calabash Street on the eastern side with Rockdale Road on the western side.

Generally, the carriageway on Boorowa Street is undivided and comprises one traffic lane in each direction. It has a speed limit of 50 kph, and a paved footpath is present on either side of the carriageway. On-street parking is allowed on Boorowa Street.

The Boorowa Street and Olympic Highway intersection nearest to the subject site is a roundabout intersection. Below is the street view image of Boorowa Street.

Figure 4: Street view of Boorowa Street looking East (Source: Google Maps Street View)

Mackenzie Street

Mackenzie Street is classified as a local road that runs from north to south. It connects Boorowa Street on the northern side with Currawong Street on the southern side.

The carriageway on Mackenzie Street is generally undivided and comprises one traffic lane in each direction. It has a speed limit of 50 kph. The Mackenzie Street and Boorowa Street intersection is a roundabout controlled intersection. Below is the street view image of Mackenzie Street.

Figure 5: Street view of Mackenzie Street looking South (Source: Google Maps Street View)

Olympic Highway

Olympic Highway is classified as a State Road that runs from northeast to southwest. It connects the Hume Highway in the southwest and the Mid-Western Highway in the northeast. Olympic Highway is a 317-kilometre road in the central western and south-eastern Riverina regions of New South Wales, Australia.

Within the suburb of Young, the carriageway on the Olympic Highway is undivided and comprises one traffic lane in each direction. It has a speed limit of 50 kph in Young, and a paved footpath is present on either side of the carriageway.

Below is the street view image of the Olympic Highway within the Young town centre.

Figure 6: Street view of the Olympic Highway looking Southwest (Source Google Maps Street View)

3.2. Public Transport

The site has limited accessibility via public transport. The nearest bus stop is approximately 1.2 kilometres away on the eastern side.

The table below summarises the coach services available in the area:

Table 1 – Bus Route Summary

Route Number	Service Type	Origin	Destination
791	Mon/Wed/Sat	Cootamundra	Dubbo
792	Sun/Tue/Thu	Dubbo	Cootamundra
793	Tue/Thu/Fri/Sat	Cootamundra	Bathurst
794	Mon/Wed/Fri/Sat	Bathurst	Cootamundra

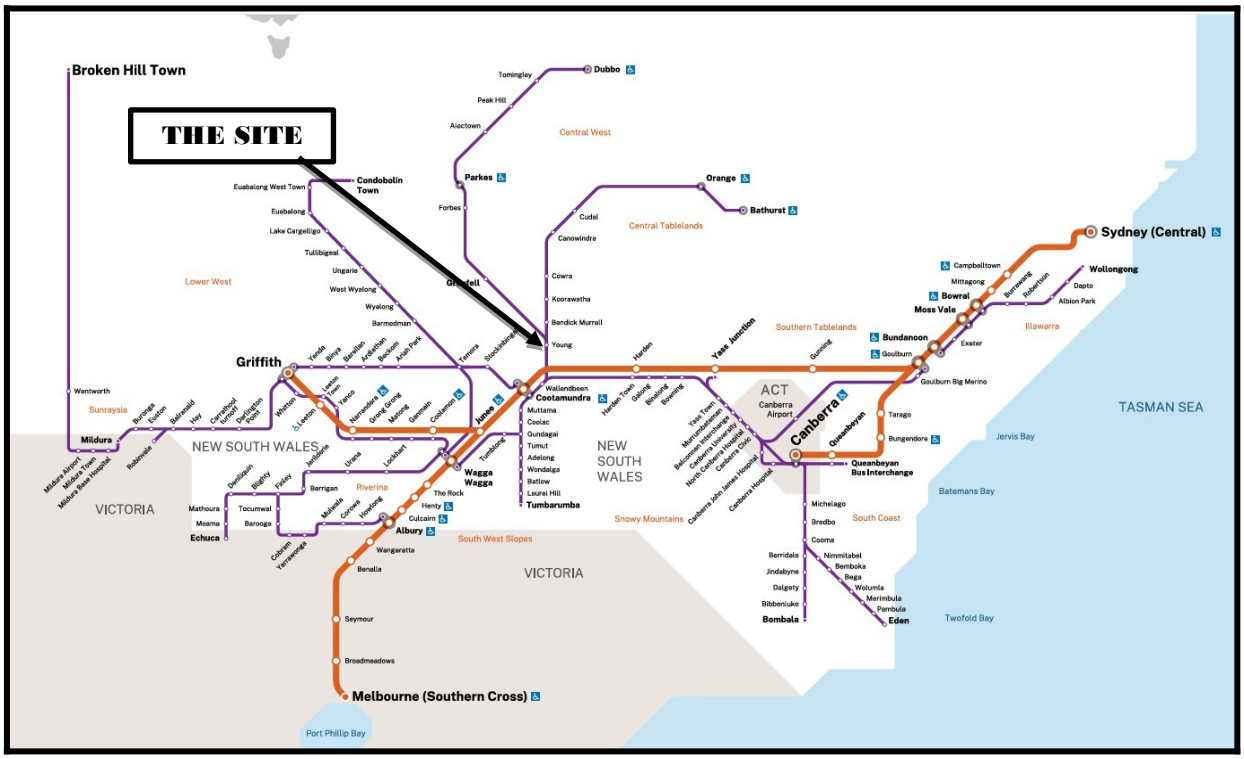

Figure 7: Bus Route Map (Source: NSW Transport Info Website)

3.3. Crash Data

The NSW Centre for Road Safety periodically collects crash and casualty data, which is publicly available. A review of the latest crash data from 2019-2023 indicates no incidents were recorded near the subject site, demonstrating that the local road is operating relatively safely. The Figure below provides the crash location and severity of these crashes recorded in the area.

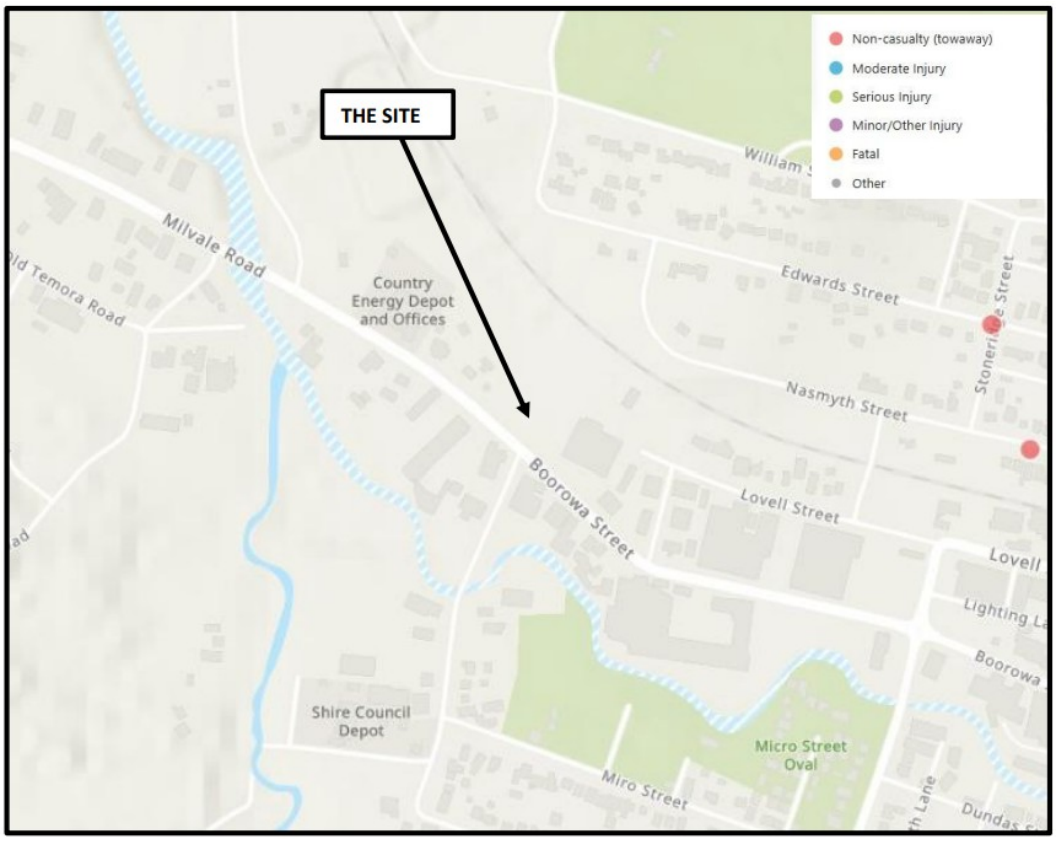

Figure 8: Crash data (Source NSW Centre for Road Safety)

3.4. Existing Traffic Conditions

To determine the existing traffic activity on Boorowa Street. The traffic counts were undertaken on a section of Boorowa Street, 100m north of Mackenzie Street, using automated tube counts across 24 hours over 7 days. The counts were conducted over a week starting 1st May 2024. The count location is presented in Figure 9 below:

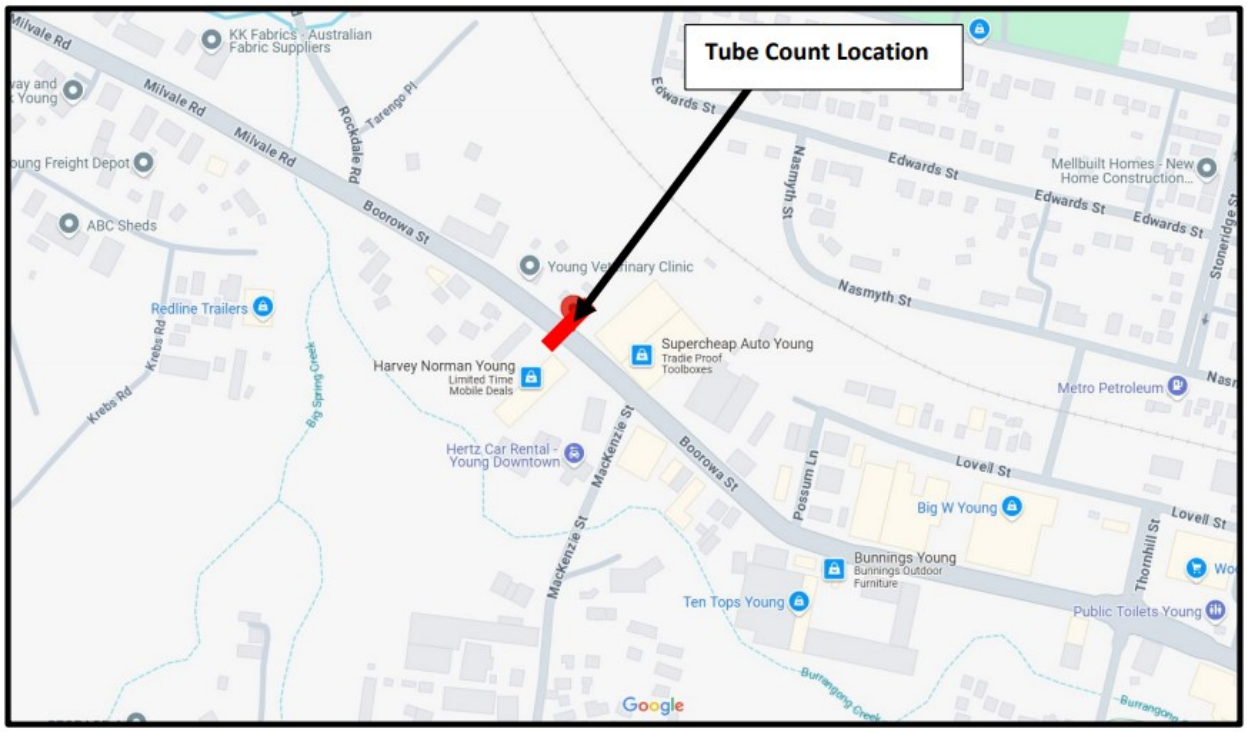

Figure 9: Traffic Count Location (Source Google Maps)

The survey results indicate the following:

- Average Daily Traffic flow was recorded at 4,340 vehicle trips (bi-directional);
- Heavy vehicle proportion represents 16.8% of the AADT;
- 85% travel speed was recorded at 52.6kph.
- Weekday Morning Peak Period was observed from 8:00 am -9:00 am, where 242 vehicle trips (unidirectional) were recorded; and
- Weekday Evening Peak Period was observed from 3:00 pm -4:00 pm, where 234 vehicle trips (unidirectional) were recorded.

The level of Service (LoS) for urban roads is determined with reference to Table 4.4 of the TfNSW Guide to Traffic Generating Development. An extract from Table 4.4 of the TfNSW is presented in the table below:

Table 2 – Summary of the Level of Service (LoS) (Source TfNSW Guide to Traffic Generating Development)

Level of Service	Traffic Flow (Veh/hr)
A	200
B	380
C	600
D	900
E	1400

Boorowa Street is classified as a regional road and accommodates a peak traffic flow of 242 vehicle trips per hour. In accordance with the table above, Boorowa Street operates well below its capacity at LoS B. A summary of daily traffic flow is presented in the figure below.

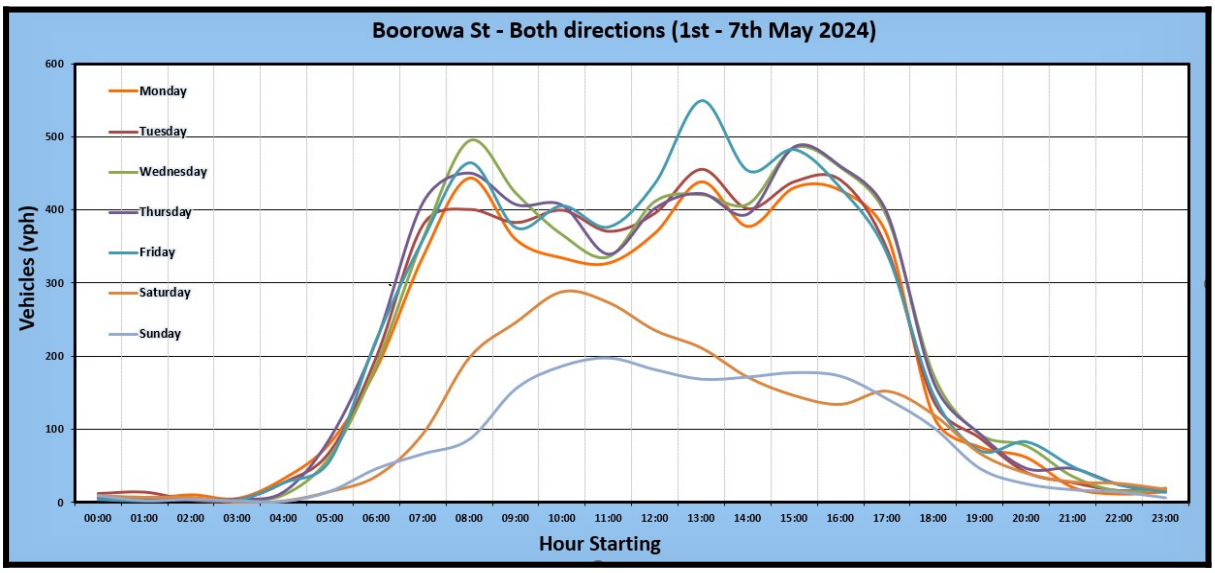

Figure 10: Traffic Flow (veh/hr)

4. Description of the Proposed Development

The development proposal involves expansion of the existing commercial/retail facility to accommodate an additional two(2) Units. Unit 1 will occupy an area of 856 sqm, while Unit 2 will cover 930 sqm.

As part of the proposal, an additional 72 parking spaces, including 2 disabled spaces, will be provided within the existing at-grade level car park.

The existing access to the car park will be retained, ensuring continued convenience for car park users. In addition, a new driveway will be introduced along the western boundary of the site, designed to accommodate the service and delivery vehicles, thus separating the passenger car access from the service/delivery vehicles. This enhancement aims to improve operational efficiency and safety of all users, including the pedestrian accessing the site.

Architectural plans associated with the proposal have been prepared by Warrick Morley Drafting Services, and a snapshot of the plans indicating the car park are shown below:

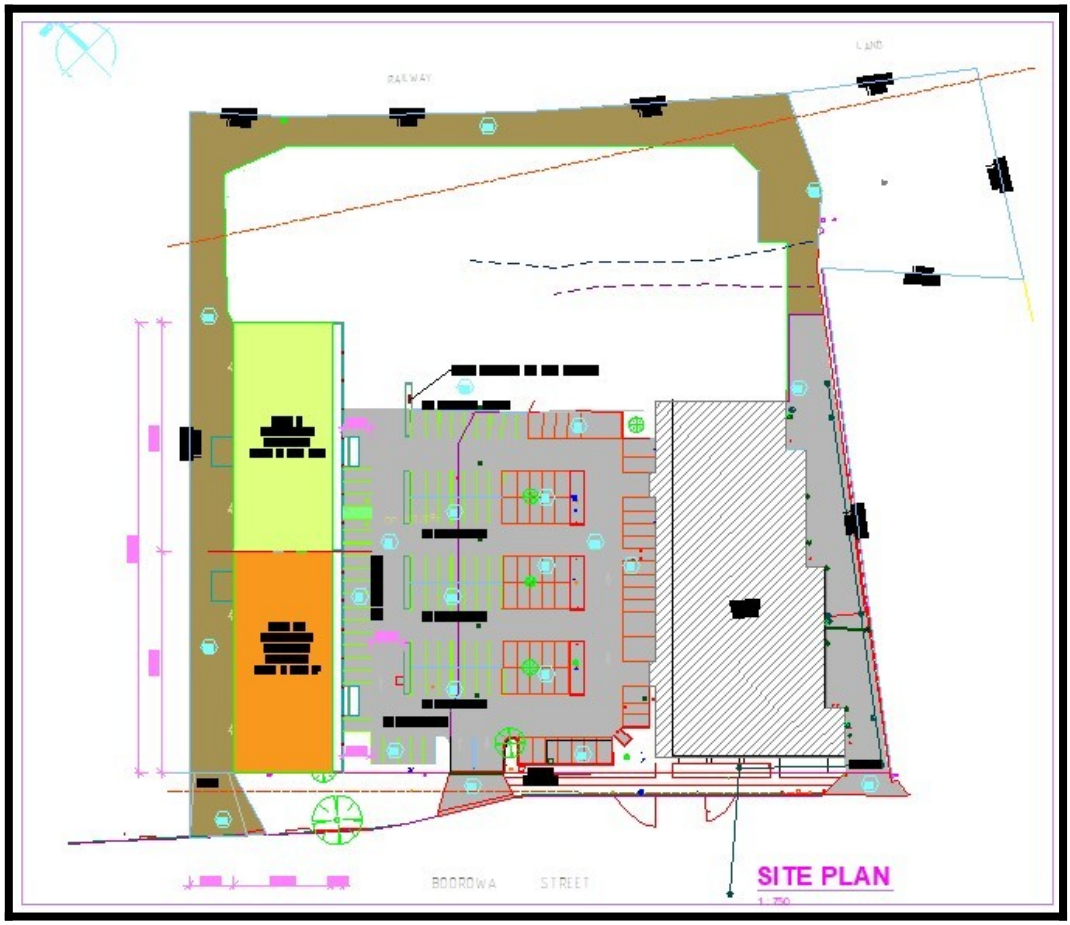

Figure 11: Proposed Site Plan (Source Warrick Morley Drafting Services)

5. Traffic Impact Assessment

The traffic activity associated with the proposal has been calculated with reference to the 'TfNSW Guide to Traffic Generation Developments'. The proposed development will accommodate a total of two units occupying a total area of 1,786 sqm. Based on the information provided to ParkTransit, it is understood that the proposed unit will be used as an outdoor adventure store. The RMS Guide classifies the proposed retail use as "slow trade" and recommends the following traffic generation rates:

> Thursday peak hour vehicle trips = 20 A(S)* per 1000sqm (Gross Leasable Floor Area); and
> Friday peak hour vehicle trips = 11 A(S)* per 1000sqm (Gross Leasable Floor Area).
> **A(S)= Area of Slow Trade*

Applying the above trip generation rates to the proposed development results in approximately 35.72 and 19.64 vehicle trips during Thursday and Friday peak hours, respectively.

5.1. Impact Assessment

As discussed earlier, Boorowa Street is classified as a regional road and accommodates a peak traffic flow of 242 vehicle trips per hour. The proposal has the potential to generate a peak traffic activity of 36 vehicles per hour (bidirectional – 18 in each direction). Therefore, following the completion of the proposal, the peak traffic flow along the section of Boorowa Street will be 260 vehicle trips per hour (unidirectional).

It is evident from the above that the section of Boorowa Street will continue to operate well below its capacity at LoS B. In this regard, the proposal has no detrimental impact on the operation of the surrounding road network.

6. Parking Provision

6.1. Planning Requirements

The development site is located within the Hilltop Council's LGA, formerly known as Young Council. In relation to the on-site parking provision for retail use, Section 2.2 of the Young Development Control Plan 2025 recommends the following parking provision rates.

Table 3 – On-Site Parking Requirements (Source: Young DCP)

Description	Car Park Provision Rates
Shops, (including supermarkets less than 900 square metres gross leasable floor area)	1 space per 35 square metres of gross leasable floor area
Supermarkets (900 square metres gross leasable floor area or greater)	1 space per 20 square metres of gross leasable floor area

6.2. Proposed Parking Provision

The development proposal involves the construction of a commercial/retail building that will accommodate a total of 2 Units. Unit 1 will occupy an area of 856 sqm, while Unit 2 will cover 930 sqm.

Table 4 – On-Site Parking Requirements for the Proposed Development

Description	Car Park Provision Rates	No. of Car Spaces
Unit 1 (occupies an area of 856 sqm)	1 space per 35 square metres of gross leasable floor area	24.45
Unit 2 (occupies an area of 930 sqm)	1 space per 20 square metres of gross leasable floor area	46.5
Total		**70.95(say 71)**

The proposal involves extending the existing car park to include an additional 72 parking spaces, including two(2) disabled spaces. Therefore, the proposed parking provision is considered suitable for servicing the development and is highly unlikely to increase any on-street parking demand.

In this regard, following the completion of the proposed development, the surrounding local street will continue to experience similar parking demand to the existing conditions, suggesting that the proposal has no detrimental impact on the parking availability in the area.

7. Access Arrangements

7.1. Car Parking Arrangement

The proposed car parking arrangement has been assessed according to the requirements listed in AS2890.1 (2004). Table 1.1 of AS2890.1 provides a classification of the off-street parking facilities based on various land uses, which is essential in determining the associated parking space dimensions.

The proposed development will be for retail/commercial use. Therefore, the proposed parking provision has been assessed against the 'Type 3' user class with 90-degree parking spaces (which is associated with short-term city parking). In relation to the Type 3 user class, Figure 2.2 of the AS2890.1 specifies the following parking dimensions:

- Space width – 2.6 metres
- Space length – 5.4 metres
- Aisle width – 5.8 metres

The proposed car park accommodates a total of 72 parking spaces, including two (2) disabled parking spaces. The space dimensions were measured as a minimum of 2.6 metres wide and 5.4 metres long, with an associated aisle width exceeding 5.8 metres, thereby meeting the minimum requirements stipulated by AS2890.1. In this regard, the proposed car parking arrangement has been designed in accordance with the Australian Standard.

In relation to disabled car spaces, the Australian Standard for Off-street Parking for People with Disabilities – AS2890.6 -2022. The standard recommends that disabled bays be accompanied by a shared zone (with the same dimensions as standard space). The dimensions of a standard space are the following:

- Space width – 2.4 metres
- Space length – 5.4 metres

The disabled space dimensions were measured at a minimum of 2.4 metres wide and 5.4 metres long, with an associated shared zone of 2.4 metres wide and 5.4 metres, thereby meeting the minimum requirements stipulated by AS2890.6-2022.

In this regard, the proposed car parking arrangement has been designed in accordance with the Australian Standard.

Additionally, we have undertaken Swept Path Analysis utilising the Auto Track simulation software to assess the car parking spaces. The Swept Path Analysis was undertaken utilising the recommended vehicle type and is presented as **Attachment A**. The swept path assessment concluded that the motorists would enter and exit in the forward direction.

7.2. Driveway Arrangement

The existing access to the car park will be retained, ensuring continued convenience for car park users. In addition, a new driveway will be introduced along the western boundary of the site, designed to accommodate the service and delivery vehicles, thus separating the passenger car access from the service/delivery vehicles.

To assess the service vehicle driveway configuration, we have undertaken a Swept Path Analysis using the AutoTrack simulation software. The analysis, which was undertaken using the recommended vehicle type, is presented in **Attachment A.** The swept path assessment concluded that the driveway configuration is adequate to allow service vehicles to enter and exit in the forward direction.

7.3. Sight Distance

Section 3.2 of AS2890.1 specifies the recommended sight distance associated with the driveway. The sight distance requirement is prescribed in accordance with the posted speed limit along the frontage road. The proposed development will be accessible via the driveway located on the Boorowa Street frontage.

Section 3.2 of the Standard specifies a desirable visibility distance of 69 metres and a minimum distance of 45 metres for streets having a posted speed limit of 50 kph. The proposed driveway is located on a straight section of Boorowa Street, where unobstructed visibility is available. In this regard, the driveway arrangement is considered safe and appropriate to service the proposed development.

7.4. Driveway Location

Figure 3.1 of the Standard shown below specifies the prohibited location for the introduction of a driveway.

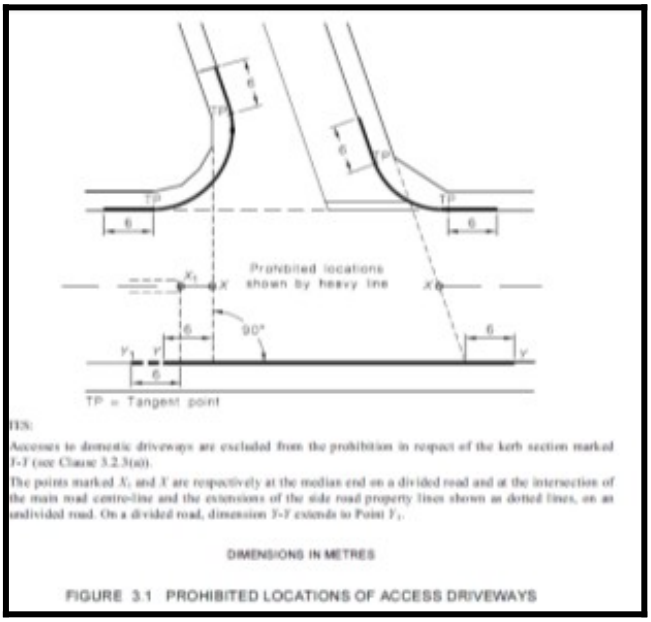

Figure 12: Prohibited Locations of Access Driveway (Source AS2890.1-2004)

A review of the proposed driveway indicates the driveway is located well outside the prohibition zone, and therefore, the proposal is considered compliant with the Standard.

8. Conclusions and Recommendations

- The provision of 72 car parking spaces, including two(2) disabled spaces, for the proposed development is considered sufficient to handle the project parking demand;
- Based on the information provided, the proposal does not generate any increase in safety risk to pedestrians or drivers as a result of the access and parking configuration;
- The proposed development will not negatively impact current traffic conditions, including local intersection capacity; and
- An assessment of the car park layout, including the parking spaces and associated aisle width, indicates the car park layout will be designed in accordance with the relevant applicable Standards (AS2890.1 and AS2890.6).

9. Attachments

Attachment A - Turning Path Assessments: