
ParkTransit

TRAFFIC IMPACT ASSESSMENT – Storage Units

7 Ross Street, Goulburn

09th December 2022

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Traffic Impact Assessment Report for
Proposed Storage Units
27 Ross Street, Goulburn
For: Tim Lee Architects
Date: 09th December 2022

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Contents

1.	Introduction	5
2.	Site Description	7
3.	Overview of the Existing Traffic Conditions	9
3.1.	Description of Road Environment	9
3.2.	Public Transport	9
4.	Description of the Proposed Development	12
5.	Traffic Impact Assessment	13
5.1.	Trip Generation	13
6.	Parking Provision	14
6.1.	Planning Requirements	14
6.2.	Proposed Parking Provision	14
7.	Access Arrangements	15
7.1.	Driveway Arrangement	15
7.2.	Sight Distance	15
7.3.	Driveway Location	15
8.	Conclusions and Recommendations	16
9.	Attachments	16

Abbreviations

DA: Development Application

Proposal: Construction of a Storage Units

LGA: Local Government Area

RMS: Road and Maritime Services

DCP: Goulburn Mulwaree Development Control Plan 2009 (DCP 2009)

RMS Guide: RMS Guide to Traffic Generating Development 2002

AS2890.1: Australian Standard for Off-Street Parking Facilities AS2890.1-2004

AS2890.2: Australian Standard for Off-Street Parking Facilities (Service Vehicles) AS2890.2-2018

AS2890.6: Australian Standard for Off-Street Parking for people with Disabilities AS2890.6

1. Introduction

ParkTransit have been engaged by Tim Lee Architects to assist with the Development Application process for the construction of a ranch style storage units, located at 27 Ross Street, Goulburn, within the Goulburn Mulwaree Council LGA.

The proposal involves the construction of a ranch style storage units accommodating a total of 990.3qm GFA. As part of the proposal, three sheds will be constructed on the site. The proposal involves introducing two driveways along the Ross Street frontage.



Figure 1-Site Location (Image Source Google 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:

- Goulburn Mulwaree Development Control Plan 2009);
- Aurecon Self Storage Facility Traffic and Parking Study 2009 (Aurecon Report);
- The Road and Maritime Services Guide to Traffic Generating Development;
- Australian Standard for Parking Facilities Part 1: Off-Street Car Parking (AS2890.1-2004);
- Australian Standard for Parking Facilities Part 2: Off-Street Commercial Vehicle Facilities (AS2890.2-2018);
and
- Australian Standard for Parking Facilities Part 6: Off-Street Parking for People with Disabilities (AS2890.6-2009).

2. Site Description

The site is located at 27 Ross Street, Goulburn and forms part of the Goulburn Mulwaree Council LGA. The site is located on the southwestern corner of the intersection of Brewer Street with Ross Street.

The site is formally referred to as Lot 90 DP1119204 and has frontages located along Ross Street and Brewer Street. The site is bordered by industrial development to the south, Ross Street to the west, Brewer Street to the north and Ross Street Mixed use precinct to the east. The site is greenfield site and occupies an area of approx. 2,850sqm.



Figure 2-The Site (Source NSW Imagery Website Sixmaps.com)

The following map shows the hierarchy of the surrounding road network as classified by Road and Maritime Services (RMS).

The following map shows the hierarchy of the surrounding road network as classified by Road and Maritime Services (RMS), formerly known as Road and Traffic Authority (RTA).

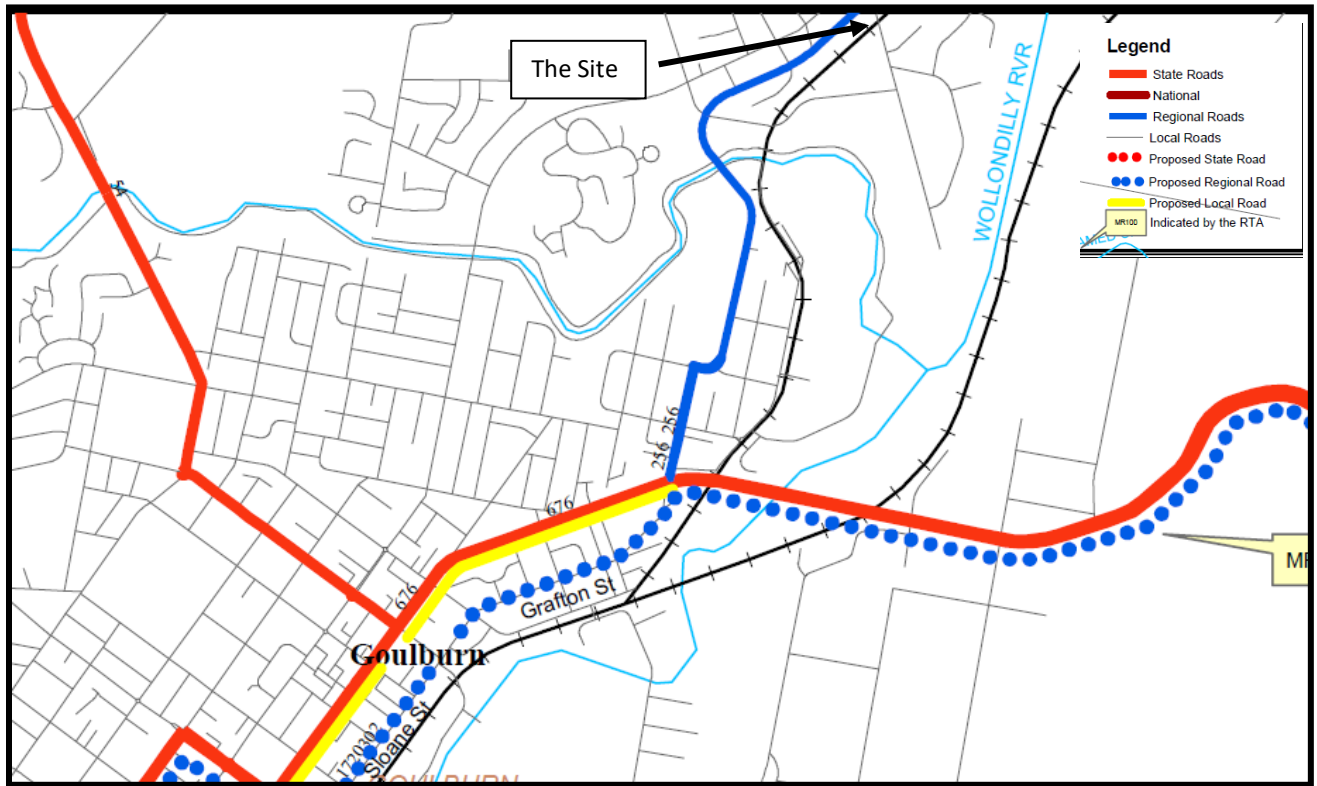


Figure 3-Surrounding Road Network (Source TfNSW Website)

3. Overview of the Existing Traffic Conditions

3.1. Description of Road Environment

Taralga Road is classified as a Regional Road and connects Orchard Street (at the north) with Tarlo Street (at the southern end). Taralga Road follows a north-south alignment and operates as a major route servicing Goulburn. The carriageway is undivided and comprises one traffic lane in each direction and permits on-street parking. It has a posted speed limit of 60kph and a paved footpath is available on the western side of Taralga Road.

Tarlo Street is classified as a Regional Road and follows a north-south alignment. It connects Taralga Road (at the North end) with Chantry Street (at the South end). The carriageway is undivided and comprises one traffic lane in each direction with on-street parking permitted. It has a posted speed limit of 60kph.

Brewer Street is classified as a Local Road and follows an east-west alignment. It connects Middle Arm Road (at the Western End) with Ross Street (at the north-eastern end the connection from the rail line to Ross Street is currently unformed). The carriageway is undivided and comprises one traffic lane in each direction with on-street parking permitted. The intersection of Brewer Street with Ross Street operates as a priority controlled intersection. This priority controlled intersection operates with motorists along Ross Street having priority over vehicles on Brewer Street.

Ross Street is classified as a Local Road and follows a north-south alignment. Within the vicinity of the subject site, the carriageway is undivided and comprises one traffic lane in each direction with on-street parking permitted. It provides vehicular access to the site.

3.2. Public Transport

The site is serviced by buses. The nearest station located within vicinity of the site is Goulburn, which is situated approximately 4 kilometres to the south. Goulburn Train Station is serviced by the 'Southern Highlands Line'. This service operates between Goulburn and Central via Campbelltown. During a typical weekday, the service operates with a frequency of three inbound (to Central), and three outbound services (to Goulburn) trains.



Figure 4- Train Service Map (Source NSW Transport Info Website)

Bus services within vicinity of the subject site are operated by PBC Goulburn and are accessible via Taralga Road. Route No 821A is a limited bus service operating Monday to Saturday. It is a loop service operating between Goulburn and Kenmore. It operates from 06:00am to 12noon, with a total of four services during the day. Bus services can be accessed via the bus stop approximately 300 metres northwest of the subject site.



Figure 5- Route Map –Bus Route 821A & 821B (Source NSW Transport Info Website)

Route No 821B is a limited bus service operating on Monday to Saturday. It is a loop service operating between Goulburn and Kenmore. It operates from 1:00pm to 6:00pm, with a total of five services during the day. Bus services can be accessed via the bus stop approximately 300 metres northwest of the subject site.

4. Description of the Proposed Development

The proposal involves the construction of a ranch style storage units accommodating a total of 990qm GFA. Typically, in a ranch style storage units, the users can park their vehicles in front of the storage units.

As part of the proposal three sheds accommodating the following areas will be constructed on the site.

- Shed No 1 – accommodates an area of 659sqm and is accessible via the northern driveway;
- Shed No 2 – accommodates an area of 189sqm and is accessible via the southern driveway; and
- Shed No 3 – accommodates an area of 143sqm and is accessible via the southern driveway.

Architectural plans associated with the proposal have been prepared by Tim Lee Architects, and the plans indicating the car park are presented as **Attachment A**.

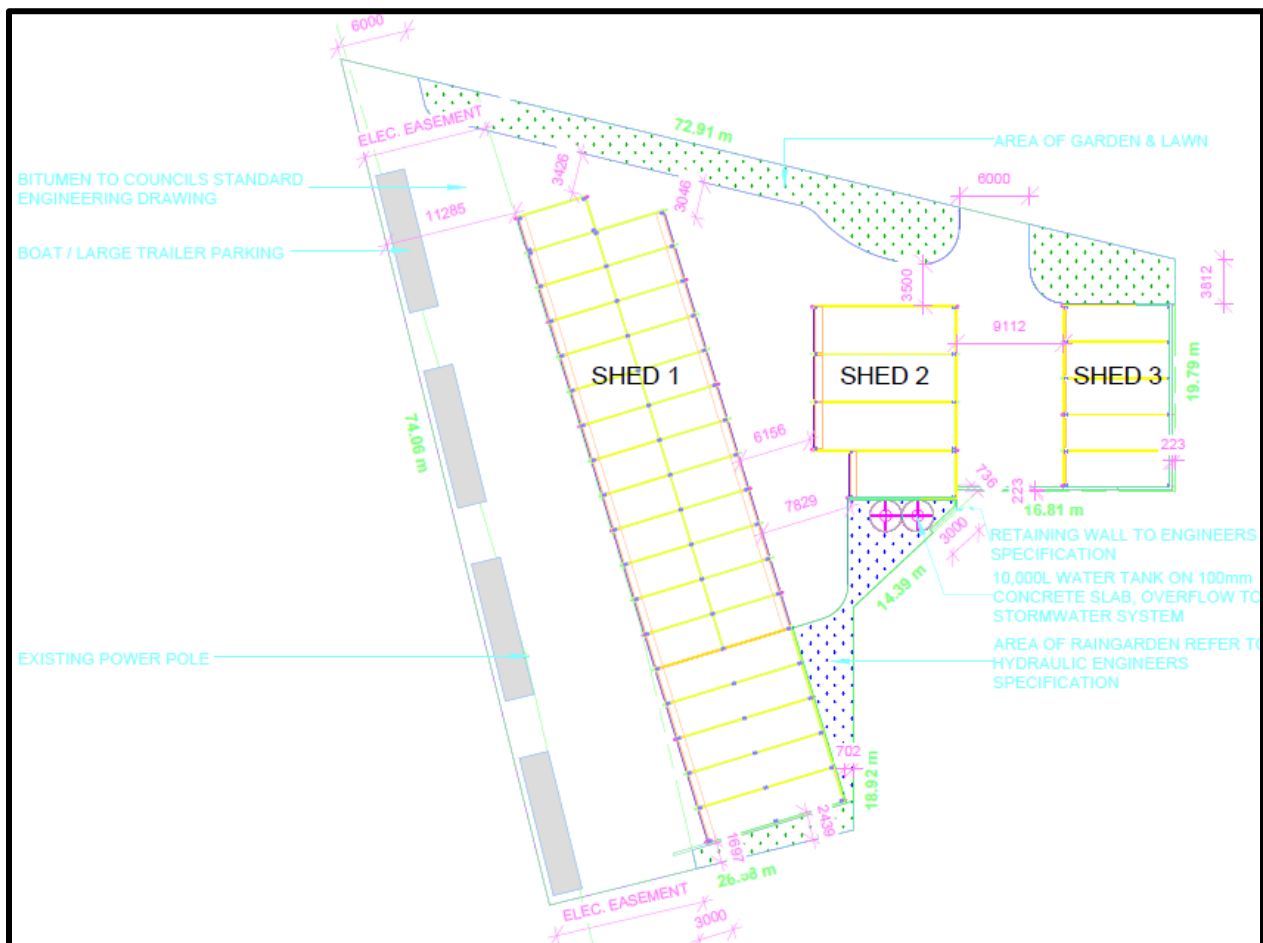


Figure 6 – Proposed Ground Floor Plan (Source Tim Lee Architects)

5. Traffic Impact Assessment

5.1. Trip Generation

Generally, the traffic activity associated with the new development is calculated with reference to the 'RMS Guide to Traffic Generation Developments' (The Guide). However, in relation to the proposed self storage units the RMS guide does not provide any information. In absence of the published data, the standard engineering practice is to determine the traffic activity with reference to the operation of similar sites.

In 2009 Aurecon consultants have carried out a study to determine the traffic and parking activity of self storage units. As part of this study, traffic and parking activity of storage units located across the country were surveyed. For storage units occupying less than 3,000sqm Table 5-6 of the Aurecon report recommends the following trip generation rate (95th Percentile):

AM peak – 8 vehicle trips per hour;
PM peak – 11 vehicle trips per hour

Application of the above traffic generation rates to the proposed storage units occupying a total area of 990sqm GFA, would result in 11 vehicle trip per hour.

The projected traffic activity associated with the proposal indicates the site is likely to generate a peak hour traffic of 11 vehicle trips – representing a vehicle trip every six minutes or so.

Generally, the traffic activity must be assessed within the context of the surrounding road network i.e. Ross Street. All of these roads are classified as local roads, indicating the peak hour traffic flow is less than 500 vehicles per hour. In this regard, the impact of an additional 11 vehicle trips are insignificant, as these trips are less than the general daily variation, which is generally considered to allow for 10% of the hourly flow.

Additionally, any intersection modelling assessment is unlikely to demonstrate any significant increase in traffic flow between the existing operation and the "post development" operation of the intersection. Therefore no formal Sidra intersection analysis has been undertaken as part of this report.

In conclusion, the proposal is likely to generate a maximum of 11 vehicle trips an hour (bidirectional) and this increase is highly unlikely to have any detrimental impact on the operation of the surrounding road network.

6. Parking Provision

6.1. Planning Requirements

The subject site is part of the Goulburn Mulwaree Council and Table 3.2 of the Development Control Plan 2009 (DCP) specifies the on-site parking requirements for various uses. In relation to the proposed storage units, the DCP does not provide any information and therefore, the on-site parking provision is determined with reference to the operation of a similar site. As discussed, Aurecon consultants have carried out a study to determine the traffic and parking activity of self storage units.

Table 2- Recommended Parking Provision Rates for Storage Units (Source AURECON Study)

TABLE 2: AURECON RECOMMENDED PARKING REQUIREMENT Land Use (<3,000sqm)	Car Park Provision
Storage	2
Office Use	1
Staff	2
Trailer/Ute hire	1

The development proposal involves the construction of a self storage units occupying a total area of 990sqm. Based on the information provided to ParkTransit, we understand the operation of proposed storage shed involves the units users to access the site independently – therefore, there will be no staff personnel present on site.

Application of the above rates to the proposal results in an on-site parking provision of 2 car spaces for the storage users and one trailer/ute hire space.

6.2. Proposed Parking Provision

The proposal involves construction of a ranch style storage units which allow the users to park in front of their storage units. Additionally, the proposal includes parking provision for trailers along the northern boundary of the site (i.e. Brewer Street frontage). Therefore, the proposed on-site parking provision is considered suitable to service the proposed development and is unlikely to result in increased on-street parking demand.

7. Access Arrangements

7.1. Driveway Arrangement

As part of the proposal, two combined entry/exit driveways will be introduced on Ross Street frontage to service the Storage units. Table 3.1 & Table 3.2 of AS2890.1 specifies the width of the access driveway, which is directly proportional to the on-site parking provision and also the type of frontage road.

Taking into account the proposed driveway is located on Ross Street, which is classified as a Local Road, and the car park has a capacity of 20 parking spaces, Table 3.1 classifies the proposed driveway as 'Category 1'. Table 3.2 therefore recommends if the driveways are combined then the driveway should be 3.0-6.0m wide. The width of the proposed driveway is in excess of 3.0 metres and is therefore considered compliant with the Standard.

Additionally, in order to assess the southern driveway (i.e. driveway servicing shed no 2 & 3) we have undertaken Swept Path Analysis utilising the AutoTrack simulation software. The Swept Path Analysis was undertaken utilising a Standard 8.8m Long Small Rigid vehicle type and is presented as **Attachment B**.

The swept path assessment concluded the driveway arrangement is suitable to service the storage units.

7.2. 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 driveways located along the Ross Street frontage, which has a posted speed limit of 50kph.

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 50kph. The proposed driveway is located on a straight section of Ross Street with unobstructed visibility. In this regard, the driveway arrangement is considered safe and appropriate to service the proposed development.

7.3. Driveway Location

Figure 3.1 of the Standard shown below, specifies the prohibited location for introduction of a Category 2 driveway.

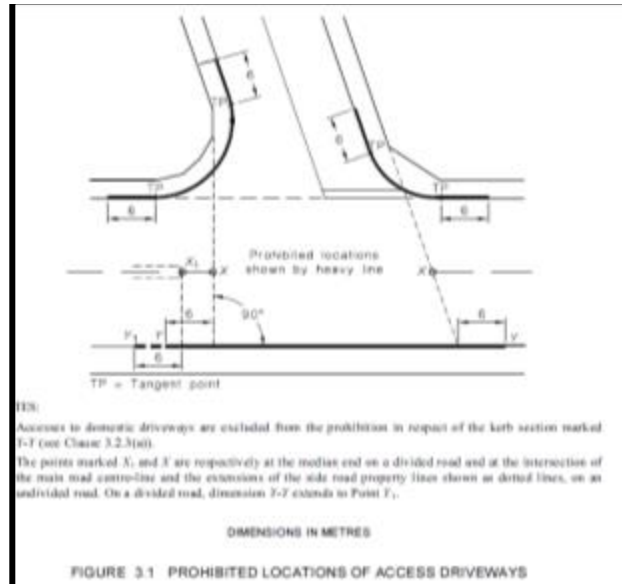


Figure 7- Prohibited Locations of Access Driveway (Source AS2890.1-2004)

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 car spaces located along the storage units of the proposed development are considered sufficient to accommodate the projected 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 the current traffic conditions; and
- An assessment of the car park layout, including the proposed parking spaces and associated aisle width, indicate the car park layout is compliant with the relevant applicable Standards (AS2890.1-2004, AS2890.2-2018 and AS2890.6-2009).

9. Attachments

Architectural Plan indicating Access and Car Park Arrangement

Swept Path Assessment Demonstrating a Standard 8.8m Medium Rigid Truck accessing the Site