



10 Industrial Close, Yass Unmanned Refuelling Facility Traffic Impact Assessment

Prepared for:

IOR Petroleum Pty Ltd

24 June 2025

The Transport Planning Partnership

10 Industrial Close, Yass Unmanned Refuelling Facility Traffic Impact Assessment

Client: IOR Petroleum Pty Ltd

Version: V04

Date: 24 June 2025

TPP Reference: 23249

Quality Record


Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	15/05/2025	James Goodman	Wayne Johnson	Wayne Johnson	DRAFT
V02	27/05/2025	James Goodman	Wayne Johnson	Wayne Johnson	Wayne Johnson
V03	27/05/2025	James Goodman	Wayne Johnson	Wayne Johnson	Wayne Johnson
V04	24/06/2025	James Goodman	Wayne Johnson	Wayne Johnson	

Table of Contents

1	Introduction	1
1.1	Background.....	1
1.2	Structure of the Report.....	1
2	Existing Conditions	2
2.1	Site Description	2
2.2	Surrounding Road Network	3
2.3	Pedestrian and Cycling Infrastructure	3
2.4	Crash History	3
3	Proposed Development.....	5
3.1	Overview of the Proposal	5
3.2	Proposed Vehicle Access Arrangement	6
4	Parking Assessment.....	7
5	Traffic Assessment	8
6	Conclusion	9

Figures

Figure 2.1: Site Locality	2
Figure 2.2: Crash History within Vicinity of Subject Site	4
Figure 3.1: Proposed Site Layout	5
Figure 3.2: Swept Path Analysis and Access Arrangements	6

APPENDICES

- A. PROPOSED SITE LAYOUT
- B. SWEPT PATH ANALYSIS

1 Introduction

1.1 Background

A Development Application (DA) is to be submitted to Yass Valley Council (Council) for the proposed development of an unmanned refuelling facility located at 10 Industrial Close, Yass.

The proposed unmanned refuelling facility comprises three refuelling pumps, which allow three heavy vehicles to refuel at the same time. The refuelling facility will operate 24 hours per day, seven days per week.

The Transport Planning Partnership has prepared this Traffic Impact Assessment (TIA) report to accompany the DA and assess the traffic and parking implications of the proposed development on the surrounding road network for submission to Council.

1.2 Structure of the Report

The layout of the report is set out as follows:

- Chapter 2 discusses the existing conditions including a description of the site.
- Chapter 3 provides a brief description of the proposed development.
- Chapter 4 assesses the parking requirements and its implications.
- Chapter 5 assesses the traffic generation and its implications.
- Chapter 6 presents the conclusion of the assessment.

2 Existing Conditions

2.1 Site Description

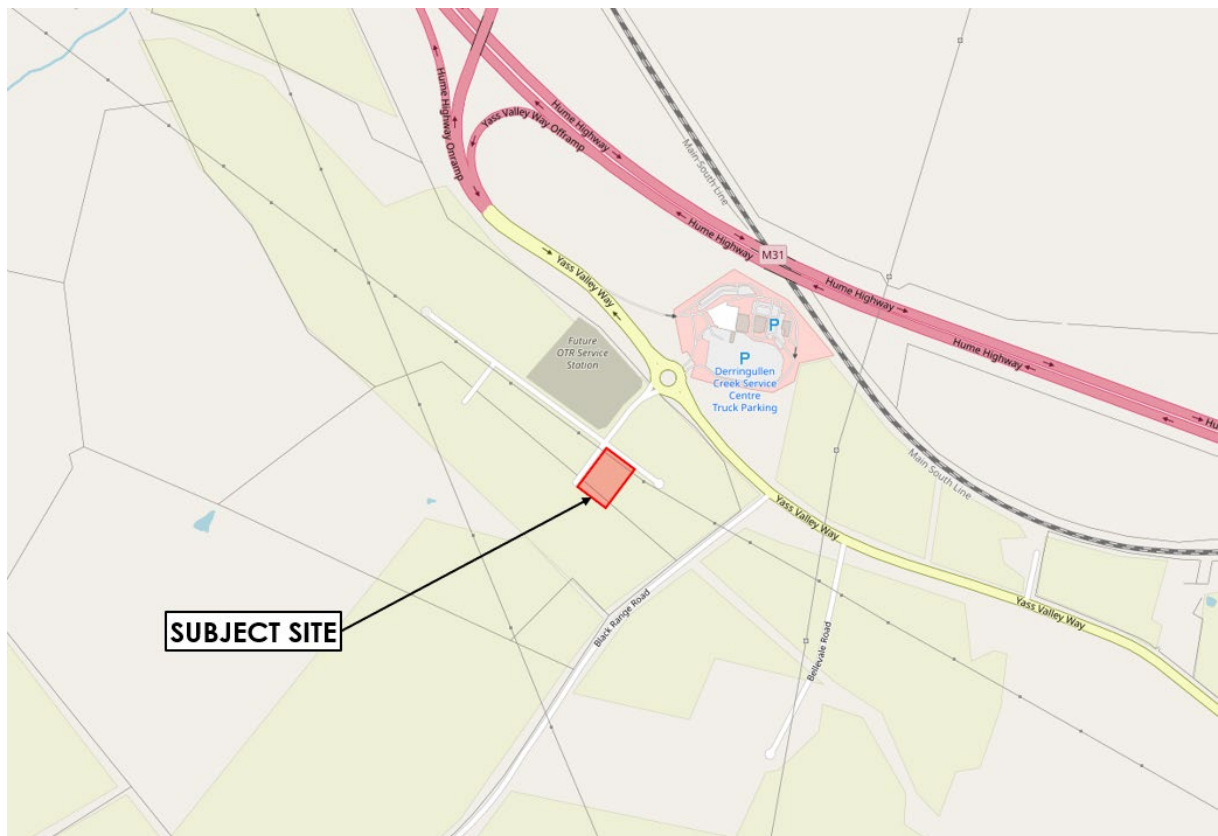
The subject site is located at 10 Industrial Close, Yass (Lot 5, DP1278625), within the Yass Valley Council local government area (LGA). The site forms part of the recently completed Yass Industrial Park subdivision and is zoned E4 – General Industrial under the Yass Valley Local Environmental Plan 2013. The site is predominantly flat and currently comprises undeveloped, vegetated land.

The Yass Industrial Park enjoys strategic access to both the Hume Highway and Barton Highway, which serve as major transport corridors linking Canberra, Sydney, and Melbourne.

The immediate surrounds of the site comprise primarily undeveloped greenfield lots. However, the lot directly opposite the subject site has been approved for a major service centre, and an existing service centre is located north of the nearby roundabout at the intersection of Commercial Road and Yass Valley Way.

Figure 2.1 illustrates the land zoning of the site and its surrounding context.

Figure 2.1: Site Locality



Basemap Source: OpenStreetMap (accessed 9/05/2025)

2.2 Surrounding Road Network

Industry Close is a two-lane, two-way local road, generally aligned in an east-west direction, forming a cul-de-sac directly to the east of the site. It forms part of the recently developed Yass Industrial Park and connects to Commercial Road at its eastern end. The road provides direct access to future industrial lots within the subdivision. Unrestricted parking is permitted.

Commercial Road is a two-lane, two-way sealed local road, generally aligned in an north-south direction in the vicinity of the site, ending at the site boundary and is yet to be extended. It connects Industry Close to Yass Valley Way via a roundabout to the east. The road will primarily serve light industrial and service-oriented land uses. Unrestricted parking is permitted.

Yass Valley Way is a two-lane, two-way regional road classified as a Main Road, running generally east-west through Yass. It connects the Yass town centre to the Hume Highway to the east and Barton Highway to the west, serving as a key arterial route for local and regional traffic. The road features a posted speed limit of 60km/h in developed areas and increases to 80km/h in less urbanised sections. No formal on-street parking is provided, and shoulders are typically sealed.

Hume Highway (M31) is a four lane, two way national highway, forming part of the major intercity route linking Sydney, Canberra, and Melbourne. In the vicinity of Yass, it bypasses the town which is accessed via Yass Valley Way. It comprises two lanes in each direction, with grade-separated interchanges and a posted speed limit of 110km/h. Stopping or on-street parking is prohibited.

2.3 Pedestrian and Cycling Infrastructure

No pedestrian footpath or cycling infrastructure is provided along Industrial Close, Commercial Road and Yass Valley Way in the vicinity of the subject site.

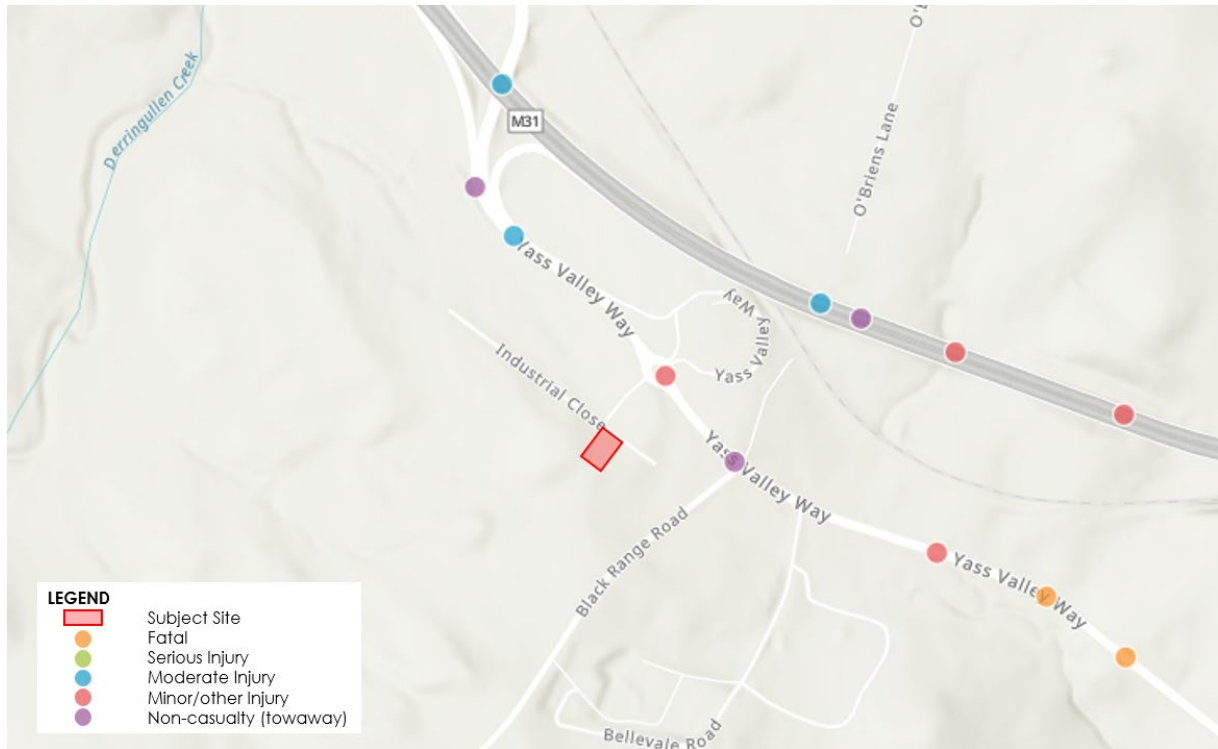
2.4 Crash History

The latest crash history data for the most recent five-year period between January 2019 and December 2023 has been obtained within the vicinity of the subject site and is illustrated in Figure 2.2. The data indicates there has been no crashes recorded along Industrial Close and Commercial Road, in the vicinity of the subject site. This indicates no safety issue at the immediate intersection and the site frontage road.

The nearest recorded crash occurred in 2020 at the Yass Valley Way and Commercial Road roundabout to the north of the subject site, which was a non-casualty incident. A number of crashes were also recorded along Yass Valley Way including two fatal crashes. It is important to note that the majority of traffic is expected to approach the site via the Hume Motorway

rather than from Yass township. As such, the project is not anticipated to contribute additional traffic to the more accident-prone sections of Yass Valley Way, thereby minimising any potential safety impacts on the local road network.

Figure 2.2: Crash History within Vicinity of Subject Site



Source: Centre for Road Safety Crash Data

3 Proposed Development

3.1 Overview of the Proposal

It is proposed to develop an unmanned truck refuelling facility at 10 Industrial Close, Yass. Components of the proposed development include:

- Installation of one 80kl Diesel and 15kl Adblue tank for the storage of fuel,
- Installation of three fuel dispensers on a bunded area, allowing for three heavy vehicles to refuel at the same time,
- Installation of a double ablution block,
- Construction of a canopy,
- Construction of an access driveway and an egress driveway for refuelling vehicles to enter and exit the site,
- Construction of two parking spaces,
- Installation of traffic control signage and barriers within the site.

Figure 3.1 shows the layout of the proposed refuelling facility, with the detailed site layout provided in Appendix A.

Figure 3.1: Proposed Site Layout



Source: IOR -Site Layout, Drawing No. YADA25-002 Rev F, dated 23/06/2025

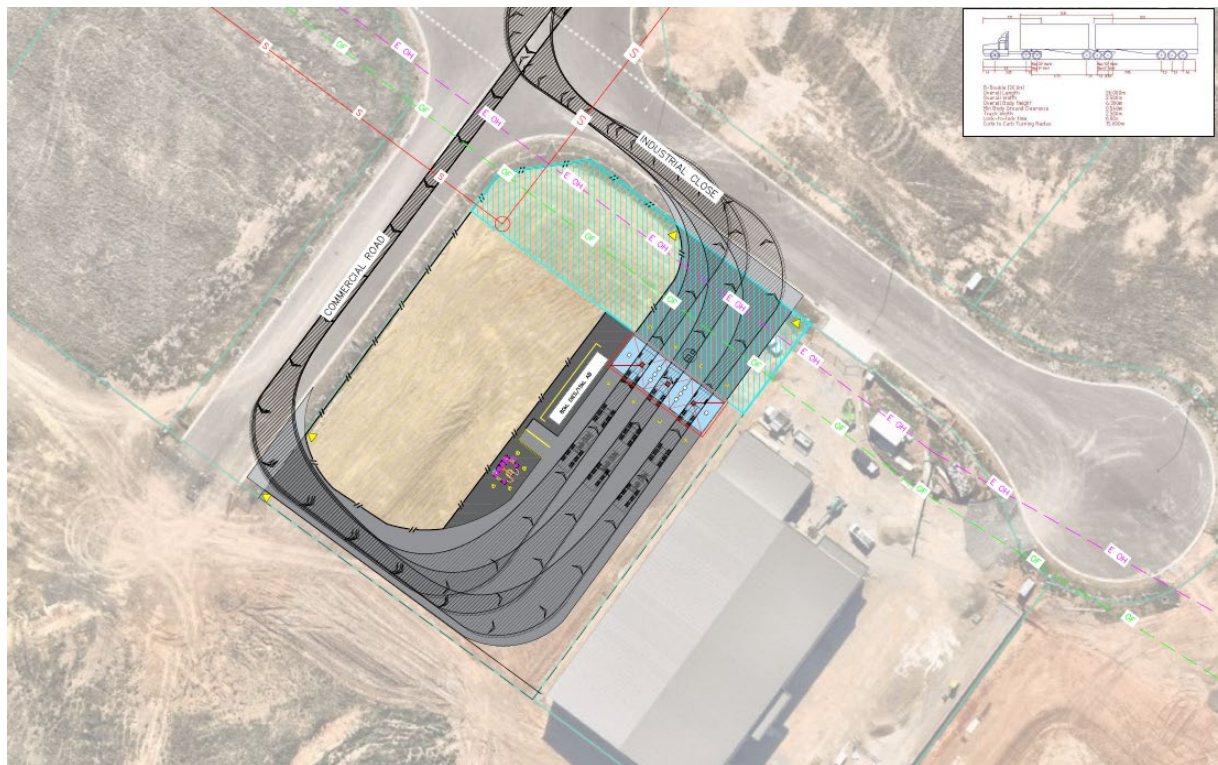
3.2 Proposed Vehicle Access Arrangement

The proposed access arrangement of the subject site will be facilitated by two one-way driveways located off Industrial Close. The northern driveway will be used for ingress only while the western driveway will be used for egress only.

Both ingress and egress driveways will be signposted to prevent any conflicting movements. When arriving at the refuelling area, up to three B-Double vehicles can refuel concurrently side by side.

Figure 3.2 shows the swept path analysis of a 26m B-Double vehicle (the largest vehicle to refuel at the facility) entering and exiting the subject site in a forward direction, with the full set of swept path analysis provided in Appendix B.

Figure 3.2: Swept Path Analysis and Access Arrangements



Source: IOR –Swept Path Layout, Drawing No. YADA25-003 Rev F, dated 23/06/2025

A review of the available sight distance at the site exit onto Industrial Close indicates that visibility is expected to be sufficient for safe vehicle movements. All vehicles are expected to exit left, as Industrial Close forms a cul-de-sac to the right. Accordingly, sight distance is only required to the west of the exit, toward oncoming traffic. The road is straight and free of obstructions such as trees or verge encroachments, providing a clear line of sight to approaching vehicles. As such, the available sight distance is considered adequate to support the safe operation of the proposed refuelling facility.

4 Parking Assessment

The Yass Valley Council Development Control Plan 2024 stipulates the following minimum parking rates for service stations:

- 1 space per 6 fuel bowzers plus one space for oil and air plus 1 space per employee and 6 spaces per work bay (for any vehicle servicing)

Based on a provision of three fuel bowzers and noting the absence of oil/air facilities, employees, and service bays, the DCP generates a nominal requirement of one on-site parking space.

Two parking spaces for light vehicles are proposed as part of the development, which exceeds the minimum requirement and therefore is compliant with the DCP parking rates.

5 Traffic Assessment

The proposed unmanned truck refuelling facility is located within close proximity to the Hume Highway, a major freight corridor. The facility is expected to cater predominantly to heavy vehicles, with most users anticipated to be pass-by traffic travelling along the Hume Highway, rather than traffic originating from within Yass township.

Based on preliminary estimates, the development is expected to generate approximately 20-30 vehicles per day and 4 vehicles during the peak hour, equating to 8 one-way vehicle trips per hour. This level of traffic generation is considered low and is not anticipated to result in any adverse impacts on the performance or safety of the surrounding road network.

The subject site is located within the Yass Industrial Park, which was approved under Development Application DA145283. As part of that approval, the overall traffic generation and road network capacity for the broader industrial subdivision would have been considered and assessed by the consent authority. The proposed unmanned refuelling facility represents a low-impact use within the approved subdivision, and its traffic generation is expected to fall well within the parameters already assessed under the original development application. Accordingly, the proposal does not introduce additional traffic impacts beyond what has previously been contemplated for the industrial estate.

Furthermore, it is well established that the majority of patronage at fuel and refuelling facilities—particularly those designed for heavy vehicles near major highways—is composed of passer-by traffic rather than new trips. While Transport for NSW does not publish specific figures on the proportion of passing trade for refuelling facilities, reference can be made to the Institute of Transportation Engineers (ITE) Trip Generation Manual, which identifies that approximately 56% of service station trips are pass-by in nature. For truck refuelling stations located near major freight routes, this proportion is likely to be even higher.

In this case, the site's location near the Hume Highway and its connectivity via Commercial Road and Yass Valley Way roundabout supports the conclusion that the facility will primarily service vehicles already travelling on the highway network. As a result, the number of new vehicle trips generated by the development is expected to be minimal, and the net impact on the local road network negligible.

6 Conclusion

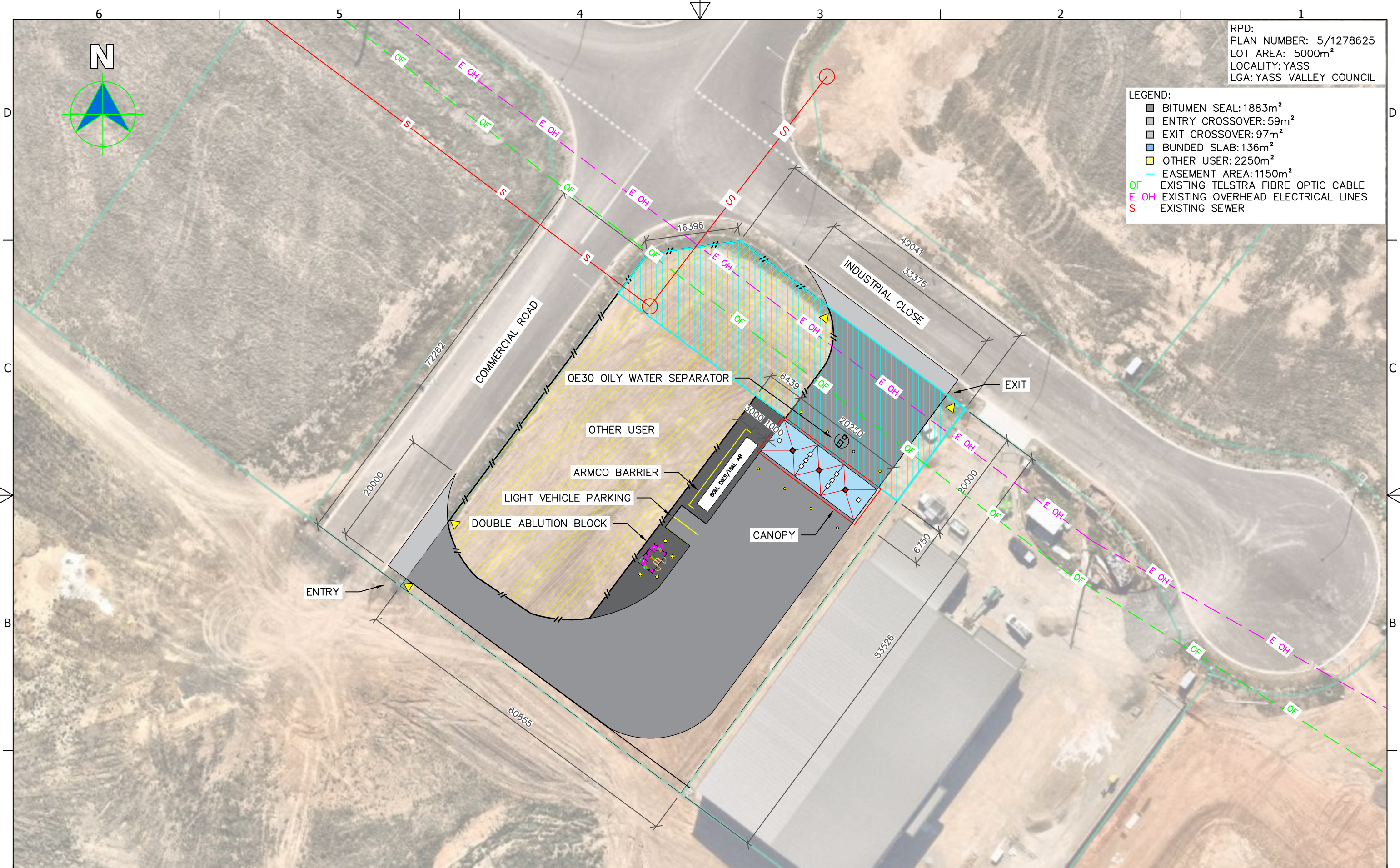
Based on the analysis and discussion presented within this report, the following conclusion can be made:

- A Development Application is proposed for the construction of an unmanned refuelling facility at 10 Industrial Close, Yass, within the Yass Industrial Park.
- The development comprises three fuel dispensers capable of servicing up to three heavy vehicles simultaneously, operating 24 hours a day, seven days a week.
- Access and egress will be provided via two dedicated one-way driveways onto Industrial Close, with swept path analysis demonstrating safe entry and exit for 26m B-Double vehicles in a forward direction.
- The site is expected to generate approximately 4 vehicles per hour (8 one-way trips) during the peak hour, with the majority of users expected to be pass-by traffic from the nearby Hume Highway, resulting in minimal new trips on the local network.
- The site is located within an approved industrial subdivision, where the overall traffic generation was previously considered and assessed. The proposal represents a low-impact use within that context.
- No crashes have been recorded on Industrial Close or Commercial Road in the past five years. The road is flat, straight, and unobstructed, providing sufficient sight distance for safe vehicle movements.
- The DCP generates a minimum requirement of one parking space based on the number of fuel bowzers, with no additional requirements for staff, servicing, or oil/air facilities. Two light vehicle parking spaces are proposed, which exceeds the minimum requirement and complies with the DCP.
- The proposal is therefore considered safe, efficient, and appropriate for the local road environment, with no adverse impacts expected on the surrounding network

Overall, it can be concluded that the proposed development can be satisfactorily accommodated without any adverse impacts on the surrounding road network.

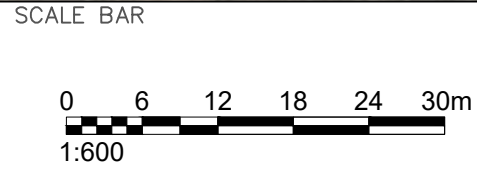
Appendix A

Proposed Site Layout



RPD:
PLAN NUMBER: 5/1278625
LOT AREA: 5000m²
LOCALITY: YASS
LGA: YASS VALLEY COUNCIL

- LEGEND:
- BITUMEN SEAL: 1883m²
 - ENTRY CROSSOVER: 59m²
 - EXIT CROSSOVER: 97m²
 - BUNDED SLAB: 136m²
 - OTHER USER: 2250m²
 - EASEMENT AREA: 1150m²
 - OF EXISTING TELSTRA FIBRE OPTIC CABLE
 - E OH EXISTING OVERHEAD ELECTRICAL LINES
 - S EXISTING SEWER



DESCRIPTION

IOR UNMANNED TRUCKSTOP
10 INDUSTRIAL CLOSE,
YASS NSW, 2582

DRAWING TITLE

SITE LAYOUT

STATUS				
DA ISSUE				
DRAWN LD	DATE 23.06.2025	DRAWING NO. YADA25-002		REV F
A1 SCALE	1:250	A3 SCALE	1:500	SHEET

Appendix B

Swept Path Analysis



<div><div>ior</div></div>	<div>SCALE BAR</div> <div><div>0612182430m</div><div>1:600</div></div>	<div>DESCRIPTION</div> <div>IOR UNMANNED TRUCKSTOP</div> <div>10 INDUSTRIAL CLOSE, YASS NSW, 2582</div>	<div>DRAWING TITLE</div> <div>SWEPT PATH LAYOUT</div>	<div>STATUS</div> <div>DA ISSUE</div>			
				<div>DRAWN</div> <div>LD</div>	<div>DATE</div> <div>23.06.2025</div>	<div>DRAWING NO.</div> <div>YADA25—003</div>	<div>REV</div> <div>F</div>
				<div>A1 SCALE</div> <div>1: 250</div>	<div>A3 SCALE</div> <div>1: 500</div>	<div>SHEET</div>	

The Transport Planning Partnership
Suite 402 Level 4, 22 Atchison Street
St Leonards NSW 2065

P.O. Box 237
St Leonards NSW 1590

02 8437 7800

info@tpp.net.au

www.tpp.net.au