

Traffic Engineering Report

To	Development Directive	Date	5 June 2026
Prepared by	Luke Huang, Modus Graduate Traffic Engineer	Approved by	Harj Singh, Modus Executive Director (RPEQ 22364)
Location	Lot 6 Prosperity Place, Park Ridge		
Subject	Proposed Warehouse Development - Traffic Engineering Report		
Status	Draft	Attachments	Appendix A: Proposed Development Plans Appendix B: Approved Development Plans Appendix C: Swept Path Assessment

1 Introduction

1.1 Overview

Modus has been commissioned by Development Directive to provide traffic and transport advice in relation to the proposed Warehouse development located at Lot 6 Prosperity Place, Park Ridge.

This Traffic Engineering Report has been produced by Modus to assess the traffic and transport engineering items in support of the proposed development. A copy of the proposed development plans are provided at **Appendix A**.

Modus has completed this Traffic Engineering Report in accordance with the usual care and thoroughness of the consulting profession. The assessment is based on accepted traffic engineering practices and standards applicable at the time of undertaking the assessment. Modus disclaims responsibility for any changes to project planning or road conditions that may occur after completion of the assessment.

2 Existing Conditions

2.1 Site Location

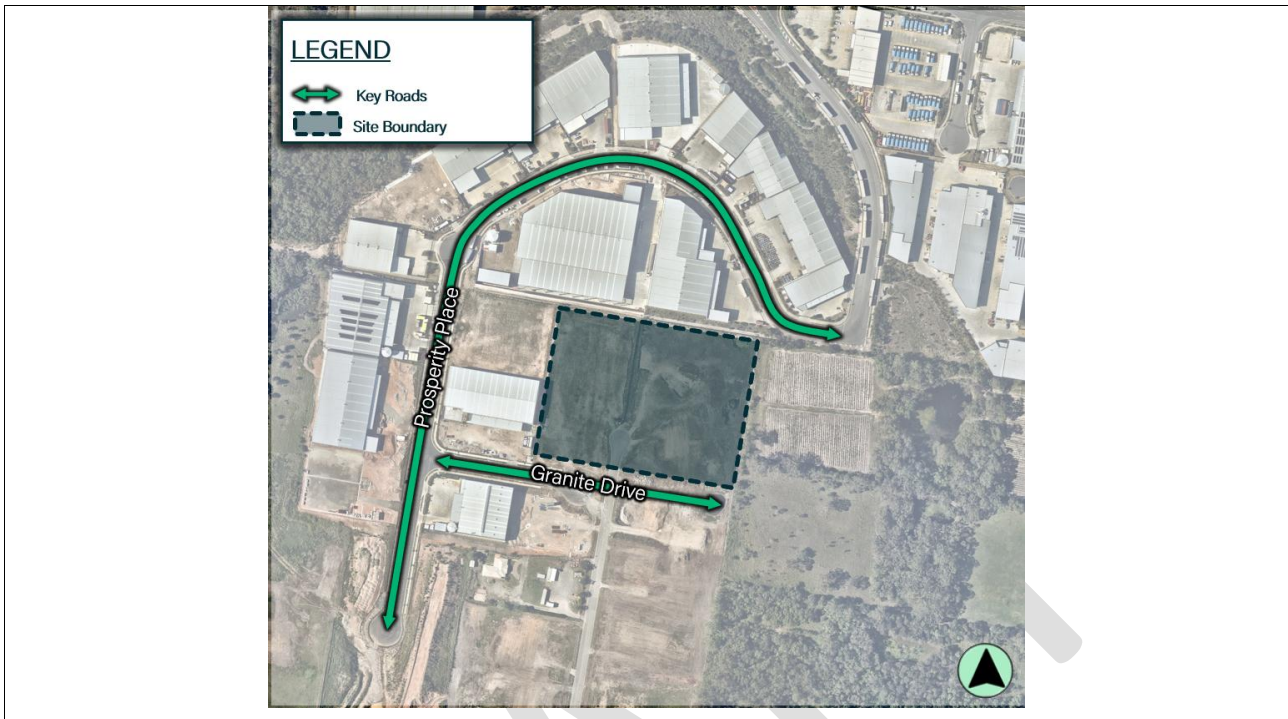
The development site is located at Lot 6 Prosperity Place, Park Ridge and is bounded by Granite Drive to the south, vacant lots in all other directions.

Furthermore, the development site is currently zoned Medium Impact Industry within the City of Logan (CoL) Local Government Area.

Additionally, the development is currently vacant with no existing crossovers provided onto Granite Drive.

Figure 2-1 on the subsequent report page illustrates the development site location.

Figure 2-1 Development Site Location



2.2 Existing Road Network

Table 2-1 outlines characteristics of the existing road network in proximity to the development site.

Table 2-1 Key Road Characteristics

Road	Authority	Hierarchy	Speed Limit	Typical Form
Granite Drive	Council	Industrial Access Road	50 km/hr	Two lanes, undivided
Prosperity Place	Council	Industrial Access Road	50 km/hr	Two lanes, undivided

2.3 Active and Public Transport Facilities

A dedicated pedestrian footpath is provided along the frontage of the site to connect to the wider pedestrian network. Additionally, there are no dedicated bicycle lanes provided along the frontage of the site.

Furthermore, there are no bus stops within a 400m radius (a comfortable 5-minute walk) of the development site.

3 Proposed Development

3.1 Overview

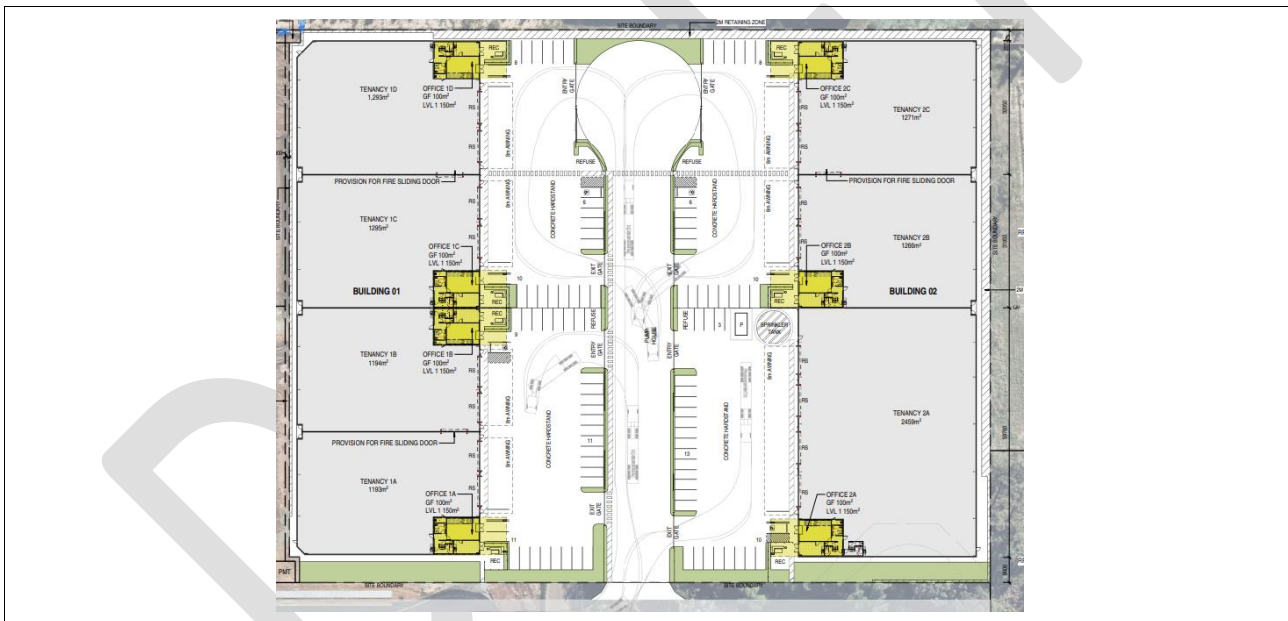
The proposed development will comprise a Warehouse use accommodating a total Gross Floor Area (GFA) of 11,721 sq.m.

As part of the proposed development, vehicular access will be achieved via a 15.0m wide crossover provided onto Granite Drive.

Furthermore, the proposed development will accommodate a total of 105 car parking spaces on-site.

Figure 3-1 illustrates the proposed development layout. A copy of the development plans are provided at **Appendix A**.

Figure 3-1 Proposed Development Layout



3.2 Removal of the Future Road Connection

Modus is of the professional opinion that the removal of the future road connection from Granite Drive to the east of the proposed site would not result in a different outcome from the previously approved plans (RL/3/2025).

The removal of the future road connection and eastern cul-de-sac has been reviewed in the context of the function of Granite Drive as an industrial access road, the proposed development access arrangement, and the ability for vehicles to enter and exit the development in a forward direction. On this basis, Modus considers that the removal of the cul-de-sac at the eastern end of the proposed site is acceptable for the following reasons:

4 Traffic and Transport Review

4.1 Access Design

4.1.1 Driveway Design

In accordance with Australian Standards 2890.1, the minimum driveway requirements for the proposed development are outlined in Table 4-1.

Table 4-1 Driveway Design Compliance

Road Frontage	AS2890.1 Driveway Design Compliance	Access Conditions
Granite Drive	Site Conditions	Minor Road Frontage User Class 2 100-300 Spaces
	Access Facility Category	3
	Required Driveway Widths	Minimum 6.0m (Entry) Minimum 4.0m to 6.0m (Exit)
	Proposed Driveway Width	15.0m (two-way)

Therefore, the proposed driveway width complies with Australian Standards 2890.1.

4.1.2 Crossover Design

The development crossovers accommodate crossover designs in accordance with the IPWEA Standard Drawings package and hence are considered acceptable.

4.1.3 Driveway Location

In accordance with Australian Standard 2890.1, development access points with a Class 3 Access Facility Category are required to achieve a 6.0 m separation from any formal intersections.

The proposed access locations do not achieve a minimum of 6.0 m separation from the formal intersection. However, Modus considers the proposed access location is acceptable on the following basis:

- ▶ The proposed access location achieves the minimum stopping sight distance (SSD) required as per AS2890.1.
- ▶ The anticipated traffic volumes at the intersection are low, as the surrounding road network primarily serves Industrial uses.

Therefore, the proposed driveway location is considered acceptable.

4.1.4 Pedestrian Sight Splays

In accordance with Australian Standards 2890.1, pedestrian sight splays should be provided at the egress point of a driveway and measure 2.5m in depth and 2.0m in width from the property boundary.

The proposed development does accommodate pedestrian sight splay provisions in accordance with Australian Standards 2890.1

Therefore, the proposed pedestrian sight provisions are considered acceptable.

4.1.5 Vehicle Sight Distance

In accordance with Australian standards 2890.1, the minimum vehicle sight distance for an access driveway fronting a 50 km/hr road is 45m.

The straight horizontal and vertical road alignment of Granite Drive west and New Road south of the site allows a minimum vehicle sight distance of 45.0m to be accommodated.

Therefore, the minimum vehicle sight distance provisions are considered acceptable.

4.2 Car Parking Provisions

In accordance with the CoL Planning Scheme, the minimum car parking requirements are outlined in Table 4-2.

Table 4-2 Minimum Car Parking Requirements

Land Use	Car Parking Rate	Yield	Car Parking Required	Car Parking Provided
Warehouse	1 space per 100 sq.m GFA	11,721 sq.m GFA	117.21 (118) Spaces	105 Spaces

While the Logan Planning Scheme benchmark identifies a nominal requirement for 118 car parking spaces, the proposed provision of 105 spaces is considered acceptable having regard to the expected operational characteristics of the development.

The proposed use comprises warehouse tenancies within an industrial estate context. Parking demand is expected to be primarily generated by staff, with limited visitor/customer parking demand. The development is not expected to operate as a retail, showroom or high-customer-turnover use, and the parking demand profile is therefore expected to be materially lower than uses with a substantial visitor component.

The proposed provision of 105 spaces equates to approximately 1 space per 112 sq.m GFA. This represents a modest variation to the Planning Scheme benchmark and remains within a practical parking provision range for warehouse development, particularly where the office components are ancillary to the warehouse tenancies.

On this basis, the proposed car parking provision is expected to accommodate the practical parking demand of development without resulting in adverse parking impacts on the surrounding industrial road network. It is recommended that the parking spaces remain available for common or tenancy-controlled use in a manner that ensures equitable access for staff and visitors associated with the development.

Therefore, the proposed car parking provision is considered acceptable.

Furthermore, the proposed development accommodates a total of four (4) PWD car parking spaces in accordance with the National Construction Code.

4.3 Car Parking Design

4.3.1 Car Parking Layout

Modus has conducted a design review of the car parking layout against the design guidelines within AS2890.1 and AS2890.2, of which is summarised below in Table 4-3.

Table 4-3 Car Parking Layout Design Review

Design Criteria	AS2890 Requirement	Proposed Design	Compliant
Parking Spaces			
Car Space Length - General	Min 5.4m	Min 5.4m	✓
Car Space Length - PWD Space	Min 5.4m	Min 5.4m	✓
Car Space Width – Resident / Employee	Min 2.4m	Min 2.4m	✓
Car Space Width – Visitor / Medium Turnover	Min 2.5m	Min 2.5m	✓
Car Space Width - PWD Space	Min 2.4m plus adjacent 2.4m shared zone	Min 2.4m plus adjacent 2.4m shared zone	✓
Car Parking Door Opening Clearances	Min 0.3m	Min 0.3m	✓
Car Parking Manoeuvring Clearances	Min 0.3m measured 0.75m back from car space entry	Min 0.3m measured 0.75m back from car space entry	✓
Roadways and Parking Aisles			
Minimum Car Parking Aisle Width	Min 5.8m	Min 5.8m	✓
Maximum Car Parking Aisle Length	Max 100.0m	Max 80.0m	✓
Service Vehicle Provisions			
AV Minimum One-Way Circulation Roadway	Min 3.5m	Min 3.5m	✓
AV Minimum Two-Way Circulation Roadway	Min 6.5m	Min 6.5m	✓

Therefore, the proposed car parking layout is designed in accordance with Australian Standards 2890.1 and Australian Standards 2890.2.

As such, the proposed car parking layout is considered acceptable.

4.3.2 Queueing Provisions

In accordance with Australian Standards 2890.1, the minimum vehicle queueing requirement from the property boundary to the first parking space is four (4) vehicles, equivalent to a length of 24.0m.

The proposed parking layout accommodates a minimum queueing length of 24.0m and hence is considered acceptable.

As such, the proposed queueing provisions are considered acceptable.

4.4 Servicing Requirements

In accordance with the CoL Planning Scheme, the minimum service vehicle requirements for the proposed development are as follows:

- ▶ Regular Servicing: Articulated Vehicle (AV)
- ▶ Refuse Collection: Refuse Collection Vehicle (RCV)

The proposed development accommodates on-site or servicing for the abovementioned service vehicles.

Furthermore, Modus has undertaken a swept path assessment (provided at **Appendix C**) which confirms the following:

- ▶ An AV is able to safely and efficiently manoeuvre to, within and from the site ensuring a minimum 0.3m to any permanent obstructions, ensuring a forward-in / forward-out arrangement occurs,
- ▶ Based on the AV swept path assessment, a RCV is able to safely and efficiently manoeuvre to, within and from the site ensuring a minimum 0.3m to any permanent obstructions, ensuring a forward-in / forward-out arrangement occurs.

Therefore, the proposed development servicing arrangements are considered acceptable.

4.5 Development Traffic Generation

In accordance with the NSW Guide to Transport Impact Assessment document, the peak hour traffic generating potential of the proposed development is outlined in Table 4-4.

Table 4-4 Proposed Development Traffic Generation Volumes

Land Use	Yield	AM Peak Hour Traffic Generation Rates	PM Peak Hour Traffic Generation Rates	AM Peak Hour Traffic Generation Volumes	PM Peak Hour Traffic Generation Volumes
Warehouse	11,721 sq.m GFA	0.26 trips per 100 sq.m GFA	0.23 trips per 100 sq.m GFA	30.47 (31) vehicles per hour	26.95 (27) vehicles per hour

Therefore, the proposed development will accommodate up to 31 vehicles per hour.

On average across the peak hour period, this corresponds to one (1) new vehicle on the external road network every 1 minute and 56 seconds.

On this basis, the proposed development traffic generation is not expected to compromise the safety nor efficiency of the external road network.

5 Summary

Based on the assessment presented in this report, the proposed Warehouse development at Lot 6 Prosperity Place, Park Ridge is considered supportable from a traffic engineering perspective.

The proposed access arrangement, car parking layout, internal circulation, queuing provision and servicing arrangements are generally consistent with the relevant traffic engineering design requirements, subject to the development being constructed generally in accordance with the assessed plans and swept path drawings.

The proposed provision of 105 car parking spaces is considered acceptable for the intended warehouse use, having regard to the operational characteristics of the development and the expected practical parking demand.

The proposed development is expected to generate up to approximately 31 vehicle trips during the peak hour, which is not expected to materially impact the safety or operational efficiency of the surrounding industrial road network.

On this basis, the proposed development is considered acceptable from a traffic engineering perspective.

Should there be any issue with the above, please contact the undersigned.

Yours sincerely,

MODUS TRANSPORT AND TRAFFIC ENGINEERING

Harj Singh
Executive Director (RPEQ 22364)

APPENDIX A

Proposed Development Plans

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APPENDIX B

Approved Development Plans

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APPENDIX C

Swept Path Assessment

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