

Traffic Engineering Report

To	Zone Planning Group	Date	10 June 2025
Prepared by	Kevin Liu, Modus Traffic Engineer	Approved by	Harj Singh, Modus Executive Director (RPEQ 22364)
Location	10 & 26 Edison Crescent, Yarrabilba		
Subject	Proposed Warehouse Development - Traffic Engineering Report		
Status	Final	Attachments	Appendix A: Development Plans Appendix B: Swept Paths Assessment

1 Introduction

1.1 Overview

Modus has been commissioned by Zone Planning Group to provide traffic and transport advice in relation to the proposed Warehouse development located at 10 & 26 Edison Crescent, Yarrabilba.

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 has been provided at **Appendix A**.

1.2 References

The following documents and guidelines have been referenced in the assessment herein:

- ▶ Logan City Council (LCC) Planning Scheme, 2015,
- ▶ Economic Development Queensland (EDQ) Plan of Development (PoD),
- ▶ AS2890.1 Australian Standards Parking Facilities Part 1: Off-Street Car Parking, 2004,
- ▶ AS2890.2 Australian Standards Parking Facilities Part 2: Commercial Vehicle Facilities, 2002,
- ▶ AS2890.6 Part 6: Off-street Parking for People with Disabilities, 2009,
- ▶ Transport for NSW Guide to Transport Impact Assessment, 2024 (TfNSW).

1.3 Limitations

Modus has completed this traffic 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 10 & 26 Edison Crescent, Yarrabilba and is bounded by Edison Crescent to the north and west, construction development to the east and vacant land to the south. The site is located within the Yarrabilba Priority Development Area (PDA) within the Logan City Council Local Government Area.

The proposed development site location and subdivision is illustrated on Figure 2-1.

Figure 2-1 Site Location



Source: CommercialRealEstate.com

2.2 Existing Site Use

The site is currently vacant land and has no existing access driveway.

2.3 Existing Road Network

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

Table 1-1 Key Road Characteristics

Road	Authority	Speed Limit	Typical Form
Edison Crescent	Council	50km/h	Two lanes, undivided
Wongawallan Drive	Council	50km/h	Two lanes, undivided

2.4 Active Transport Facilities

The proposed development is well serviced by the active transport facilities located within the surrounding area of the site. There are pedestrian footpaths along both verges of Edison Crescent and Wongawallan Drive forming connections to the development site and the broader active transport network in the area.

Furthermore, dedicated on-street cycling paths are provided on Wongawallan Drive that form connections to the broader network in the area.

2.5 Public Transport Facilities

The development has no public transport facilities within a 400m radius (5-minute walk). The nearest bus stop is located approximately 800m from the site (11-minute walk) and accommodate various service that connects to the surrounding suburbs.

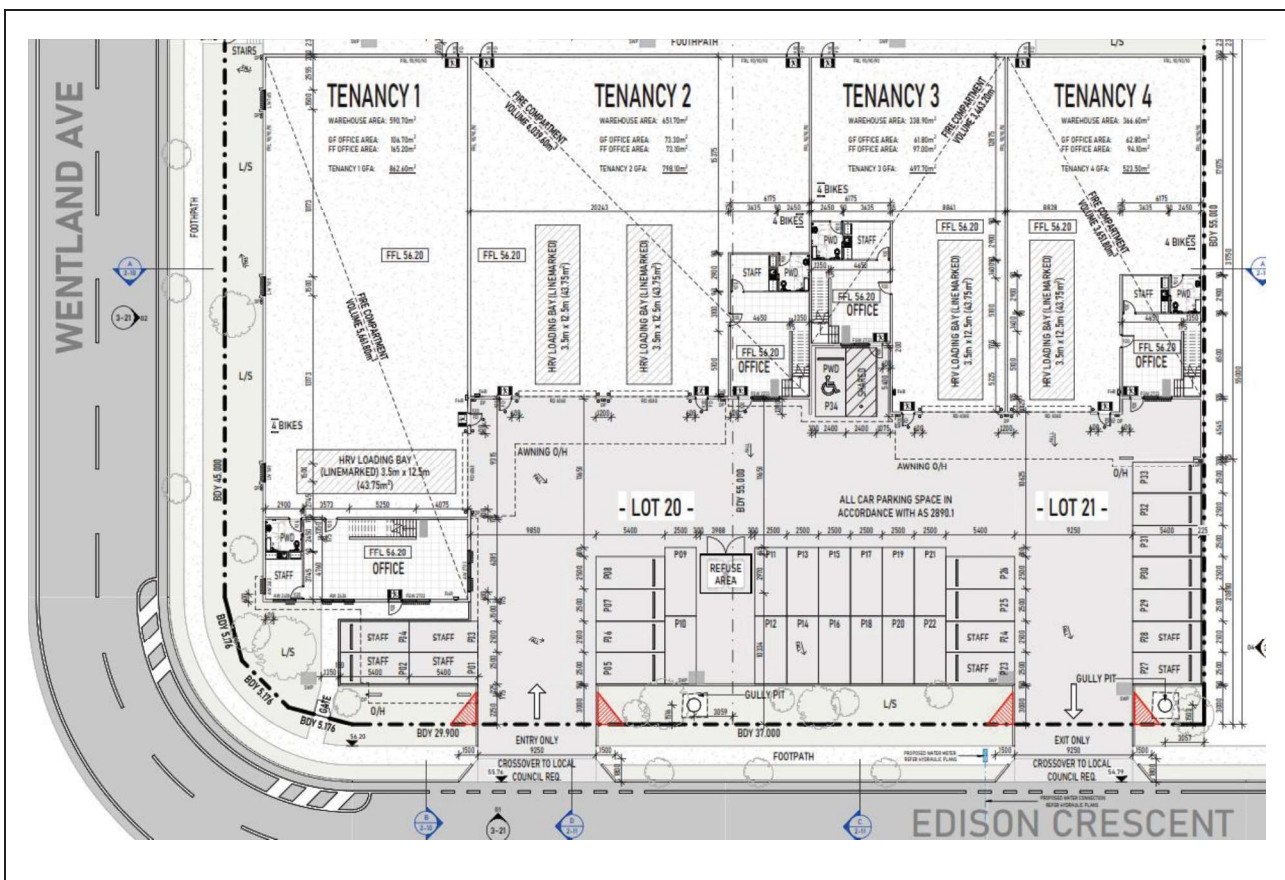
3 Proposed Development

3.1 Overview

The proposed development consists of a Warehouse and office development comprised of four (4) warehouses and two (2) levels of offices on-site. The cumulative development yield for the development is 2,612.7m² Gross Floor Area (GFA).

Figure 3-1 illustrates the site plan for the proposed development. A copy of the development plans can be found at **Appendix A**.

Figure 3-1 Proposed Development



Source: RH Frankland Building Design & Consulting Studio's Rev FF Dated 09.06.2025

3.2 Development Access

The proposed development will accommodate two (2) access driveways, which will operate on the following basis:

- ▶ One (1) 9.25m wide entry / exit crossover onto Edison Crescent,
- ▶ One (1) 9.25m wide entry / exit crossover onto Edison Crescent.

4 Traffic and Transport Advice

4.1 Access Design

4.1.1 Driveway Design

In accordance with Australian Standards AS2890.1, the minimum driveway requirements for the proposed development are outlined in Table 4-1.

Table 4-1 Driveway Design Compliance

AS2890.1 Driveway Design Compliance	Conditions
Site Conditions	Minor Road Frontage User Class 1 25 - 100 Spaces
Access Facility Category	1
Required Driveway Widths	3.0m – 5.5m
Proposed Driveway Widths	<u>Entry / Exit Driveways</u> : 9.25m

Therefore, the proposed driveway widths comply with Australian Standards AS2890.1.

4.1.2 Driveway Location

In accordance with Australian Standards AS2890.1, development accesses with a Class 1 Access Facility Category are to achieve a 6.0m separation to any formal intersections. Provided that the proposed access location is not located within a 6.0m distance to any formal intersections, the proposed access location is considered acceptable.

4.1.3 Pedestrian Sight Splays

In accordance with Australian Standards AS2890.1, pedestrian sight splays should be provided at the egress point of a driveway and measure 2.5m in length and 2.0m in width from the property boundary. The proposed access location ensures sufficient visibility between outbound vehicles and pedestrians along the frontage of the site and therefore complies with the requirements of Australian Standards AS2890.1.

4.2 Parking Provisions

4.2.1 Car Parking

In accordance with the approved Economic Development Queensland (EDQ) Plan of Development (PoD), the minimum car parking requirements for the proposed development is outlined in Table 4-2.

Provided that the proposed units may accommodate Warehouse uses, Modus has undertaken a review of the Warehouse land uses.

Table 4-2 Proposed Car Parking Provision

Land Use	Car Parking Rate	Yield	Car Parking Required	Car Parking Proposed
Warehouse Tenancy 1	1 per 100 sq.m of GFA	832.6 sq.m GFA	9 Spaces	
Warehouse Tenancy 2		784.8 sq.m GFA	8 Spaces	
Warehouse Tenancy 3		486.5 sq.m GFA	5 Spaces	
Warehouse Tenancy 4		508.8 sq.m GFA	6 Spaces	
Total			28 Spaces	34 spaces

Therefore, the proposed development provides sufficient car parking for the requirements of a Warehouse use.

Furthermore, one (1) PWD parking space is provided on-site as per AS 2890.6: Off-street Parking for People with Disabilities.

4.2.2 Bicycle Parking

In accordance with the approved Economic Development Queensland (EDQ) Plan of Development (PoD), the minimum bicycle parking requirements for the proposed development is outlined in Table 4-3.

Table 4-3 Proposed Bicycle Parking Provision

Land Use	Bicycle Parking Rate	Yield	Bicycle Parking Required	Bicycle Parking Proposed
Warehouse	One (1) space per five (5) car parking spaces	34 car parking spaces	6 Spaces	16 spaces
Total	-	34 car parking spaces	6 Spaces	16 spaces

Therefore, the proposed development provides sufficient bicycle parking for a warehouse use.

4.3 Parking layout

Modus has conducted a design review of the car park against the design guidelines within Australian Standards AS2890.1. The compliance has been summarised in Table 4-3.

Table 4-3 Car Parking Layout Compliance

Design Criteria	AS2890.1 Requirement	Proposed Design	Compliant
Parking Bays			
Bay Length – General Spaces	5.4m	5.4m	✓
Bay Length – PWD Spaces	5.4m	5.4m	✓
Bay Width – General Spaces	2.4m	2.5m	✓
Bay Width – PWD Spaces	2.4m + adjacent 2.4m wide shared zone	2.4m + adjacent 2.4m wide shared zone	✓
Service Vehicle – HRV Loading Bay	12.5m x 3.5m	12.5m x 3.5m	✓
Parking Aisles and Circulation Roadways			
Parking Aisle Width	6.2m	Minimum 9.25m	✓
Parking Clearance	0.3m	> 0.3m	✓
Height Clearance			
Vertical Clearance - HRV	4.5m	> 4.5m	✓

Therefore, the proposed car parking layout is compliant with Australian Standards AS2890.1

Furthermore, Modus has conducted a swept path assessment for a HRV design vehicle which confirms that these design vehicles are able to safely and efficiently manoeuvre to, within and from the site. This swept path assessment is provided at **Appendix B**.

4.4 Queuing Provision

In accordance with the Logan City Council Planning Scheme, a minimum on-site queue provision of two (2) vehicles (equating to 12.0m in length) is available from the property boundary to the first available parking space.

The proposed development is not able to accommodate a queueing provision of two (2) vehicles (equating to 12.0m in length) to the first available parking space. However, all parking spaces on-site will be staff car parking, where turnover rates will be significantly reduced.

Therefore, there is sufficient capability for an inbound vehicle to pass around a vehicle manoeuvring into the first two (2) available parking spaces, and hence the queueing provisions are considered acceptable.

4.5 Servicing Requirements

4.5.1 Delivery Service Vehicles

As per Economic Development Queensland (EDQ) comment to use HRV, the largest design vehicle required for the proposed development is an HRV.

Therefore, Modus has conducted a swept path assessment which confirms the HRV is able to safely and efficiently manoeuvre in a forward motion to enter and exit the proposed development. This swept path assessment is provided at **Appendix B**.

4.5.2 Refuse Collection Arrangements

The proposed development will accommodate on-site refuse collection via a Rear Loader Refuse Collection Vehicle (RCV).

The HRV design vehicle (provided at **Appendix B**) exceeds the largest RCV stipulated within the Logan City Council Planning Scheme, and hence the proposed development is able to accommodate a RCV on-site.

4.6 Traffic Generation

In accordance with the TfNSW (2024) document, the following traffic generation rates have been adopted for the assessment herein:

- Warehouse: 0.5 vehicle trip per 100 sq.m GFA.

Therefore, the proposed development traffic generation is detailed in Table 4-4 below.

Table 4-4 Proposed Car Parking Requirements

Land Use	Yield	Traffic Generation Rate	Traffic Generation Volumes
Warehouse	2,612.7 sq.m GFA	0.5 vehicle trip per 100 sq m GFA	14 vehicles

Therefore, the proposed development is anticipated to generate up to 14 vehicles per hour in the peak hour period.

Provided that this corresponds to an additional vehicle on the external road network every 4 minute and 18 seconds on average in the peak hour, the proposed development is not anticipated to compromise the safety nor efficiency of the external road network.

5 Summary

Therefore, Modus is of the opinion that the proposed development is acceptable from a traffic engineering perspective and will not have a substantial impact on the safety or efficiency of the external road network.

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

Yours sincerely,

MODUS TRANSPORT AND TRAFFIC ENGINEERING



Harj Singh
Executive Director

VEHICLE USED IN SIMULATION

Measures

HRV

Width

Track

Lock to Lock Time

Steering Angle

12.50

6.85

2.20

SWEPT PATH LEGEND

VEHICLE BODY

FRONT TIRES

VEHICLE PATH

VEHICLE CLEARANCE (300mm)

VEHICLE

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV24727QLD

Date: 7 August 2025

PROJECT

LOT 20-21, 10826 EDISON CRESCENT, YARRABILBA

CLIENT

ZONE PLANNING GROUP

DRAWING TITLE

SWEPT PATH - HRV

DRAWING NUMBER

MOD24727QLD - SK01

DATE

10 JUNE 2025

REVISION

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REV

DRAWN BY

APPROVED

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AMENDMENT DETAILS

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VEHICLE USED IN SIMULATION

Measures

Width : 2.50

Track : 2.50

Lock to Lock Time : 6.0

Steering Angle : 36.6

HRV

12.50

6.85

2.20

SWEPT PATH LEGEND

VEHICLE BODY

FRONT TIRES

VEHICLE PATH

VEHICLE CLEARANCE (300mm)

VEHICLE

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2471644

Date: 7 August 2025

PROJECT

LOT 20-21, 10826 EDISON CRESCENT, YARRABILBA

CLIENT

ZONE PLANNING GROUP

DRAWING TITLE

SWEPT PATH - HRV

DRAWING NUMBER

MOD24727QLD - SK02

DATE

10 JUNE 2025

REVISION

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REV

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APPROVED

DATE

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Measures

HRV

Width: 2.50

Track: 2.50

Lock to Lock Time: 6.0

Steering Angle: 36.6

2.20

6.85

12.50

VEHICLE USED IN SIMULATION

Measures

HRV

Width: 2.50

Track: 2.50

Lock to Lock Time: 6.0

Steering Angle: 36.6

2.20

6.85

12.50

SWEPT PATH LEGEND

VEHICLE BODY

FRONT TIRES

VEHICLE PATH

VEHICLE CLEARANCE (300mm)

VEHICLE

PLANS AND DOCUMENTS

referred to in the PDA

DEVELOPMENT APPROVAL

Approval no: DEV2471644

Date: 7 August 2025

PROJECT

LOT 20-21, 10826 EDISON CRESCENT, YARRABILBA

CLIENT

ZONE PLANNING GROUP

DRAWING TITLE

SWEPT PATH - HRV

DRAWING NUMBER

MOD24727QLD - SK03

DATE

10 JUNE 2025

REVISION

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REV

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This site plan illustrates the proposed development for Lot 20 and Lot 21. It features a central building footprint with a footprint area of 37,000 sqm, surrounded by parking spaces (P01-P26) and staff areas. A refuse area is located near the center. The plan includes a footpath, a gully pit, and a crossover to the local council road. A large yellow area is labeled 'ALL CAR PARKING SPACE IN ACCORDANCE WITH AS 2890.1'. The plan also shows a 'GATE' and 'ENTRY ONLY' area. A scale bar indicates 1:250. The plan is titled 'SWEPT PATH - HRV' and 'MOD24727QLD - SK03'.

This site plan illustrates the proposed development for Lot 20 and Lot 21. It features a central building footprint with a footprint area of 37,000 sqm, surrounded by parking spaces (P01-P26) and staff areas. A refuse area is located near the center. The plan includes a footpath, a gully pit, and a crossover to the local council road. A large yellow area is labeled 'ALL CAR PARKING SPACE IN ACCORDANCE WITH AS 2890.1'. The plan also shows a 'GATE' and 'ENTRY ONLY' area. A scale bar indicates 1:250. The plan is titled 'SWEPT PATH - HRV' and 'MOD24727QLD - SK03'.

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VEHICLE USED IN SIMULATION

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Height : 2.50

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Steering Angle : 36.6

HRV

12.50

6.85

2.20

SWEPT PATH LEGEND

VEHICLE BODY

FRONT TIRES

VEHICLE PATH

VEHICLE CLEARANCE (300mm)

VEHICLE

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2471644

Date: 7 August 2025

Queensland Government

PROJECT

LOT 20-21, 10826 EDISON CRESCENT, YARRABILBA

CLIENT

ZONE PLANNING GROUP

DRAWING TITLE

SWEPT PATH - HRV

DRAWING NUMBER

MOD24727QLD - SK04

DATE

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HRV

12.50

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2.20

SWEPT PATH LEGEND

VEHICLE BODY

FRONT TIRES

VEHICLE PATH

VEHICLE CLEARANCE (300mm)

VEHICLE

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

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PROJECT

LOT 20-21, 10826 EDISON CRESCENT, YARRABILBA

CLIENT

ZONE PLANNING GROUP

DRAWING TITLE

SWEPT PATH - HRV

DRAWING NUMBER

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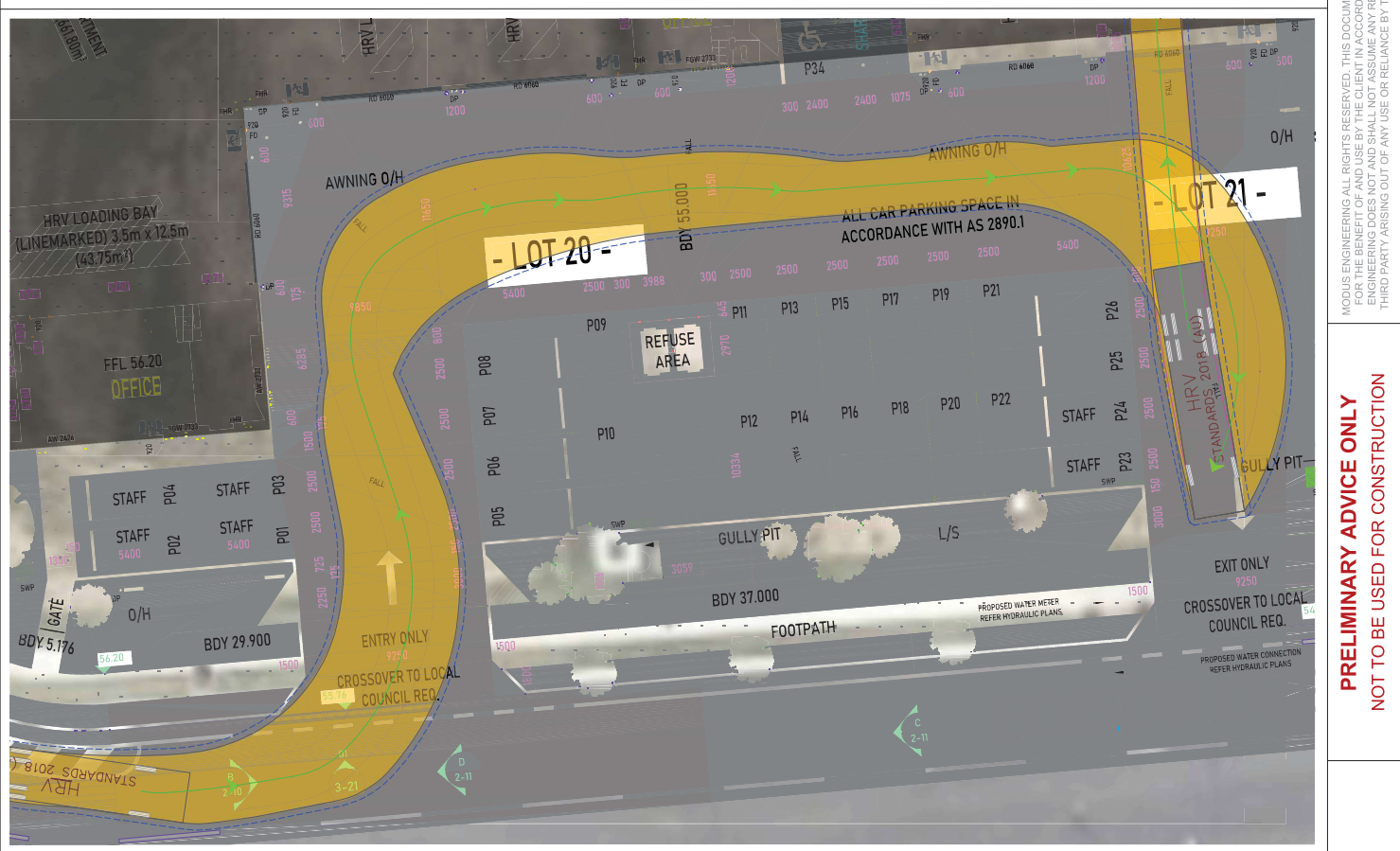
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