MODUS
Transport and Traffic Engineering

Traffic Engineering Report

To	Boss Commercial Air Conditioning c/- Bartley Burns	Date	9 March 2026
Prepared by	Afaf El Harda, Modus Traffic and Transport Engineer	Approved by	Harj Singh, Modus Executive Director (RPEQ 22364)
Location	Unit 3, 81 Secam Street, Mansfield		
Subject	Proposed Warehouse Development Expansion - Traffic Engineering Report		
Status	Final	Attachments	**Appendix A:** Development Plans

1 Introduction

1.1 Overview

Modus has been commissioned by Boss Commercial Air Conditioning, care of Bartley Burns, to provide traffic and transport advice in relation to the proposed expansion of the existing Warehouse use located at Unit 3, 81 Secam Street, Mansfield.

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 is 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 Unit 3, 81 Secam Street, Mansfield within a multi-unit Industrial use, of which is bounded by Dwelling uses to the north, Industrial uses to the east and south and Secam Street to the west.

Furthermore, the development site is currently zoned General Industry within the Brisbane City Council (BCC) Local Government Area.

Additionally, the development site currently achieves access via two (2) crossovers provided onto Secam Street.

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

Figure 2-1 Development Site Location

2.2 Existing Site Use

The Unit 3, 81 Secam Street, Mansfield use is currently tenanted by Boss Air, and accommodates a total Gross Floor Area (GFA) of 294.0 sq.m across two (2) levels.

Additionally, it is noted that five (5) car parking spaces on-site are allocated exclusively for the Boss Air tenancy.

2.3 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
Secam Street	Council	Neighbourhood Road	50 km/hr	Two lanes, undivided
Delvan Street	Council	Neighbourhood Road	50 km/hr	Two lanes, undivided

2.4 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 five (5) bus stops within a 400m radius (a comfortable 5-minute walk) of the development site. The nearest bus stop is located along Greenmeadow Road approximately 290.0m northwest of the site.

3 Proposed Development

3.1 Overview

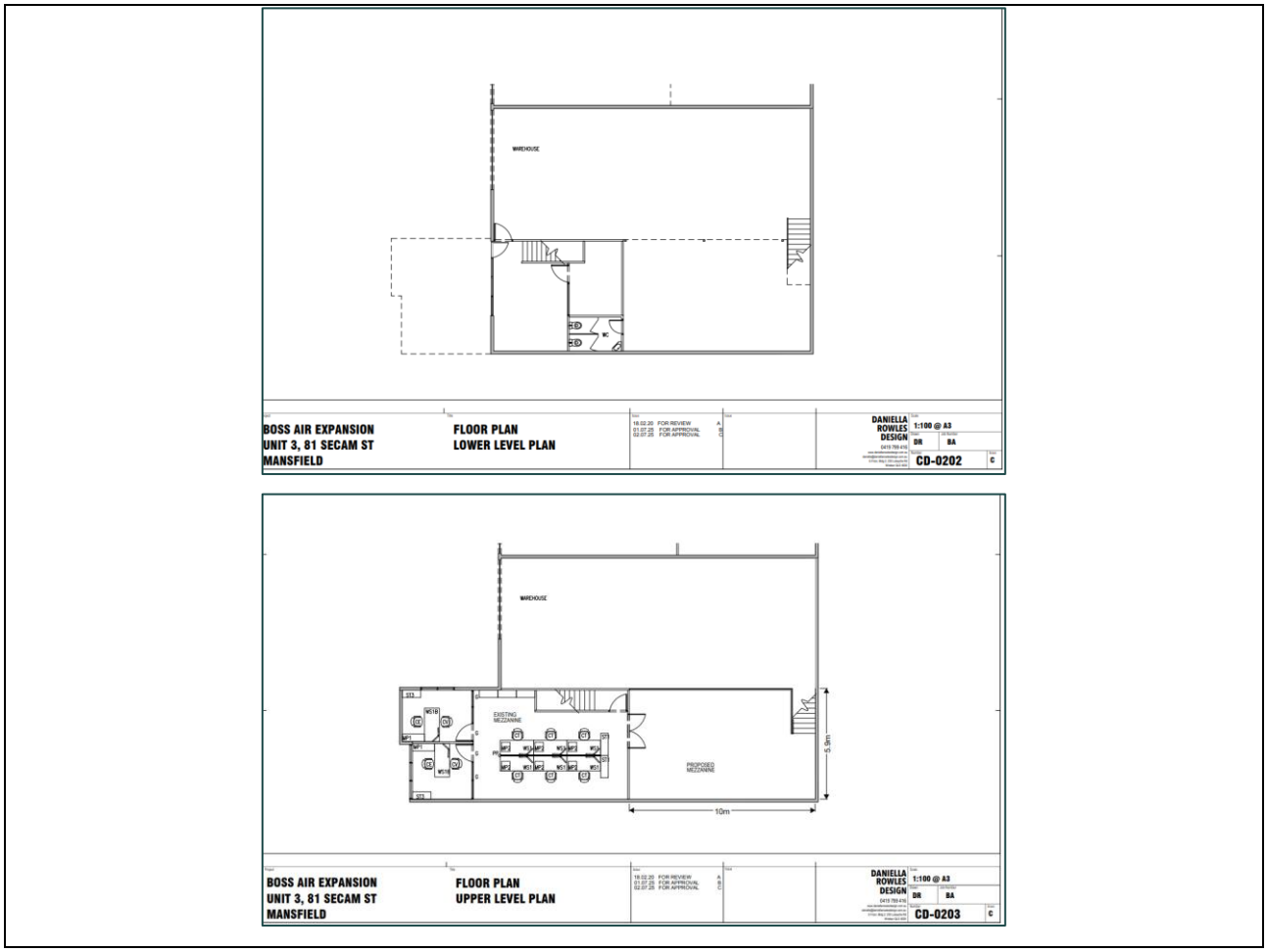
The proposed development extension consists of an additional 51.0 sq.m to the Mezzanine level of the existing Warehouse use located in Unit 3, 81 Secam Street, Mansfield.

An overview of the proposed development operations is detailed below:

- The subject development will accommodate a total GFA of 345.0 sq.m,
- No alterations are proposed to the existing access,
- No alterations are proposed to the existing car parking arrangement or supply on-site.

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

Figure 3-1 Proposed Layout



4 Traffic and Transport Review

4.1 Access, Parking and Driveway Design

Provided that the proposed development does not propose any alterations to the existing access and driveway components, no further consideration of the access and driveway components has been made, as the existing design arrangements can accommodate the proposed development.

4.2 Anticipated Employee Attendance

Modus has assessed various employee floorspace ratios (the amount of floorspace for each employee) for industrial uses to determine the parking demand based on the anticipated number of employees.

While the industrial employee floorspace ratios assessed relate to conditions in QLD, NSW and WA, the assessed industrial employee floorspace ratios are considered applicable to a warehouse location irrespective of location.

Therefore, the industrial employee floorspace ratios are outlined in Table 4-1.

Table 3-1 Industrial Employee Floorspace Ratios

Employee Floorspace Source	Land Use	Employee Floorspace Ratio	Proposed Development Yield	Proposed Development Employees
RTA Guide to Traffic Generating Developments (2002)	Warehouse	226 sq.m per employee	345 sq.m GFA	2 Employees
2018 South West Land Use and Employment Survey (Western Australia)	Manufacturing / Processing / Fabrication	117 sq.m per employee		3 Employees
	Storage / Distribution	412 sq.m per employee		1 Employees
2019 Lower Great Southern Land Use and Employment Survey (Western Australia)	Manufacturing / Processing / Fabrication	304 sq.m per employee		2 Employees
	Storage / Distribution	3,503 sq.m per employee		1 Employees
Economic and Employment Land Monitor Perth Metropolitan and Peel Regions (2020)	Manufacturing / Processing / Fabrication	153 sq.m per employee		3 Employees
	Storage / Distribution	279 sq.m per employee		2 Employees
Urban Area Employment Land Investigation (UAELI) prepared for Moreton Bay Regional Council (2022)	General Industry	225 sq.m per employee		2 Employees

Therefore, the eight (8) industrial employee floorspace ratios outlined in Table 4-1 correspond 1 to 3 employees on average, indicating that the small scale of the use will not generate a high employee parking demand.

On this basis, the provision of five (5) spaces are considered to cater for the employee parking demand.

4.3 Car Parking Provisions

In accordance with the BCC Transport, Access, Parking and Servicing Planning Scheme Policy (TAPS PSP), the minimum car parking requirements are outlined in Table 4-2.

Table 4-2 Minimum Car Parking Requirements

Scenario	Land use	Car Parking Rate	Yield	Car Parking Required	Car Parking Provided
Existing	Warehouse	2 spaces per tenancy or lot plus 1 space per 100 sq.m gross floor area up to 7,500 sq.m	294.0 sq.m	5 spaces	5 spaces
Proposed			345.0 sq.m	(5.45) 6 spaces	5 spaces

While the proposed development does not accommodate the minimum car parking requirements, with a shortfall of one (1) space, this shortfall is considered acceptable due to the following:

- The development site is located within 400m radius, approximately 5-minute walk, to five (5) bus stops. The proximity to public transport reduces staff and patrons' reliance on private vehicles to travel to and from the development site,
- On-street car parking is available along Secam Street and Devlan Street, which can accommodate theoretical overflow parking demand if required,
- The development traffic generation will not experience any increase, as detailed in Section 4.3 of this report, and will continue to generate a low traffic volume of two (2) vehicle trips per hour during peak hours.

On this basis, the proposed car parking provision on site is considered acceptable from a traffic engineering perspective.

4.4 Development Traffic Generation

In accordance with the tfNSW Guide to Transport Assessment, 2024, the peak hour traffic generating potential of the existing use and proposed development is outlined in Table 4-3.

Table 4-3 Existing Use and Proposed Development Traffic Generation Volumes

Scenario	Land Use	Yield	Peak Hour Traffic Generation Rates	Peak Hour Traffic Generation Volumes
Existing	Warehouse	294.0 sq.m	0.5 vehicle trips/100 sq.m GFA	2 vehicles per hour
Proposed		345.0 sq.m		2 vehicles per hour
			Net Increase:	**0 vehicles per hour**

Therefore, the development site with the proposed increase in the GFA will not accommodate any increase in vehicles per hour compared to the existing GFA.

On average across the peak hour period, the development site will continue to correspond to one (1) new vehicle on the external road network every 30 minutes.

On this basis, the proposed development traffic generation will not 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.

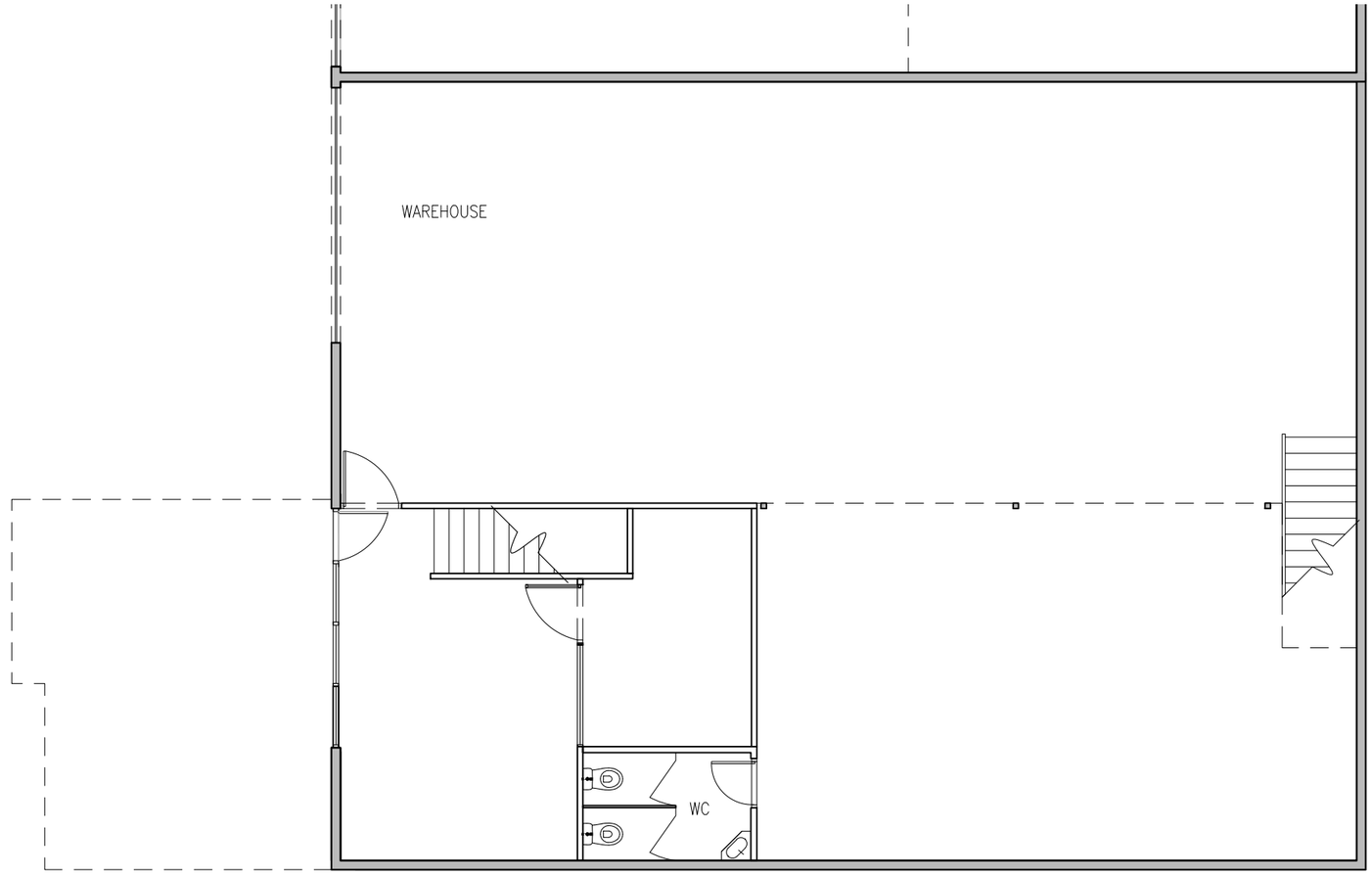
Yours sincerely,

MODUS TRANSPORT AND TRAFFIC ENGINEERING

Harj Singh
Executive Director (RPEQ 22364)

APPENDIX A

Development Plans



Project

BOSS AIR EXPANSION
UNIT 3, 81 SECAM ST
MANSFIELD

Title

FLOOR PLAN
LOWER LEVEL PLAN

Issue

18.02.20	FOR REVIEW	A
01.07.25	FOR APPROVAL	B
02.07.25	FOR APPROVAL	C

Issue

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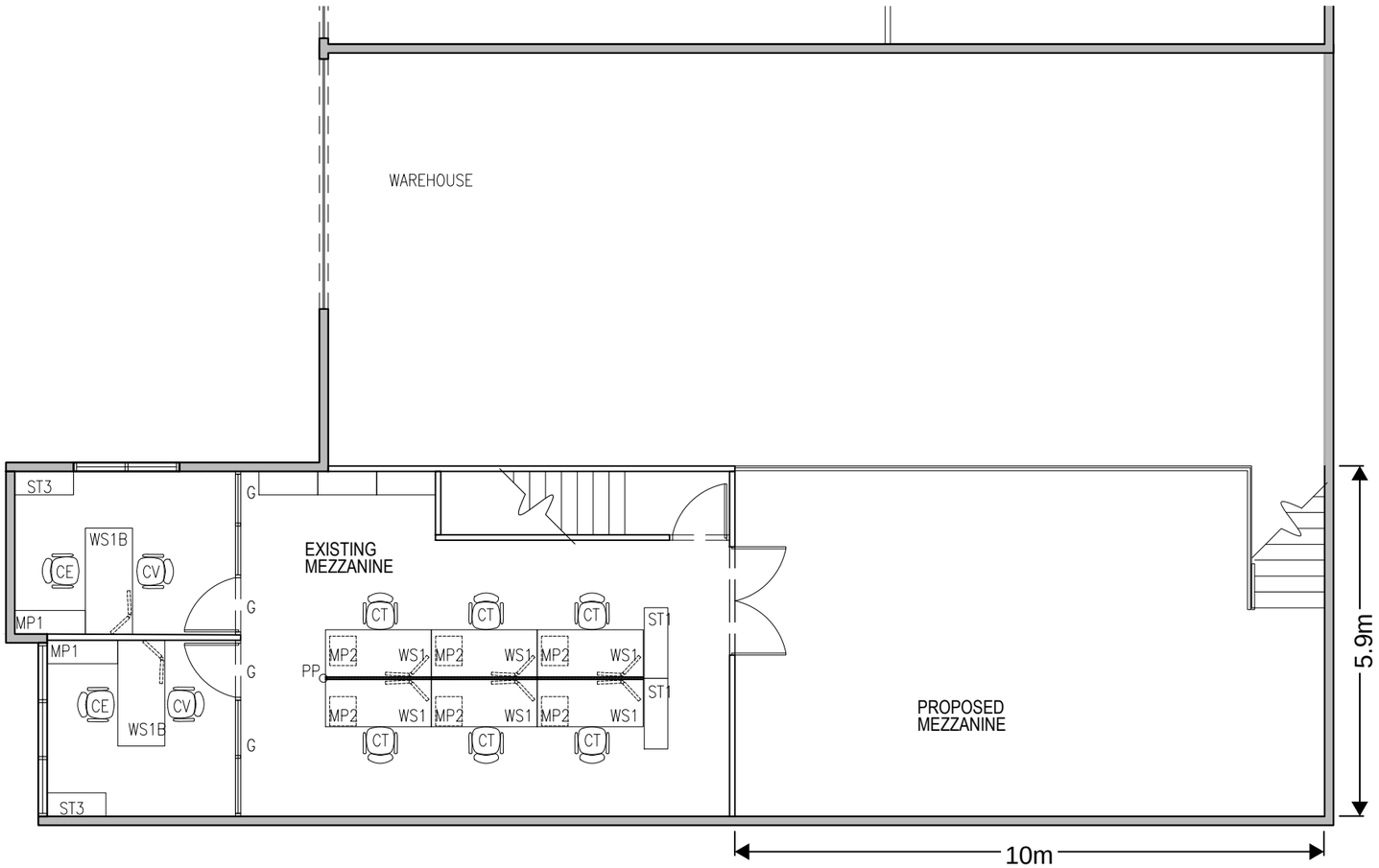
Issue
C



Project

BOSS AIR EXPANSION
UNIT 3, 81 SECAM ST
MANSFIELD

Title

FLOOR PLAN
UPPER LEVEL PLAN

Issue

18.02.20	FOR REVIEW	A
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Issue

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