

# TRAFFIC ENGINEERING REPORT

4 Colleran Way

Booragoon

March 2020

Rev A



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# Table of Contents

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<b>1. Executive Summary .....</b>	<b>4</b>
<b>2. Traffic Engineering Report .....</b>	<b>5</b>
2.1 Location .....	5
2.2 Land Uses .....	5
2.3 Local Road Network Information.....	5
2.4 Traffic Volumes .....	6
2.5 Vehicular Crash Information.....	6
2.6 Carparking design review .....	7

# Appendices

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**Appendix 1** - The layout of the proposed development

**Appendix 2** - Vehicle Turning Circle Plans

## **1. Executive Summary**

The subject site is located at 4 Colleran Way, Booragoon. The subject site is currently occupied by a single residential dwelling. Proposed development is a residential building comprising of multiple dwellings.

Colleran Way is an Access Road with a speed limit of 50km/h. Estimated traffic volumes of 234 vehicular trips per day and 7 vehicular trips in the peak hour can be considered low (far below the statutory capacity of 3,000 vpd). Additionally, there were no recorded crashes in the last 5 years in the vicinity of the subject site.

KCTT have conducted a review of the proposed carparking and access arrangements to the proposed development. Design and navigability of the proposed carparking have been checked, and no issues have been found.

KCTT findings are presented on the following pages. For plans of the proposed development and vehicle swept path analysis, please refer to:

- Appendix 1 - The Layout of the Proposed Development
- Appendix 2 - Vehicle Turning Circle Plan

## 2. Traffic Engineering Report

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### 2.1 Location

Street Number	4
Road Name	Colleran Way
Suburb	Booragoon
Description of Site	The subject site is currently a single residential dwelling with a proposed multiple dwellings building.

### 2.2 Land Uses

Are there any existing Land Uses	YES
If <u>YES</u> , Nominate:	Single residential dwelling
<b>Proposed Land Uses</b>	
How many types of land uses are proposed?	One
Nominate land use type and yield	Residential – 10 multiple dwelling units

### 2.3 Local Road Network Information

How many roads front the subject site?	1
<i>Name of Roads Fronting Subject Site / Road Classification and Description:</i>	
<b>Road 1</b>	
Road Name	Colleran Way
Number of Lanes	two way, one lane (no linemarking), undivided
Road Reservation Width	approximately 18m
Road Pavement Width	approximately 7m
Classification	Access Road
Speed Limit	50kph or State Limit
Bus Route	NO
On-street parking	NO

## 2.4 Traffic Volumes

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)				Heavy Vehicle %	Date of Traffic Count	If older than 3 years multiply with a growth rate
			AM Peak Time	AM Peak - Peak VPH	PM Peak Time	PM Peak - Peak VPH			
<b>Marmion Street</b>	West of Riseley Street	14,378	11:15 –	1,221	15:00 –	1,293	N/A	2018/2019	–
<b>Riseley Street</b>	South of Marmion Street	22,056	08:00 –	2,035	14:45 –	2,127	N/A	2018/2019	–
<b>Colleran Way</b>	<p>Since there are no available traffic counts for Colleran Way, KCTT have estimated the expected traffic by calculating the number of lots with direct access to the street. Colleran Way is a small residential Access Road, therefore significant volume of passing traffic is not expected.</p> <p>Since 26 lots have direct vehicular access to Colleran Way (from Allerton Way to Kruger Place) daily traffic is expected to be <b>234</b> vehicular trips per day while peak hour traffic is expected to be <b>7</b> vehicular trips per hour (using a standard rate of 9 VPD and 0.8 VPH per dwelling).</p>								

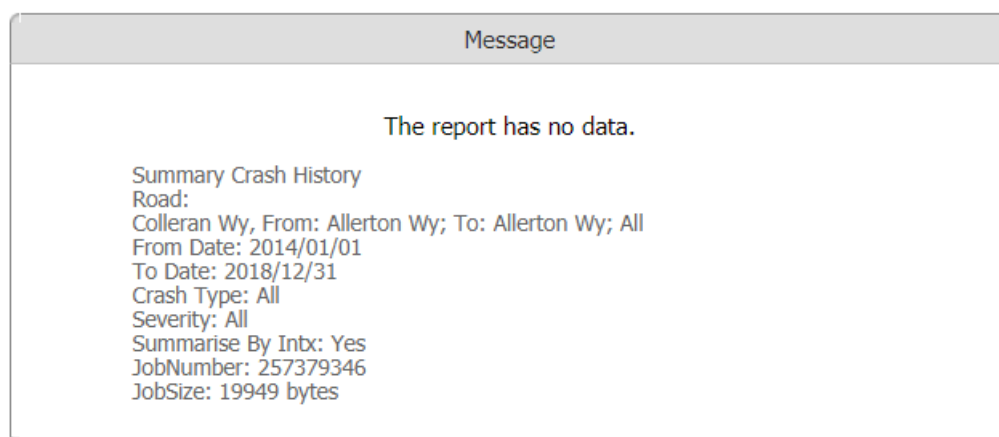
## 2.5 Vehicular Crash Information

Is Crash Data Available on Main Roads WA website? NO

If YES, nominate important survey locations:

Location 1 Colleran Way SLK [0.00-0.53] – no crashes

Period of crash data collection 01/01/2014 - 31/12/2018



## 2.6 Carparking design review

Proposed development User Class      Class 1A

AS2890.1:2004 Off-street car parking						
AS2890.6 Off-street parking for people with disabilities						
Parking Bay Type	Parking Bay Length		Parking Bay Width		Aisle Width	
	Required	Proposed	Required	Proposed	Required	Proposed
Parking bays at 90°	5.4m	5.5m	2.4m	2.4m	5.8m	5.8m
<b>Other requirements</b>	Required				Compliance	
Driveway width	5.5m				√	
Single-sided aisles	increase by 300 mm				√	
Blind aisle	extend by a minimum of 1 m				√	
Headroom	2300mm				√	

### Swept Path Analysis

Access driveway width is 5.5m while the width of the access ramp is 5.252m.

The navigability of the basement level of the proposed development has been checked with a B99 Passenger Vehicle (5.2m).

As shown on drawings S20-S23b vehicles will be able to pass by on the ramp as well as navigate the proposed parking bays.

The proposed vehicle ramp is designed to accommodate 6m at a 1:20 (5%) grade with a proposed transition of 2m at a 1:8 (12.5%) grade.

KCTT have checked the ramp vertical clearance as per AS2890.1 using Australian Standard Vertical Clearance B99 Passenger Vehicle (5.2m).

As show on drawing S24 in Appendix 2, vehicles will be able to use the proposed ramp without bottom scraping.