



# Application for Planning Approval

## *Land Use Planning and Approvals Act 1993*

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APPLICATION NO.

**SA2025/024**

LOCATION OF AFFECTED AREA

**201 OLD BEACH ROAD & 38 RIVIERA DRIVE, OLD BEACH**

DESCRIPTION OF DEVELOPMENT PROPOSAL

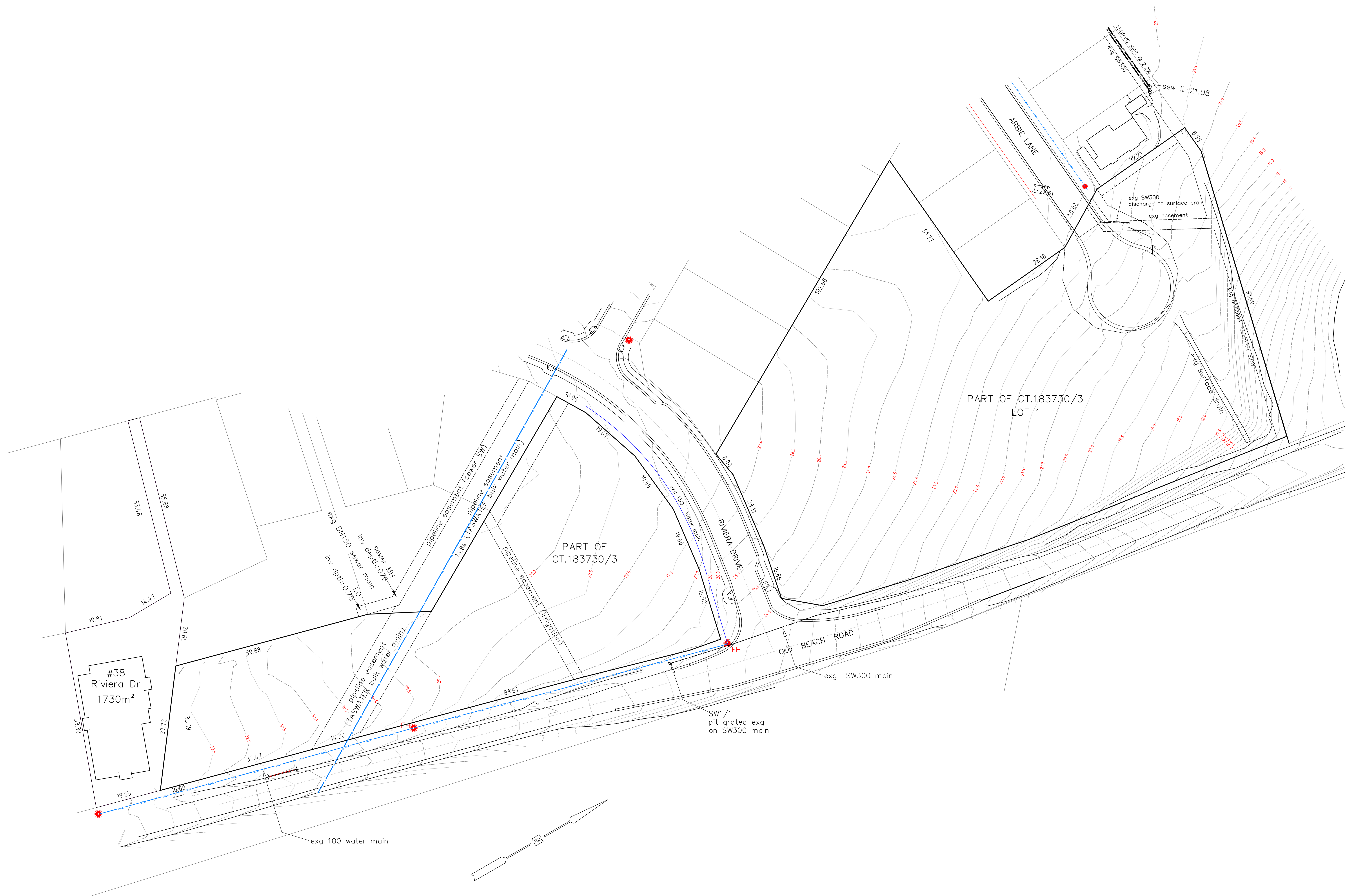
**SUBDIVISION (4 LOTS + BALANCE) AND MINOR BOUNDARY ADJUSTMENT**

A COPY OF THE DEVELOPMENT APPLICATION MAY BE VIEWED AT [www.brighton.tas.gov.au](http://www.brighton.tas.gov.au) AND AT THE COUNCIL OFFICES, 1 TIVOLI ROAD, OLD BEACH, BETWEEN 8:15 A.M. AND 4:45 P.M, MONDAY TO FRIDAY OR VIA THE QR CODE BELOW. ANY PERSON MAY MAKE WRITTEN REPRESENTATIONS IN ACCORDANCE WITH S.57(5) OF THE LAND USE PLANNING AND APPROVALS ACT 1993 CONCERNING THIS APPLICATION UNTIL 4:45 P.M. ON **04/08/2025**. ADDRESSED TO THE CHIEF EXECUTIVE OFFICER AT 1 TIVOLI ROAD, OLD BEACH, 7017 OR BY EMAIL AT [development@brighton.tas.gov.au](mailto:development@brighton.tas.gov.au). REPRESENTATIONS SHOULD INCLUDE A DAYTIME TELEPHONE NUMBER TO ALLOW COUNCIL OFFICERS TO DISCUSS, IF NECESSARY, ANY MATTERS RAISED.

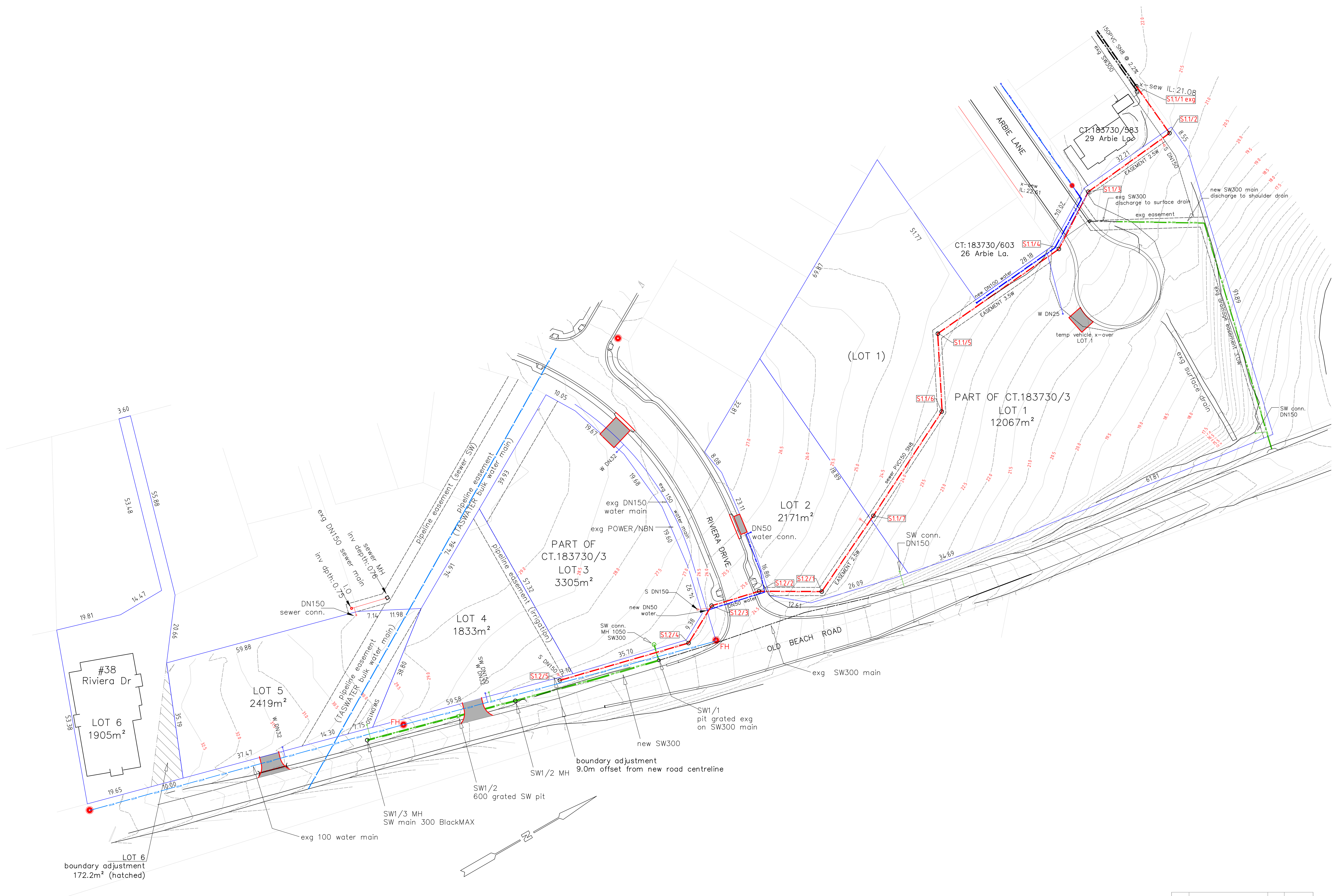
**JAMES DRYBURGH**  
**Chief Executive Officer**



**Brighton**  
going places











# Bushfire Hazard Report



Location: Lot 3 Old Beach Road, Old beach.

Applicant: Tivoli Green Pty Ltd

Date: June 2025

Certification number: BW042v2

Author: Mark Van den Berg – BFP-108

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### Disclaimer:

The measures contained in Australian Standard 3959-2009 cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the unpredictable nature and behaviour of fire and extreme weather conditions. Reasonable steps have been taken to ensure that the information contained within this report is correct and reflects the conditions on and around the proposal at the time of assessment. The assessment has been based on the information provided by you or your designer.

Authorship: This report was prepared by Mark Van den Berg BSc. (Hons.) FPO (planning) of BushfireWise. Base data for mapping including digital and aerial photography: TasMap, LIST, GoogleEarth, Mark Van den Berg.

# 1.0 Introduction

This Bushfire Hazard Report has been completed to form part of supporting documentation for a planning permit application for a proposed subdivision. The proposed subdivision occurs in a Bushfire-prone Area defined by the Tasmanian Planning Scheme – Brighton (the Scheme). This report has been prepared by Mark Van den Berg, a qualified person under Part 4a of the *Fire Service Act 1979* of BushfireWise for PDA Surveyors, Engineers & Planners.

The report considers all the relevant standards of Code C13 of the Scheme, specifically;

- The requirements for appropriate Hazard Management Areas (HMA's) in relation to building areas;
- The requirements for Public and Private access;
- The provision of water supplies for firefighting purposes;
- Compliance with the planning scheme, and
- Provides a Bushfire Hazard Management Plan to facilitate appropriate compliant future development.

# 2.0 Proposal

The proposal is for the subdivision of land resulting in six lots which includes the adjustment of a boundary (lot 6) and is described by the plan of subdivision in appendix A. Lot 6 has an existing dwelling and outbuildings while lots 1, 2, 3, 4 and 5 are undeveloped for residential purposes. Public access is provided to Lot 6 from Riviera Drive as well as lots 2 and 3, Lot 1 will be provided with public access from Arbie Lane and lots 4 and 5 will be provided with property access from Old Beach Road. The development is proposed to occur as a single stage.

# 3.0 Site Description

The subject site comprises private land on two titles, FR: 206976/1 (Figure 1). Located in the municipality of Brighton, this application is administered through the Tasmanian Planning Scheme - Brighton, which makes provision for subdivision. The proposed development falls within the General Residential zone.

The subject site comprises private land on two titles at Lot 3 Old Beach Road, Old Beach, CT: 183730/3 and 38 Riviera Drive, Old Beach CT: 173655/180 (figure 1). The site occurs in the municipality of the Brighton, this application is administered through the Tasmanian Planning Scheme – Brighton which makes provision for subdivision. The proposed development occurs within the General Residential zone. The site is located on the eastern extent of an existing subdivision known as Tivoli Green where Old Beach Road separates new urban development from agricultural lands, it is approximately 1.2km east south-east of



Gage Cove (figure 1). The surrounding landscape is characterised by grasslands with sparse native vegetation remnants which is fragmented to varying extents by residential developments and associated infrastructure. Grassland vegetation to the east of the site provides linkages to landscape scale bushfire-prone vegetation units within the northern end of the Meehan Range (figure 2).



Figure 1. The site in a topographical context, pink line defines the subdivision area (approx.).

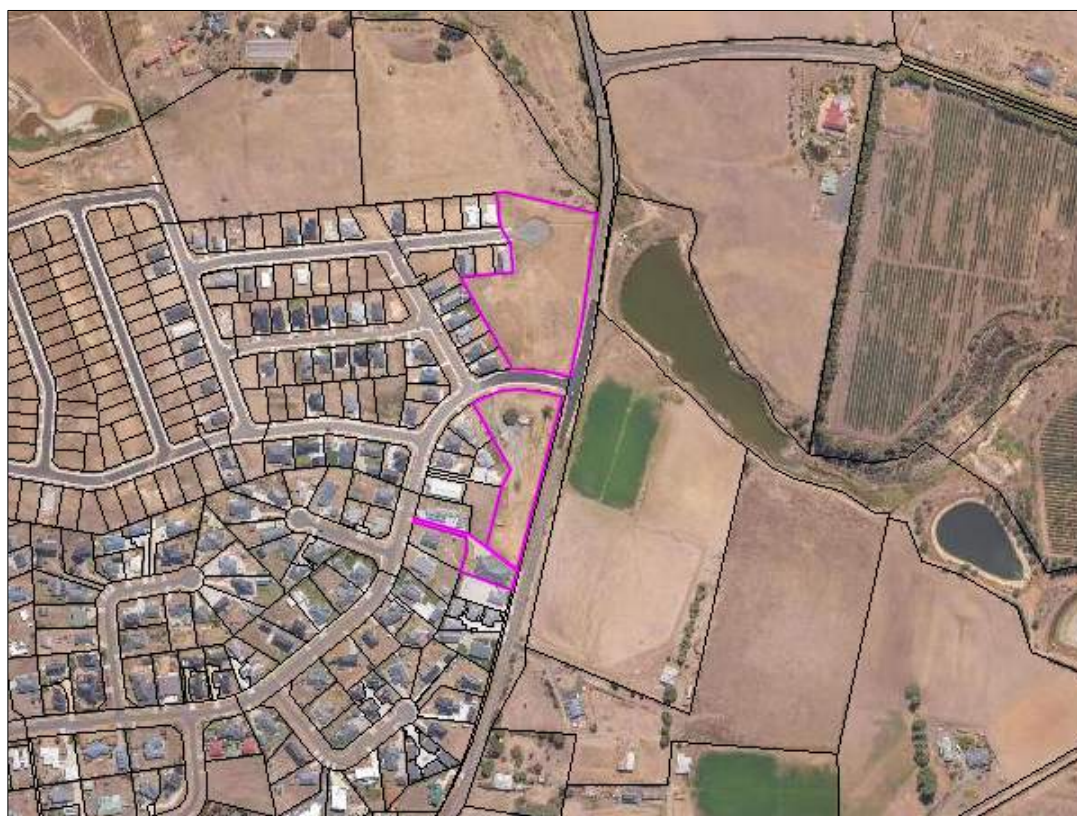


Figure 2. Aerial photo of the site, pink line defines the subdivision area (approximate).

## 4.0 Bushfire Hazard Assessment

### 4.1 Vegetation

All lots are influenced by grassland vegetation to the east of the subdivision area, this vegetation is separated from the lots by Old Beach Road which practically forms a fuel break. Lot 1 is also influenced by grassland vegetation to the north of the lot. Grassland vegetation dominates the surrounding landscape, with an absence of vegetation types within ~200 metres of the site.

### 4.2 slope

Slope influences how fast a fire moves, how intensely the fire burns and the amount of radiant heat that is given off by the burning vegetation. An 'effective slope' is the slope of the land underneath the vegetation that has the potential to burn. The effective slopes with the potential to influence the bushfire attack on the building areas are gentle to moderate and don't exceed 10 degrees with a downslope orientation from the building areas.



Figure 3 Grassland vegetation within lot 1 to the north of the building area within lot 2.





Figure 4. Grassland vegetation within and to the south of the building area within Lot 3.



Figure 5. Grassland vegetation within and to the east of lot 3.



Figure 6. Grassland and woodland vegetation to the east of the building area within lot 2.

## 4.3 Bushfire Attack Level

An assessment of vegetation and topography was undertaken within and adjacent to the building areas for all lots. A bushfire attack level assessment as per *AS3959-2018* was completed (Appendix B) which has determined setbacks for building areas from bushfire-prone vegetation such that subsequent development does not exceed BAL-19 of AS3959-2018 (appendix B). The building area and bushfire attack level is marked on the BHMP.

## 5.0 Bushfire Prone Areas Code

Code C13 of the planning scheme articulates requirements for the provision of hazard management areas, standards for access and firefighting water supplies and requirements for hazard management for staged subdivisions.

### 5.1 Hazard Management Areas

Hazard management areas are required to be established and/or maintained for all lots, they provide an area around the building within which fuels are managed to reduce the impacts of direct flame contact, radiant heat and ember attack on the site.

The Bushfire Hazard Management Plan (BHMP) shows building areas (for habitable buildings) and the associated HMA's, guidance for establishment and maintenance of HMA's is provided below and on the BHMP.

The subdivision is to occur as a single stage. Each lot within this subdivision is reliant on hazard management on adjacent lots. A suitable instrument (such as a covenant) to ensure the maintenance of each lot in a minimum fuel condition is to be included as part of the sealing of titles and should form a condition of development. It will be required to validate the bushfire hazard management plan and bushfire attack level assessment.

#### 5.1.1 Building areas

Building areas for habitable buildings for each lot are shown on the BHMP. All lots have been assessed, and a Bushfire Attack Level (BAL) has been assigned to them. If future building work is located within the building area and complies with the minimum setbacks, the building work may be constructed to the bushfire attack level assigned to that lot. If associated structures like sheds or other non-habitable buildings exist or are proposed, they do not need to conform to a BAL unless they are within 6 metres of the habitable building.

#### 5.1.2 Hazard Management Area requirements

A hazard management area is the area, between a habitable building or building area and the bushfire prone vegetation which provides access to a fire front for firefighting, is maintained in a minimal fuel



condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through, but is not limited to the following strategies:

- Remove fallen limbs, sticks, leaf and bark litter.
- Maintain grass at less than a 100mm height.
- Avoid or minimise the use of flammable mulches (especially against buildings).
- Thin out under-story vegetation to provide horizontal separation between fuels.
- Prune low-hanging tree branches (<2m from the ground) to provide vertical separation between fuel layers.
- Remove or prune larger trees to establish and maintain horizontal separation between tree canopies.
- Minimise the storage of flammable materials such as firewood.
- Maintain vegetation clearance around vehicular access and water supply points.
- Use low-flammability plant species for landscaping purposes where possible.
- Clear out any accumulated leaf and other debris from roof gutters and other debris accumulation points.

It is not necessary to remove all vegetation from the hazard management area, trees and shrubs may provide protection from wind borne embers and radiant heat under some circumstances if other fuels are appropriately managed.

## 5.2 Public and firefighting Access

### 5.2.1 Public Roads & Fire Trails

There is no proposal for the construction of new public roadways or fire trails as part of this proposal, in this circumstance there are no applicable standards for the construction of new public roads or fire trails.

### 5.2.2 Property access (for building compliance)

#### 5.2.2.1 Property access for Lot 6

There is existing property access to the building which is compliant with the property access specifications of the determination. In this circumstance there are no further design or construction requirements for property access.

#### 5.2.2.1 Property access for Lots 1, 2, 3, 4 and 5

Proposed property access to lots 1, 2, 3, 4 and 5 are less than 30 metres in length and are not required to access a firefighting water connection points. In this circumstance there are no further requirements for property access for lots 1, 2, 3, 4 and 5.

## 5.3 Water supplies for firefighting

Dedicated water supplies for firefighting are provided by existing fire hydrants connected to a

reticulated water supply system managed by TasWater. The existing hydrants and building areas conform with the following specifications;

- The building area to be protected is located within 120 metres of a fire hydrant; and
- The distance has been measured as a hose lay, between the firefighting water point and the furthest part of the building area.

In this circumstance there is an insufficient increase in risk from bushfire to warrant any further firefighting water supply requirements.

## 6.0 Compliance

### 6.1 Planning Compliance

Table 2 summarises the compliance requirements for subdivisions in bushfire prone areas against Code C13 as they apply to this proposal. A planning certificate has been issued for the associated BHMP as being compliant with the relevant standards as outlined in appendix D.

Table 2. Compliance with Code C13 of the Tasmanian Planning Scheme – Glamorgan Spring Bay

Clause	Compliance
C13.4 Use or development exempt from this code	The proposal is not exempt from Code C13.
C13.5 1 Vulnerable Uses	The proposal is not classified as Vulnerable Use. Not applicable.
C13.5.2 Hazardous Uses	The proposal is not classified as Hazardous Use. Not applicable.
C13.6.1 Subdivision: Provision of hazard management areas	<p>The Bushfire Hazard Management Plan is certified by an accredited person. All lots have a building area and associated hazard management area shown which does not exceed BAL-19 construction standards. Hazard management areas are able to be contained within the subdivision area, therefore there is no requirement for part 5 agreements or easements on external lands to facilitate hazard management.</p> <p>The proposal is compliant with the acceptable solution at A1(b).</p>
C13.6.2 Subdivision: Public and firefighting access	<p>There is no proposal for new public roadways or fire trails as part of this development.</p> <p>The Bushfire Hazard Management Plan shows the location of property accesses to building areas and describes standards for their construction</p> <p>The proposal is compliant with the acceptable solution at A1(b) for lots 1, 2, 3, 4 and 5. Lot 6 has existing compliant property access, there is an insufficient increase in risk from bushfire to warrant further property access requirements. The proposal is compliant with the acceptable solution at A1(a).</p> <p>The Bushfire Hazard Management Plan is certified by an accredited person.</p>



Clause	Compliance
C13.6.3 Subdivision: Provision of water supply for firefighting purposes	All lots have access to existing firefighting water supplies, there is an insufficient increase in risk from bushfire to warrant the provision of a water supply for firefighting purposes. The proposal is compliant with the acceptable solution at A1(a).

## 6.2 Building Compliance (for future development)

If future building work is undertaken in compliance with the Bushfire Hazard Management Plan associated with this report, a building surveyor may rely upon it for building compliance purposes if it is not more than 6 years old.

## 7.0 Summary

The Bushfire Hazard Report for Lot 3 Old Beach Road, Old Beach evaluates and mitigates bushfire risks for a proposed subdivision which results in six lots. Prepared by BushfireWise for Tivoli Green Pty. Ltd., it supports a planning permit application under the Tasmanian Planning Scheme - Brighton. The proposal, in the General Residential zone south of Gagebrook, features vegetation classified as grassland and low threat on gentle to moderate slopes.

The report includes a Bushfire Hazard Management Plan (BHMP) detailing hazard management areas, building areas, the location of property accesses and specifications for the provision of firefighting water supplies. The building areas are able to accommodate hazard management areas which provide the minimum setbacks required to achieve BAL-19 in accordance with table 2.6 of AS3959- 2018.

All lots achieve the required standards of Code C13.

This report and the associated bushfire hazard management plan demonstrate how the proposal is compliant with the objective of all the applicable standards of the Bushfire-prone Areas Code. In this circumstance a suitable instrument (such as a covenant) to ensure the maintenance of each lot in a minimum fuel condition is to be included as part of the sealing of titles and is required to validate the bushfire hazard management plan and bushfire attack level assessment.

## 8.0 References

*Building Amendment (Bushfire-Prone Areas) Regulations 2014 Building Regulations 2016.*

*Directors Determination – Bushfire Hazard Areas, version 1.2, 16th July 2024.*

Standards Australia 2018, *Construction of buildings in bushfire prone areas*, Standards Australia, Sydney.

Tasmanian Planning Commission 2017, *Planning Directive No.5.1 – Bushfire prone Areas Code*. Tasmanian Planning Commission, Hobart. 1st September 2017.

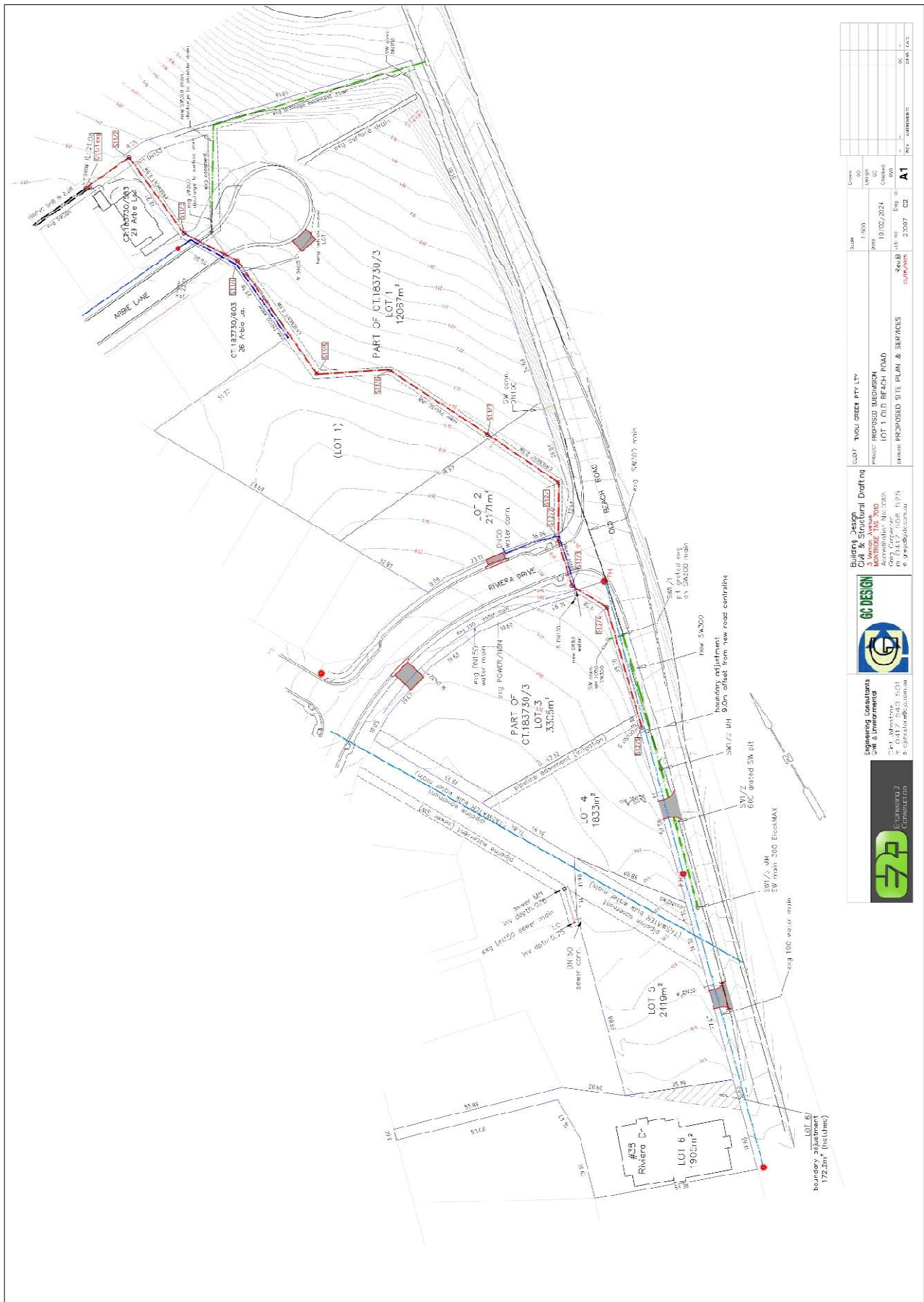
The Bushfire Planning Group 2005, *Guidelines for development in bushfire prone areas of Tasmania – Living with fire in Tasmania*, Tasmania Fire Service, Hobart.

Tasmanian Planning Scheme – State Planning Provisions. C13.0 Bushfire -Prone Areas Code. Tasmania Planning Commission, Hobart.

Tasmanian Planning Scheme - Brighton.



# Appendix A – Plan of Subdivision



## Appendix B – BAL assessment

Table 1. Bushfire Attack Level Assessment – Lot 1

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 16 metres	16 metres	BAL-12.5
	Grassland	>0 to 5° downslope	16 to 100 metres		
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East	Exclusion 2.2.3.2 (e, f)^	>5° to 10° downslope	0 to 6 metres	6 metres	BAL-12.5
	Exclusion 2.2.3.2 (e, f)^	flat 0°	6 to 19 metres		
	Grassland	>5° to 10° downslope	19 to 100 metres		
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South	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 100 metres	10 metres	BAL-LOW
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West	Exclusion 2.2.3.2 (e, f)^	flat 0°	0 to 10 metres	Lot boundary	BAL-LOW
	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	10 to 100 metres		
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^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

\* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 2. Bushfire Attack Level Assessment – Lot 2

<b>Azimuth</b>	<b>Vegetation Classification</b>	<b>Effective Slope</b>	<b>Distance to Bushfire-prone vegetation</b>	<b>Hazard management area width</b>	<b>Bushfire Attack Level</b>
<b>North</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>East</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 37 metres	37 metres	<b>BAL-LOW</b>
	Exclusion 2.2.3.2 (e, f)^	Flat	37 to 50 metres		
	Grassland	>5° to 10° downslope	50 to 100 metres		
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<b>South</b>	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>West</b>	Exclusion 2.2.3.2 (e, f)^	flat 0°	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

\* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).



Table 3. Bushfire Attack Level Assessment – Lot 3

<b>Azimuth</b>	<b>Vegetation Classification</b>	<b>Effective Slope</b>	<b>Distance to Bushfire-prone vegetation</b>	<b>Hazard management area width</b>	<b>Bushfire Attack Level</b>
<b>North</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>East</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 4.5 metres	4.5 metres	<b>BAL-12.5</b>
	Exclusion 2.2.3.2 (e, f)^	flat 0°	4.5 to 16 metres		
	Grassland^	>0 to 5° downslope	16 to 100 metres		
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<b>South</b>	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>West</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

\* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 4. Bushfire Attack Level Assessment – Lot 4

<b>Azimuth</b>	<b>Vegetation Classification</b>	<b>Effective Slope</b>	<b>Distance to Bushfire-prone vegetation</b>	<b>Hazard management area width</b>	<b>Bushfire Attack Level</b>
<b>North</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>East</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 4.5 metres	4.5 metres	<b>BAL-12.5</b>
	Exclusion 2.2.3.2 (e, f)^	flat 0°	4.5 to 16 metres		
	Grassland^	>0 to 5° downslope	16 to 100 metres		
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<b>South</b>	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>West</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

\* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 5. Bushfire Attack Level Assessment – Lot 5

<b>Azimuth</b>	<b>Vegetation Classification</b>	<b>Effective Slope</b>	<b>Distance to Bushfire-prone vegetation</b>	<b>Hazard management area width</b>	<b>Bushfire Attack Level</b>
<b>North</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>East</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 4.5 metres	4.5 metres	<b>BAL-12.5</b>
	Exclusion 2.2.3.2 (e, f)^	flat 0°	4.5 to 16 metres		
	Grassland^	>0 to 5° downslope	16 to 100 metres		
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<b>South</b>	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>West</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

\* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).



Table 6. Bushfire Attack Level Assessment – Lot 6 (existing development)

<b>Azimuth</b>	<b>Vegetation Classification</b>	<b>Effective Slope</b>	<b>Distance to Bushfire-prone vegetation</b>	<b>Hazard management area width</b>	<b>Bushfire Attack Level</b>
<b>North</b>	Exclusion 2.2.3.2 (e, f)^	flat 0°	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>East</b>	Exclusion 2.2.3.2 (e, f)^	>0 to 5° downslope	0 to 19 metres	5 metres	<b>BAL-12.5</b>
	Grassland^	>0 to 5° downslope	19 to 100 metres		
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<b>South</b>	Exclusion 2.2.3.2 (e, f)^	upslope	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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<b>West</b>	Exclusion 2.2.3.2 (e, f)^	flat 0°	0 to 100 metres	Lot boundary	<b>BAL-LOW</b>
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^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

\* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

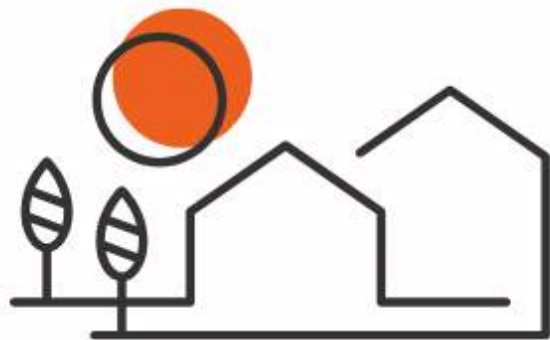
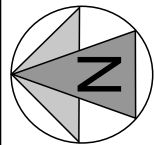
^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Vegetation map Lot 3 Old beach Road, Old Beach.



## Appendix C – Bushfire Hazard Management Plan





**BushfireWise**  
DEVELOPMENT PLANNING

Mark Van den Berg BFP-108    0407 294 240  
mark@bushfirewise.com.au

**NOTE:**  
Covenant or similar instrument required over all lots to ensure the maintenance of each lot in a minimum fuel condition (classifiable as low threat vegetation) to validate this BHMP.

Compliance Requirements

Property Access

Lot 6, there is existing property access to the building which is compliant with the property access specifications of the determination. In this circumstance there are no further design or construction requirements for property access.

Proposed property access to lots 1, 2, 3, 4 and 5 are less than 30 metres in length and are not required to access firefighting water connection points. In this circumstance there are no further requirements for property access for lots 1, 2, 3, 4 and 5.

Water Supplies for Firefighting

Dedicated water supplies for firefighting are provided by existing fire hydrants connected to a reticulated water supply system managed by TasWater. The existing hydrants and building areas conform with the following specifications;

- The building area to be protected is located within 120 metres of a fire hydrant; and
- The distance has been measured as a hose lay, between the firefighting water point and the furthest part of the building area.

In this circumstance there is an insufficient increase in risk from bushfire to warrant any further firefighting water supply requirements.

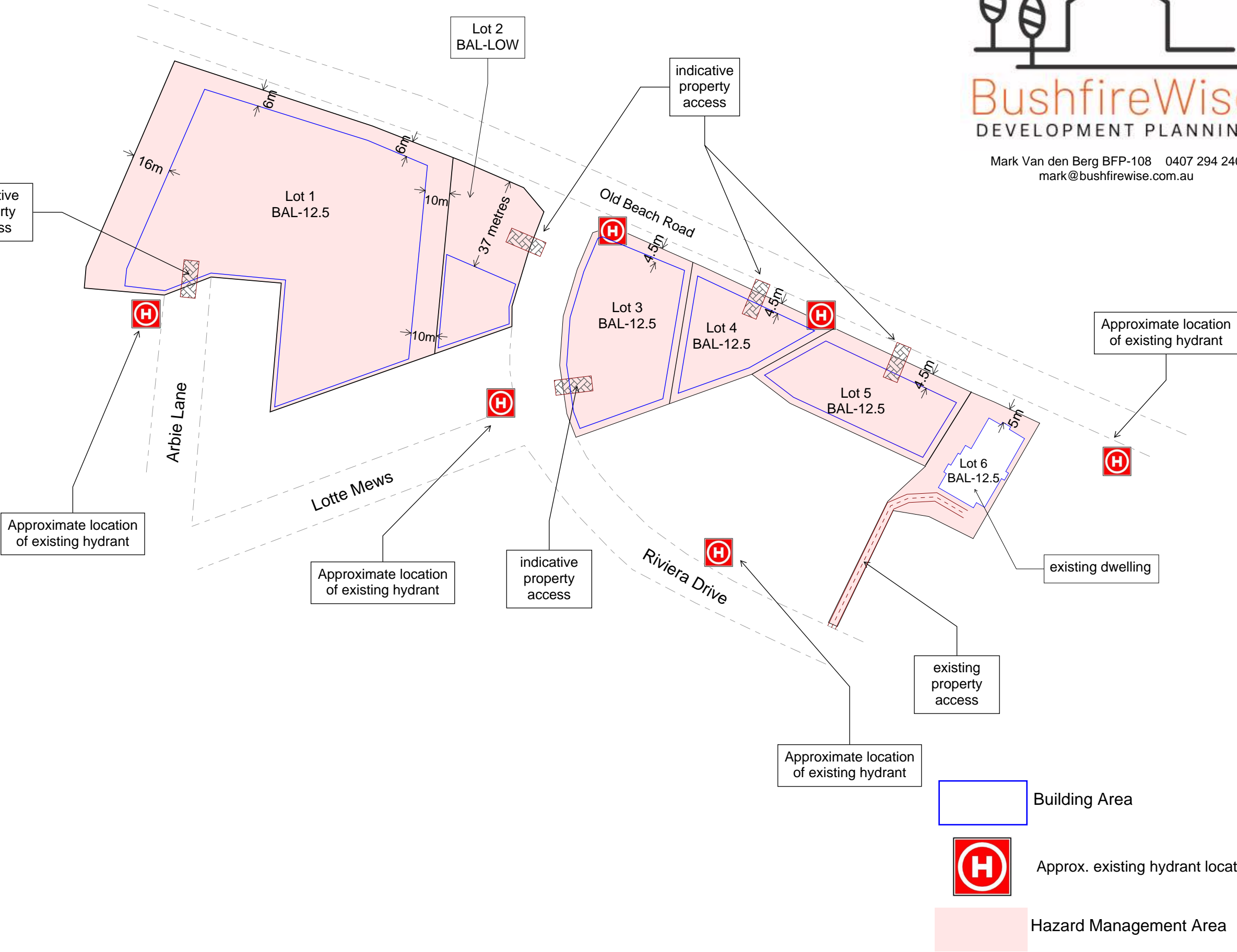
Hazard Management Area

A hazard management area is required to be established and maintained for the life of the building and is shown on this BHMP. Guidance for the establishment and maintenance of the hazard management area is also provided.

A hazard management area is the area, between a habitable building or building area and the bushfire prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through, but is not limited to the following actions;

- Remove fallen limbs, sticks, leaf and bark litter.
- Maintain grass at less than a 100mm height.
- Avoid or minimise the use of flammable mulches (especially against buildings).
- Thin out under-story vegetation to provide horizontal separation between fuels.
- Prune low-hanging tree branches (<2m from the ground) to provide vertical separation between fuel layers.
- Remove or prune larger trees to establish and maintain horizontal separation between tree canopies.
- Minimise the storage of flammable materials such as firewood.
- Maintain vegetation clearance around vehicular access and water supply points.
- Use low-flammability plant species for landscaping purposes where possible.
- Clear out any accumulated leaf and other debris from roof gutters and other debris accumulation points.

It is not necessary to remove all vegetation from the hazard management area, trees may provide protection from wind borne embers and radiant heat under some circumstances.



Do not scale from this drawing, use dimensions only. Written specifications to take precedence over diagrammatic representations. To be read in conjunction with associated Bushfire Hazard Report.	Date : 15/06/2025	Tivoli Green Pty. Ltd. PO Box 104	Bushfire Hazard Management Plan	Building Specifications <b>as marked</b> to AS3959-2018	Certification No. BW042v2 Mark Van den Berg Acc. No. BFP-108 Scope 1, 2, 3A, 3B, 3C.
	CT: 183730/3 & 173655/180	North Hobart, Tas., 7002.	Lot 3 Old Beach Road, Old Beach. June 2025. BW042v2. Tasmanian Planning Scheme - Brighton		

## Appendix D – Planning Certificate

---

## BUSHFIRE-PRONE AREAS CODE

### CERTIFICATE<sup>1</sup> UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

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#### 1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

**Street address:**

Lot 3 Old Beach Road, Old Beach & 38 Riviera Drive, Old Beach

**Certificate of Title / PID:**

183730/3 and 173655/180

#### 2. Proposed Use or Development

**Description of proposed Use and Development:**

Subdivision of land resulting in six lots.

**Applicable Planning Scheme:**

Tasmanian Planning Scheme – Brighton

#### 3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Bushfire Hazard Report Lot 3 Old Beach Road, Old Beach. June 2025. BW042v2.	Mark Van den Berg	15/06/2025	2
Bushfire Hazard Management Plan Lot 3 Old Beach Road, Old Beach. June 2025. BW042v2.	Mark Van den Berg	15/06/2025	2
Plan of Subdivision	GC Design	23/05/2025	23007 C2

---

<sup>1</sup> This document is the approved form of certification for this purpose and must not be altered from its original form.



#### 4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

<input type="checkbox"/>	<b>E1.4 / C13.4 – Use or development exempt from this Code</b>	
	<b>Compliance test</b>	<b>Compliance Requirement</b>
<input type="checkbox"/>	E1.4(a) / C13.4.1(a)	Insufficient increase in risk

<input type="checkbox"/>	<b>E1.5.1 / C13.5.1 – Vulnerable Uses</b>	
	<b>Acceptable Solution</b>	<b>Compliance Requirement</b>
<input type="checkbox"/>	E1.5.1 P1 / C13.5.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
<input type="checkbox"/>	E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

<input type="checkbox"/>	<b>E1.5.2 / C13.5.2 – Hazardous Uses</b>	
	<b>Acceptable Solution</b>	<b>Compliance Requirement</b>
<input type="checkbox"/>	E1.5.2 P1 / C13.5.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
<input type="checkbox"/>	E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

<input checked="" type="checkbox"/>	<b>E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas</b>	
	<b>Acceptable Solution</b>	<b>Compliance Requirement</b>
<input type="checkbox"/>	E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')
<input type="checkbox"/>	E1.6.1 A1© / C13.6.1 A1©	Consent for Part 5 Agreement

<input checked="" type="checkbox"/>	<b>E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access</b>	
	<b>Acceptable Solution</b>	<b>Compliance Requirement</b>
<input type="checkbox"/>	E1.6.2 P1 / C13.6.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input checked="" type="checkbox"/>	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk. (Lot 6)
<input checked="" type="checkbox"/>	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables (Lots 1, 2, 3, 4 and 5)

<input type="checkbox"/>	<b>E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for firefighting purposes</b>	
	<b>Acceptable Solution</b>	<b>Compliance Requirement</b>
<input checked="" type="checkbox"/>	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
<input type="checkbox"/>	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
<input type="checkbox"/>	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk.
<input type="checkbox"/>	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

## 5. Bushfire Hazard Practitioner

Name:

Mark Van den Berg

Phone No:

0407 294 240

Postal  
Address:

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Email  
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mark@bushfirewise.com.au

Accreditation No:

BFP – 108

Scope:

1, 2, 3A, 3B & 3C

## 6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act* 1979 that the proposed use and development:

- ☐ Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or
- ☒ The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:  
certifier



Name:

Mark Van den Berg

Date:

15/06/2025

Certificate  
Number:

BW042.v2.

(for Practitioner Use only)





**RESIDENTIAL DEVELOPMENT  
LOT 3 OLD BEACH ROAD,  
OLD BEACH**

**TRAFFIC  
IMPACT  
ASSESSMENT**

**Hubble Traffic**

**June 2025**

Disclaimer: This report has been prepared based on and in reliance upon the information provided to Hubble Traffic Pty Ltd by the client and gathered by Hubble Traffic Pty Ltd during the preparation of the report. Whilst all reasonable skill, care and diligence has been used in preparation of the report, Hubble Traffic Pty Ltd take no responsibility for errors or omissions arising from misstatements by third parties.

This report has been prepared specifically for the exclusive use of the client named in the report and to the extent necessary, Hubble Traffic Pty Ltd disclaim responsibility for any loss or damage occasioned by use of or reliance upon this report, or the data produced herein, by any third party.

Version	Date	Reason for Issue
<b>Draft</b>	April 2025	Draft issued for client feedback
<b>Final</b>	April 2025	Final issued
<b>Updated</b>	June 2025	Updated access arrangements

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## 1. Introduction

Clint Johnson, developer from Tivoli Green Pty Ltd, has engaged Hubble Traffic to conduct an independent Traffic Impact Assessment for land title 183730/3, located at Lot 3, Old Beach Road, Old Beach, according to the Land Information System Tasmania (LIST).

Under the Tivoli Green specific area plan, further subdivision requires the completion of a Traffic Impact Assessment.

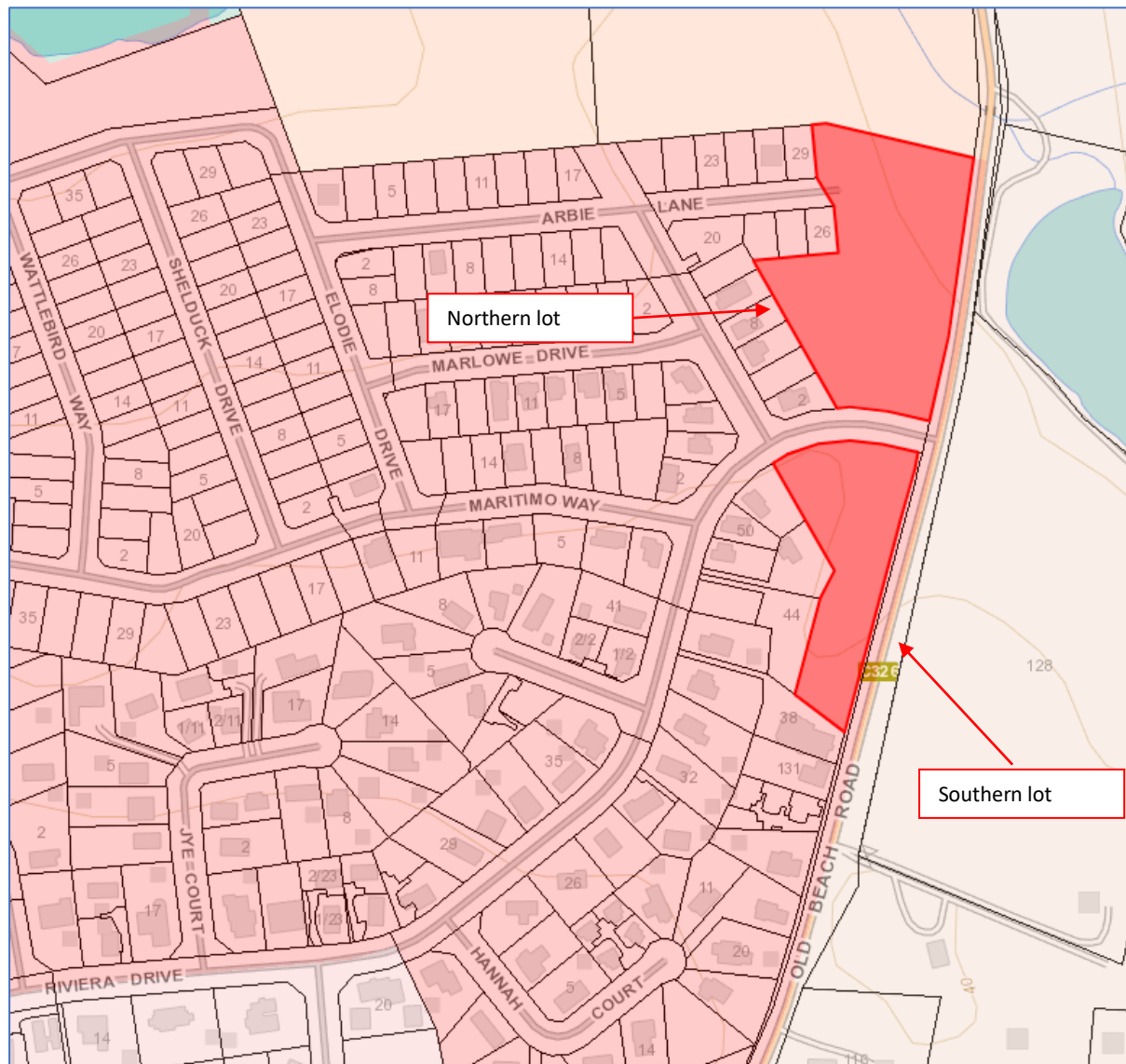
This assessment considers the traffic performance of the surrounding road network when Tivoli Green is completed, and impact of this development.

## 2. Development site

According to the Land Information System Tasmania (LIST) Database, land title 183730/3 consists of two undeveloped parcels of land, located either side of Riviera Drive, with both parcels having road frontage with Old Beach Road and Riviera Drive. The northern lot also has access to Arbie Lane.

Under the planning scheme both lots are zoned as general residential and is situated within an established urban residential area known as Tivoli Green. Within the Tivoli Green specific area plan, the southern lot is situated within Precinct C, while the northern lot is situated within Precinct B.

Diagram 2.0 – Extract from LIST Database





### 3. Development proposal

The development proposal is to subdivide the northern parcel of land into two lots (lots 1 and 2) and the southern parcel of land into three lots (lots 3, 4 and 5). Under Tivoli Green specific area plan, multiple residential dwellings in precinct B must have a minimum 400 square metres per dwelling, while precinct C must have a minimum 600 square metres per dwelling.

The developer has advised that lots 1, 3, 4 and 5 will contain residential development, while lot 2 is likely to include a childcare centre. Based on a recent assessment completed by Hubble Traffic for a similar sized childcare centre in Devonport, this assessment will consider the trip generation based on a childcare centre operating with a maximum of 96 children.

Given the lots proposed for residential development will contain multiple dwellings, it is assumed each dwelling will be a two-bedroom unit. Based on the requirements under the specific area plan, each lot can accommodate:

- Lot 1 – 20 units,
- Lot 3 – Five units,
- Lot 4 – Three units, and
- Lot 5 – Four units.

Vehicular access for each lot is proposed through the following:

- Lot 1 to have direct access onto Arbie Lane,
- Lot 2 will require a new access onto Riviera Drive,
- Lot 3 will operate with the existing vehicular access onto Riviera Drive, and
- Lots 4 and 5 to have direct access onto Old Beach Road.

With all the lots within close proximity to Old Beach Road, it is expected that the majority of vehicles will use Old Beach Road to commute between the site and East Derwent Highway. Table 3.0 summarises the size, proposed vehicular access and potential land use for each lot.

Table 3.0 – Proposed lot allocation, vehicular access and use

Lot	Lot size	Proposed vehicular access	Potential use
One	12,067m <sup>2</sup>	Arbie Lane	Residential, max 20 two-bedroom units
Two	2,171m <sup>2</sup>	Riviera Drive	Childcare, max 96 children
Three	3,305m <sup>2</sup>	Riviera Drive	Residential, 5 two-bedroom units
Four	1,833m <sup>2</sup>	Old Beach Road	Residential, 3 two-bedroom units
Five	2,419m <sup>2</sup>	Old Beach Road	Residential, 4 two-bedroom units

Engineering plan view of a sewerage network for Lots 1, 2, 3, 4, and 5. The plan shows various sewer lines (DN150, DN100, DN1000), manholes (SW1/1, SW1/2, SW1/3), and water mains. It includes labels for 'LOT 1 12067m²', 'LOT 2 2171m²', 'LOT 3 3305m²', 'LOT 4 1833m²', and 'LOT 5 2419m²'. A north arrow is located at the bottom center.

## 4. Trip generation

A trip in this report is defined as a one-way vehicular movement from one point to another, excluding the return journey. Therefore, a return trip to and from a land use is counted as two trips.

### 4.1. Residential use

To determine the number of trips likely to be generated by the residential units, reference has been taken from the RTA Guide to Traffic Generating Developments (RTA Guide), section 3.3 residential housing. This Guide recommends for medium density residential units, smaller units (up to two bedrooms):

- Daily vehicle trips of 5 per unit, and
- Weekday peak trips of 0.5 per unit.

As previously stated, the northern lot can potentially accommodate 20 two-bedroom units, requiring vehicular access onto Arbie Lane. Meanwhile, the southern lot has the capacity to accommodate a total 12 two-bedroom units, with five units to operate with access onto Riviera Drive and seven units to have direct access onto Old Beach Road.

Based on the RTA Guide generation rates, the combined 32 two-bedroom units have the potential to generate up to 160 daily trips, with 16 of these trips expected to occur during the morning and evening peak hour periods.

Table 4.1 – Predicted number of trips to be generated from the 32 units

Lot	Dwelling Type	RTA Generation rate	Number of units	Daily trips	Peak trips
Northern	Two-bedroom	5 per day 0.5 per peak	20	100	10
Southern	Two-bedroom	5 per day 0.5 per peak	12	60	6
<b>Total</b>			<b>32</b>	<b>160</b>	<b>16</b>

## 4.2. Childcare use

To assist with determining the number of trips likely to be generated by a childcare centre, manual traffic survey data obtained during the morning and afternoon periods at an existing childcare centre, which caters for 50 children has been used. The manual traffic surveys and site observations found:

- Children arrived and were collected by parents using a private motor vehicle, with most trips involving a single child. For the purpose of this assessment, it is assumed each child generates four daily trips, two at drop-off and two at pick-up time.
- The main arrival and collection activity occurred over a two-and half-hour period during both the morning and afternoon periods.
- A parent vehicle would occupy a car parking space for an average of eight minutes.
- During the arrival and collection periods there was a steady movement of vehicles; on average parent vehicles occupied two parking spaces and generated a maximum demand of four car parking spaces.

Staff are expected to work in staggered shifts, arriving and leaving at different times of the day. This assessment will assume a worst-case scenario of 50 percent of staff members arriving and leaving during the peak hour periods.

Based on these assumptions, the proposed childcare centre is likely to generate 416 daily trips when operating at 100 percent capacity. The daily number of trips is not as important as the number of trips occurring in the peak hour periods, when the surrounding road network is busy. It is predicted in both the morning and evening peak hour periods that the facility is likely to generate 86 trips. It is important to note that parent vehicles generate two trips in both the morning and evening periods, one trip entering the site, and the other trip when leaving the site.

This trip generation data represents a scenario where the centre operates at full capacity. While, typically, most childcare centres operate at 80% capacity due to factors such as illness.

Table 4.2 – Total daily and peak hour trips

Type of user	Number	Daily trips	Morning peak hour			Evening peak hour		
			Total	In	Out	Total	In	Out
Parent	94 children	376	76	38	38	76	38	38
Staff	20	40	10	10	0	10	0	10
<b>Total</b>		<b>416</b>	<b>86</b>	<b>48</b>	<b>38</b>	<b>86</b>	<b>38</b>	<b>48</b>



### 4.3. Trip summary

Based on the residential units and childcare centre operating at 100 percent capacity, this assessment estimates that the development could generate a total of 576 daily trips, with 102 trips likely to occur within the morning and evening peak periods.

Table 4.3 – Trip generation summary

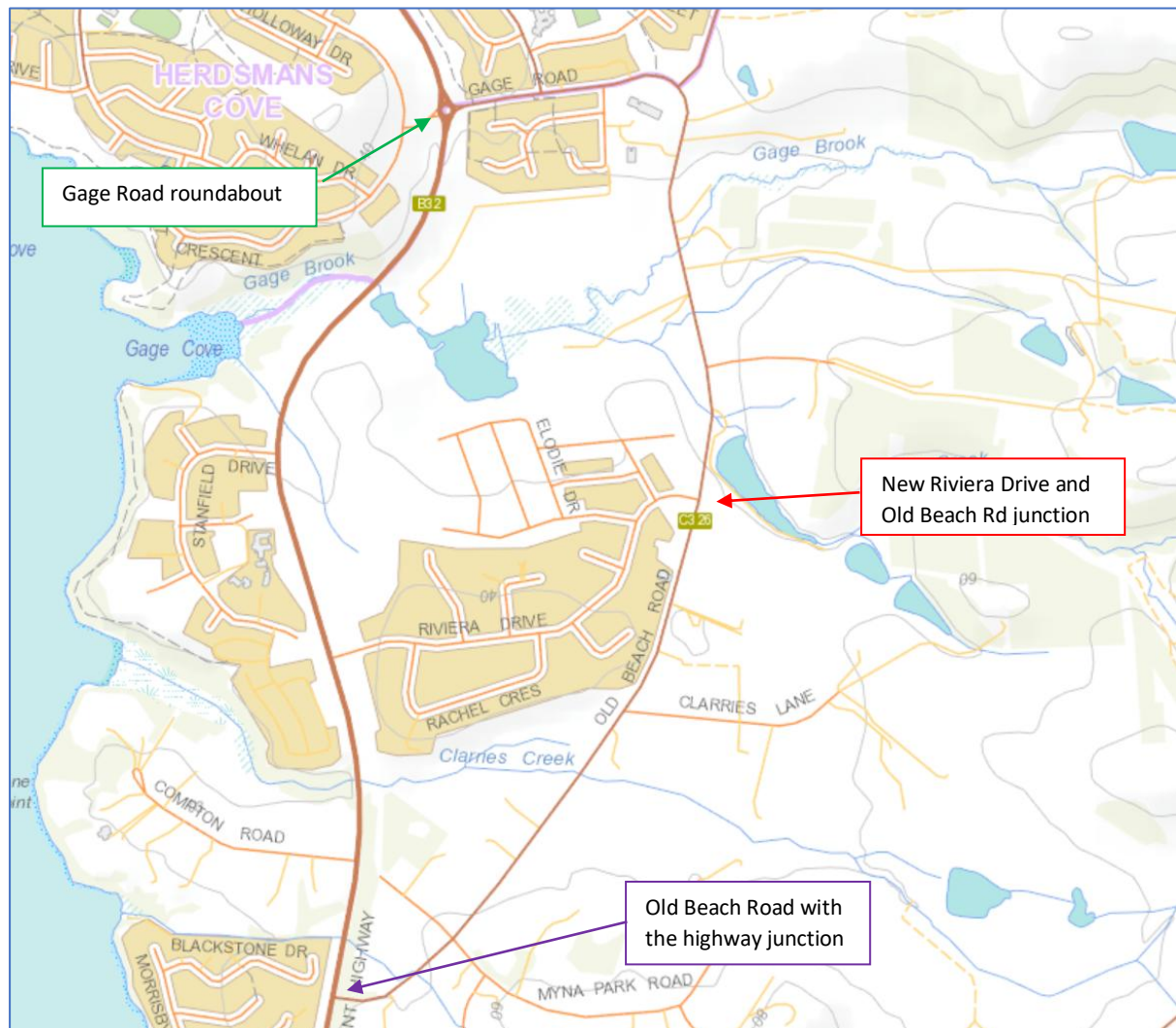
Generator	Daily trips	Morning peak	Evening peak
Residential units	160	16	16
Childcare	416	86	86
<b>Total</b>	<b>576</b>	<b>102</b>	<b>102</b>

## 5. Surrounding road network

Old Beach Road extends from the highway south of Riviera Drive and connects to Gage Road north of Riviera Drive and connects back onto East Derwent Highway (highway) at the Gage Road roundabout.

A new junction connecting Riviera Drive to Old Beach Road was recently constructed, and has been designed to provide an alternative access route between Tivoli Green and the highway, and is expected to be the preferred route for traffic generated by this development.

Diagram 5.0 – Surrounding road network



## 5.1. Arbie Lane characteristics

Arbie Lane is a local residential street with a default 50 km/h urban speed limit. It runs for approximately 340 metres, extending from Elodie Drive and terminating in a cul-de-sac. All properties along the road have direct road access and off-street parking facilities.

The road is constructed to a typical urban standard, with a sealed bitumen surface suitable to accommodate two-way traffic movements, concrete kerb and channel, concrete footpaths along both sides, and street lighting. The road has an average width of nine metres, with a straight alignment and is situated within relatively gentle grades.

Photograph 5.1 – Arbie Lane standard



## 5.2. Riviera Drive characteristics

Riviera Drive extends between the highway and Old Beach Road, and within the surrounding road network would act as a local residential street. The road is constructed to a typical urban standard, with a sealed bitumen surface suitable to accommodate two-way traffic movements, concrete kerb and channel, concrete footpaths along both sides, and street lighting.

The horizontal road alignment is generally straight, with a long sweeping horizontal curve past the development site and situated within relatively flat vertical grades. There is no posted speed limit, with the 50 km/h urban default speed limit applying.

Photograph 5.2 – Riviera Drive standard





### 5.3. Old Beach Road characteristics

Within the surrounding road network, Old Beach Road would act as a minor local collector road, connecting local properties to the highway.

The road has a posted speed limit of 70 km/h and has been constructed to a two-lane rural standard, with a bitumen surface, delineation through marked centreline and guide posts, and grassy verges.

Photograph 5.3 – Old Beach Road standard



## 5.4. Riviera Drive and Old Beach Road junction

Riviera Drive forms a standard T-junction, intersecting Old Beach Road at approximately ninety degrees, with a give way sign and painted holding line reinforcing traffic priority for Old Beach Road.

Sight distance was measured on-site, based on a driver being five metres back from the middle of the inside traffic lane and 1.1 metres above the road surface, with an approaching vehicle being 1.2 metres high. In both directions the available sight distance exceeded 170 metres.

Austrroads Guide to Road Design (AGRD) provides guidance of Safe Intersection Sight Distance (SISD), based on the speed environment. For a 70 km/h speed limit the recommended SISD is 141 metres, this is based on a driver reaction time of 1.5 seconds, and three seconds observation time.

As the available sight distance exceeds 170 metres in both directions, there is sufficient sight distance for vehicles to turn at the junction in a safe and efficient manner, without causing adverse impact to other users.

Photograph 5.4A – Available sight distance to the left



Photograph 5.4B – Available sight distance to the right



## 5.5. Traffic safety

The Department of State Growth maintains a database of reported road crashes, a check of this database for the last five years found one reported crash within close proximity to the development site. This incident occurred before the creation of the Riviera Drive junction, with a single vehicle leaving a straight section of Old Beach Road, resulting in property damage only.

At the Old Beach Road junction with the highway there have been two reported crashes, with one single vehicle leaving the highway resulting in property damage only, and an angle collision causing minor damage.

This number of crashes is not an over-representation for a busy highway, with no serious or fatal injuries the highway junction is providing an appropriate level of safety. This crash rate is not expected to change with this development operating.

## 6. Access arrangements

### 6.1. Existing vehicular access for lot 3

This lot has an existing concrete crossover onto Riviera Drive, which has sufficient width to accommodate two-way traffic flow, and will be used to provide access to Lot 3.

Photograph 6.1 – Existing vehicular access to the southern lot onto Riviera Drive



### 6.2. New vehicular access for Lot 1

As the northern lot does not have any existing vehicular accesses, the two divided lots will require the creation of a new vehicular access. Lot 1 will access Arbie Lane within a sealed cul-de-sac with no kerbing. The access will be a minimum of 5.5 metres wide, suitable for two-way traffic flow, and be designed to comply with LGAT standard drawing TSD-R09-v3 for urban driveways.

Photograph 6.2 - Possible location for new access onto Arbie Lane





### 6.3. Location of new vehicular access to Lot 2

This lot has road frontage to both Riviera Drive and Old Beach Road and will require the creation of new vehicular access onto Riviera Drive. The client has advised the location of this access needs to be located midway along the property, to satisfy a fire hazard report, and to suit the location of the proposed childcare centre building. Although this access will be located within 35 metres of the Old Beach Road junction, detailed traffic analysis has determined that vehicles turning right into the access is unlikely to queue back onto Old Beach Road.

This traffic analysis used SIDRA traffic modelling software to calculate the gaps in the opposing traffic flow, average delayed and whether right turning vehicles will be queued. The modelling predicts the average delay for right-turning vehicles and maximum queue length (in metres), based on the volume of opposing traffic and vehicles turning left into the childcare centre.

Scenario one represents the current traffic conditions, where during the peak hour period, the childcare centre is expected to generate 40 right-turning vehicles, 20 left-turning vehicles, and 150 vehicles on Riviera Drive traveling towards Old Beach Road. The modelling indicates the average delay for right-turning vehicles is likely to be minimal (6 seconds), with a low possibility of delay and queue formation, as the maximum queue length of 2 metres is less than one vehicle.

Scenario two represents an increase in traffic flow on Riviera Drive from 150 to 300 vehicles travelling towards Old Beach Road. This increase in traffic is predicted to have minimal impact, with the average delay increasing to 6.9 seconds and the maximum queue length slightly increasing to 2.7 metres.

Scenario three considers the impact when the volume of right-turning vehicles increases from 40 to 60 vehicles within one hour, and vehicles turning left into the childcare centre increase to 40 vehicles. The modelling predicts the maximum queue length may increase to 4.1 metres, which is still less than one vehicle waiting to turn in and unlikely to impact Old Beach Road.

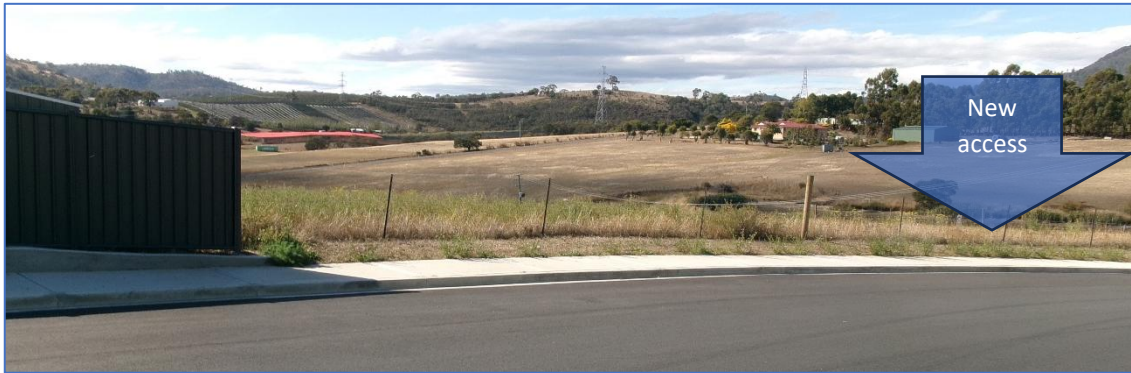
Scenario four predicts that increasing the traffic flow to 500 vehicles on Riviera Drive may create a 7.2 metre queue, equivalent to one vehicle waiting to turn right. Even when the traffic volume is increased to 800 vehicles, the maximum queue length is predicted to be three vehicles long (19.2 metres).

Table 6.3 – Impact of vehicles turning right into a proposed childcare centre

Scenario	Riviera Drive traffic flow				Modelling for vehicles turning right into Childcare				
	Eastbound	Westbound	Right In	Left In	Total Vehicles	DOS	Average delay	Maximum queue	LOS
One	150	150	40	20	442	0.11	6 secs	2 metres	A
Two	300	300	40	20	758	0.19	6.9 secs	2.7metres	A
Three	300	300	60	40	800	0.21	7 secs	4.1 metres	A
Four	500	500	60	40	1,221	0.33	9.1 secs	7.2 metres	A
Five	800	800	60	40	1,853	0.54	16.4 secs	19.2 metres	C

Overall, the traffic modelling demonstrates that creating a vehicular access to the childcare centre within 35 metres of the Old Beach Road junction is unlikely to cause any adverse impact on the junction's performance.

Photograph 6.3A – Possible new vehicular access onto Riviera Drive



#### 6.4. New vehicular accesses onto Old Beach Road

It is proposed that two new accesses will be created onto Old Beach Road to service lots 4 and 5. Each access will be a minimum of 5.5 metres wide, suitable for two-way traffic flow, and be designed to comply with LGAT standard drawing TSD-R03-v3 for a rural property access.

Photograph 6.4A – New access onto Old Beach Road for lot 4



Photograph 6.4B – New access onto Old Beach Road for lot 5





## 6.5. Sight distance for childcare access

With the childcare centre likely to generate a moderate turnover in vehicles, it is important that the new access has sufficient SISD (Safe Intersection Sight Distance), which is based on the operating speed of approaching vehicles.

Although the urban default speed limit of 50 km/h applies on Riviera Drive, vehicles from Old Beach Road will likely be slower due to turning at the junction. With the childcare access within 35 metres of the junction, vehicles from Old Beach Road are expected to travel no faster than 30 km/h. While in the opposite direction vehicles are expected to approach at 50 km/h.

Based on the Austroads Guide to Road Design, sight distance for vehicles approaching at 30 km/h, the required sight distance is approximately 37 metres, based on driver reaction time of 1.5 seconds and observation time of 2 seconds. While for vehicles approaching at 50 km/h, the required sight distance is 80 metres, using the same parameters.

On-site measurements of the available sight distance were taken based on the driver leaving the access being 1.1 metres above the access surface, and an approaching vehicle being 1.2 metres high. Based on the new access located within the middle of the property, the available sight distance to the right exceeds 100 metres, while to the left is 40 metres.

There will be sufficient available sight distance at the proposed access, based on the prevailing operating speeds of approaching vehicles, enabling vehicles will be able to enter and leave Riviera Drive in a safe and efficient manner.

Photograph 6.5A – Available sight distance to the left



Photograph 6.5B – Available sight distance to the right



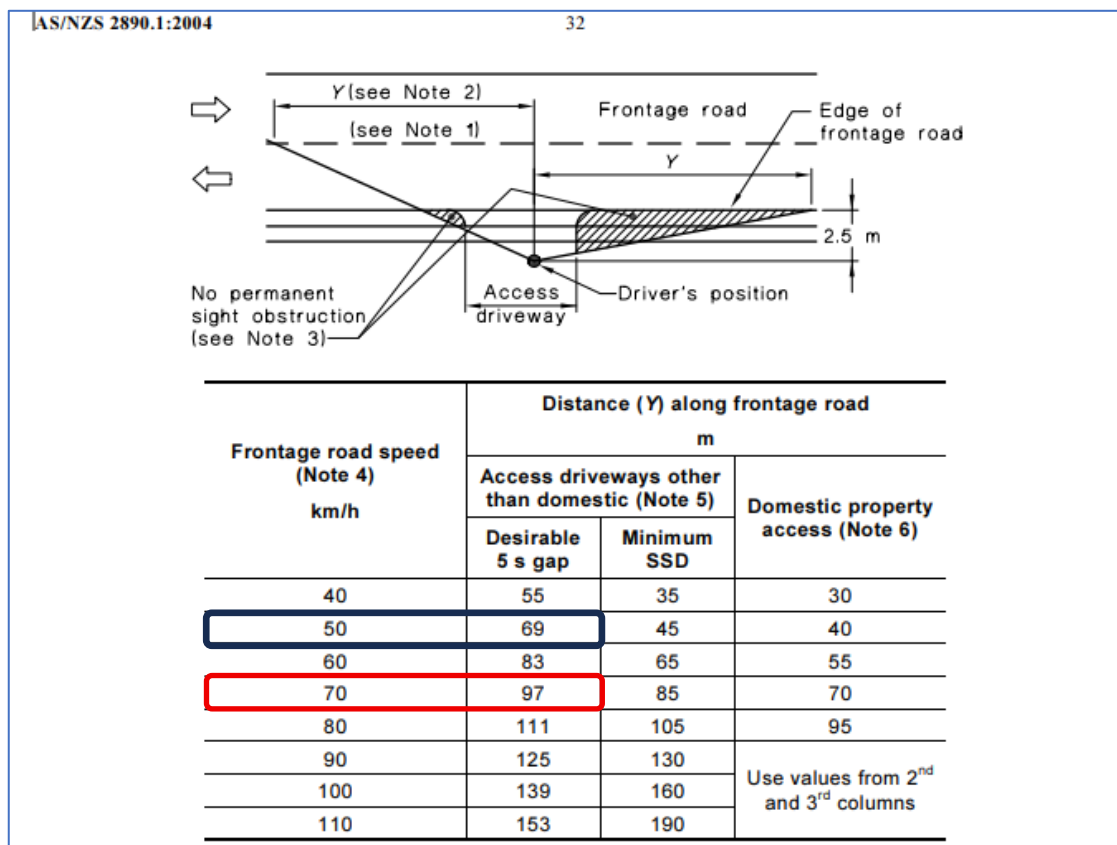
## 6.6. Sight distance for residential accesses

The sight distance requirement for a residential driveway is less than the SISD requirement for a public road junction, as the number of daily traffic movements are significantly lower, with the users being familiar with the configuration of the access. For these reasons, the Australian Standards 2890.1:2004 (the Standard) allows for a lower sight distance requirement to be used at residential driveways, indicating minimum gap sight distance is applicable.

Figure 3.2 in section 3.2.4 of the Standard, indicates the following for a residential driveway access within the following speed environments:

- 70 km/h speed environment - the minimum sight distance should be 85 metres, with a desirable sight distance of 97 metres, and
- 50 km/h speed environment – the minimum sight distance should be 45 metres, with a desirable sight distance of 69 metres.

Extract 6.6 – The Standard figure 3.2 – Sight distance





On-site measurements of the available sight distance were taken, based on the driver leaving the access being 1.1 metres above the access surface, and an approaching vehicle being 1.2 metres high.

Each vehicular access complies with the desirable sight distance, meaning vehicles will be able to enter and leave the development site in a safe and efficient manner, without impacting other road users.

Table 6.6 – Available sight distance at each access

Access	Operating speed	Desirable Sight Distance	Available sight distance		Comment
			Left	Right	
Lot 1 – Access onto Arbie Lane	50 km/h	69 metres	70 metres		Compliant
Lot 3 – Existing access onto Riviera Drive	50 km/h	69 metres	70 metres	70 metres	Compliant
Lot 4 – Access onto Old Beach Road	70 km/h	97 metres	110 metres	110 metres	Compliant
Lot 5 – Access onto Old Beach Road	70 km/h	97 metres	110 metres	110 metres	Compliant

Photographs of the available sight distance are available in Appendix A.

## 7. Traffic flows when Tivoli Green is completed

With the development located within Tivoli Green, it is important to consider the impact on the surrounding road network when Tivoli Green is fully developed.

Hubble Traffic undertook a traffic assessment quantifying the traffic flows on the surrounding roads when Tivoli Green is fully developed, and this has been used as the starting point for assessing the impact from this development.

### 7.1. Trip generation and distribution when Tivoli Green is completed

At completion, the developer expects 464 dwellings to be built and occupied, with these dwellings predicted to generate 302 trips in the morning peak hour, and 325 trips in the evening peak hour. These trips will be assigned to the highway junction, based on the trip distribution as defined in the table below.

Table 7.1 – Trip assignment at completion

Scenario	Trips into the development			Trips out of the development			Total
	Left	Right	Total	Left	Right	Total	
Morning peak hour	17	16	33	196	73	269	302
	50%	50%	11%	73%	27%	89%	100%
Evening peak hour	75	152	227	34	64	98	325
	33%	67%	70%	35%	65%	30%	100%

### 7.2. Trip assignment onto Old Beach Road

When preparing the previous assessment, there was only one vehicular access to Tivoli Green, via the East Derwent Highway. Riviera Drive has been extended and a new junction provided with Old Beach Road, which has the potential to alter traffic flows.

Vehicles turning right out of Riviera Drive at the East Derwent Highway junction experience delays during the morning and evening peak periods, as the driver must select a gap in both highway traffic flows. The new junction provides right turning drivers an alternative route, Old Beach Road onto Gage Road, and turning right at the East Derwent Highway roundabout. As this is expected to provide a more efficient route, 70 percent of the turning right vehicles have been reassigned to this alternative route.

With this Old Beach Road junction being within close proximity of a number of residential properties, it is reasonable to expect a portion of these properties will use this junction, rather than the East Derwent Highway junction. For the purpose of this assessment, ten percent of the left turning vehicles have been reassigned to this junction.

Table 7.2 – Trip assignment onto surrounding road junctions using Old Beach Road

Peak period	Direction	Number of trips	East Derwent Highway	
			Old Beach Road junction	Gage Road roundabout
Morning peak hour	Leaving	71	20	51
	Arriving	2	2	0
Evening peak hour	Arriving	15	15	0
	Leaving	48	3	45

### 7.3. Traffic activity on the surrounding road network

The following traffic flows in table 7.3 is based on Tivoli Green being fully developed, and trips have been reassigned to the new junction of Riviera Drive and Old Beach Road.

Table 7.3 – Summary of increase to existing traffic flows with Tivoli Green is completed

Junction	Road	Peak hour two-way flows	
		Morning	Evening
Old Beach Road and Riviera Drive junction	Old Beach	222	221
	Riviera Drive west of Old Beach Road	118	79
Old Beach Road and highway	Old Beach Road	193	164
	Highway south of junction	1,311	1,299
	Highway north of junction	1,132	1,165
Gage Road and highway roundabout	Gage Road	540	549
	Highway south of roundabout	1,067	1,228
	Highway north of roundabout	992	1,239
Riviera Drive and highway junction	Riviera Drive	229	262
	Highway south of junction	1,144	1,251
	Highway north of junction	993	1,177

## 8. Impact to Riviera Drive and Old Beach Road

The traffic flows illustrated in table 7.3 represents the flow on the surrounding roads when the Tivoli Green is completed, and is the baseline flows for this assessment of this development proposal.

As determined in section 4 of this report, the proposed development has the potential to generate up to 576 daily trips, with 102 of these trips likely to occur during the morning and evening peak periods.

Level of Service (LOS) is a quantifiable assessment of the factors that contribute to the traffic performance, which includes traffic density, gaps in traffic streams, expected delays, and queues. The RTA Guide provides performance criteria for peak hour flows along rural roads (diagram 8.3) and junctions (diagram 8.2), with five levels from A to E.

LOS A provides the highest level of traffic performance, where motorists are not expected to incur traffic delays or queues, with ample gaps in the traffic stream for vehicles to turn freely and safely without disrupting other users. For busy arterial urban roads, Level of Service (LOS) D during weekday peak hours is considered acceptable, as the cost of providing infrastructure to accommodate short-term peak demand is economically impractical.

### 8.1. Trip assignment

It is common with residential properties, that 90 percent of the generated trips leave the site during the morning peak, with the opposite occurring in the evening peak. While the childcare is estimated to generate 48 vehicles arriving and 38 vehicles leaving in the morning peak, with the opposite occurring in the evening.

Given the development site's close proximity to Old Beach Road, it is anticipated that the majority of trips will utilise Old Beach Road to access the East Derwent Highway. Although the childcare facility is expected to generate internal trips from the surrounding residential area, this assessment considers a worst-case scenario, where all trips are external, thereby increasing the number of vehicles turning at the Old Beach Road junction.

Lots 4 and 5 will have direct access to Old Beach Road and are unlikely to generate trips at Riviera Drive junction, but will generate trips at the junction of Old Beach Road and East Derwent Highway.

In assigning the new trips to the surrounding road network, trip distribution from the manual surveys has been used, with the table below predicting how the new trips will use the surrounding roads.

Table 8.1 – Trip distribution

Peak period	Direction	Number of trips	East Derwent Highway	
			Old Beach Road junction	Gage Road roundabout
Morning peak hour	Leaving	52	41	11
	Arriving	50	20	30
Evening peak hour	Arriving	52	36	16
	Leaving	50	30	20

## 8.2. Traffic impact at the junction of Riviera Drive and Old Beach Road

The simplest method to determine the traffic performance at a junction is to use SIDRA Intersection traffic modelling software, which uses gap acceptance theory to determine the average delay, queue lengths, and degree of saturation, which are all measures of traffic congestion and level of service.

Diagram 8.2 – RTA Level of service for intersections, junctions and roundabouts

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way & Stop Signs
A	< 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode	At capacity, requires other control mode

A traffic model has been developed within the SIDRA software to replicate the junction of Riviera Drive and Old Beach Road, using peak hour traffic flows when Tivoli Green is fully developed. Traffic modelling predicts that the junction will perform at the highest level of service possible, LOS A, with motorists not likely to incur any delays or queues.

The junction is predicted to be lightly trafficked, with a maximum of 277 vehicles operating in the peak hour periods. The Degree of Saturation (DOS) is a measure of traffic capacity, with the junction predicted to operate at 0.08, which means the junction is operating at eight percent of its capacity, and there is ample spare traffic capacity to accommodate significant traffic growth.

Additional trips generated by this development proposal has been added to the traffic model, demonstrating the additional traffic will not adversely impact the traffic performance as demonstrated in the table below.

Table 8.2 – Traffic modelling of the junction of Riviera Drive and Old Beach Road

Period	Scenario	Total vehicles	DOS	Highest delay	LOS	Max queue
Morning peak hour	Tivoli Green completed	277	0.079	6.4 secs	A	2.3m
	With development	384	0.134	6.7 secs	A	4.0m
Evening peak hour	Tivoli Green completed	254	0.077	6.4 secs	A	1.1m
	With development	361	0.098	6.7 secs	A	2.5m

Printout of the modelling can be found in Appendix C.



### 8.3. Lane capacity and level of service for Old Beach Road

The traffic performance of roads can be quantified based on the road type and volume of vehicles using the roads during the peak hour periods, with the RTA Guide providing guidance for both rural and urban roads.

Old Beach Road, with a 70 km/h speed limit, is assessed for lane capacity based on peak hour traffic flows, the percentage of heavy vehicles, and level terrain. Heavy vehicles are expected to be less than 5% of the total volume.

When Tivoli Green is completed, the predicted two-way flow on Old Beach Road is expected to be less than 300 vehicles in both the morning and evening peak hour as illustrated in the table below, with the RTA Guide (diagram 8.3) indicating LOS B.

The additional traffic generated by the development as shown in last two columns, indicates the two-way flow is likely to remain under 300 vehicles, and continue to operate at LOS B.

Table 8.3 – Comparison of two-way flows and LOS

Peak hour	Criteria	When Tivoli Green is completed		With development operating	
		South of junction	North of junction	South of junction	North of junction
Morning	Flows	195	233	261	276
	LOS	B	B	<b>B</b>	<b>B</b>
Evening	Flow	192	233	264	271
	LOS	B	B	<b>B</b>	<b>B</b>

This LOS B means that the traffic flow is stable, motorists have freedom to select their own operating speed, and there should be sufficient gaps in the traffic stream to enable vehicles to enter and leave, without causing any adverse impacts.

Diagram 8.3 – RTA Guide for level of service for rural roads

<b>Table 4.5</b> <b>peak hour flow on two-lane rural roads (veh/hr)</b> <b>(Design speed of 100km/hr)</b>					
Terrain	Level of Service	Percent of Heavy Vehicles			
		0	5	10	15
Level	B	630	590	560	530
	C	1030	970	920	870
	D	1630	1550	1480	1410
	E	2630	2500	2390	2290
Rolling	B	500	420	360	310
	C	920	760	650	570
	D	1370	1140	970	700
	E	2420	2000	1720	1510
Mountainous	B	340	230	180	150
	C	600	410	320	260
	D	1050	680	500	400
	E	2160	1400	1040	820

## 8.4. Lane capacity and level of service for Riviera Road

Given that Riviera Drive operates under a 50 km/h speed limit, the lane capacity and LOS assessment is conducted based on urban criteria as outlined in the RTA Guide. Diagram 8.4 below illustrates the LOS based on directional traffic flows, rather than two-way traffic flows.

Diagram 8.4 – RTA Guide-Urban Lane capacity criteria

Level of Service	One Lane (veh/hr)	Two Lanes (veh/hr)
A	200	900
B	380	1400
C	600	1800
D	900	2200
E	1400	2800

The predicted directional traffic flows when Tivoli Green is completed for Riviera Drive at the Old Beach Road junction is shown in the table below. The last three columns include additional traffic expected to be generated by the development, and demonstrates Riviera Drive will continue to provide motorists with the highest level of performance.

Table 8.4 – Comparison of traffic flow and LOS

Peak hour	Criteria	Tivoli Green completed			Development operating		
		EB	WB	Two-way	EB	WB	Two-way
Morning	Flow	105	19	124	160	71	231
	LOS	A	A		A	A	
Evening	Flow	58	25	83	111	80	191
	LOS	A	A		A	A	

## 8.5. Impact to Old Beach Road and East Derwent Highway junction

A traffic model was developed within the SIDRA software to replicate the junction of Old Beach Road with the highway, with predicted traffic flow when Tivoli Green is completed.

Traffic modelling indicates the junction is predicted to provide motorists with an acceptable level of traffic performance. It is important to understand LOS B only occurs for vehicles turning right out of Old Beach Road, due to vehicles having to select a gap in the two traffic flows, with all other vehicle movements operating at LOS A. The number of right turning vehicles is predicted to be low, around six movements.

With the development site located adjacent to Old Beach Road, it is assumed vehicles commuting southbound will make use of this road proceeding to the highway junction. In the morning, vehicles are expected to turn left onto the highway, and in the evening turn right into Old Beach Road. This means the development is not likely to generate an increase in vehicles turning right out of this junction, as vehicles heading north are expected to use the Gage Road roundabout to enter the highway.

During the morning peak hour, the junction is operating with 1,387 vehicles, and 1,383 vehicles in the evening peak. Although the additional trips from the development will intensify the number of traffic movements at this junction, this increase is not expected to adversely impact the traffic performance of the junction.

Table 8.5 – Traffic modelling for the junction of Old Beach Road when Tivoli Green is completed

Period	Scenario	Total vehicles	DOS	Highest delay	LOS	Max queue
Morning peak hour	Tivoli Green completed	1,387	0.443	28.3 secs	B	9.0m
	With development	1,433	0.443	29.6 secs	C	12.1m
Evening peak hour	Tivoli Green completed	1,383	0.405	28.4 secs	B	2.9m
	With development	1,455	0.403	20.7 secs	C	4.0m

Printout of the modelling can be found in Appendix C.

## 8.6. Impact to the Gage Road roundabout

Traffic modelling of the Gage Road roundabout, predicts when Tivoli Green is completed, motorists are expected to receive the highest level of traffic performance, in both the morning and evening peak periods of LOS A.

The average delay for motorists turning right-out of Gage Road is low, with 13.8 seconds in the morning peak and 14.2 seconds in the evening peak. Given the right turn delays are low, it is expected this route will be popular for traffic leaving Tivoli Green when heading north.

Similar to the Old Beach Road and highway junction, the additional development trips will slightly intensify the roundabout but are not expected to deteriorate the traffic performance, as demonstrated in the table below.

Table 8.6 – Traffic modelling at the Gage Road roundabout when Tivoli Green is completed

Period	Scenario	Total vehicles	DOS	Highest delay	LOS	Max queue
Morning peak hour	Tivoli Green completed	1,455	0.488	13.8 secs	A	26.7m
	With development	1,498	0.509	14.0 secs	A	28.6m
Evening peak hour	Tivoli Green completed	1,685	0.589	14.2 secs	A	38.1m
	With development	1,723	0.603	14.4 secs	A	39.2m

Printout of the modelling can be found in Appendix C.

## 8.7. Impact to the Riviera Drive junction with the highway

Traffic modelling of the Riviera Drive junction predicts when Tivoli Green is completed, motorists are expected to receive an appropriate level of traffic performance. Similar to the Old Beach Road junction with the highway, it is important to understand that vehicles turning right out of Riviera Drive receive a LOS B during the morning peak and LOS C during the evening peak, with all other vehicle movements operating at LOS A.

Given the high level of traffic performance at the Gage Road roundabout, motorists turning right may choose to use the alternative route. This is not expected to cause any adverse impact, as the Old Beach Road and Riviera Drive junction is predicted to be lightly trafficked with spare traffic capacity.

Table 8.7 – Traffic modelling at the Riviera Drive junction when Tivoli Green is completed

Period	Scenario	Total vehicles	DOS	Worst average delay	LOS	Max queue
Morning peak hour	Existing	1,245	0.425	26.9 sec	B	13.8m
Evening peak hour	Existing	1,416	0.360	35.5 sec	C	4.4m

Printout of the modelling can be found in Appendix C.

## 9. Planning scheme

### **C3.5.1 – Traffic generation at a vehicle crossing, level crossing or new junction**

The development will increase the use of an existing vehicular access onto Riviera Drive and create a total of four new accesses, two onto Old Beach Road and one onto Riviera Drive and Arbie Lane, and as such, will need to be assessed against the performance criteria P1, to ensure that each access can operate safely and efficiently.

Performance criteria	Assessment
Vehicular traffic to and from the site must minimise any adverse effects on the safety of a junction, vehicle crossing or level crossing or safety or efficiency of the road or rail network, having regard to:	
a) Any increase in the traffic caused by the use;	When each residential unit is constructed and the childcare centre is operating at 100 percent capacity, the development is estimated to generate a total of 576 daily trips, with 102 trips likely to occur within the morning and evening peak periods. Although Childcare centres typically operate at 80% capacity, reducing the number of vehicles generated, this assessment evaluates the childcare operating at full capacity.
b) The nature and frequency of the traffic generated by the use;	The development is for residential units and a childcare centre, with most vehicle movements generated by the development to be less than 5.5 metres in length, these types of vehicles are associated with urban residential living, and compatible with the existing vehicles using the surrounding local road network.
c) The nature of the road;	Arbie Lane and Riviera Drive are local residential streets, built to a typical urban standard, with sufficient road width to accommodate two-way traffic movements. Old Beach Road is a minor collector road, which has been built as a typical two-lane rural road, with sufficient road width to accommodate two-way traffic movements. The standard of the surrounding roads is suitable to accommodate the additional vehicles generated by the development, without causing adverse impact. There is sufficient sight distance at the proposed accesses onto Arbie Lane and Old Beach Road, and existing vehicular access onto Riviera Drive for a residential property. While the new proposed access onto Riviera Drive will have sufficient available sight distance for the operating speed of approaching vehicles. This will allow all vehicles to enter and leave in a safe and efficient manner.
d) The speed limit and traffic flow of the road;	Arbie Lane and Riviera Drive operate under a 50 km/h speed limit, while Old Beach Road operates under a 70 km/h speed limit. The surrounding road network has been modelled based on when Tivoli Green is completed, with the modelling demonstrating the surrounding road network is expected to provide motorists with efficient travel conditions, with acceptable delays and queues. The traffic performance at the Riviera Drive and East Derwent Highway is expected to improve, as motorists use the new Old Beach Road junction. The surrounding road network has spare traffic capacity to cater for the increase in traffic generated by this development and spare capacity for future growth.
e) Any alternative access;	None.



f) The need for the access or junction;	A new childcare centre will provide the local area with more childcare spaces, benefiting the local community, while urban infill in established residential areas is an excellent method to increase the supply of housing, while optimising the current infrastructure and community facilities.
g) Any traffic impact assessment; and	An independent traffic assessment found no reason for this development not to proceed.
h) Any written advice received from the road authority.	A request from council asking to provide a Traffic Impact Assessment.

## 10. Conclusion

The parcels of land have the capacity to accommodate two additional single dwellings, multiple residential units and a childcare centre, with the trip generation based on two single dwellings, 32 two-bedroom units and the childcare centre catering for up to 96 children, as a worst case scenario.

From a traffic engineering and road safety perspective, additional vehicle movements generated by this development are not expected to create any adverse safety or traffic impact, as:

- the amount of traffic expected to be generated during the peak hour periods is reasonably low, traffic modelling predicts when Tivoli Green is completed, the surrounding road network will be operating at an acceptable level of efficiency, with spare traffic capacity for future growth,
- the additional traffic generated by this development can be easily absorb within the surrounding road network,
- drivers will have available sight distance at the Riviera Drive and Old Beach Road junction, the existing access onto Riviera Drive, and the proposed new accesses onto Old Beach Road, Arbie Lane and Riviera Drive, for the prevailing speed of vehicles to turn in a safe and efficient manner, without impacting other motorists, and
- traffic modelling predicts that vehicles waiting to turn right into the proposed childcare centre, will not impact the motorists travelling through the Riviera Drive and Old Beach Road junction.

This Traffic Impact Assessment found no reason for this development not to proceed.

## 11. Appendix A – Photographs of available sight distance

Photograph 11.0 – Available sight distance to the left onto Riviera Drive



Photograph 11.1 – Available sight distance to the right onto Riviera Drive



Photograph 11.2 – Available sight distance straight ahead onto Arbie Lane





Photograph 11.3 – Available sight distance to the left onto Old Beach Road for lot 4



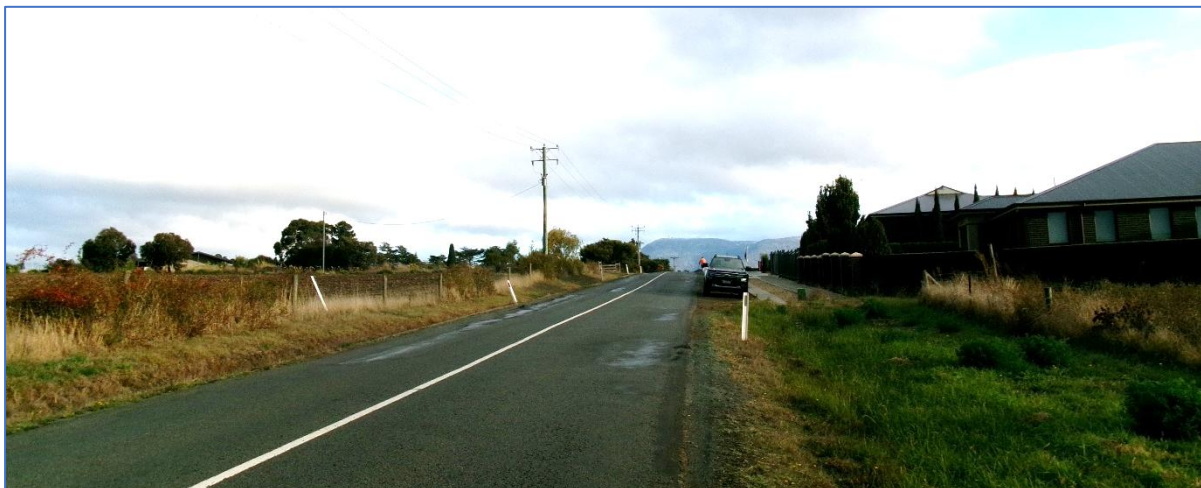
Photograph 11.4 – Available sight distance to the right onto Old Beach Road for lot 4



Photograph 11.5 – Available sight distance to the left onto Old Beach Road for lot 5



Photograph 11.6 – Available sight distance to the right onto Old Beach Road for lot 5

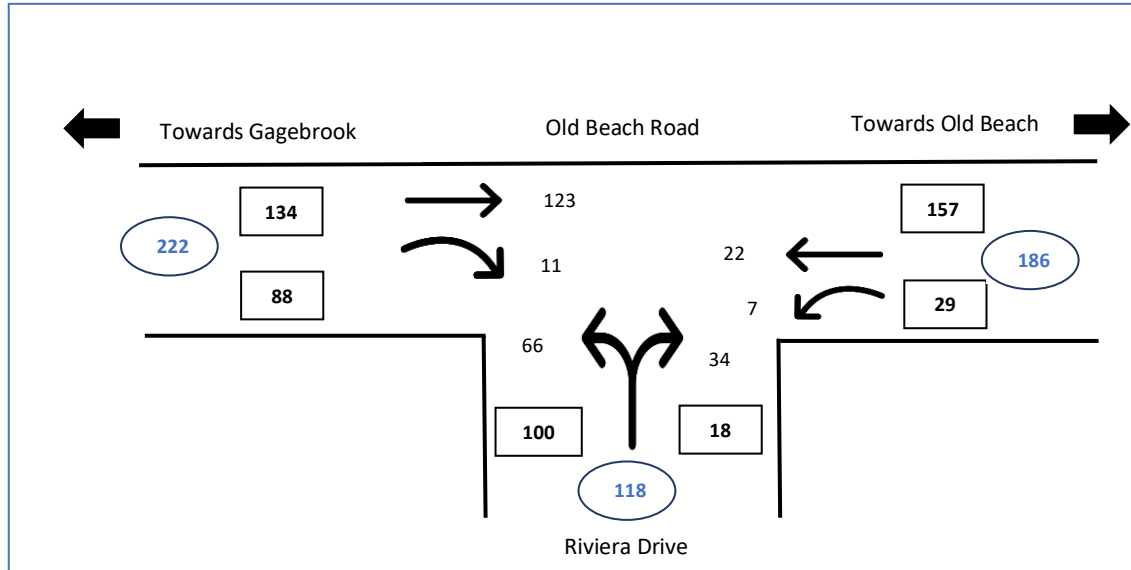




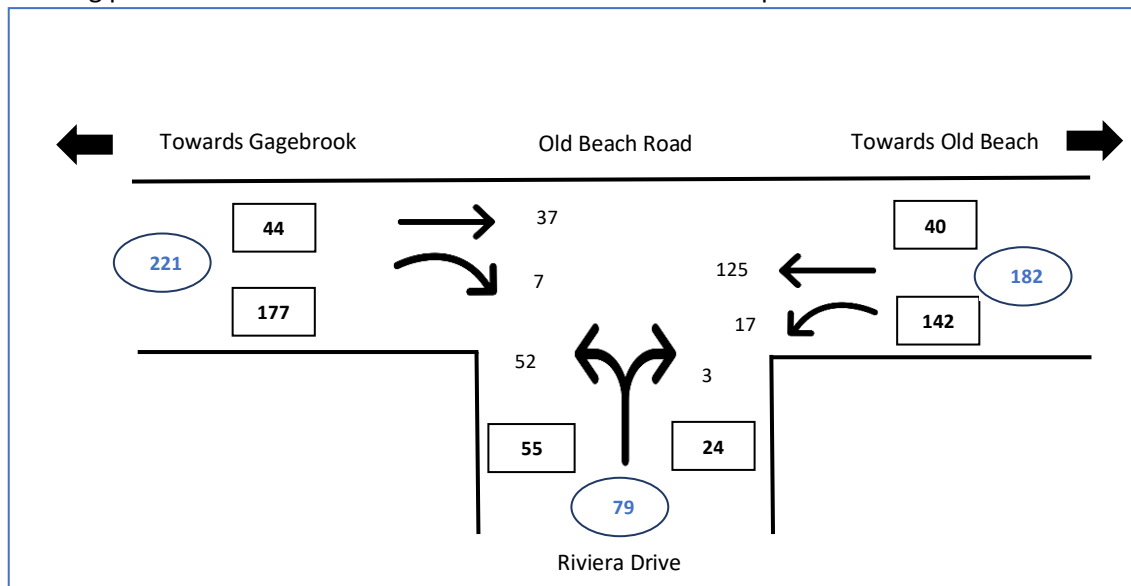
## 12. Appendix B – Traffic surveys when Tivoli Green is completed

### 12.1. Riviera Drive and Old Beach Road junction

Morning peak hour traffic movements when Tivoli Green is completed

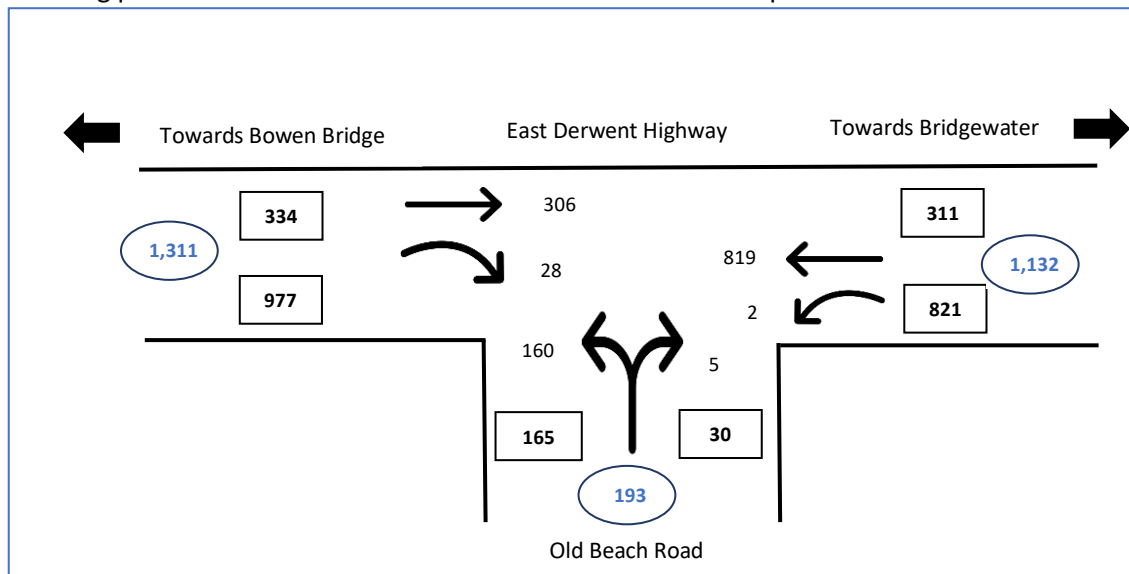


Evening peak hour traffic movements when Tivoli Green is completed

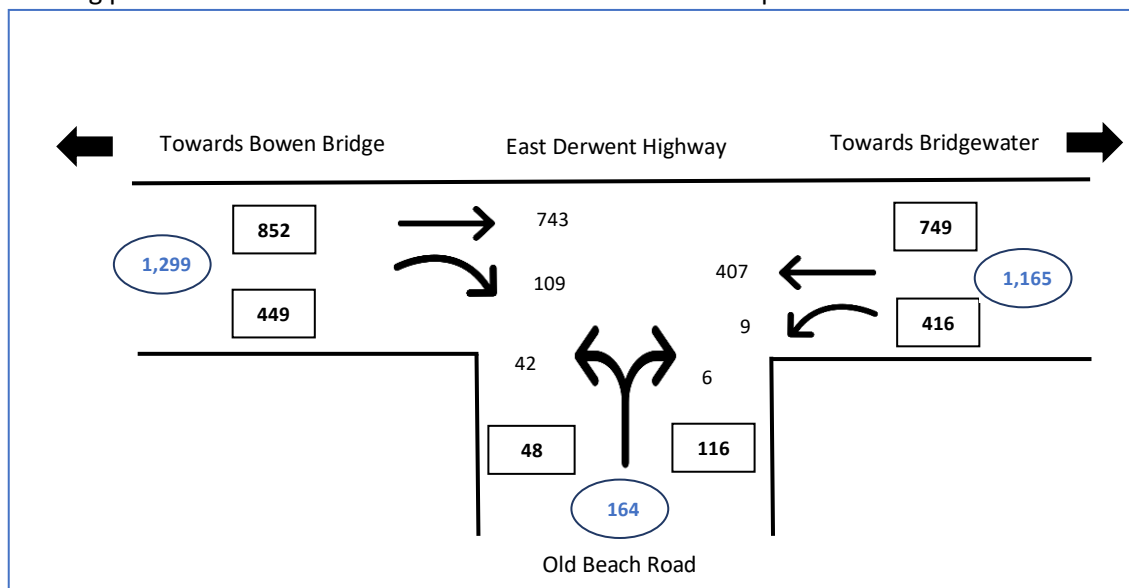


## 12.2.Old Beach Road and East Derwent Highway junction

Morning peak hour traffic movements when Tivoli Green is completed

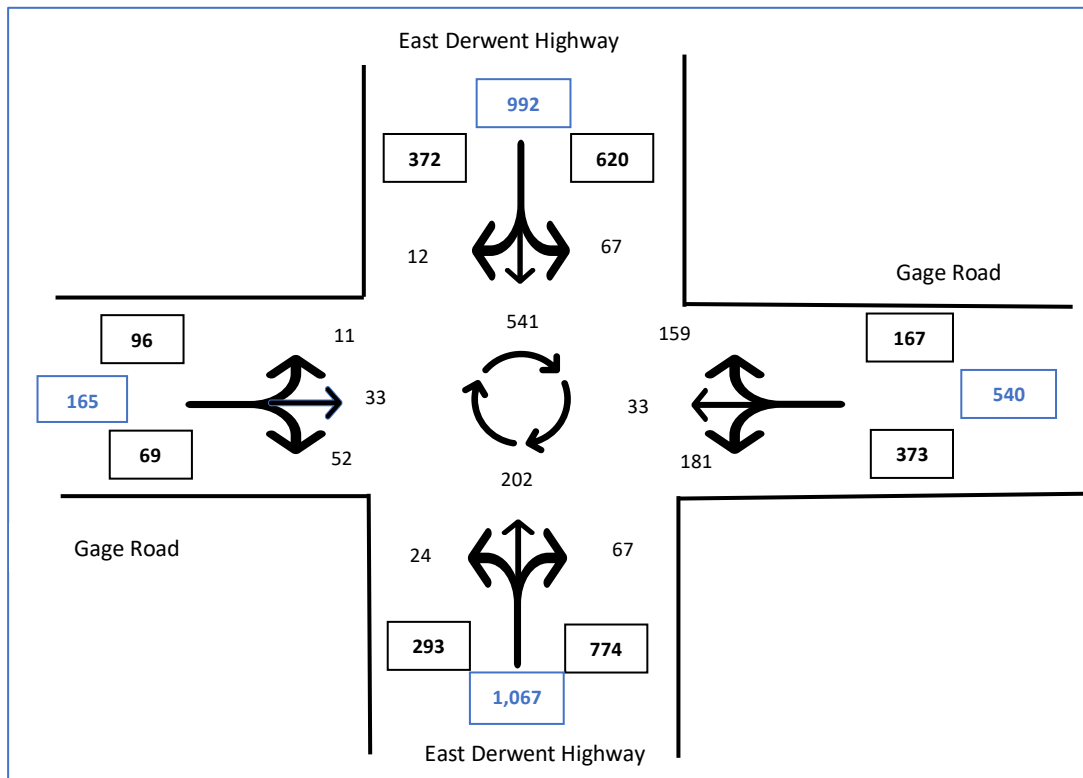


Evening peak hour traffic movements when Tivoli Green is completed

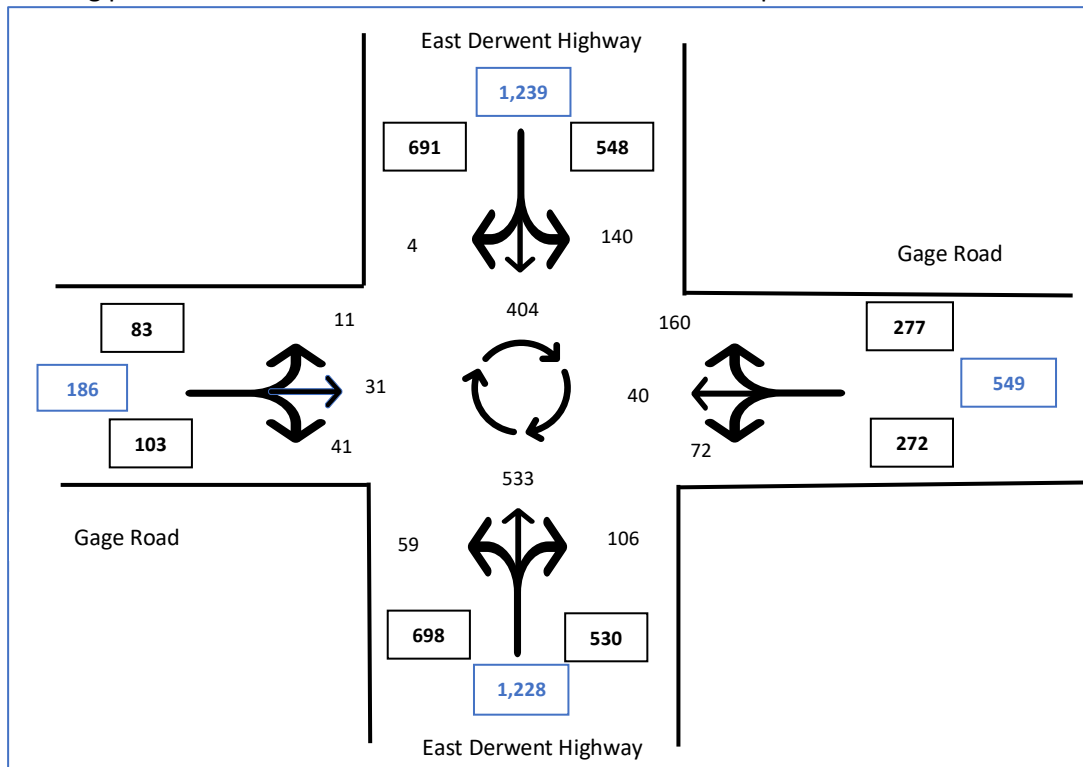


## 12.3.Gage Road and East Derwent Highway roundabout

Morning peak hour traffic movements when Tivoli Green is completed

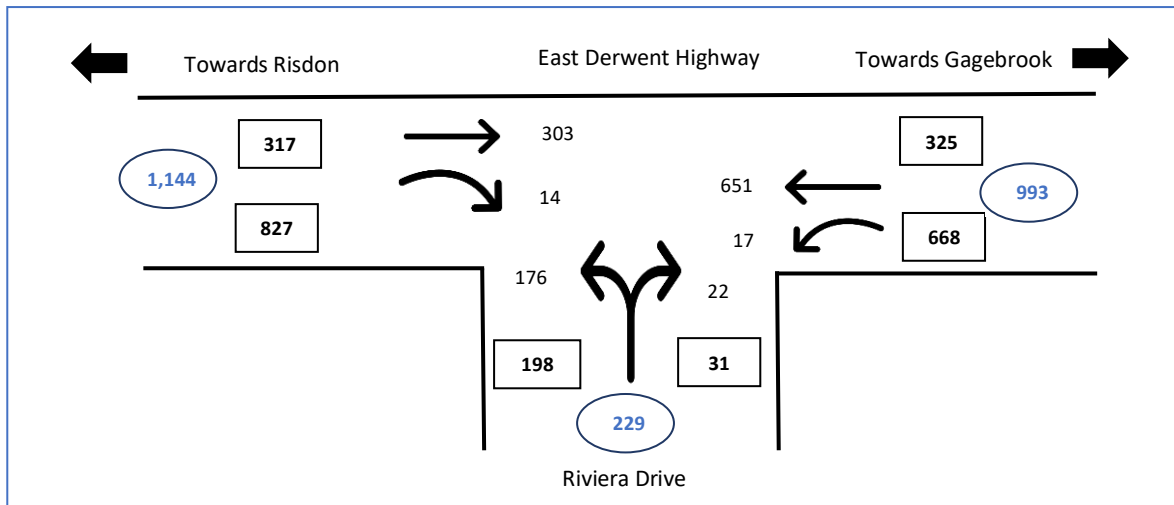


Evening peak hour traffic movements when Tivoli Green is completed

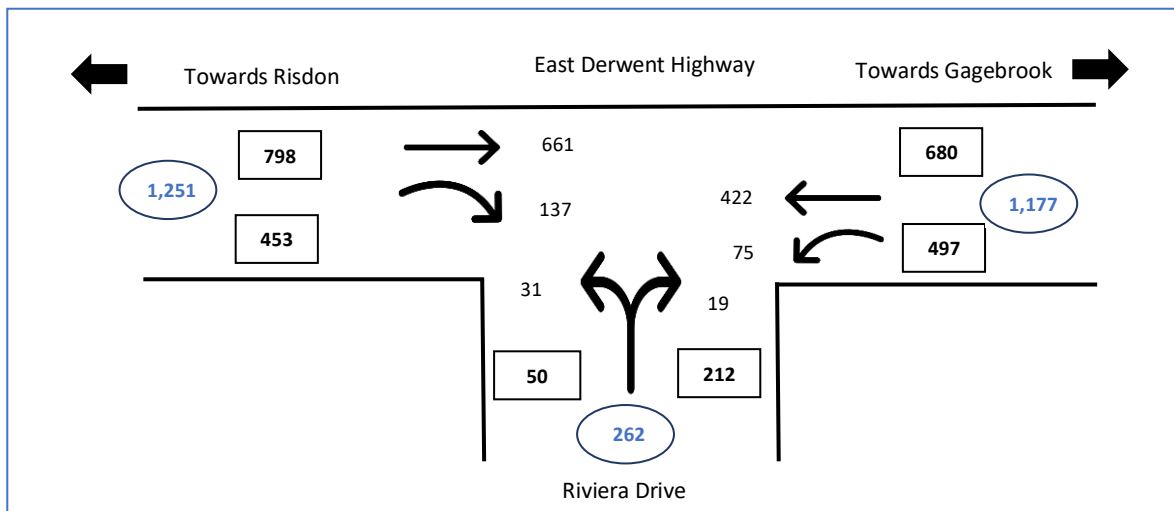


## 12.4. Riviera Drive and East Derwent Highway junction

Morning peak hour traffic movements when Tivoli Green is completed



Evening peak hour traffic movements when Tivoli Green is completed



## 13. Appendix C – Traffic modelling

Riviera Drive and Old Beach Road junction – Morning peak with Tivoli Green completed

### MOVEMENT SUMMARY

▽ Site: 101 [Old Beach and Riviera Drive - stage 17 - morning flows]

New Site  
Site Category: (None)  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles								
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
East: Old Beach Road								
5	T1	129	0.0	0.066	0.0	LOS A	0.0	0.0
6	R2	12	0.0	0.007	5.5	LOS A	0.0	0.2
Approach		141	0.0	0.066	0.5	NA	0.0	0.2
North: Riviera Drive								
7	L2	69	0.0	0.079	5.6	LOS A	0.3	2.3
9	R2	36	0.0	0.079	6.4	LOS A	0.3	2.3
Approach		105	0.0	0.079	5.9	LOS A	0.3	2.3
West: Old Beach Road								
10	L2	7	0.0	0.016	5.5	LOS A	0.0	0.0
11	T1	23	0.0	0.016	0.0	LOS A	0.0	0.0
Approach		31	0.0	0.016	1.3	NA	0.0	0.0
All Vehicles		277	0.0	0.079	2.6	NA	0.3	2.3

Riviera Drive and Old Beach Rd junction – Evening peak with Tivoli Green completed

### MOVEMENT SUMMARY

▽ Site: 101 [Old Beach and Riviera Drive - stage 17 - evening flows]

New Site  
Site Category: (None)  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles								
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
East: Old Beach Road								
5	T1	39	0.0	0.020	0.0	LOS A	0.0	0.0
6	R2	7	0.0	0.005	5.9	LOS A	0.0	0.1
Approach		46	0.0	0.020	0.9	NA	0.0	0.1
North: Riviera Drive								
7	L2	55	0.0	0.041	5.9	LOS A	0.2	1.1
9	R2	3	0.0	0.041	6.4	LOS A	0.2	1.1
Approach		58	0.0	0.041	6.0	LOS A	0.2	1.1
West: Old Beach Road								
10	L2	18	0.0	0.077	5.5	LOS A	0.0	0.0
11	T1	132	0.0	0.077	0.0	LOS A	0.0	0.0
Approach		149	0.0	0.077	0.7	NA	0.0	0.0
All Vehicles		254	0.0	0.077	1.9	NA	0.2	1.1



Riviera Drive and Old Beach Road junction – Morning peak with Tivoli Green completed and development operating

MOVEMENT SUMMARY									
▽ Site: 101 [Old Beach and Riviera drive - morning with Tivoli Green with development]									
New Site Site Category: (None) Giveaway / Yield (Two-Way)									
Movement Performance - Vehicles									
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Flow Qu
South: Riviera Drive									
1	L2	81	0.0	0.134	5.6	LOS A	0.6	4.0	
3	R2	79	0.0	0.134	6.7	LOS A	0.6	4.0	
Approach		160	0.0	0.134	6.2	LOS A	0.6	4.0	
East: Old Beach Rd (Bowen Bridge)									
4	L2	28	0.0	0.027	5.5	LOS A	0.0	0.0	
5	T1	23	0.0	0.027	0.0	LOS A	0.0	0.0	
Approach		52	0.0	0.027	3.1	NA	0.0	0.0	
West: old Beach Rd (Brighton)									
11	T1	129	0.0	0.067	0.0	LOS A	0.0	0.0	
12	R2	43	0.0	0.025	5.6	LOS A	0.1	0.8	
Approach		173	0.0	0.067	1.4	NA	0.1	0.8	
All Vehicles		384	0.0	0.134	3.6	NA	0.6	4.0	

Riviera Drive and Old Beach Road junction – Evening peak with Tivoli Green completed and development operating

MOVEMENT SUMMARY									
▽ Site: 101 [Old Beach and Riviera drive - Evening with Tivoli Green with development]									
New Site Site Category: (None) Giveaway / Yield (Two-Way)									
Movement Performance - Vehicles									
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m	Flow Qu
South: Riviera Drive									
1	L2	76	0.0	0.089	5.9	LOS A	0.4	2.5	
3	R2	35	0.0	0.089	6.7	LOS A	0.4	2.5	
Approach		111	0.0	0.089	6.2	LOS A	0.4	2.5	
East: Old Beach Rd (Bowen Bridge)									
4	L2	56	0.0	0.098	5.5	LOS A	0.0	0.0	
5	T1	132	0.0	0.098	0.0	LOS A	0.0	0.0	
Approach		187	0.0	0.098	1.7	NA	0.0	0.0	
West: old Beach Rd (Brighton)									
11	T1	39	0.0	0.020	0.0	LOS A	0.0	0.0	
12	R2	24	0.0	0.016	6.0	LOS A	0.1	0.5	
Approach		63	0.0	0.020	2.3	NA	0.1	0.5	
All Vehicles		361	0.0	0.098	3.2	NA	0.4	2.5	

## Old Beach Road and East Derwent Highway junction – Morning peak with Tivoli Green completed

### MOVEMENT SUMMARY

▽ Site: 101 [Old Beach Rd and East Derwent Hwy - Tivoli completed - morning]

New Site  
Site Category: (None)  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles								
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: Old Beach Road								
1	L2	166	0.0	0.313	11.9	LOS A	1.3	9.0
3	R2	5	0.0	0.313	28.3	LOS B	1.3	9.0
Approach		172	0.0	0.313	12.4	LOS A	1.3	9.0
East: East Derwent Hwy (Bridgewater)								
4	L2	2	0.0	0.443	5.6	LOS A	0.0	0.0
5	T1	862	0.0	0.443	0.1	LOS A	0.0	0.0
Approach		864	0.0	0.443	0.1	NA	0.0	0.0
West: East Derwent Highway (Bowen Bridge)								
11	T1	322	0.0	0.166	0.0	LOS A	0.0	0.0
12	R2	29	0.0	0.047	10.4	LOS A	0.2	1.2
Approach		352	0.0	0.166	0.9	NA	0.2	1.2
All Vehicles		1387	0.0	0.443	1.8	NA	1.3	9.0

## Old Beach Road and East Derwent Highway junction – Evening peak with Tivoli Green completed

### MOVEMENT SUMMARY

▽ Site: 101 [Old Beach Rd and East Derwent Hwy - Tivoli completed - evening]

New Site  
Site Category: (None)  
Giveaway / Yield (Two-Way)

Movement Performance - Vehicles								
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: Old Beach Road								
1	L2	44	0.0	0.080	7.1	LOS A	0.3	1.9
3	R2	6	0.0	0.080	28.4	LOS B	0.3	1.9
Approach		51	0.0	0.080	9.8	LOS A	0.3	1.9
East: East Derwent Hwy (Bridgewater)								
4	L2	9	0.0	0.225	5.6	LOS A	0.0	0.0
5	T1	428	0.0	0.225	0.0	LOS A	0.0	0.0
Approach		438	0.0	0.225	0.1	NA	0.0	0.0
West: East Derwent Highway (Bowen Bridge)								
11	T1	782	0.0	0.405	0.1	LOS A	0.0	0.0
12	R2	113	0.0	0.097	7.1	LOS A	0.4	2.9
Approach		895	0.0	0.405	0.9	NA	0.4	2.9
All Vehicles		1383	0.0	0.405	1.0	NA	0.4	2.9

Old Beach Road and East Derwent Highway junction – Morning peak with Tivoli Green completed and development operating

## MOVEMENT SUMMARY

 **Site: 101 [Old Beach Rd and East Derwent Hwy - Tivoli morning with development]**

New Site

Site Category: (None)

Giveaway / Yield (Two-Way)

### Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: Old Beach Road								
1	L2	209	0.0	0.387	12.6	LOS A	1.7	12.1
3	R2	5	0.0	0.387	29.6	LOS C	1.7	12.1
Approach		215	0.0	0.387	13.0	LOS A	1.7	12.1
East: East Derwent Hwy (Bridgewater)								
4	L2	2	0.0	0.443	5.6	LOS A	0.0	0.0
5	T1	862	0.0	0.443	0.1	LOS A	0.0	0.0
Approach		864	0.0	0.443	0.1	NA	0.0	0.0
West: East Derwent Highway (Bowen Bridge)								
11	T1	322	0.0	0.166	0.0	LOS A	0.0	0.0
12	R2	29	0.0	0.047	10.4	LOS A	0.2	1.2
Approach		352	0.0	0.166	0.9	NA	0.2	1.2
All Vehicles		1431	0.0	0.443	2.2	NA	1.7	12.1

Old Beach Road and East Derwent Highway junction – Evening peak with Tivoli Green completed and development operating

## MOVEMENT SUMMARY

 **Site: 101 [Old Beach Rd and East Derwent Hwy - Tivoli - evening with development]**

New Site

Site Category: (None)

Giveaway / Yield (Two-Way)

### Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: Old Beach Road								
1	L2	76	0.0	0.112	7.1	LOS A	0.4	2.8
3	R2	6	0.0	0.112	30.7	LOS C	0.4	2.8
Approach		82	0.0	0.112	9.0	LOS A	0.4	2.8
East: East Derwent Hwy (Bridgewater)								
4	L2	9	0.0	0.225	5.6	LOS A	0.0	0.0
5	T1	428	0.0	0.225	0.0	LOS A	0.0	0.0
Approach		438	0.0	0.225	0.1	NA	0.0	0.0
West: East Derwent Highway (Bowen Bridge)								
11	T1	782	0.0	0.403	0.1	LOS A	0.0	0.0
12	R2	151	0.0	0.129	7.2	LOS A	0.6	4.0
Approach		933	0.0	0.403	1.2	NA	0.6	4.0
All Vehicles		1453	0.0	0.403	1.3	NA	0.6	4.0

## Gage Road and East Derwent Highway roundabout – Morning peak with Tivoli Green completed

### MOVEMENT SUMMARY

 **Site: 101 [Gage Road and East Derwent Roundabout - Tivoli completed Morning]**

New Site  
Site Category: (None)  
Roundabout

#### Movement Performance - Vehicles

Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m
South: East Derwent Highway								
1	L2	25	0.0	0.259	4.7	LOS A	1.7	12.1
2	T1	213	0.0	0.259	4.9	LOS A	1.7	12.1
3	R2	71	0.0	0.259	10.1	LOS A	1.7	12.1
Approach		308	0.0	0.259	6.1	LOS A	1.7	12.1
East: Gage Rd to Old Beach Rd								
4	L2	191	0.0	0.461	8.4	LOS A	3.6	25.0
5	T1	35	0.0	0.461	8.6	LOS A	3.6	25.0
6	R2	167	0.0	0.461	13.8	LOS A	3.6	25.0
Approach		393	0.0	0.461	10.7	LOS A	3.6	25.0
North: East Derwent Hwy								
7	L2	71	0.0	0.488	4.7	LOS A	3.8	26.7
8	T1	569	0.0	0.488	4.8	LOS A	3.8	26.7
9	R2	13	0.0	0.488	10.0	LOS A	3.8	26.7
Approach		653	0.0	0.488	4.9	LOS A	3.8	26.7
West: Gage Road								
10	L2	12	0.0	0.100	5.7	LOS A	0.6	3.9
11	T1	35	0.0	0.100	5.9	LOS A	0.6	3.9
12	R2	55	0.0	0.100	11.1	LOS A	0.6	3.9
Approach		101	0.0	0.100	8.7	LOS A	0.6	3.9
All Vehicles		1455	0.0	0.488	7.0	LOS A	3.8	26.7

## Gage Road and East Derwent Highway roundabout – Evening peak with Tivoli Green completed

### MOVEMENT SUMMARY


 **Site: 101 [Gage Road and East Derwent Roundabout - Tivoli completed Evening]**

New Site  
Site Category: (None)  
Roundabout


#### Movement Performance - Vehicles

Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance m
South: East Derwent Highway								
1	L2	62	0.0	0.589	5.2	LOS A	5.4	38.1
2	T1	561	0.0	0.589	5.4	LOS A	5.4	38.1
3	R2	112	0.0	0.589	10.6	LOS A	5.4	38.1
Approach		735	0.0	0.589	6.2	LOS A	5.4	38.1
East: Gage Rd to Old Beach Rd								
4	L2	76	0.0	0.293	6.3	LOS A	1.9	13.3
5	T1	42	0.0	0.293	6.4	LOS A	1.9	13.3
6	R2	168	0.0	0.293	11.6	LOS A	1.9	13.3
Approach		286	0.0	0.293	9.5	LOS A	1.9	13.3
North: East Derwent Hwy								
7	L2	147	0.0	0.449	4.8	LOS A	3.4	23.5
8	T1	425	0.0	0.449	5.0	LOS A	3.4	23.5
9	R2	4	0.0	0.449	10.1	LOS A	3.4	23.5
Approach		577	0.0	0.449	5.0	LOS A	3.4	23.5
West: Gage Road								
10	L2	12	0.0	0.129	8.8	LOS A	0.9	6.1
11	T1	33	0.0	0.129	9.0	LOS A	0.9	6.1
12	R2	43	0.0	0.129	14.2	LOS A	0.9	6.1
Approach		87	0.0	0.129	11.5	LOS A	0.9	6.1
All Vehicles		1685	0.0	0.589	6.6	LOS A	5.4	38.1

## Gage Road and East Derwent Highway roundabout – Morning peak with Tivoli Green completed and development operating

MOVEMENT SUMMARY								
 Site: 101 [Gage Road and East Derwent Roundabout - Tivoli morning with development operating]								
New Site Site Category: (None) Roundabout								
Movement Performance - Vehicles								
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: East Derwent Highway								
1	L2	25	0.0	0.263	4.8	LOS A	1.8	12.3
2	T1	213	0.0	0.263	5.0	LOS A	1.8	12.3
3	R2	71	0.0	0.263	10.1	LOS A	1.8	12.3
Approach		308	0.0	0.263	6.1	LOS A	1.8	12.3
East: Gage Rd to Old Beach Rd								
4	L2	191	0.0	0.477	8.6	LOS A	3.8	26.8
5	T1	35	0.0	0.477	8.8	LOS A	3.8	26.8
6	R2	179	0.0	0.477	14.0	LOS A	3.8	26.8
Approach		404	0.0	0.477	11.0	LOS A	3.8	26.8
North: East Derwent Hwy								
7	L2	92	0.0	0.509	4.8	LOS A	4.1	28.6
8	T1	569	0.0	0.509	4.9	LOS A	4.1	28.6
9	R2	13	0.0	0.509	10.1	LOS A	4.1	28.6
Approach		674	0.0	0.509	5.0	LOS A	4.1	28.6
West: Gage Road								
10	L2	12	0.0	0.111	5.8	LOS A	0.6	4.4
11	T1	45	0.0	0.111	6.0	LOS A	0.6	4.4
12	R2	55	0.0	0.111	11.2	LOS A	0.6	4.4
Approach		112	0.0	0.111	8.5	LOS A	0.6	4.4
All Vehicles		1498	0.0	0.509	7.1	LOS A	4.1	28.6

## Gage Road and East Derwent Highway roundabout – Evening peak with Tivoli Green completed and development operating

MOVEMENT SUMMARY								
 Site: 101 [Gage Road and East Derwent Roundabout - Tivoli evening with development operating]								
New Site Site Category: (None) Roundabout								
Movement Performance - Vehicles								
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m
South: East Derwent Highway								
1	L2	62	0.0	0.603	5.4	LOS A	5.6	39.2
2	T1	561	0.0	0.603	5.6	LOS A	5.6	39.2
3	R2	112	0.0	0.603	10.8	LOS A	5.6	39.2
Approach		735	0.0	0.603	6.4	LOS A	5.6	39.2
East: Gage Rd to Old Beach Rd								
4	L2	76	0.0	0.315	6.3	LOS A	2.1	14.5
5	T1	46	0.0	0.315	6.5	LOS A	2.1	14.5
6	R2	185	0.0	0.315	11.7	LOS A	2.1	14.5
Approach		307	0.0	0.315	9.6	LOS A	2.1	14.5
North: East Derwent Hwy								
7	L2	161	0.0	0.461	4.8	LOS A	3.5	24.5
8	T1	425	0.0	0.461	5.0	LOS A	3.5	24.5
9	R2	4	0.0	0.461	10.2	LOS A	3.5	24.5
Approach		591	0.0	0.461	5.0	LOS A	3.5	24.5
West: Gage Road								
10	L2	12	0.0	0.137	9.1	LOS A	0.9	6.5
11	T1	36	0.0	0.137	9.2	LOS A	0.9	6.5
12	R2	43	0.0	0.137	14.4	LOS A	0.9	6.5
Approach		91	0.0	0.137	11.7	LOS A	0.9	6.5
All Vehicles		1723	0.0	0.603	6.7	LOS A	5.6	39.2



## Riviera Drive and East Derwent Highway junction – Morning peak with Tivoli Green completed

### MOVEMENT SUMMARY

▽ Site: 101 [Riviera Drive and East Derwen - Tivoli completed - Morning]

New Site

Site Category: (None)

Giveaway / Yield (Two-Way)

#### Movement Performance - Vehicles

Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m
South: Riviera Drive								
1	L2	185	0.0	0.425	12.3	LOS B	2.0	13.8
3	R2	23	0.0	0.425	26.9	LOS D	2.0	13.8
Approach		208	0.0	0.425	13.9	LOS B	2.0	13.8
East: East Derwent Hwy								
4	L2	18	0.0	0.010	5.5	LOS A	0.0	0.0
5	T1	685	0.0	0.351	0.0	LOS A	0.0	0.0
Approach		703	0.0	0.351	0.2	NA	0.0	0.0
West: East Derwent Hwy								
11	T1	319	0.0	0.165	0.0	LOS A	0.0	0.0
12	R2	15	0.0	0.024	9.6	LOS A	0.1	0.6
Approach		334	0.0	0.165	0.4	NA	0.1	0.6
All Vehicles		1245	0.0	0.425	2.6	NA	2.0	13.8

## Riviera Drive and East Derwent Highway junction – Evening peak with Tivoli Green completed

### MOVEMENT SUMMARY

▽ Site: 101 [Riviera Drive and East Derwen - Tivoli completed - Evening]

New Site

Site Category: (None)

Giveaway / Yield (Two-Way)

#### Movement Performance - Vehicles

Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Vehicles veh	Queue Distance m
South: Riviera Drive								
1	L2	33	0.0	0.199	7.8	LOS A	0.6	4.4
3	R2	20	0.0	0.199	35.5	LOS E	0.6	4.4
Approach		53	0.0	0.199	18.3	LOS C	0.6	4.4
East: East Derwent Hwy								
4	L2	79	0.0	0.043	5.5	LOS A	0.0	0.0
5	T1	444	0.0	0.228	0.0	LOS A	0.0	0.0
Approach		523	0.0	0.228	0.9	NA	0.0	0.0
West: East Derwent Hwy								
11	T1	696	0.0	0.360	0.0	LOS A	0.0	0.0
12	R2	144	0.0	0.176	8.4	LOS A	0.7	4.9
Approach		840	0.0	0.360	1.5	NA	0.7	4.9
All Vehicles		1416	0.0	0.360	1.9	NA	0.7	4.9

## Submission to Planning Authority Notice

### Application details

Council Planning Permit No. SA 2025 / 00024  
Council notice date 23/06/2025  
TasWater Reference No. TWDA 2025/00711-BTN  
Date of response 04/07/2025  
TasWater Contact Phil Papps  
Phone No. 0474 931 272

### Response issued to

Council name BRIGHTON COUNCIL  
Contact details development@brighton.tas.gov.au  
Development details  
Address Lot 3 OLD BEACH RD, OLD BEACH  
Property ID (PID) 9105480  
Description of development Subdivision (4 Lots + Balance)

### Schedule of drawings/documents

Prepared by	Drawing/document No.	Revision No.	Issue date
GC Design	Subdivision & Services Plan / C2	B	19/02/2024

### Conditions

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:

#### CONNECTIONS, METERING & BACKFLOW

1. A suitably sized water supply with metered connections and sewerage system and connections to each lot of the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.
2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.
3. Prior to commencing construction of the subdivision/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.

#### ASSET CREATION & INFRASTRUCTURE WORKS

4. Prior to applying for a Certificate for Engineering Design Approval, the developer must physically locate all existing infrastructure to provide sufficient information for accurate design and physical works to be undertaken.

5. Plans submitted with the application for Engineering Design Approval must, to the satisfaction of TasWater show, all existing, redundant and/or proposed property services and mains.
6. Prior to applying for a Permit to Construct new infrastructure the developer must obtain from TasWater Engineering Design Approval. The application for Engineering Design Approval must include engineering design plans prepared by a suitably qualified person showing the hydraulic servicing requirements for water and sewerage to TasWater's satisfaction.
7. Prior to works commencing, a Permit to Construct must be applied for and issued by TasWater. All infrastructure works must be inspected by TasWater and be to TasWater's satisfaction.
8. Prior to undertaking any works related to water and sewerage, physical markers must be in place that clearly identify where water and/or sewer connections are to be made in accordance with any approved plan to TasWater's satisfaction.
9. In addition to any other conditions in this permit, all works must be constructed under the supervision of a suitably qualified person in accordance with TasWater's requirements.
10. Prior to the issue of a Consent to Register a Legal Document all additions, extensions, alterations or upgrades to TasWater's water and sewerage infrastructure required to service the development, are to be completed generally as shown on, and in accordance with, the plans listed in the schedule of drawings/documents, and are to be constructed at the expense of the developer to the satisfaction of TasWater, with live connections performed by TasWater.
11. After testing/disinfection, to TasWater's requirements, of newly created works, the developer must apply to TasWater for connection of these works to existing TasWater infrastructure, at the developer's cost.
12. At practical completion of the water and sewerage works and prior to TasWater issuing a Consent to a Register Legal Document, the developer must obtain a Certificate of Practical Completion from TasWater for the works that will be transferred to TasWater. To obtain a Certificate of Practical Completion:
  - a. Written confirmation from the supervising suitably qualified person certifying that the works have been constructed in accordance with the TasWater approved plans and specifications and that the appropriate level of workmanship has been achieved.
  - b. A request for a joint on-site inspection with TasWater's authorised representative must be made.
  - c. Security for the twelve (12) month defects liability period to the value of 10% of the works must be lodged with TasWater. This security must be in the form of a bank guarantee.
  - d. Work As Constructed drawings and documentation must be prepared by a suitably qualified person to TasWater's satisfaction and forwarded to TasWater.

Upon TasWater issuing a Certificate of Practical Completion, the newly constructed infrastructure is deemed to have transferred to TasWater.

13. After the Certificate of Practical Completion has been issued, a 12-month defects liability period applies to this infrastructure. During this period all defects must be rectified at the developer's cost and to the satisfaction of TasWater. A further 12-month defects liability period may be applied to defects after rectification. TasWater may, at its discretion,

undertake rectification of any defects at the developer's cost. Upon completion, of the defects liability period the developer must request TasWater to issue a "Certificate of Final Acceptance". TasWater will release any security held for the defect's liability period.

14. The developer must take all precautions to protect existing TasWater infrastructure. Any damage caused to existing TasWater infrastructure during the construction period must be promptly reported to TasWater and repaired by TasWater at the developer's cost.
15. Ground levels over the TasWater assets and/or easements must not be altered without the written approval of TasWater.

## **FINAL PLANS, EASEMENTS & ENDORSEMENTS**

16. Prior to the Sealing of the Final Plan of Survey, a Consent to Register a Legal Document must be obtained from TasWater as evidence of compliance with these conditions when application for sealing is made.  
*Advice: Council will refer the Final Plan of Survey to TasWater requesting Consent to Register a Legal Document be issued directly to them on behalf of the applicant.*
17. Pipeline easements to TasWater's satisfaction, must be created over any existing or proposed TasWater infrastructure and be in accordance with TasWater's standard pipeline easement conditions and requirements.
18. In the event that the property sewer connection for affected lots cannot control the lot for a gravity connection, the Plan of Subdivision Council Endorsement Page for those affected lots is to note, pursuant to Section 83 of the Local Government (Building and Miscellaneous Provisions) Act 1993, that TasWater cannot guarantee sanitary drains will be able to discharge via gravity into TasWater's sewerage system.  
*Advice: See WSA 02—2014-3.1 MRWA Version 2 section 5.6.5.3 Calculating the level of the connection point*
19. Prior to the issue of a TasWater Consent to Register a Legal Document, the applicant must submit a .dwg file, prepared by a suitably qualified person to TasWater's satisfaction, showing:
  - a. the exact location of the existing water/sewerage infrastructure,
  - b. the easement protecting that infrastructure.

The developer must locate the existing TasWater infrastructure and clearly show it on the .dwg file. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost.

## **DEVELOPER CHARGES**

20. Prior to TasWater issuing a Consent to Register a Legal Document, the applicant or landowner as the case may be, must pay a developer charge totalling \$14,056.00 to TasWater for water and sewerage infrastructure for 4.0 additional Equivalent Tenements, indexed by the Consumer Price Index All groups (Hobart) from the date of this Submission to Planning Authority Notice until the date it is paid to TasWater.
21. In the event Council approves a staging plan, prior to TasWater issuing a Consent to Register a Legal Document for each stage, the developer must pay the developer charges commensurate with the number of Equivalent Tenements in each stage, as approved by Council.

## DEVELOPMENT ASSESSMENT FEES

22. The applicant or landowner as the case may be, must pay a development assessment fee of \$417.63 and a Consent to Register a Legal Document fee of \$265.98 to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater. The payment is required within 30 days of the issue of an invoice by TasWater.
23. In the event Council approves a staging plan, a Consent to Register a Legal Document fee for each stage, must be paid commensurate with the number of Equivalent Tenements in each stage, as approved by Council.

## Advice

### General

For information on TasWater development standards, please visit

<https://www.taswater.com.au/building-and-development/technical-standards>

For application forms please visit

<https://www.taswater.com.au/building-and-development/development-application-form>

### Important Notice Regarding Plumbing Plans and Associated Costs

The SPAN includes references to documents submitted as part of the application. These plans are acceptable for planning purposes only and are subject to further detailed assessment and review during the next stage of the development proposal.

TasWater's assessment staff will ensure that the design contains sufficient detail to assess compliance with relevant codes and regulations. Additionally, the plans must be clear enough for a TasWater contractor to carry out any water or sewerage-related work.

Depending on the nature of the project, your application may require Building and/or Plumbing permits or could be exempt from these requirements. Regardless, TasWater's assessment process and associated time are recoverable through an assessment fee.

Please be aware that your consultant may need to make revisions to their documentation to ensure the details are fit for construction. Any costs associated with updating these plans should be discussed directly with your consultant.

### Developer Charges

For information on Developer Charges please visit the following webpage –

<https://www.taswater.com.au/building-and-development/developer-charges>

### Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

## Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.