



Appendix G

Traffic Assessment

Our reference: P6578.002L Bilambil Rise Gemlife MOD Traffic Impact Statement

17 January 2025

Gemlife
c/- RPS Consulting
31 Duncan Street
Fortitude Valley QLD 4006

Attention: **Simon Pollock**
Sent via email: **Simon.Pollock@rpsconsulting.com**

Dear Simon,

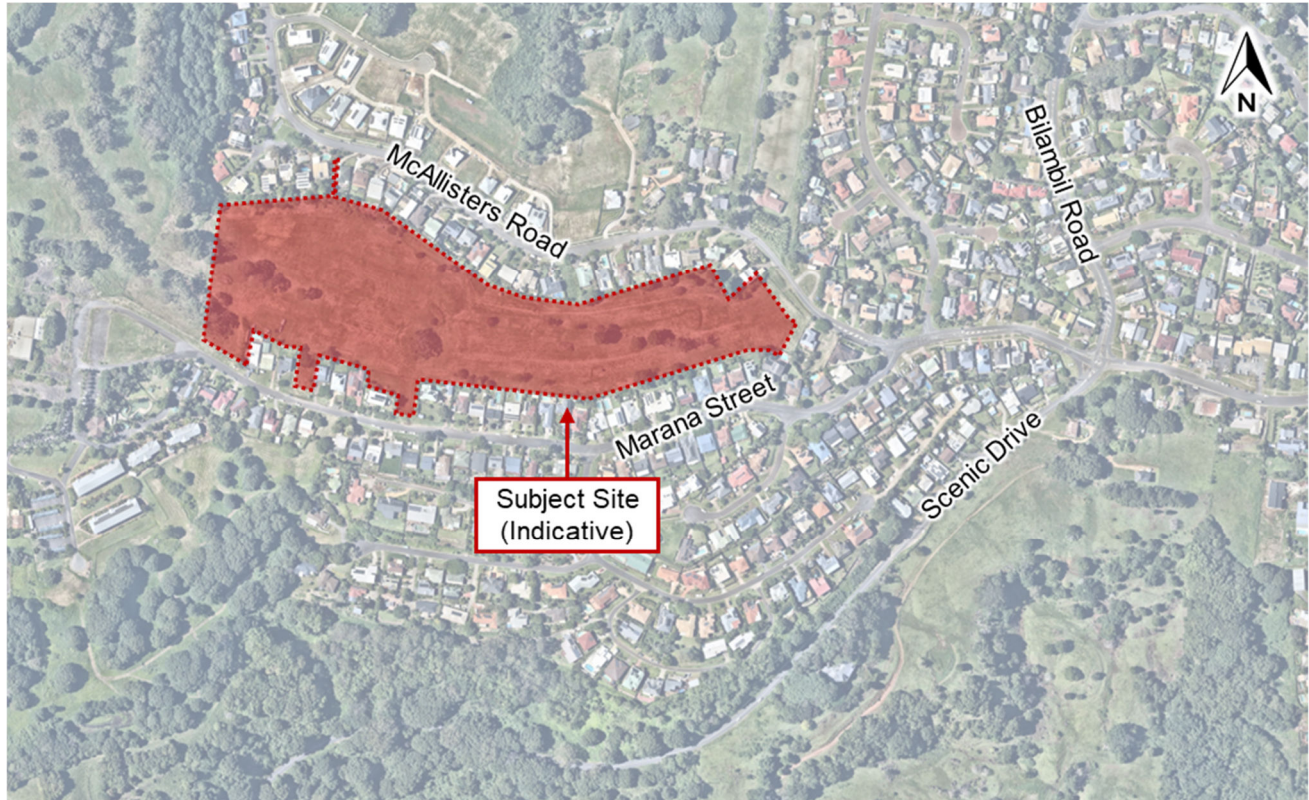
RE: THE RISE GEMLIFE MOD TRAFFIC IMPACT STATEMENT

1. Introduction

1.1. Background

Bitzios Consulting has been commissioned by RPS Consulting on behalf of Gemlife (client) to prepare a Traffic Impact Statement letter to accompany a Modification application (MOD) for Lot 32, DP1085109 (subject site) located at Marana Street, Bilambil Heights. The subject site is contained within an existing residential subdivision development approval referred to as Bilambil Rise (Major Project Approval No. 08_0234). This MOD application proposes to separate the subject site from the Bilambil Rise approval.

The subject site's location is illustrated in Figure 1.1.



Source: Adapted from Nearmap

Figure 1.1: Subject Site Location

The purpose of this report is to assess the changes to traffic and transport impact as a result of the proposed MOD application.

1.2. Scope of Works

To assess the proposed MOD application from a transport engineering perspective, the following scope of works was undertaken:

- Review of historical context and network implications
- Assess proposed changes to traffic impact from existing Bilambil Heights approval
- Review potential site access locations.

1.3. History and Planning Context

The proposed development site, and its transport related context within the wider region, is subject to several historical approvals and planning documents from both Council and Transport for New South Wales (TfNSW), including an existing Council resolution.

This assessment does not provide an extensive review of each of these. However, the following key traffic and transport items have been considered to provide context to the traffic impact changes associated with the proposed MOD:

- Traffic and transport impacts associated with the portion of the original Bilambil Rise site.
- Council's Resolution, *Kennedy Drive – Traffic Capacity and the Impact of Development*, 19 March 2015 from Tweed Shire Council
- Bilambil Heights road network considerations

Further detail is provided below.

Existing Approval

The subject site is within the Major Project Approval No. 08_0234 and was originally approved on 29 June 2010, with two subsequent modifications approved on 4 April 2018 (Mod 1) and 31 October 2022 (Mod 2).). Following several years of consultation between State and Council, approval over the site was obtained expanding the larger Bilambil Rise site to 187 hectares of developable land, including:

- 1,604 residential dwellings
- 195 retirement living dwellings
- 4,447m² GFA of retail space
- 5,300m² GFA of commercial space
- A private school with 300 students.

Estimated total traffic generation was 8,485 trips per day.

Access to the subject site is provided via Marana Street under the current approval.

We understand, as part of the existing Bilambil Rise approval an allocation for 195 retirement living dwellings on the subject site was included. The proposed MOD application contains the same yield and proposes *no change* to the number of retirement living dwellings.

All other aspects of the Bilambil Rise site are subject to separate assessment, though we understand that the subdivision (now called Elysian) shall be developed by Greenland Development Pty Ltd (Greenland) as a primarily low-density residential subdivision. The adjacent Bilambil Rise (Elysian) site will be stand-alone with no road internal connections or shared access currently proposed between it and the subject site.

A separate Traffic Impact Assessment from Greenland is understood to be underway. Whilst the context of the adjacent larger subdivision site has been considered, this assessment does not preclude the outcomes of that assessment.

Kennedy Drive Resolution

In 2015 a Council Resolution limited vehicle capacity on Kennedy Drive of 24,650 vehicles per day (vpd) to maintain a level of service D on Cobaki Creek Bridge (located 5km east of the development site). Available capacity considered Council's traffic modelling at the time and the summation of Council's development approvals traffic count spreadsheet.

A summary breakdown of calculations is as follows:

- 24,650 vpd – Cobaki Creek Bridge LOS D capacity
- (-) 18,540 vpd from traffic counts captured in 2007 on Cobaki Creek Bridge
- (-) 5,452 vpd from additional trips allocated to approved development (which included 50% of The Rise and other developments)
- (+) 658 vpd of spare capacity for other minor developments

Of the 5,452 vpd allocated to approved development traffic, the existing Bilambil Rise development approval accounts for a **maximum of 3,221 vpd** as per section 5.4 *Traffic Generation and Network Capacity* of the *State Director General's Environmental Assessment Report (May 2010)*. The subject site traffic yield is included within this existing Bilambil Rise allocation. The subject site falls within this 3,221 vpd allowance

The resolution is due for update and incorporates a spreadsheet that accounts for the remaining allowed development traffic. However, Council has noted that there is no update available and has instructed to assume that there has been **no change for the purpose of this assessment**.

Bilambil Heights Road Network Considerations

Existing or ongoing projects and road strategies that should be considered for context when assessing the subject site include:

- There has been **minimal residential development in the local area** surrounding the subject site with known development being low yield large lot fill-in development, it is assumed that Councils Resolution has accounted for these sites. Furthermore, the nearby planned Cobaki Lakes residential subdivision and its Cobaki Link Bridge has not yet eventuated. We understand that since the previous development approval in 2010 there have been several significant network assumption changes to the planning for Cobaki Lakes.
- The TRDS includes a range of strategic links and upgrades in the region, however many of the projects are unconfirmed or unallocated (i.e. road link between Cobaki Road and Scenic Drive). Road upgrades relevant to the proposed development site include:
 - The Scenic Drive / McAllisters Road intersection upgrade. This upgrade is complete, with a roundabout being installed in 2019
 - The Piggabeen Road / Gollan Drive / Kennedy Drive intersection upgrade. This upgrade is understood to be unconfirmed from a funding and concept planning perspective.

1.4. Proposed Development Changes

The subject site is proposed to be developed separately to the existing Bilambil Rise approval. It does not propose substantially different land uses from the current approval.

The proposed MOD for the subject site contains 195 retirement living dwellings. This is consistent with the existing approval.

Seniors living dwellings are proposed entirely contained within the subject site and all other land use remaining for Bilambil Rise will be delivered separate from this proposal by Greenland. There are no proposed internal connections between Bilambil Rise and the subject site. Though a new access location is proposed, access is still via Marana Street, this is consistent with the existing Bilambil Rise approval.

2. Traffic Assessment

2.1. Traffic Impact

TfNSW's *Guide to Transport Impact Assessment* (2024) was used to source trip generation rates for the proposed MOD. Trip generation for the proposed development is shown in Table 2.1.

Table 2.1: Development Traffic Generation

Land Use	Yield	Rate (per dwelling)			Trips		
		AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
Seniors Living	195 Dwellings	0.44	0.23	2.39	86	45	466

A comparison of the trip generation of the existing Bilambil Rise approval and of the proposed MOD is shown in Table 2.2.

Table 2.2: Existing Approval vs MOD Daily Trip Generation

Land Use	Existing Approval Use (Daily Trips) ¹	Proposed MOD Use (Daily Trips) ¹	Difference
Retirement Living (Housing for Seniors)	466	466	0

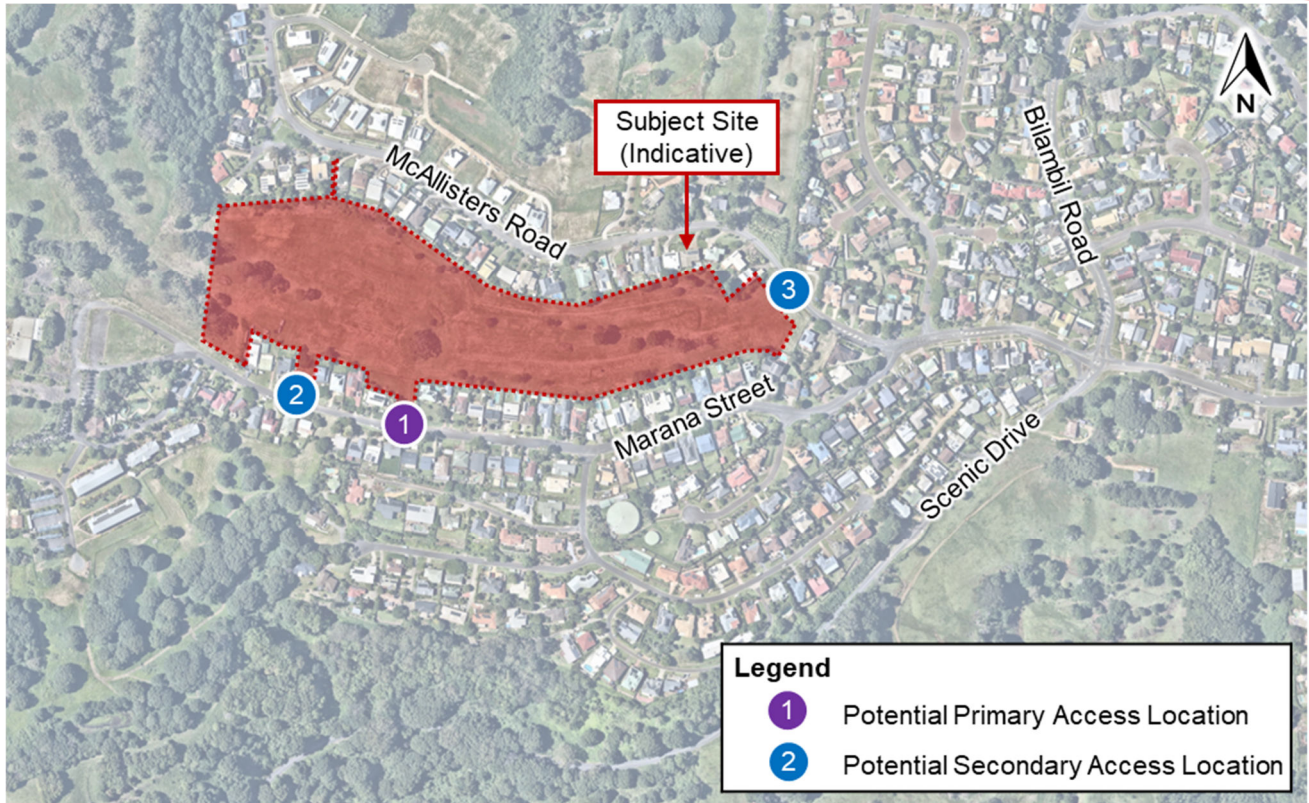
¹ Trip generation is estimated using TfNSW's GTIA (2024)

As shown in Table 2.2, there is no change to the traffic generated as part of the proposed MOD. The trip generation remains within the capacity of the Council resolution and will create no additional impact to the local transport network. Specifically, the proposed development accounts for 466 of the 3,221 daily trips approved. Trips associated with the subject site are to be allocated to the network via consultation and collaboration with Greenland. Notwithstanding, for the purposes of this assessment, the existing Council resolution daily traffic allowance remains sufficient to accommodate the complete subject site.

Further analysis is to be undertaken at the development application stage of the development.

2.2. Access

As the proposed MOD separates the subject site from the Bilambil Rise approval, suitable vehicle access will need to be provided. Access locations for the subject site are not yet confirmed. Potential for access to the subject site may be via Marana Street or McAllisters Road, access locations have been assessed as follows, with preferred potential locations identified in Figure 2.1.



Source: Adapted from Nearmap

Figure 2.1: Potential Vehicle Access Locations

Street view of the potential access locations is shown in Figure 2.2, Figure 2.3 and Figure 2.4.



Source: Google Street View

Figure 2.2: Access Location 1 (Primary) - Marana Street



Source: Google Street View

Figure 2.3: Access Location 2 (Secondary) – Marana Street



Source: Google Street View

Figure 2.4: Access Location 3 (Secondary) - McAllisters Road

Assessment of frontage for suitable crossover width is in Table 2.3.

Table 2.3: Potential Access Width Assessment

Potential Access Location	AS2890.1 Requirements	Council's DAP Requirements	Available Frontage
Access 1	6m crossover width	6.5m crossover width	23m
Access 2			27m
Access 3			66m

Assessment of each access locations available sight lines is provided in Table 2.4.

Table 2.4: Potential Access Sight Line Assessment

Potential Access Location	AS2890.1 Requirements	Council's DAP Requirements	Available Sight Lines
Access 1	45m	80m	100m+ ¹
Access 2			100m+
Access 3			90m+

¹existing foliage on the verge will be required to be trimmed to maintain sightlines

As shown in Table 2.3 and Table 2.4, both potential vehicle access locations can accommodate access forms compliant with AS2890.1 and Council's DCP. Any proposed access shall undergo further assessment for location and form at the development application stage.

3. Conclusion

3.1. Key Findings

The key findings of the Traffic Impact Statement for the proposed modification application for the proposed development (previously part of Bilambil Rise) are as follows:

- The proposed MOD provides 195 seniors living dwellings and is consistent land use and traffic generation to the existing Bilambil Rise approval. The proposed MOD will generate no additional impacts on the wider transport network.
- Potential locations on Marana Street and McAllisters Road can accommodate accesses with width and sightlines compliant with *AS2890.1* and Council's *DCP*.

Based on the above assessment it is concluded that there are no significant traffic or transport impacts associated with the proposed MOD to preclude its approval and relevant conditioning on transport planning grounds.

Yours faithfully

A handwritten signature in blue ink, appearing to read "Ben James", is written over a light blue horizontal line.

Ben James
Senior Traffic Engineer / Transport Planner
RPEQ
BITZIOS CONSULTING