CAMBRAY CONSULTING
TRAFFIC ENGINEERING + TRANSPORT PLANNING

Brisbane Road Carpark, Mooloolaba
Multi-Use Development
DEVELOPMENT APPLICATION – TRAFFIC & TRANSPORT REVIEW

Prepared For Sunshine Coast Council
19th February 2018

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1.0 Introduction

Cambray Consulting was engaged by Sunshine Coast Council (Council) to independently review and assess the traffic and transport aspects of a Material Change of Use (MCU) development application (DA).

An overview of the proposed development is provided below:

- Applicant: Abacus Funds Management Ltd (the applicant);
- Application No: MCU17/2169;
- Proposal: Development Permit for Material Change of Use for a Parking Station, Car Wash, Shop (including full line supermarket), Food & Drink Outlet, Shopping Centre, Multiple Dwellings (96 dwellings), Retirement Facility (97 independent living units), Residential Care Facility (30 aged care units), Short-Term Accommodation (104 hotel rooms), Function Facility, Hotel, Bar, Indoor Sport & Recreation and Resort Complex, over 7 Stages;
- Street Address: 7, 9, 13 & 15 First Avenue, 11 Smith Street & Brisbane Road, Mooloolaba
- Real Property Description: Lots 64, 65, 66, 67, 68 & 69 on RP52440, and Lots 73, 92 & 93 on RP73433; and
- Planning Scheme: *Sunshine Coast Planning Scheme 2014* (31 July 2017).

It is understood that further information in relation to the proposed development is included in the Town Planning Review Report prepared by Ethos Urban.

1.1 Scope of Works

The tasks completed as part of our review have included, but are not limited to:

- Liaison with other members of the independent assessment team, Council staff, the applicant's consultant team and elected Council officials, including attendance at a number of meetings;
- Review of the Traffic Impact Assessment (TIA) and the response to traffic related items raised on the Request for Information (RFI) which included:
    - An assessment of the physical layout of the site from a traffic and transport perspective, considering:
        - Vehicle access locations and configurations;
        - Parking provision, carpark layout and vehicle circulation arrangements; and
        - Servicing and refuse collection arrangements;
        - Pedestrian accessibility;
        - Bicycle parking and end of trip facilities;
    - Review of the expected development traffic generation and impacts on the surrounding road network;
    - Review of proposed changes to the existing transport network, external to the site;

  Reference is made to the Sunshine Coast Planning Scheme 2014 (Planning Scheme);
- Preparation of Request for Information (RFI) items based on a review of the traffic and transport report prepared as part of the DA;
- Identification of conditions to be imposed should the DA be approved.

A summary of the above tasks are outlined in the following sections.

1.2 Limits of Report

This report takes into account the particular instructions and requirements of our client. Cambray Consulting has taken care in the preparation of this report, however it neither accepts liability nor responsibility whatsoever in respect of:

- Any use of this report by any third party;
- Any third party whose interests may be affected by any decision made regarding the contents of this report; and/or
- Any conclusion drawn resulting from omission or lack of full disclosure by the client, or the clients' consultants.

1.3 Safety in Design

Within our scope, we have identified safety in design issues and potential hazards, whenever reasonably practicable within our field of expertise. Due to our limited and upfront role on this project, it is not considered reasonably practicable to identify all potential hazards which may occur throughout the life of a project, including during detailed design and construction activities. It is strongly recommended that safety in design issues be reviewed during all ensuing design and construction stages of the project.

1.4 Qualifications

This report was prepared by:

- Andrew Douglas, Director – BE Civil (Hons), MSc Env Man, FIEAust, CPEng, RPEQ 6691; and
- Nathan Edwards, Transport Engineer – BE Civil (Hons), BCom Finance, MIEAust, MAITPM.

2.0 Initial DA Lodgment

2.1 Overview

We undertook a review of the documentation submitted by RPS on behalf of the applicant on 8th December 2017. Our review predominately focused on the traffic and transport aspects of the reports.

As part of our review we identified a number of issues which believed required clarification and/or further information to be provided, in order to properly assess the DA.

An overview of the key traffic and transport aspects of the development and key issues we identified are outlined in the following sections. Additional information which was subsequently requested from the applicant is also included.

2.2 Layout & Design of On-site Parking & Access

2.2.1 Overview

Carparking is proposed to be provided across two (2) basement levels and four (4) podium levels.

Private and public carparking is proposed to be provided. Private parking is located on podium levels 3 (part) and 4. Public carparking is located in basement levels 1 and 2, and podium levels 1, 2 and 3 (part).

Private carparking is that provided for the following uses:

- Multiple Dwellings (resident and visitor);
- Retirement Facility (resident and visitor); and
- Residential Care Facility (resident).

Public carparking is that provided for the following uses:

- Shop;
- Shopping Centre;
- Food & Drink Outlet;
- Hotel (and associated uses); and
- Parking Station i.e. public carpark.

2.2.2 Key Issue – Public Carpark Connectivity

The development plans indicated that some public carparking would be provided on both basement and podium carpark levels. No internal ramp connection between the basement and podium carpark levels is identified. Therefore in order to travel between the basement and podium carpark levels, drivers would need to exit the development and re-enter.

Performance Outcome 10 of Mooloolaba/Alexandra Headland local plan code requires that the development of the site provides well designed, accessible and integrated public carparking. The proposed public carpark is not considered to be well designed or integrated:

- Public carparking spaces are provided on the basement and podium carpark levels. However, no internal vehicular link is provided between the basement and podium carparks. Drivers will need to utilise the external road network in order to travel between the basement and podium carparks;
- Drivers will only be able to enter the basement carpark via Brisbane Road;

- Drivers will only be able to exit the basement carpark via Smith Street; and
- Drivers will only be able to enter and exit the podium level carparks via Smith Street.

It is considered that the proposed arrangements are unlikely to be easily understood by drivers, a reasonable portion of which are expected to be tourists. As an example, if upon entering the podium drivers realise that the public carparking spaces are occupied, in order to enter the basement they would need to:

- Exit the site to Smith Street;
- Travel north or south on Smith Street;
- Travel on First Avenue or Walan Street; and
- Travel on Brisbane Road.

The proposed carpark arrangements are expected to increase the number of development related vehicle trips on the immediate local road network, impacting safety and efficiency of the road network.

The proposed arrangement is expected to increase traffic at the proposed Muraban Street / Smith Street / Site Access roundabout in particular as drivers U-turn in order to travel between the basement and podium levels.

2.2.3 Key Issue – Carparking Layout & Configuration

The TIA indicates that a number of changes should be made to the carpark layout plans included within the Architectural Plan package. However, it is unclear what carpark layout arrangements are proposed.

Carpark reduced levels (RLs) identified in figures prepared as part of the TIA also appear to be inconsistent with those identified in the carpark layout plans included within the Architectural Plan package.

The length of the basement and podium ramp merge area at the Smith Street exit is considered to be insufficient.

2.2.4 PWD Parking

PWD parking The TIA indicates that 2.3m height clearance is proposed to be provided within the carpark. Acceptable Outcome AO4.2 (Table 9.4.8.3.1) of the Transport and parking code requires that carparking spaces provided for people with disabilities (PWD) are to comply with AS2890.6 (Off-street Parking for People with Disabilities).

It is unclear if at least 2.5m height clearance is to be provided above PWD carparking spaces in accordance with AS2890.6.

2.3 Site Access

2.3.1 Overview

Vehicular access is proposed as follows:

1. Brisbane Road – Basement carpark entry only;
2. Smith Street – Podium carpark entry and exit; and
3. Smith Street – Loading area entry and exit for service vehicles;

2.3.2 Key Issue – Access Driveways

Performance Outcome PO1 (Table 9.4.8.3.1) of the Transport and parking code requires that access, driveways, circulation areas safe, convenient and legible for all users, and provided in accordance with the Planning scheme policy for the transport and parking code.

The TIA indicates that the proposed Brisbane Road and Smith Street driveway crossovers do not comply with the standards specified in the Planning scheme policy, however, sufficient justification has not been provided to demonstrate how the development achieves Performance Outcome PO1 of the Transport and parking code.

The TIA also indicates that a flood gate is proposed in proximity to the Brisbane Road driveway crossover however it does not appear to be clearly identified on the plan.

2.4 On-Site Carparking

2.4.1 Overview

The following carpark provisions have been proposed:

- Private – 239 spaces
- Public – 707 spaces
- Total – 946 spaces

It is again noted that private carparking is that provided for the following uses:

- Multiple Dwellings (resident and visitor);
- Retirement Facility (resident and visitor); and
- Residential Care Facility (resident).

It is again noted that public carparking is that provided for the following uses:

- Shop;
- Shopping Centre;
- Food & Drink Outlet;
- Hotel (and associated uses); and
- Parking Station i.e. public carpark.

Our review indicated that the proposed carparking provisions are generally consistent with the requirements of the Sunshine Coast Planning Scheme 2014, 9.4.8 Transport and parking code. The proposed provision is therefore considered generally appropriate.

A total of 20 people with disability (PWD) parking spaces are proposed, exceeding Building Code of Australia (BCA requirements).

2.5 On-site Parking & End of Trip Facilities

2.5.1 Overview

The following carpark provisions have been proposed:

- Staff / Resident – 68 spaces
- Customer / Visitor – 93 spaces
- Total – 161 spaces

The TIA indicates that end of trip facilities for staff will be provided by the supermarket tenant however no specific provisions are identified. No end of trip facilities are proposed to be provided for staff working in the other tenancies.

2.5.2 Key Issue – Bicycle parking

The proposed bicycle parking provisions fall short of Transport and Parking Code requirements. In addition, the public bicycle parking spaces are not considered to be appropriately located.

2.5.3 Key Issue – End of trip facilities

The TIA indicates that end of trip facilities will be included in the retailers staff administration area. However, the proposed number and type of end of trip facilities have not been identified. It is noted that end of trip facilities need to be provided for all development uses identified by Acceptable Outcome AO5.3 (Table 9.4.8.3.1) of the Transport and Parking Code e.g. hotel.

2.6 Service Vehicle Requirements

2.6.1 Overview

The following development service areas are proposed:

- Smith Street | Off-street |General servicing – Hotel, Supermarket, Retirement Facility and Residential Care Facility uses | Refuse collection – All uses;
- Brisbane Road | On-street | General servicing – Retail; and
- Residential Carpark |Maintenance – Multiple Dwelling, Retirement Facility and Residential Care Facility uses.

The following loading bays are provided in each area:

- Smith Street
  - One (1) SRV space
  - One (1) VAN space
  - Three (3) HRV spaces
- Brisbane Road
  - Two (2) MRV spaces OR three (3) SRV spaces
- Residential Carpark
  - Two (2) VAN spaces.

2.6.2 Key Issue – Service Vehicles

It is noted that all development servicing should occur off-street particularly in this instance noting the significant number of pedestrians expected to traverse the roads and footpaths surrounding the development. On-street loading also reduces the number of spaces available for general carparking which is high demand in the local area.

The proposed service vehicle loading bays (quantum, location etc.) do not meet Transport and Parking Code requirements. It is specifically noted that all loading should occur off-street. The TIA indicates that two (2) van bays should be provided within the residential carpark area, however, they have not been identified in the carpark layout plans included within the Architectural Plan package.

It is unclear how the specialty retail and, food and beverage tenants will be able to access the loading dock.

The proposed location of the ambulance loading bay is considered inappropriate.

2.7 Transport Network

2.7.1 Overview

Traffic analysis was undertaken at a number of key intersections surrounding the development. The analysis indicated that upgrades would need to be undertaken at the following locations to support the development:

- Brisbane Road / Walan Street intersection;
- Walan Street / Naroo Court intersection;
- Naroo Court – extension through to Muraban Street; and
- Muraban Street / Smith Street – new roundabout.

2.7.2 Traffic generation rates & analysis

The Traffic Impact Assessment (TIA) indicates that the retail traffic generation adopted in the traffic analysis was based on traffic surveys undertaken at the Mooloolaba Central / Walan Street / Venning Street intersection noting that the Mooloolaba Central development includes similar land uses to those proposed at the Brisbane Road site.

Concerns are held in relation to the methodology applied to identify the retail traffic generation rates. It is noted that it has been assumed that the hotel located within the Mooloolaba Central development was fully occupied at the time of the survey. However, this is considered unlikely as the traffic surveys were completed in June 2016 (the TIA incorrectly states July 2016), which is typically low tourist season. Further, the assumption that the hotel is fully occupied is also inconsistent with the 85% occupancy factor applied when calculating the traffic generation of a proposed hotel.

The retail traffic generation rate identified was only used to estimate supermarket traffic generation, not specialty retail traffic generation. However, it is considered that the rate should be applied to identify specialty retail traffic generation given the Mooloolaba Central development includes specialty retail.

The adopted specialty retail traffic generation rate has been taken from an American guideline and is considered low. The retail land use traffic generation rate identified in the Guide to Traffic Generating Developments, Roads and Transport Authority (RTA) 2002 is considered more appropriate. Otherwise justification for adopting an alternative rate should be provided.

2.7.3 Key Issue – Development Traffic Impacts

The TIA proposes that in order to mitigate development traffic impacts, the right turn on the southern (Brisbane Road) leg of the Brisbane Road / Walan Street intersection should be banned during peak periods. This proposal is inconsistent with the upgrades planned for the road corridor.

2.7.4 Key Issue – Traffic Analysis

The TIA does not include an assessment of road network operations at the 10 year post opening design horizon.

2.7.5 Key Issue – Pedestrian & vehicular accessibility

Performance Outcome 10 of Mooloolaba/Alexandra Headland local plan code requires that the development of the site improves pedestrian and vehicular accessibility between Smith Street and Brisbane Road as an extension of Muraban Street, and the development provides through block pedestrian linkages through the site.

2.7.6 Key Issue – Proposed Roundabout Configuration

As part of the development a roundabout is proposed at the Smith Street / Muraban Street / Site Access intersection. However, it is unclear if the proposed roundabout can be configured in accordance with the requirements of the Transport and Parking Code.

2.7.7 Key Issue – First Avenue shared zone

The TIA identifies that layover zone and a reduction in road pavement width is proposed First Ave where associated with the proposed two-way shared zone pedestrian street treatment. Further detailed design work is required to resolve competing considerations; functional width to facilitate vehicles movements while establishing a low speed inviting pedestrian environment.

3.0 Review – Response to Request for Information (RFI) Items

3.1 Item 12

3.1.1 Item

The Traffic Impact Assessment (TIA) indicates that the retail traffic generation adopted in the traffic analysis was based on traffic surveys undertaken at the Mooloolaba Central / Walan Street / Venning Street intersection noting that the Mooloolaba Central development includes similar land uses to those proposed at the Brisbane Road site.

Concerns are held in relation to the methodology applied to identify the retail traffic generation rates. It is noted that it has been assumed that the hotel located within the Mooloolaba Central development was fully occupied at the time of the survey. However, this is considered unlikely as the traffic surveys were completed in June 2016 (the TIA incorrectly states July 2016), which is typically low tourist season. Further, the assumption that the hotel is fully occupied is also inconsistent with the 85% occupancy factor applied when calculating the traffic generation of a proposed hotel.

The retail traffic generation rate identified was only used to estimate supermarket traffic generation, not specialty retail traffic generation. However, it is considered that the rate should be applied to identify specialty retail traffic generation given the Mooloolaba Central development includes specialty retail.

The adopted specialty retail traffic generation rate has been taken from an American guideline and is considered low. The retail land use traffic generation rate identified in the Guide to Traffic Generating Developments, Roads and Transport Authority (RTA) 2002 is considered more appropriate. Otherwise justification for adopting an alternative rate should be provided.

Information Required

a. Revise the traffic generation rates for the supermarket and retail specialty uses and prepare an updated traffic analysis as part of an amended TIA.

3.1.2 Response Review

Revised traffic analysis was undertaken as requested. The response is considered adequate.

3.2 Item 13

3.2.1 Item

The TIA proposes that in order to mitigate development traffic impacts, the right turn on the southern (Brisbane Road) leg of the Brisbane Road / Walan Street intersection should be banned during peak periods. This proposal is inconsistent with the upgrades planned for the road corridor.

Information Required

a. Prepare updated traffic analysis which includes mitigation works that are consistent with those planned by Council.
b. Clearly identify where planned road upgrades required to be brought forward as a result of the development.

3.2.2 Response Review

Revised traffic analysis was undertaken as requested. Required upgrades as a result of the development were identified.

3.3 RFI Item 14

The TIA does not include an assessment of road network operations at the 10 year post opening design horizon.

Information Required

a. Complete the assessment of road network operations at the 10 year post opening design horizon for review.

3.3.1 Response Review

Traffic analysis at the 10 year post opening design horizon including development traffic was undertaken however the operation of the road network without development traffic was not. As such, the impact of development traffic could not be clearly identified.

Notwithstanding this, the traffic analysis indicates that the assessed intersections will perform adequately with development traffic. Therefore further analysis is not considered to be required.

3.4 RFI Item 15

Performance Outcome 10 of Mooloolaba/Alexandra Headland local plan code requires that the development of the site improves pedestrian and vehicular accessibility between Smith Street and Brisbane Road as an extension of Muraban Street, and the development provides through block pedestrian linkages through the site.

Information Required

a. Demonstrate in the absence of a pedestrian linkage and 'future new road link from Smith St to Brisbane Rd' as illustrated by figure 7.2.20A of the Mooloolaba/Alexandra Headland local plan, that the development is able to achieve the Overall Outcomes of the Mooloolaba/Alexandra Headland local plan where making a positive contribution to pedestrian and vehicle movements between Smith St and Brisbane Rd, and the broader local pedestrian and road network.

3.4.1 Response Review

A response was provided to this item however it is not considered that the development improves pedestrian and vehicular accessibility for the following key reasons:

- No through block pedestrian linkage is provided;
- No internal road link is proposed between the public carparking in the basement and podium resulting in increased development related traffic movements on the external road network. Pedestrian safety is likely to be affected; and
- No median refuge areas, which allow pedestrians to more easily cross the road, are proposed at the Muraban Street / Smith Street / Site Access roundabout.

However it is understood that the need to extend Muraban Street through the development site is currently being removed from the Planning Scheme. Therefore this aspect of the response is considered adequate.

We do however believe that median refuge areas should be provided at the Muraban Street / Smith Street / Site Access roundabout.

3.5 RFI Item 16

The development plans indicated that some public carparking would be provided on both basement and podium carpark levels. No internal ramp connection between the basement and podium carpark levels is identified. Therefore in order to travel between the basement and podium carpark levels, drivers would need to exit the development and re-enter.

Performance Outcome 10 of Mooloolaba/Alexandra Headland local plan code requires that the development of the site provides well designed, accessible and integrated public carparking. The proposed public carpark is not considered to be well designed or integrated:

- Public carparking spaces are provided on the basement and podium carpark levels. However, no internal vehicular link is provided between the basement and podium carparks. Drivers will need to utilise the external road network in order to travel between the basement and podium carparks;
- Drivers will only be able to enter the basement carpark via Brisbane Road;
- Drivers will only be able to exit the basement carpark via Smith Street; and
- Drivers will only be able to enter and exit the podium level carparks via Smith Street.

It is considered that the proposed arrangements are unlikely to be easily understood by drivers, a reasonable portion of which are expected to be tourists. As an example, if upon entering the podium drivers realise that the public carparking spaces are occupied, in order to enter the basement they would need to:

- Exit the site to Smith Street;
- Travel north or south on Smith Street;
- Travel on First Avenue or Walan Street; and
- Travel on Brisbane Road.

The proposed carpark arrangements are expected to increase the number of development related vehicle trips on the immediate local road network, impacting safety and efficiency of the road network.

The proposed arrangement is expected to increase traffic at the proposed Muraban Street / Smith Street / Site Access roundabout in particular as drivers U-turn in order to travel between the basement and podium levels.

Information Required

a. Consider reconfiguring the carparking arrangements to improve carpark accessibility and legibility. In particular, public carparking spaces should be grouped or additional ramps be provided such that drivers are not required to traverse the external road network if a particular carparking area is full.
b. It is noted that the TIA mentions that external signage, electronic applications and other mechanisms may need to put in place so that drivers know how to access the public carparking areas. Provide further information in relation to what is proposed to be provided; potential signage configurations, locations, etc. It is considered that signage would be required within the immediate vicinity of the carpark access points within Brisbane Rd and Smith St, but may also be necessary in other locations on the approach to the site.

3.5.1 Response Review

Minimal changes were made to the carparking arrangements identified in the initial DA plans.

The response identified potential signage arrangements which could be implemented to indicate to drivers how to best access the carpark.

Mobile apps and other such smart technology could also be used to inform carpark users about availability, best access routes etc.

The installation of signage and the creation of mobile apps would likely be to the benefit of both the local road network and the operation of the public carpark.

However it is considered that the local road network and the public carpark would operate more efficiently if additional ramps were provided within the development to directly link the basement and podium levels.

3.6 RFI Item 17

As part of the development a roundabout is proposed at the Smith Street / Muraban Street / Site Access intersection. However, it is unclear if the proposed roundabout can be configured in accordance with the requirements of the Transport and Parking Code.

Information Required

Provide detailed functional layout plans that demonstrate that the roundabout can be configured in accordance with the requirements of the Transport and Parking Code including referenced guidelines e.g. Austroads Guide to Road Design.

The plans should also demonstrate how all adjoining property accesses are to be accommodated.

3.6.1 Response Review

It is proposed that the roundabout be configured in accordance with Australian Standard, AS1742.13. However due to expected roundabout traffic volumes, it is considered more appropriate in this instance to configure the roundabout in accordance with Austroads Guide to Road Design, Part 4B: Roundabouts.

Furthermore, no provision has been made for kerbed splitter islands with “cut through” areas which provide pedestrian refuge areas. Not providing these areas is considered to conflict with the desire to encourage pedestrians to use Muraban Street and Smith Street.

3.7 RFI Item 18

Performance Outcome PO1 (Table 9.4.8.3.1) of the Transport and parking code requires that access, driveways, circulation areas safe, convenient and legible for all users, and provided in accordance with the Planning scheme policy for the transport and parking code.

The TIA indicates that the proposed Brisbane Road and Smith Street driveway crossovers do not comply with the standards specified in the Planning scheme policy, however, sufficient justification has not been provided to demonstrate how the development achieves Performance Outcome PO1 of the Transport and parking code. The TIA also indicates that a flood gate is proposed in proximity to the Brisbane Road driveway crossover however it does not appear to be clearly identified on the plan.

Information Required

a. Provide driveway crossovers in accordance with Transport and parking code and planning scheme policy for the transport and parking code requirements.
b. Demonstrate that the proposed flood gate does not significantly impact vehicular access when not in use.

3.7.1 Response Review

A performance solution has been proposed in relation to the configuration of the Brisbane Road access driveway. The proposed driveway width is considered insufficient noting the traffic volumes expected to utilise the driveway.

We also believe that the width of the main service area driveway is less than ideal i.e. considered too wide.

The response indicated that the flood gate will not impact vehicular access when not in use.

3.8 RFI Item 19

The TIA indicates that a number of changes should be made to the carpark layout plans included within the Architectural Plan package. However, it is unclear what carpark layout arrangements are proposed.

Carpark reduced levels (RLs) identified in figures prepared as part of the TIA also appear to be inconsistent with those identified in the carpark layout plans included within the Architectural Plan package.

The length of the basement and podium ramp merge area at the Smith Street exit is considered to be insufficient.

Information Required

a. Provide a consolidated set of plans identifying the proposed carpark layout arrangements and RLs.
b. Increase the length of the basement and podium ramp merge area at the Smith Street exit.

3.8.1 Response Review

A consolidated set of plans have been provided. However we note that the configuration of some carparking areas and carparks are considered inappropriate e.g. some carparks are difficult to enter and exit.

The merge length has been increased however the applicant's response also recommended that convex mirrors be provided to assist drivers when merging.

3.9 RFI Item 20

PWD parking The TIA indicates that 2.3m height clearance is proposed to be provided within the carpark. Acceptable Outcome AO4.2 (Table 9.4.8.3.1) of the Transport and parking code requires that carparking spaces provided for people with disabilities (PWD) are to comply with AS2890.6 (Off-street Parking for People with Disabilities).

Information Required

a. Confirm that at least 2.5m height clearance is to be provided above PWD carparking spaces in accordance with AS2890.6.

3.9.1 Response Review

At least 2.5m height clearance is to be provided above PWD carparking spaces in accordance with AS2890.6. The response is considered adequate.

3.10 RFI Item 21

The proposed bicycle parking provisions do not comply with Transport and Parking Code requirements. In addition, the public bicycle parking spaces are not considered to be appropriately located.

Information Required

a. Provide and locate bicycle parking as required by Acceptable Outcomes 5.1 and 5.2 (Table 9.4.8.3.1) of the Transport and parking code.

3.10.1 Response Review

Bicycle parking space provisions have been increased as summarised below:

- Staff / Resident – 80 spaces
- Customer / Visitor – 128 spaces
- Total – 208 spaces

Whilst the proposed provisions still do not comply with the Transport and parking code, they do exceed those required by the Austroads, Guide to Traffic Management which is often referenced by the Transport Industry. Furthermore, as the development includes multiple uses, there is expected to be some bicycle parking cross-utilisation.

In consideration of the above, the total bicycle parking provision is considered reasonable. However the proportion of staff / resident to customer/visitor spaces is higher than that recommended by the Planning Scheme and Austroads, Guide to Traffic Management.

Bicycle parking for visitors and customers is still predominately located within the basement and podium carparking areas. No parking is provided on the ground floor e.g. near the supermarket entry. Due to its location, it is considered unlikely that the parking will be heavily utilised.

3.11 RFI Item 22

The TIA indicates that end of trip facilities will be included in the retailers staff administration area. However, the proposed number and type of end of trip facilities have not been identified. It is noted that end of trip facilities need to be provided for all development uses identified by Acceptable Outcome AO5.3 (Table 9.4.8.3.1) of the Transport and Parking Code.

Information Required

a. Provide end of trip facilities as required Acceptable Outcome AO5.3 (Table 9.4.8.3.1) of the Transport and Parking Code.

3.11.1 Response Review

It is proposed that end of trip facilities will be provided within the supermarket and hotel tenancies. However specific provisions have not been identified.

A single, shared shower / change room / PWD compliant toilet, is to be provided for the remaining tenancies.

3.12 RFI Item 23

The proposed service vehicle loading bays (quantum, location etc.) do not meet Transport and Parking Code requirements. It is specifically noted that all loading should occur off-street. The TIA indicates that two (2) van bays should be provided within the residential carpark area, however, they have not been identified in the carpark layout plans included within the Architectural Plan package.

It is unclear how the specialty retail and, food and beverage tenants will be able to access the loading dock.

The proposed location of the ambulance loading bay is considered inappropriate.

Information Required

a. Provide servicing arrangements as required by Acceptable Outcomes AO6.1 and AO6.2 (Table 9.4.8.3.1) of the Transport and parking code.
b. Confirm that two (2) van bays will be provided within the residential carpark area.
c. Provide a suitably sized service corridor which connects the loading dock to the retail and, food and beverage tenancies.
d. Locate the ambulance loading bay closer to the aged care / retirement lobby.

3.12.1 Response Review

Two (2) van bays are to be provided within the residential carpark area however we believe at least one (1) additional van bay should be provided.

No other significant changes were made to the servicing arrangements identified in the initial DA plans. On-street loading is still proposed for specialty retail and, food and beverage tenancies.

Specialty retail and, food and beverage tenants will need to travel via the basement to access the main, off-street loading dock.

The proposed ambulance loading bay location is considered inappropriate as it is located a significant distance from the aged care / retirement lobby. The proposed loading bay width does not meet Queensland Ambulance Service requirements.

3.13 RFI Item 24

The TIA identifies that layover zone and a reduction in road pavement width is proposed First Ave where associated with the proposed two-way shared zone pedestrian street treatment. Further detailed design work is required to resolve competing considerations; functional width to facilitate vehicles movements while establishing a low speed inviting pedestrian environment.

Information Required

a. Provide additional detail in regard to the design and operation of First Ave; e.g. environment speed, servicing, pedestrian movements, treatment, existing driveway access, etc.

3.13.1 Response Review

Additional information was provided. Further refinement of the plans and consultation with key stakeholders will need to be undertaken prior to operational works however they are considered appropriate for DA purposes.

4.0 Conditions & Recommendation

Recommended conditions including those related to traffic and transport are included in **Appendix A.**

It is important to note that some of the conditions have been recommended to address some outstanding issues we have identified, including those related to:

- Carparking space accessibility;
- The width of the Brisbane Road driveway crossover;
- Staff / resident and customer / visitor bicycle parking;
- End of trip facilities; and
- Loading bays.

A copy of the proposed development plans prepared by Ignite and Nettleton Tribe architects, with required amendments (including those related to traffic and transport) in red is included in **Appendix B**.

Although we believe proposed traffic and transport arrangements could be further improved, we do not believe the outstanding issues warrant refusal of the development application. Therefore we recommend that the development be approved with reasonable and relevant conditions.

APPENDIX A

Recommended Conditions

APPENDIX B

Development Plans – Amended in Red

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