

SUNSHINE COAST CITY HALL

TRAFFIC ENGINEERING ASSESSMENT

28 JUNE 2019

PREPARED FOR

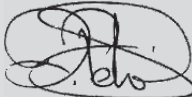


PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2019/1049
Date: 23 October 2019



DOCUMENT CONTROL RECORD

DOCUMENT						
Report Title:	Sunshine Coast City Hall Traffic Engineering Assessment					
Client:	Sunshine Coast City Council					
Project Number:	19-289					
REV	PURPOSE	DATE	AUTHOR	REVIEWER	APPROVED	SIGNED
A	FINAL	JUN-19	CB	MY	AAP (RPEQ 5286)	

COPYRIGHT

This work is copyright. Apart from any use permitted under the Copyright Act 1968, no part may be produced without prior permission. Requests and inquiries concerning reproduction and rights should be directed to:

The Director
Pekol Traffic and Transport
Level 2, 62 Astor Terrace
Spring Hill QLD 4000

DISCLAIMER

This document is produced solely for the benefit of and use by our client in accordance with the terms and conditions of our appointment. PTT does not accept liability to third parties arising from their use of or reliance upon the contents of this report.

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Background	1
1.2 Aim	1
1.3 Scope of Report	1
2.0 EXISTING CONDITIONS	2
2.1 Subject Location	2
2.2 Precinct 3	2
2.3 Road Network	2
2.4 Public Transport	4
2.5 Active Transport	6
3.0 PROPOSED DEVELOPMENT	7
3.1 Site Layout	7
3.2 Access	7
3.3 Access Control / Queuing	8
3.4 Parking	8
3.5 Internal Layout	10
3.6 Servicing	11
3.7 Active and Public Transport	13
4.0 TRAFFIC OPERATIONS	15
4.1 Traffic Generation	15
4.2 Traffic Impact	15
5.0 CONCLUSIONS AND RECOMMENDATIONS	16
5.1 Conclusions	16
5.2 Recommendations	16
APPENDIX A: DEVELOPMENT SITE LAYOUT	
APPENDIX B: SWEPT PATH ANALYSIS	

1.0 INTRODUCTION

1.1 Background

In March 2019, Pekol Traffic and Transport (PTT) was commissioned by Sunshine Coast Council (SCC) to prepare a traffic engineering assessment for the proposed Sunshine Coast City Hall (SCCH). The development site is located within the Maroochydore City Centre, as shown in Figure 1.1.

Figure 1.1: MAROOCHYDORE CITY CENTRE LOCALITY



1.2 Aim

The aim of this assessment is to evaluate the development in terms of its access, peak hour traffic generation, internal layout, parking and servicing arrangements and impact on the surrounding road network.

1.3 Scope of Report

This report begins by summarising the characteristics of the existing road network (Chapter 2), followed by a description of the scope and scale of the development, including a consideration of the site access, internal layout, parking and servicing arrangements (Chapter 3). The predicted peak hour traffic generation of the proposed development is estimated along with a consideration of its likely traffic impact on the surrounding road network (Chapter 4). The report concludes with a summary of key findings and recommendations (Chapter 5).

2.0 EXISTING CONDITIONS

2.1 Subject Location

The Maroochydore City Centre is a 53-hectare parcel of land in central Maroochydore which was identified as a Priority Development Area (PDA) in 2013. The City Centre is located on state-controlled land and the former Horton Park Golf Course and is proposed to accommodate commercial, retail and residential uses. Development applications in the City Centre are assessed by Economic Development Queensland (EDQ) according to the Maroochydore City Centre PDA Development Scheme.

The City Centre is bounded to the north by Aerodrome Road and Plaza Parade, to the east by Maud Street, to the south by Dalton Drive and to the west by the Maroochydore Homemaker Centre. The surrounding area comprises predominantly retail uses to the north and west and residential uses to the east and south. The location of the City Centre is shown in Figure 1.1.

2.2 Precinct 3

The Sunshine Coast City Hall is proposed to be located within Precinct 3 (Core Business) of the Maroochydore City Centre. According to the Precinct 3 Plan, *“the precinct will form the primary mixed-use hub within the PDA, capitalising on the proposed transit infrastructure and proximity to the existing business and retail activity in areas adjoining the PDA.”*

Precinct 3 is located at the north-eastern end of the City Centre and will accommodate the following maximum development yields:

- 30,000m² GFA of retail uses
- 50,000m² GFA of commercial uses
- 600 residential dwellings or units

The Precinct 3 road network and pedestrian / cycle facilities are fully constructed, but all sites within the precinct remain undeveloped at this time.

2.3 Road Network

The Precinct 3 road hierarchy is shown in Figure 2.1. The subject site is bounded as follows:

- to the north by South Sea Islander Way, classified as a Town Centre Avenue according to the Precinct 3 Plan
- to the east by First Avenue, classified as a Town Centre Boulevard
- to the south by Future Way, classified as a Town Centre Avenue
- to the west by Lightning Lane, classified as a Laneway

Key attributes of the surrounding road network are outlined in the Precinct 3 Plan and summarised in Table 2.1.

Figure 2.1: PRECINCT 3 ROAD HIERARCHY PLAN

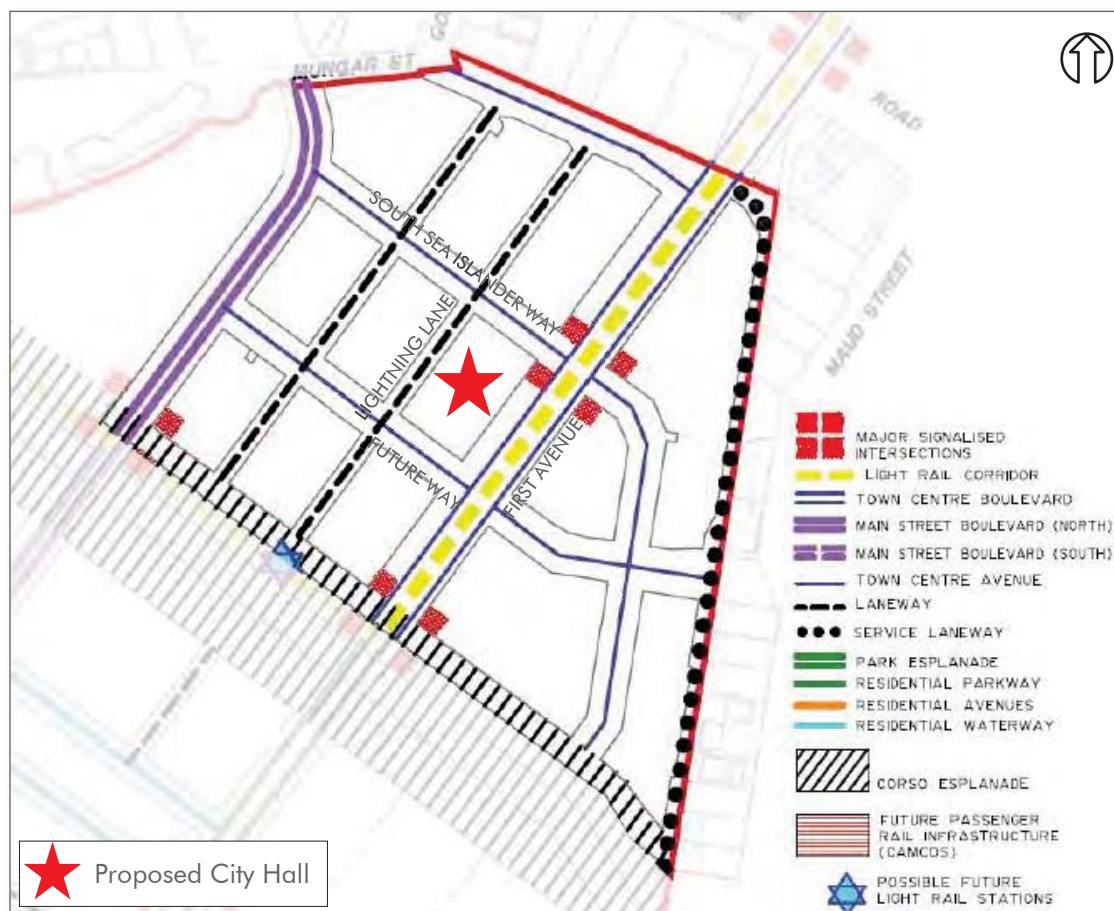


Table 2.1: ROAD NETWORK ATTRIBUTES

ATTRIBUTE	TOWN CENTRE BOULEVARD	TOWN CENTRE AVENUE	LANEWAY
Cross-section	Divided, with two lanes of traffic in each direction	Undivided, with one lane of traffic in each direction	Undivided, with one traffic lane and one parking lane
Public Transport	Bus route, future light rail corridor	No	No
Dedicated Parking	Indented	Indented drop-off / pick-up	On-street
Footpaths	Both sides	Both sides	Both sides
Bicycle Lanes	One side	No	No

2.4 Public Transport

2.4.1 Overview

SCC's Integrated Transport Strategy outlines the long-term goals for transport on the Sunshine Coast. To reduce the reliance on private vehicles as the dominant mode of travel, significant upgrades to the existing public transport network are proposed by 2041, comprising new heavy and light rail lines and high-frequency bus routes to supplement the existing bus services. An indicative diagram of the future public transport network between Caloundra and Maroochydore is shown in Figure 2.2. As shown, the network would likely comprise five main components:

- upgrade of the Beerburrum to Nambour heavy rail line, from single track to double track
- construction of a heavy rail line between Caloundra and Sunshine Coast Airport, which would connect to the existing heavy rail line at Beerwah
- construction of a light rail line between Caloundra and Maroochydore
- introduction of high-frequency bus services between principle and major activity centres
- additional low-frequency bus services, which would function as local and feeder services to supplement the high-frequency routes

2.4.2 Heavy Rail

The existing heavy rail corridor between Beerburrum and Nambour is single-track, which currently limits the capacity and frequency of services provided on this route. Information sourced from the Department of Transport and Main Roads (TMR) indicates the heavy rail corridor will eventually be upgraded to double-track. No information is currently available to confirm the timing of these rail upgrades. However, the project has been classified as a Priority Project by the Department of Infrastructure, Regional Development and Cities.

A new double-track rail corridor is also proposed between Beerwah and Maroochydore. The corridor would service key activity centres along the Sunshine Coast, including Caloundra, Kawana and Maroochydore City Centre. Limited information is available regarding the timing of construction of this rail corridor.

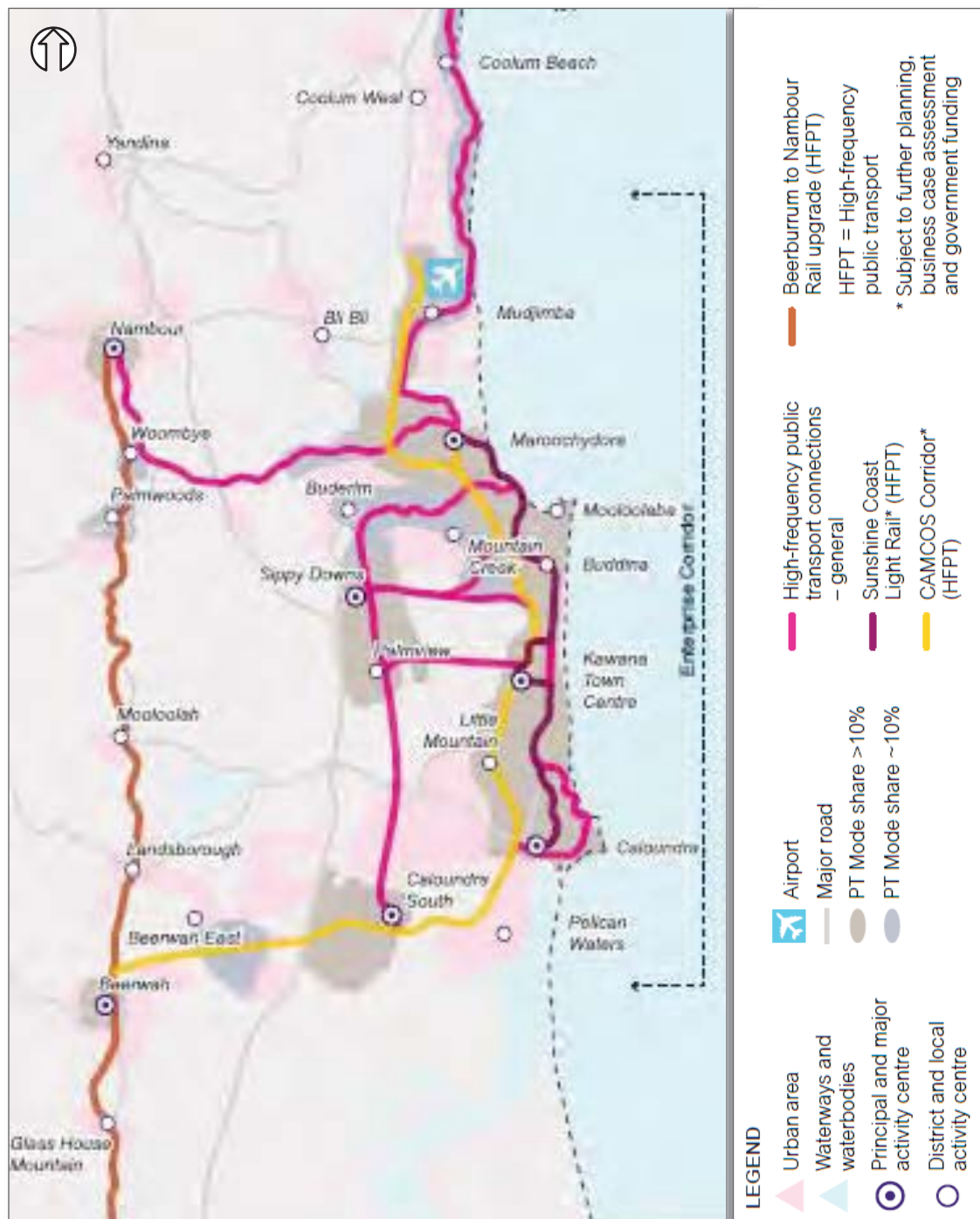
2.4.3 Light Rail

A future light rail service is proposed to be constructed on the Sunshine Coast, with completion of the first stage of development expected in 2025. The Sunshine Coast Light Rail would service high-density areas between Caloundra to the south and the Maroochydore City Centre to the north. The light rail is proposed to enter the City Centre at the northern end of Precinct 3 and travel south along the eastern frontage of the proposed city hall site. A number of potential routes are still under consideration by Council and limited information is available regarding the precise alignment and locations of stations. However, it would be reasonable to assume that the proposed Sunshine Coast City Hall will be within walking distance of future light rail stations.

2.4.4 Buses

The town centre boulevard along the subject site's eastern frontage is proposed to accommodate future high-frequency bus services. However, details regarding the locations of bus stops and how these will connect to the existing bus network are not yet available. However, as above, it would be reasonable to assume that the proposed Sunshine Coast City Hall will be within walking distance of future bus stops.

Figure 2.2: PLANNED HIGH-FREQUENCY PUBLIC TRANSPORT NETWORK



2.5 Active Transport

Pedestrian footpaths are provided on both sides of all roads within the Maroochydore City Centre. Off-street cycle lanes are provided on the western side of the main street boulevard along the site frontage. The cycle lanes connect to Aerodrome Road to the north and to Corso Esplanade to the south. Accordingly, the site is well served by active transport.

3.0 PROPOSED DEVELOPMENT

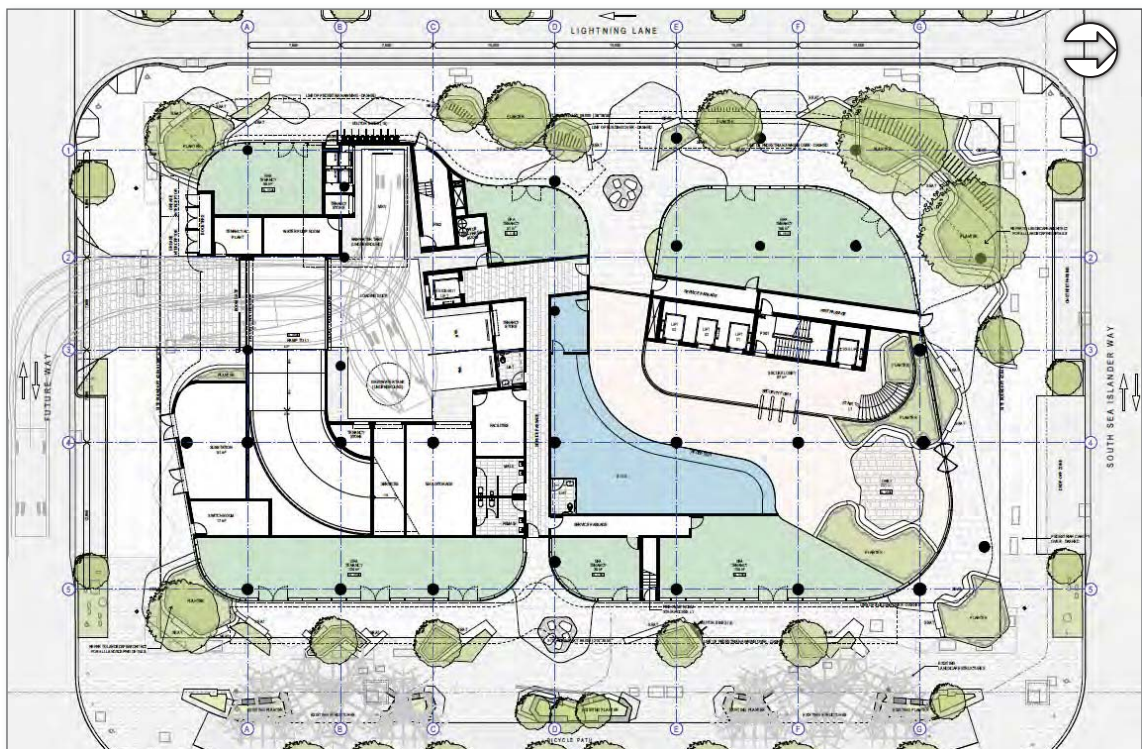
3.1 Site Layout

The proposed Sunshine Coast City Hall will comprise a total of 9,496m² GFA and will accommodate the following uses:

- 547m² GFA of retail space
- 7,068m² GFA of SCC offices
- 1,321m² GFA of leasable commercial space
- 560m² GFA of function facility

The main purpose of the city hall will be to consolidate approximately 600 Council staff from existing Council offices in Maroochydore, Caloundra and Nambour. We have been advised that the other commercial and retail tenancies will be leased separately and will accommodate approximately 150 staff. The development would be supported by 156 on-site car parking spaces and 18 motorcycle spaces. The proposed ground level layout is shown in Figure 3.1 and attached in Appendix A.

Figure 3.1: GROUND LEVEL SITE LAYOUT



3.2 Access

3.2.1 Design

Vehicular access to the site is proposed from Future Way along the site's southern frontage. The design of the crossover would be consistent with a 7.5m wide Type B2 driveway as per the Institute of Public Works Engineering Australasia (IPWEA) Standard Drawing RS-051. This driveway type can accommodate the design vehicle (ie a medium rigid vehicle) and would allow simultaneous usage by entering and exiting passenger cars.

3.2.2 Sight Distance

In terms of sight distance, the Australian Standard AS2890.1¹ identifies a desirable requirement of 69m, based on a 50 km/h design speed. We estimate that there is in excess of 70m sight distance available from the proposed access location to the west. To the east, the First Avenue / Future Way intersection is located approximately 45m from the site access driveway, which limits available sight distance. However, vehicles entering Future Way from First Avenue would need to slow to around 20 – 30 km/h in order to undertake this turn movement. Therefore, the available sight distance at the proposed driveway location is considered sufficient.

Pedestrian sight triangles (ie 2m x 2.5m splays) are proposed at the site access to provide visibility between vehicles leaving the parking and servicing area and pedestrians on Future Way.

3.3 Access Control / Queuing

Due to security requirements, a boom gate is proposed to be installed on the access driveway approximately 6.5m from the property boundary, or 14m from the edge of the road. The boom gate would automatically open on authorised vehicle entry via an automatic number plate recognition (ANPR) system. Vehicles will not be required to stop for a significant period of times as there will be no card reader / keypad / intercom and tickets will not be issued.

Unauthorised vehicles will not be granted access at the boom gate. Therefore, it is recommended that signage be installed at the site access to ensure motorists are aware that on-site parking is for authorised vehicles only and general public parking is prohibited.

Security roller doors would be installed beyond the boom gate. These would remain open during typical business hours but would be closed outside these times to secure access to the parking and servicing areas.

We have undertaken an assessment of the predicted 95th percentile queuing at the entry boom gate using queuing theory. This assessment is based on the expected weekday peak arrival rate of 91 vehicles per hour (see Section 4) with an average service rate (ie boom gate opening rate) of 5 - 7 seconds, which represents a typical opening and closing time for an automatic boom gate.

The results of the queuing analysis indicate a 95th percentile queue at the site access of 0.5 – 0.8 vehicles. Based on an average vehicle length of 6m, this equates to a 95th percentile queue length of 3 - 5m. Therefore, the proposed queuing provision is sufficient to accommodate the predicted 95th percentile queue.

3.4 Parking

3.4.1 Requirement

The parking requirement of the proposed city hall has been determined in accordance with the maximum parking rates outlined in the Precinct 3 Plan for non-residential uses. The plan provides varying parking rates, depending on the extent of development already constructed within the precinct. The aim of these varying rates is to encourage development prior to provision of the planned high-frequency public transport services, by allowing for more parking to be provided at these developments.

¹ Australian Standard (2004) Australian/New Zealand Standard, Parking Facilities Part 1: 'Off-Street Car Parking', Sydney, Australia

A maximum car parking rate of one space per 60m² GFA is permitted for the first 20,000m² GFA of non-residential development within Precinct 3.

The proposed city hall will be one of the first developments constructed within the city centre and is therefore permitted to apply the highest parking rate. A maximum on-site car parking provision of 158 spaces is permitted, as shown in Table 3.1.

Table 3.1: ON-SITE CAR PARKING REQUIREMENT

LAND USE	SCALE	PARKING RATE	REQUIRED
Non-residential	9,496m ² GFA	Maximum 1 space per 60m ² GFA	Maximum 158 spaces

In addition to the on-site parking requirement, the Precinct 3 Plan also requires developments to provide off-site consolidated parking. For the first 85,000m² GFA of non-residential development within Precinct 3, a minimum consolidated parking rate of one space per 85m² GFA is required. Therefore, the proposed development warrants 112 off-site consolidated parking spaces, as shown in Table 3.2. The total on-site and off-site parking provision required to support the proposed development is 270 spaces.

Table 3.2: CONSOLIDATED CAR PARKING REQUIREMENT

LAND USE	SCALE	PARKING RATE	REQUIRED
Non-residential	9,496m ² GFA	1 space per 85m ² GFA	112 spaces

The Precinct 3 Plan allows for interim at-grade parking facilities to be provided to accommodate the consolidated parking requirement. However, these interim facilities are required to be upgraded to permanent parking facilities within 18 months of the consolidated parking demand exceeding 500 spaces. This would require the total non-residential development within Precinct 3 to exceed 42,500m² GFA. It is not yet clear when this would likely occur.

3.4.2 Provision

A total of 156 car and 18 motorcycle parking spaces are proposed within an on-site parking facility, comprising the majority of Levels 1-3 of the city hall. The proposed on-site parking provision complies with the maximum car parking rate outlined in the Precinct 3 Plan and Table 3.1. On-site parking is proposed to be restricted to staff use only. Adjacent on-street parking and drop-off / pick-up bays along the northern and southern site frontages will be used to cater for commercial and retail visitors. This is a typical arrangement in CBD areas and is considered appropriate for the Maroochydore City Centre.

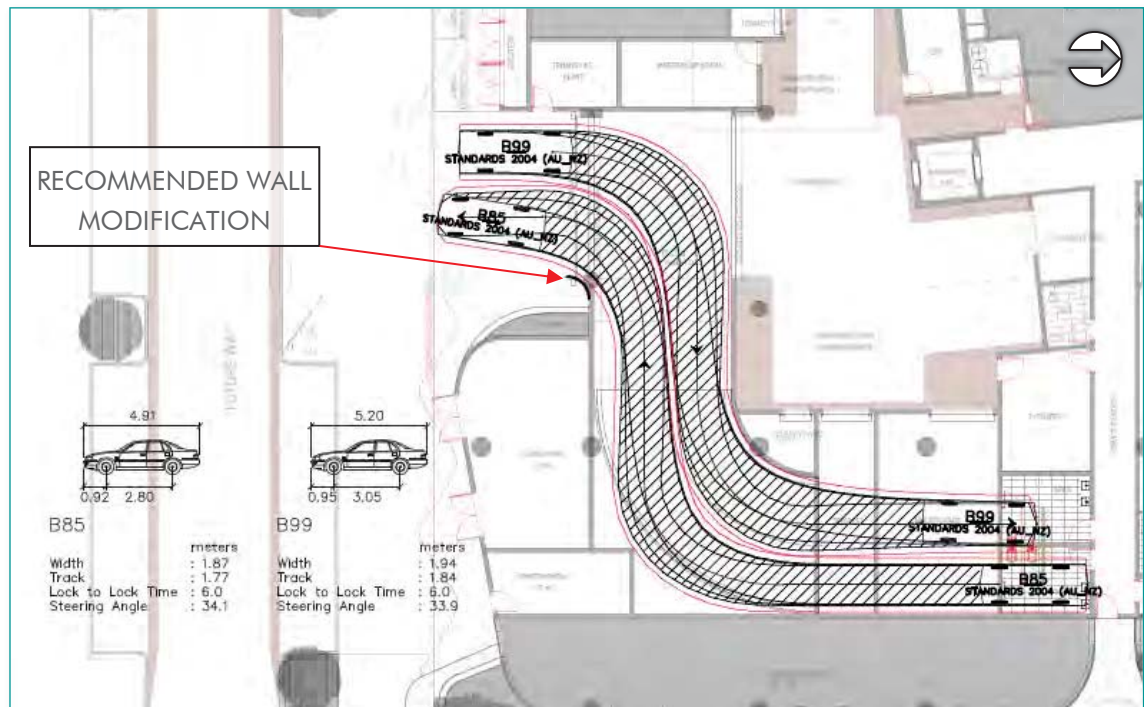
3.5 Internal Layout

The Sunshine Coast Planning Scheme requires on-site car parking areas to be designed in accordance with Australian Standards AS2890.1 and AS2890.6². The design and layout of on-site car parking is generally consistent with AS2890 requirements in terms of bay dimensions, aisle widths, vehicle circulation and manoeuvring. This is typified by:

- 2.4m wide by 5.4m long standard car parking spaces
- 2.3m wide by 5.0m long small car parking spaces
- 2.4m wide by 5.4m long PWD spaces with 2.4m wide by 5.4m long adjacent shared space
- 1.2m wide by 2.5m long motorcycle parking spaces
- parking aisles of 6.2m wide or greater
- 1.0m aisle extensions provided after the last car parking space in a blind aisle
- 0.3m clearances to obstructions provided around parking spaces

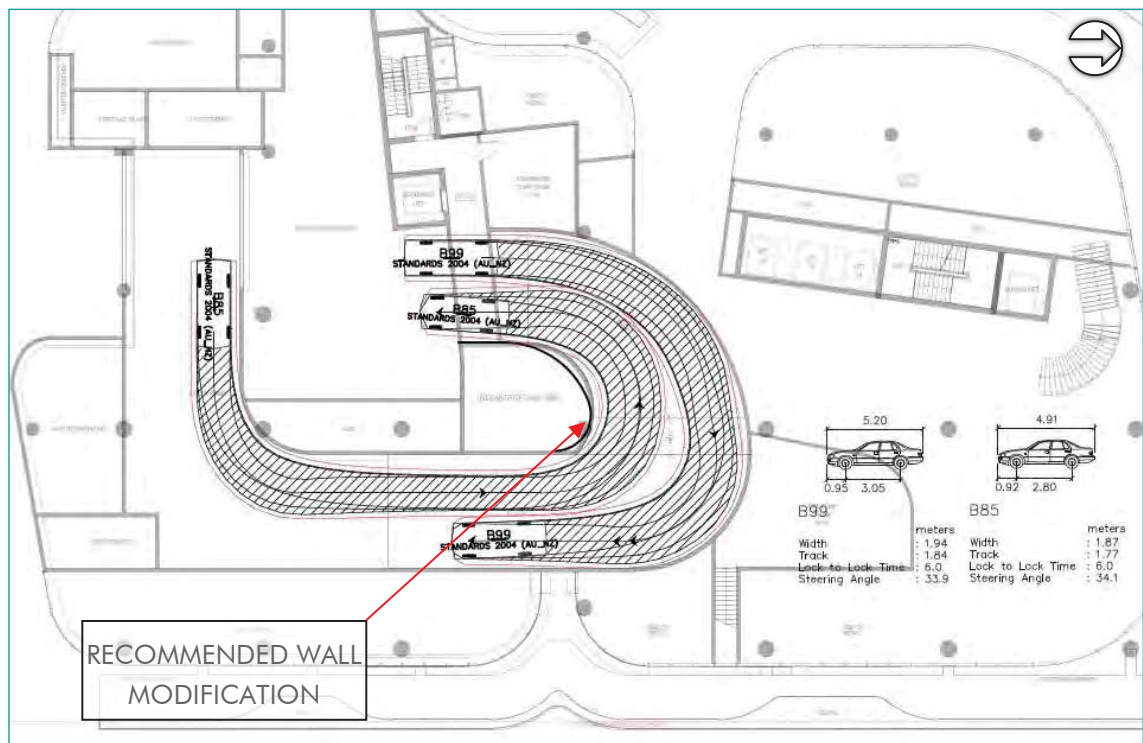
A 6.2m wide ramp is proposed linking the car parking levels, with widening on bends. Swept paths of 85th percentile (B85) and 99th percentile (B99) vehicles negotiating the ramp between the ground floor and level 1 are shown in Figures 3.2 and 3.3 and are attached in Appendix B. As shown, the proposed layout is generally sufficient to facilitate two vehicles passing. However, it is recommended that the walls on the inside of the curves be slightly modified to provide additional clearance to vehicles, as shown in Figures 3.2 and 3.3.

Figure 3.2: SITE ACCESS VEHICLE SWEEP PATHS



² Australian Standard (2009) Australian/New Zealand Standard, Parking Facilities Part 6: 'Off-Street Parking for People with Disabilities', Sydney, Australia

Figure 3.3: RAMP VEHICLE SWEEP PATHS



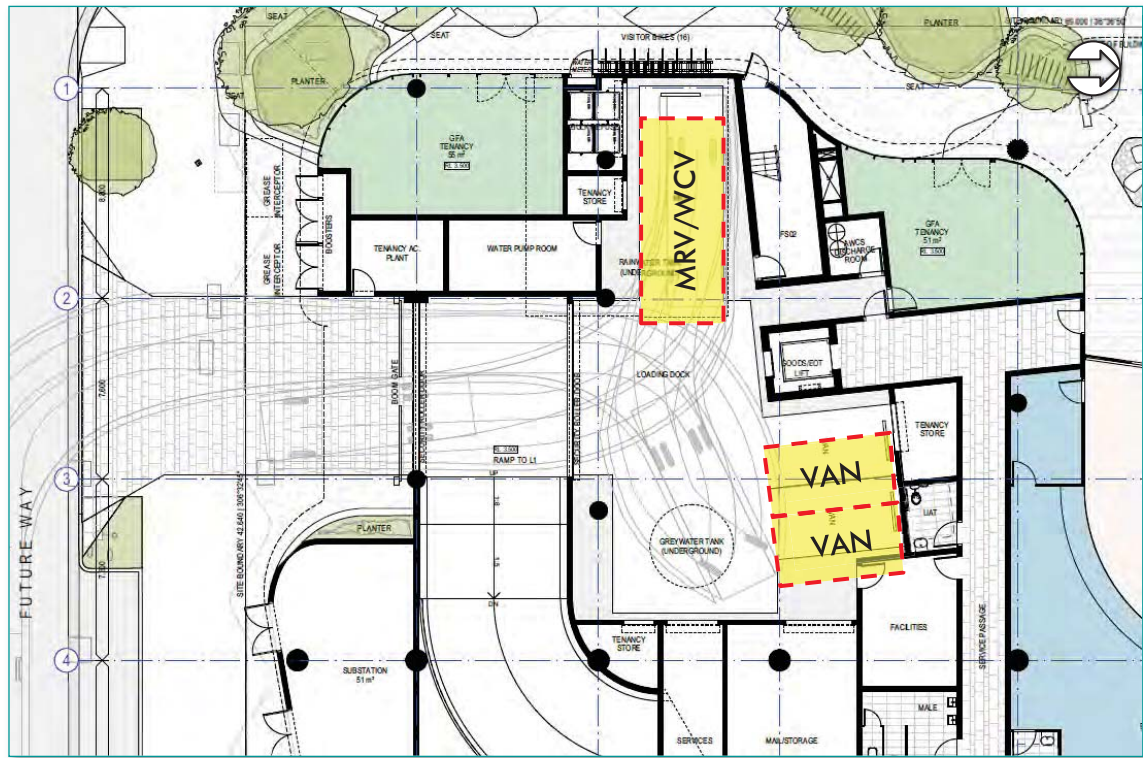
3.6 Servicing

Based on an office / commercial scheme comprising 8,000 – 10,000m² GFA, the Sunshine Coast Planning Scheme (2004) would require on-site servicing bays as follows:

- waste collection vehicle (WCV): 1 bay
- medium rigid vehicle (MRV): 1 bay
- small rigid vehicle (SRV): 2 bays
- VAN: 4 bays

Servicing is proposed via three on-site loading bays at ground level, as shown in Figure 3.4. This includes a shared MRV / WCV / SRV bay and two VAN bays.

Figure 3.4: LOADING BAY LOCATIONS



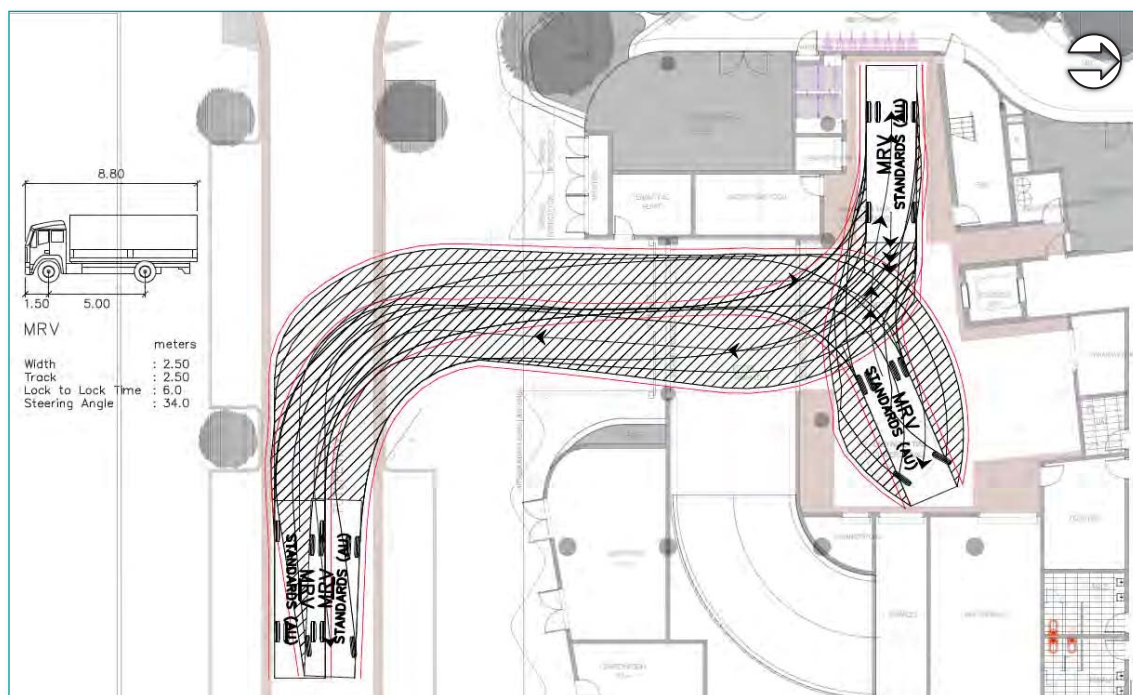
The proposed on-site servicing provision represents a shortfall of two SRV and two VAN service bays compared to the planning scheme requirement. However, there is potential for these service vehicles to be accommodated by the indented on-street parking areas along the site road frontages. To accommodate two SRV and two VAN services vehicles, Australian Standard AS2890.2³ requires a total service bay length 23.6m (ie approximately five car parking bays).

The on-street indented parking area on South Sea Islander Way along the site frontage is approximately 26m long, comprises four parking bays and is proposed to be designated for visitor drop-off / pick-up. It is recommended that these parking bays be designated as shared loading and two-minute drop-off / pick-up bays, to supplement the short-fall in on-site service bay provision.

The Maroochydore City Centre has an underground automated waste collection system (AWCS), which has been incorporated into the proposed development, and will reduce the need for access by waste collection vehicles. Accordingly, the service area has been designed to accommodate an MRV. Any non-AWCS waste would be collected utilising smaller (ie 8m long) waste collection vehicles. Vehicle swept paths demonstrating an MRV entering and egressing the development are shown in Figure 3.5.

³ Australian Standard (2018) Australian/New Zealand Standard, Parking Facilities Part 2: 'Off-Street Commercial Vehicle Facilities', Sydney, Australia

Figure 3.5: MRV SWEPT PATHS



3.7 Active and Public Transport

3.7.1 Pedestrians and Cyclists

Pedestrian entrances to the development are proposed from the First Avenue, Lightening Lane and South Sea Islander Way frontages.

The Sunshine Coast Planning Scheme requires bicycle parking to be provided in accordance with the rates shown in Table 3.2. This requires a total of 190 spaces, including 95 spaces for customers and 95 spaces for employees.

Table 3.2: ON-SITE BICYCLE PARKING REQUIREMENTS

LAND USE	SCALE	PARKING RATE	REQUIRED
Retail – Employee	1,107m ² GFA	1 space per 100m ² GFA	11
Retail – Customer	1,107m ² GFA	1 space per 100m ² GFA	11
Office – Employee	8,389m ² GFA	1 space per 100m ² GFA	84
Office – Customer	8,389m ² GFA	1 space per 100m ² GFA	84
Total			190

The proposed development provides a secure bicycle storage area for employees (Class 2 facilities) with capacity for 84 bicycles and associated end of trip facilities. In addition, 34 bicycle parking spaces would be provided for visitors in the form of rails / racks along the site frontages (Class 3 facilities). Therefore, the proposed bicycle parking provision complies with Sunshine Coast Planning Scheme requirements for office employee and retail uses but would fall below the requirement for office visitors.

However, the Sunshine Coast Planning Scheme requirement for office visitor bicycle parking is significantly higher than the requirements of Austroads and other planning schemes in South East Queensland. In our view, this requirement is onerous.

The Cycling Aspects of Austroads Guides (2014) provides minimum bicycle parking provision rates for various land uses. The applicable rates are as follows:

- retail: one space per 300m² GFA for employees and one space per 500m² for visitors
- office: one space per 200m² GFA for employees and one space per 750m² for visitors

Adoption of these rates would require a minimum of 46 spaces, including 12 spaces for office visitors. The proposed bicycle parking provision is sufficient to comply with Sunshine Coast Planning Scheme requirement for office employees and retail bicycle parking and with Austroads requirements for office visitor bicycle parking and in our view is sufficient to accommodate the likely demand generated by the city hall.

3.7.2 Public Transport

The development site is located approximately 350m south of the Maroochydore Bus Station. Accordingly, the proposed city hall would be well served by public transport. The proposed development would have a positive impact on the viability of existing and future public transport services and infrastructure.

4.0 TRAFFIC OPERATIONS

4.1 Traffic Generation

The peak hour traffic generation for the proposed development uses has been estimated based on published trip generation rates from the NSW RMS Technical Direction TDT 2013/04a – Guide to Traffic Generating Developments – Updated Traffic Surveys. This report provides the results of traffic surveys undertaken at 10 office buildings of varying sizes, and with varying levels of on-site car parking. The traffic survey data has been analysed to identify a trip generation rate per parking space. This has derived the following traffic generation rates for office use:

- morning peak hour – 0.83 trips per parking space
- evening peak hour – 0.64 trips per parking space

The predicted weekday morning and evening peak hour traffic generation is shown in Table 4.1.

Table 4.1: DEVELOPMENT PEAK HOUR TRIP GENERATION

PEAK HOUR	SCALE	RATE	TRIPS (VEH/HR)	IN:OUT SPLIT	IN:OUT SPLIT (VEH)
Morning	156 parking spaces	0.83 per space	130	70 : 30	91 : 39
Evening	156 parking spaces	0.64 per space	100	30 : 70	30 : 70

Based on the above, the development is expected to generate in the order of 130 and 100 vehicle trip-ends during weekday morning and evening peak hours respectively.

4.2 Traffic Impact

As discussed in Section 2.2, a maximum development yield of 50,000m² GFA of commercial uses and 30,000m² GFA of retail uses is permitted within Precinct 3. The proposed city hall will be one of the first developments to be constructed within Precinct 3 and will not exceed this maximum development yield.

Traffic modelling and analysis of the Maroochydore City Centre was originally undertaken by Sunshine Coast Council and Cardno. According to the Precinct 3 Plan, a maximum 20-storey development is permitted on the subject site. The proposed city hall comprises 10 storeys and represents a significant reduction compared to this maximum development scale. Therefore, it is anticipated that the GFA of the proposed city hall would fall well below the maximum GFA considered on development site by the traffic forecasts for the Maroochydore City Centre. Therefore, the proposed development is not predicted to have a significant adverse impact on the capacity and operation of the surrounding road network, compared to the original assumptions for the subject site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The proposed Sunshine Coast City Hall has been evaluated in terms of its impact on the surrounding road network, site access operations and internal layout. The main points to note are:

- the proposed development comprises:
 - 547m² GFA of retail space
 - 7,068m² GFA of SCC offices
 - 1,321m² GFA of leasable commercial space
 - 560m² GFA of function facility
- vehicular access to the site is proposed via a 7.5m Type B2 driveway on Future Way
- a total of 156 car parking spaces and 18 motorcycle bays are proposed for the development, which complies with the maximum car parking rate outlined in the Precinct 3 Plan
- due to security requirements, a queuing provision of 6.5m is provided between the property boundary and an internal boom gate
- the development provides three on-site loading bays at ground level (which falls below Sunshine Coast Planning Scheme requirements) with service vehicles also able to utilise parking and drop-off areas on the external road network
- the development layout can accommodate an MRV to enter and exit the site in forward gear to service the site
- the bicycle parking provision falls below the Sunshine Coast Planning Scheme requirement but would exceed the minimum bicycle parking provision rates outlined by Austroads and is considered sufficient
- the proposed development will have a positive impact on the viability of existing and future public transport services and infrastructure
- the proposed development is expected to generate approximately 130 and 100 vehicle trip-ends during the morning and evening peak hours respectively
- the proposed development is not expected to have an adverse impact on the external road network

5.2 Recommendations

Based on our assessment it is recommended that:

- signage be installed at the site access to ensure motorists are aware that on-site parking is for authorised vehicles only and that general public parking is prohibited
- walls adjacent to the car park access ramp be modified to provide additional vehicle clearance, as shown in Figures 3.2 and 3.3
- the indented on-street parking bays on South Sea Islander Way along the northern site frontage be designated as shared loading and two-minute drop-off / pick-up bays, to supplement the short-fall in on-site service bay provision

APPENDIX A DEVELOPMENT SITE LAYOUT



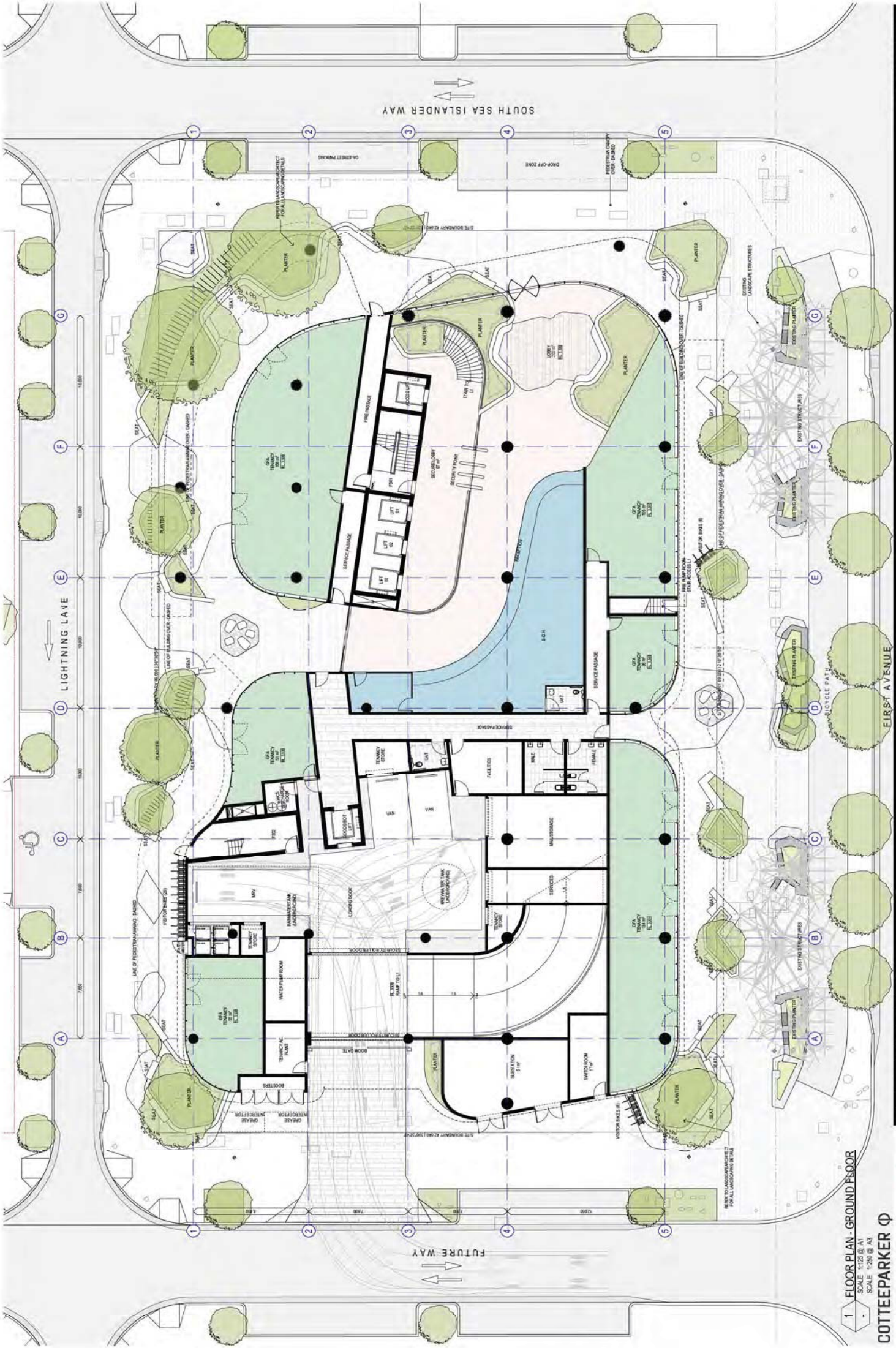
DEVELOPMENT PARTICULARS	
SITE AREA	2942m ²
SITE COVER	83%
PODIUM	62%
TOWER	54.2m
OVERALL BUILDING HEIGHT	10
BUILDING STOREYS	9.496m ²
GFA (TOTAL)	156
CAR PARKING SPACES	18
MOTORCYCLE PARKING	84
BICYCLE/EOT FACILITIES	

1 SITE PLAN
SCALE 1:500 @ A1
SCALE 1:1000 @ A3

COTTEEPARKER Φ

BRISBANE
T: 61 7 3540 7422
COTTEEPARKER ARCHITECTS PTY LTD
100/110 COTTEEPARKER DRIVE
COTTEEPARKER.COM.AU





1 FLOOR PLAN - GROUND FLOOR
 SCALE 1:125 @ A1
 SCALE 1:250 @ A3
COTTEEPARKER 01



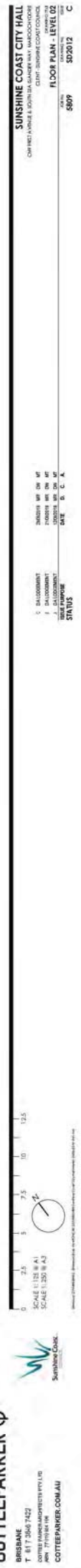


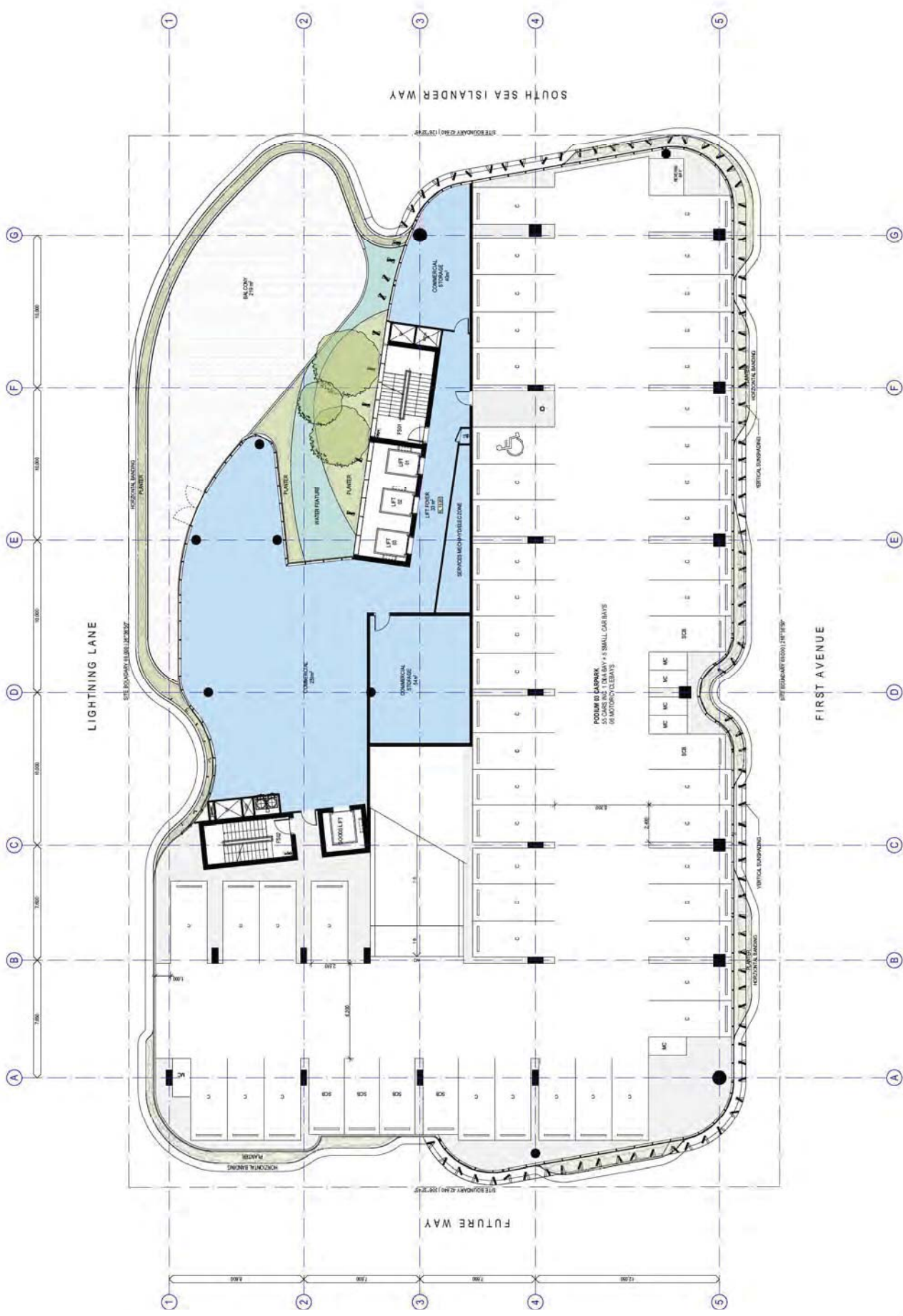
1 FLOOR PLAN - LEVEL 01
 SCALE 1:125 @ A1
 SCALE 1:250 @ A3

COTTEEPARKER

BRISBANE
 T 61 7 3648 7422
 COTTEEPARKER@COTTEEPARKER.COM.AU
 COTTEEPARKER.COM.AU







1 FLOOR PLAN - LEVEL 03
SCALE 1:250 @ A1
SCALE 1:250 @ A3

COTTEEPARKER Φ

BRISBANE
T 61 7 3648 7422
COTTEEPARKER ARCHITECTS PTY LTD
COTTEEPARKER.COM.AU



APPENDIX B SWEPT PATH ANALYSIS

