

APPENDIX D TRAFFIC AND TRANSPORT ASSESSMENT

Traffic and Transport Assessment

Proposed Mixed Use Development

5 Bonner Street, Southport

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2025/1626

Date: 23/10/2025



9 May 2025

Prepared for:
Gold Coast 888 Pty Ltd
Report: 50971-RP01-A

GELEON

Traffic and Transport Assessment

Proposed Mixed Use Development
5 Bonner Street, Southport



Document Control Information

Document Title: Traffic and Transport Assessment
Document Reference: 50971-RP01-A
Prepared for: Gold Coast 888 Pty Ltd
Prepared by: Alex Williams
Reviewed by: James Goodman
Project Reference: 50971

Revision History

Authorised for issue

Version	Issue date	Purpose of issue	Details	Name / position	Signature
A	9 May 2025	To support development application	Original issue	Luke Seeney RPEQ 23542 Principal Engineer	

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1. Introduction

1.1 Project background

Geleon has been engaged by Gold Coast 888 Pty Ltd (the **Applicant**) to prepare a Traffic and Transport Assessment to accompany a Development Application (**DA**) for the purpose of establishing a mixed use development known as 'North Star' at 5 Bonner Street, Southport (Lot 2 on SP338480) (**Figure 1.1**). The existing 2,554m² site is currently vacant and forms part of the Gold Coast Health and Knowledge Precinct (**GCHKP**).

Traffic and Transport Assessment (TTA) report (File Ref: 50589-RP01-A) dated 12 August 2022 was previously prepared by Geleon and included as part of the original development application (DEV2022/1325). This report is a revision to the 50589-RP01-A TTA report to account for changes to traffic and transport related matters arising from the new application.



Figure 1.1 Locality plan

1.2 Context

The subject site is situated within the Parklands Priority Development Area (**PDA**) that covers 29 hectares and is located approximately three kilometres from the Southport CBD and 3.6km east of the Pacific Motorway. The development site is subject to the *Parklands Priority Development Area Development Scheme (December 2013)* and the *Queensland Development Code MP 4.1 – Sustainable Buildings (September 2020)*.

1.3 Development details

The development proposes a mixed use medical precinct on the subject site comprising multiple land uses including health care service, research technology, office, food and drink outlet, indoor sport and recreation and short term accommodation.

Access to and from the development is proposed via a two-lane, two-way vehicle crossing on the Bonner Street frontage which will provide access to three podium level car parks via a service lane easement.

Details of the proposed development are provided in **Table 1.3** with the site plan shown in **Figure 1.3**. Relevant plans of development have been provided in **Appendix A**.

Table 1.3 Development details

Level	Land use	GFA (m ²) ¹	TUA (m ²) ²	No. of units
Ground Floor Level	Health care services / research technology / office	1,731	1,861	-
	Food and drink outlet	245		-
Level 1 (Podium)	Health care services / research technology / indoor sport and recreation / office	641	561	-
Level 2 (Podium)	-			
Level 3 (Podium)	Health care services / research technology / indoor sport and recreation / office	464	423	-
Level 4 (Tower)	Food and drink outlet	149	149	-
	Short term accommodation	-	-	17
Level 5 (Tower)	Short term accommodation	-	-	18
Level 6 (Tower)	Short term accommodation	-	-	18
Level 7 (Tower)	Health care services / research technology / office	893	860	-
Level 8 (Tower)	Health care services / research technology / office	912	880	-
Level 9 (Tower)	Health care services / research technology / office	912	880	-
Level 10 (Tower)	Health care services / research technology / office	887	854	-
Total		6,834	6,468	53

Notes:
1. Gross floor area (GFA)
2. Total use area (TUA)

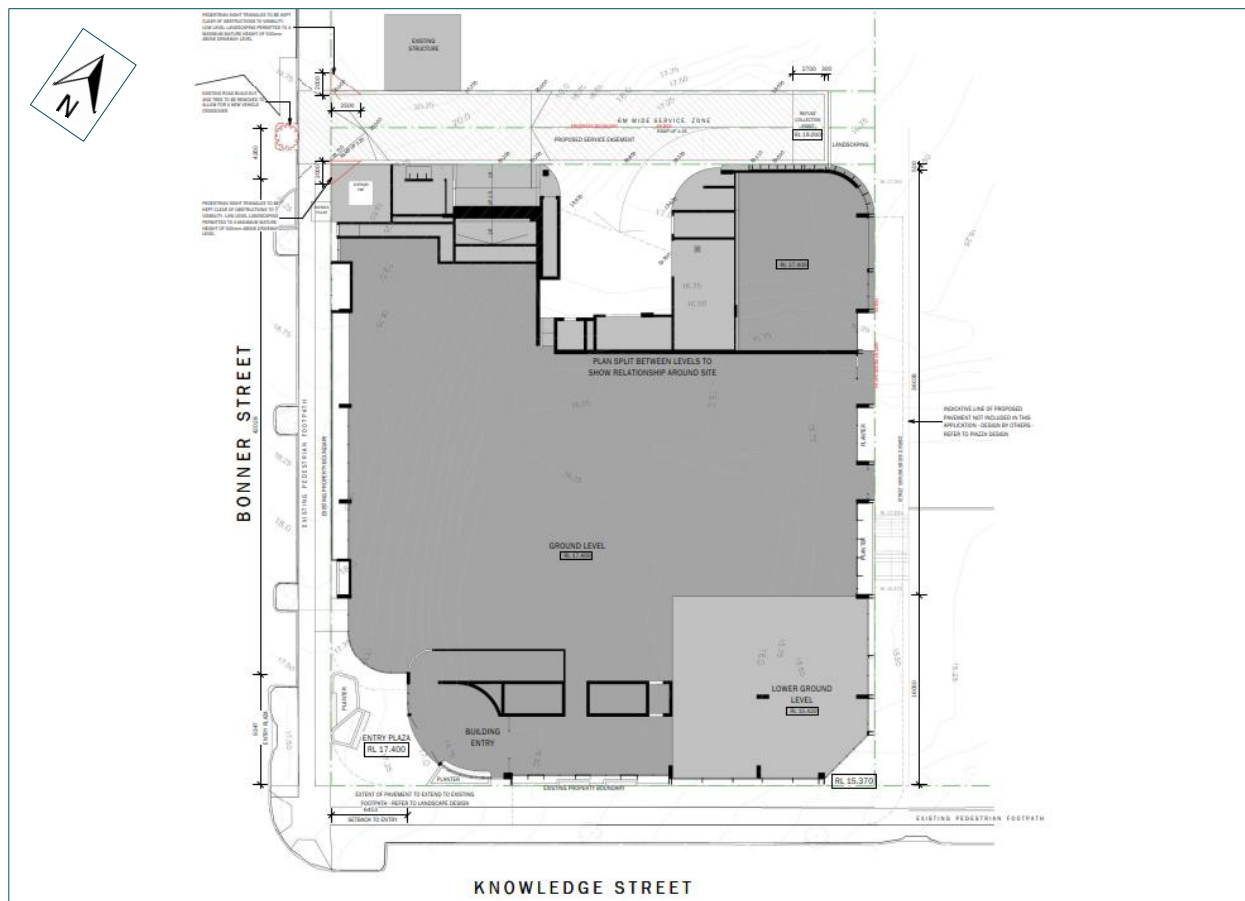


Figure 1.3 Plans of development – site plan

1.4 Scope

The scope of the assessment presented in this report is as follows:

- assess public transport, pedestrian and cycling accessibility to / from site and on-site
- calculate the anticipated development traffic generation and its impact to the external road network
- assess proposed car parking supply against relevant PDA requirements
- assess proposed bicycle parking supply against relevant *Queensland Development Code* (QDC) requirements
- review design of on-site transport and traffic operations against the Australian Standards and Council's requirements
- assess site access and access configuration against Council requirements, and
- assess servicing arrangements.

2. Existing conditions

2.1 Road network

The hierarchy of the road network surrounding the development is shown in **Table 2.1**.

Table 2.1 Surrounding road network

Road Name	Jurisdiction	No. of lanes (two-way)	Posted Speed Limit	Median Divided	Hierarchy	Footpath / bicycle lanes	On-street parking
Parklands Drive	Council	4	50km/h	Partially	Local Collector	Footpath and bicycle lanes on both sides north of the development site	No parking
Knowledge Street	Council	2	50km/h	No	Local Road	Footpath and bicycle lanes on both sides	Formal parking
Nexus Way	Council	2	40km/h	No	Local Access	Footpath both sides, no bicycle lanes	Formal parking
Bonner Street	Council	2	50km/h	No	Local Access	Footpath both sides, no bicycle lanes	Formal parking

2.2 Public transport

The development is located 220m from one Translink bus stop / Gold Coast Light Rail stop, known as 'Griffith University station (Southport)' (Stop ID 600829) (**Figure 2.2.1**). The stop is serviced by six public routes with a frequency ranging from 15 minutes to 60 minutes throughout the day. Weekday services for the identified bus stop operate 24-hours a day. The GCLR (G:link) service runs daily with a frequency ranging from 15 to 30 minutes (**Figure 2.2.2**).

Details of all stops and services within proximity to the development are shown in **Figure 2.2.2**. Services 700, 719 and the light rail are considered 'high-frequency services' (**Figure 2.2.3**).



Figure 2.2.1 Public transport network in proximity to site

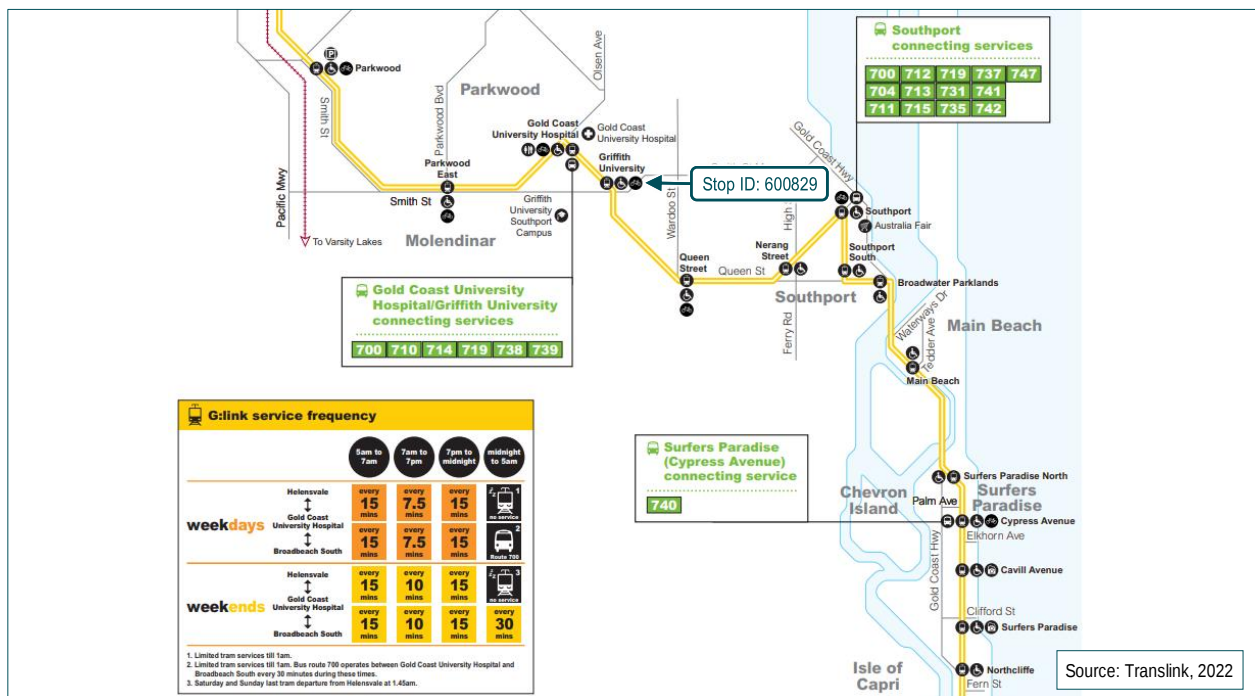


Figure 2.2.2 GCLR and public transport connectivity in proximity to site

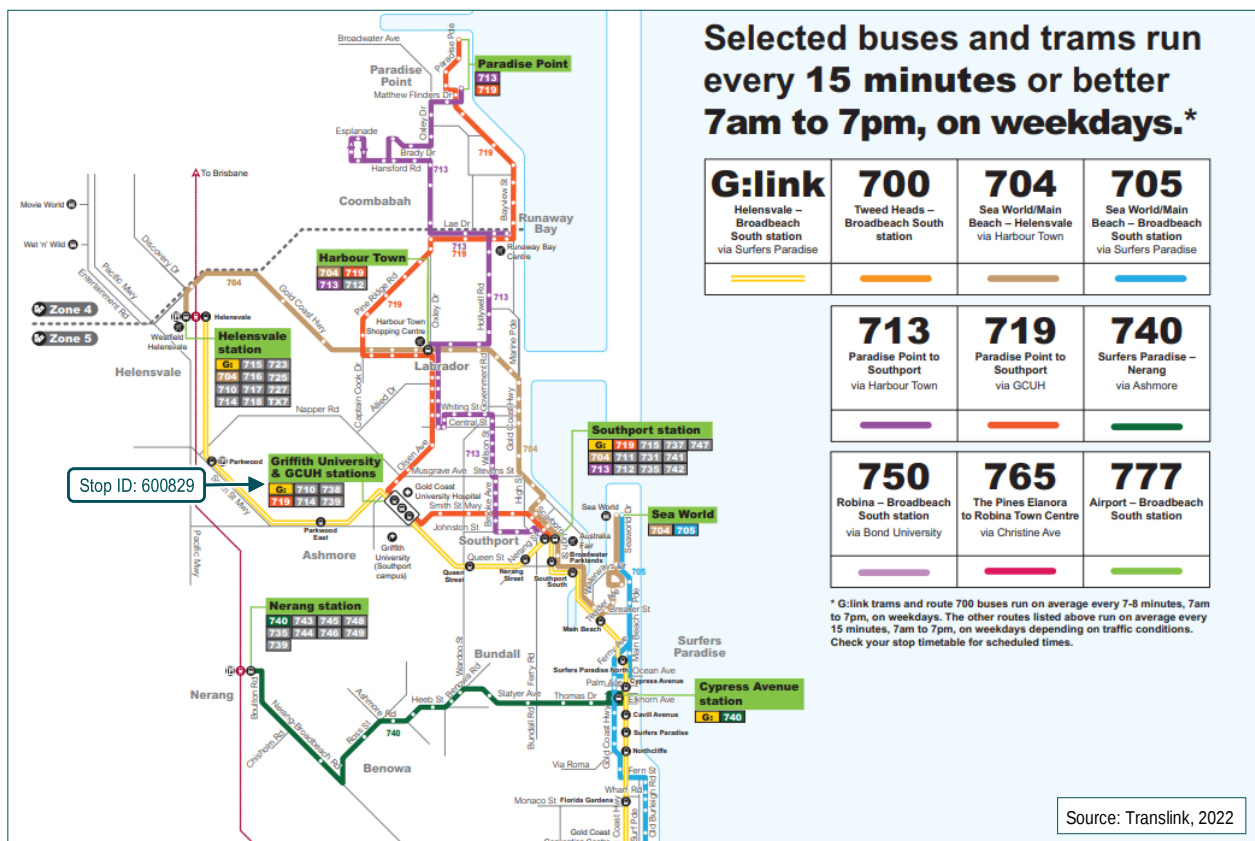


Figure 2.2.3 High frequency services in proximity to site

2.3 Active transport

The subject site is serviced by a comprehensive network of pedestrian footpaths as shown in **Figure 2.3.1** which illustrates the active transport network surrounding the proposed development.

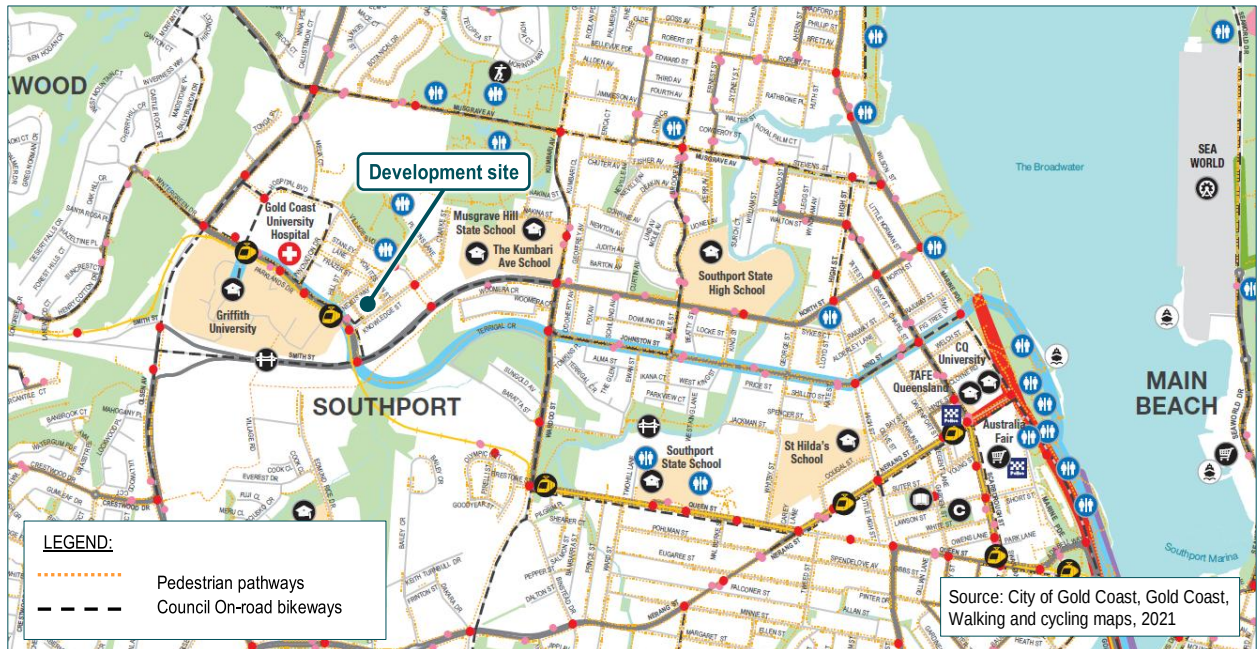


Figure 2.3.1 Active transport network

The subject site is located within proximity to Smith Street and Parklands Drive which are classified as priority A and priority B routes respectively on the Department of Transport and Main Roads (TMR) *South East Queensland Principal Cycle Network*. The principal cycle network surrounding the proposed development and route priorities are illustrated in **Figure 2.3.2** and **Figure 2.3.3**.

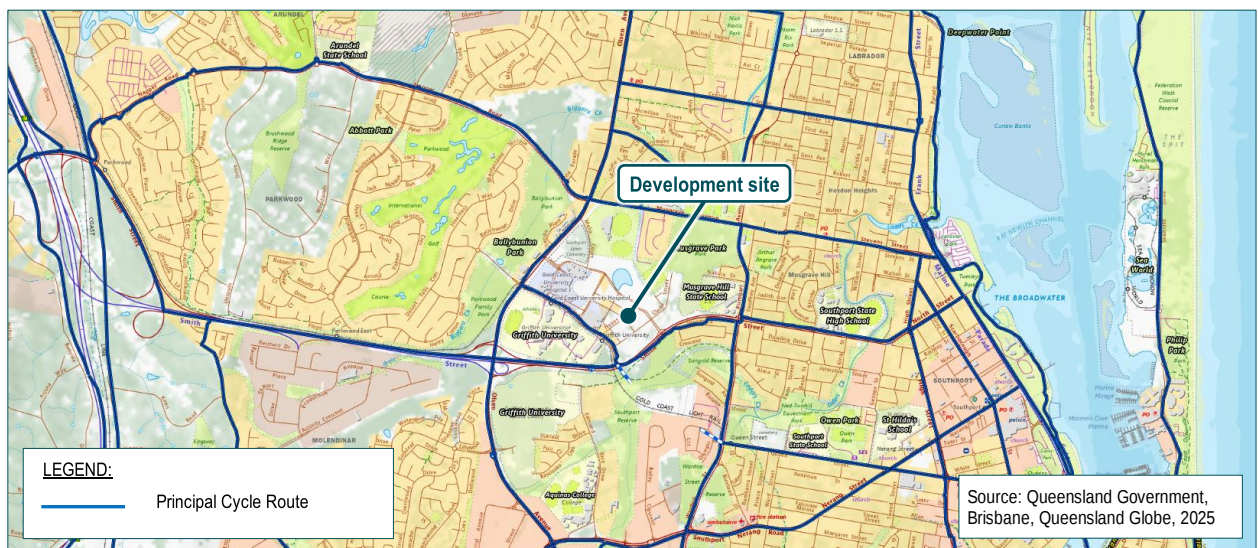


Figure 2.3.2 Principal cycle network

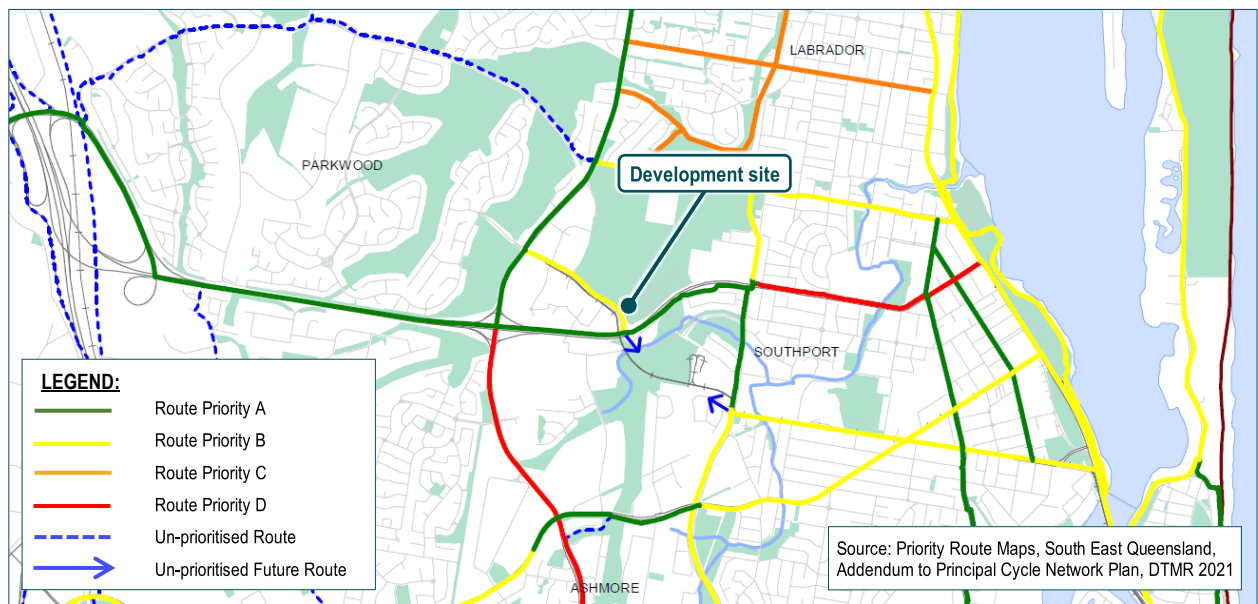


Figure 2.3.3 Priority route map

3. Traffic impact assessment

3.1 Traffic generation

A review of the *Parklands Priority Development Area Development Scheme (December 2013)* has not identified traffic generation rates for the proposed land uses. In lieu of PDA specific traffic generation rates, rates for the proposed development have been based on those provided in the RTA's *Guide to Traffic Generating Developments (GTGD)*, the updated RMS *Guide to Traffic Generating Developments – Technical Direction (TDT 2013/04)*, the Institute of Transportation Engineers (ITE) *Traffic Generation Data Trip Generation Manual (10th Edition)*, TMR's *Road Planning and Design Manual (RPDM)* and TMR's *Traffic Generation Data - 2006 – 2018*.

Appropriate trip generation 'discounts' (internalised trip reductions) have been applied at 20% given that the development concept is a mixed use facility where uses will be primarily used by on-site staff / visitors or comprise multi-purpose / walk-in trips from within the PDA. No internalised trip reduction has been applied to the short term accommodation traffic generation.

A summary of the expected development traffic generation is shown in **Table 3.1**.

Table 3.1 Development traffic generation

Land use	Quantity		Peak period	Traffic generation rate		Traffic generation volume (vpd)
Ground floor tenancies						
Health care services / research technology / office	1,731	GFA m ²	AM	6.39	trips per 100m ² GFA	111
			PM	4.95	trips per 100m ² GFA	86
Food and drink outlet (café)	245	GFA m ²	AM	5	trips per 100m ² GFA	13
			PM	2.5	trips per 100m ² GFA	7
Podium tenancies						
Health care services / research technology / indoor sport and recreation / office	1,105	GFA m ²	AM	6.39	trips per 100m ² GFA	71
			PM	4.95	trips per 100m ² GFA	55
Tower tenancies						
Food and drink outlet	149	GFA m ²	AM	5	trips per 100m ² GFA	8
			PM	5	trips per 100m ² GFA	8
Short term accommodation	53	units	AM	0.42	trips per unit	23 ¹
			PM	0.42	trips per unit	23 ¹
Health care services / research technology / office	2,717	GFA m ²	AM	6.39	trips per 100m ² GFA	174
			PM	4.95	trips per 100m ² GFA	135
Top floor						
Health care services / research technology / office	887	GFA m ²	AM	6.39	trips per 100m ² GFA	57
			PM	4.95	trips per 100m ² GFA	44
Internalised trip reduction (non residential land uses)						20%
Total AM peak hour trips						371
Total PM peak hour trips						291
Note:						
1. Internalised trip reduction not applied to short term accommodation land use						

3.2 Trip distribution

TMR's Guide to Traffic Impact Assessment (GTIA) stipulates¹:

"Peak hour development-generated traffic volumes need to be split into entry (IN) and exit (OUT) volumes for assignment of this traffic to the access intersection and to the surrounding road network."

Typical In / Out traffic splits accounting for staff and visitors were utilised for the development (i.e. 60% In / 40% Out in the AM peak hour, and 40% In / 60% Out during the PM peak hour). The AM and PM In / Out traffic splits of the total peak hour vehicle trips are provided in **Table 3.2**.

Table 3.2 Development traffic generation splits

Traffic generation (trips)	Peak period	IN%	IN trips	OUT %	OUT trips
371	AM peak	60%	223	40%	148
291	PM peak	40%	117	60%	174

3.3 Traffic impacts

Considering the geographical location of the development, all inbound and outbound development generated traffic will utilise Bonner Street via Knowledge Street and / or Nexus Way. It is understood that the road network within the Parklands Priority Development Area was designed and constructed to accommodate ultimate development traffic conditions for the PDA and therefore on this basis, Bonner Street, Knowledge Street and Nexus Way are expected to suitably cater for the expected traffic demand associated with the proposed development. Therefore, no further intersection analysis or investigation into mitigation measures has been considered for the external road network.

¹ Department of Transport and Main Roads (December 2018), *Guide to Traffic Impact Assessment (Version no. 1.2)* s.8.2.2, p.31.

4. Parking assessment

4.1 Car parking requirements

The parking requirements for the development have been calculated in accordance with the *Parklands Priority Development Area Development Scheme (December 2013)* as shown in **Table 4.1.1**.

Table 4.1.1 Car parking requirements

Description	Component		Car parking rate	Parking requirement
Non residential				
Minimum car parking	6,834	GFA m ²	1 per 100m ² of GFA	69
Maximum car parking			1 per 50m ² of GFA	137
Short term accommodation				
Minimum car parking (patron)	53	units	0.25 spaces per unit	14
Minimum car parking (visitor)			1 visitor space per 20 units	3
Maximum car parking (patron)			1 space per unit	53
Maximum car parking (visitor)			1 visitor space per 10 units	6
Minimum provision				86
Maximum provision				196

The total car parking requirement for the development is 86 (minimum) to 196 (maximum) spaces. The car parking requirements for people with disabilities (PWD) has been calculated in accordance with the *National Construction Code (NCC) – Volume 1* as shown in **Table 4.1.2**.

Table 4.1.2 PWD car parking requirements

Land use	Class	Car parking rate
Health care services	9a	1 space for every 50 carparking spaces
Indoor sport and recreation	6	1 space for every 50 carparking spaces
Research technology	8	1 space for every 100 carparking spaces
Office	5	1 space for every 100 carparking spaces
Food and drink outlet	6	1 space for every 50 carparking spaces
Short term accommodation ¹	1b	Percentage of accessible units to the total number of units
Notes:		
1. Six accessible units proposed (11% of total number of units)		

4.2 Car parking provision

A summary of the development's car parking provision is provided in **Table 4.2.1**.

Table 4.2.1 Development car parking provision

Level	Visitor spaces	Staff tandem spaces	PWD spaces	Staff small spaces	Unit spaces	Total
Level 1	2	26	5	-	-	33
Level 2	13	44	-	13	-	70
Level 3	11	30	-	4	14	59
Sub-totals	26	100	5	17	14	162 spaces

The development provides a total of 162 car parking spaces including 26 visitor spaces, 100 staff tandem spaces, five PWD spaces, 17 staff small spaces and 14 unit spaces and therefore complies with the PDA and NCC requirements. The five PWD spaces are provided within the Level 1 car park and are positioned close to the southern lifts offering ease of access from each space into the proposed development (**Appendix A**).

Car parking design for the proposed development has been undertaken generally in accordance with Australian Standard *AS2890.1 – Parking Facilities*. **Table 4.2.2** shows design parameters for each user class in accordance with *AS2890.1*.

Table 4.2.2 Car parking design requirement

User class	Minimum parking bay width (m)	Minimum parking bay length (m)	Minimum aisle width (m)	Use
1A	2.4	5.4	5.8	Staff
3	2.6	5.4	5.8	Visitor - high turn over
4	2.4*	5.4	5.8	People with Disabilities
Small Car	2.3	5.0	5.8	Small Car
Tandem	2.4	10.4	5.8	Staff
Notes: 1. In addition to these parameters, a shared area is also provided adjacent to the parking space.				

Other specific design parameters relating to the parking and internal road layout design have been developed generally in accordance Australian Standard *AS2890.1 – Parking Facilities*, specifically:

- the development proposes an automatic ticketing and boom gate system, provided 12.0m inside the entry of the car park facility from the proposed easement on the ground floor level. In accordance with *AS2890.1 – Appendix D*, an automatic ticketing and boom gate system is only required to provide one queueing lane where the peak inflow of traffic does not exceed 300 vehicles per hour. The queueing lane provides adequate room for three passenger vehicles to queue within the development site and the proposed services easement and therefore complies with *AS2890.1* (refer **Section 4.3** for queueing assessment)
- where the parking aisle is bounded by a vertical obstruction and a 6.1m parking aisle cannot be achieved, or a 1m parking aisle extension is not provided at the end of a blind aisle, the car parking spaces in question have been appropriately labelled as 'reverse parking only' in accordance with *AS2890.1 – Clause B4.3 (Appendix B)*. A total of nine reverse-in car parking spaces is provided with eight spaces on Level 2 and one space on Level 3
- to maximise the car parking supply, the proposed development comprises 17 small car parking spaces. The small car parking bays represent 10.5% of all spaces. This ratio of small to standard car parking spaces is considered acceptable on the basis that small car parking spaces are designed to cater for a B85 design vehicle in accordance with *AS2890.1* which represents 85% of all vehicles, and
- a turnaround bay is provided on Level 3 to ensure there is sufficient space available for a vehicle to perform a turnaround manoeuvre within the parking aisle at the end of the blind aisle.

4.3 Queuing assessment

To ensure vehicle queuing associated with the operation of the boom gate system does not adversely affect traffic or pedestrian flows on the Bonner Street frontage, *AS2890.1* requires sufficient on-site queuing area to be provided between the vehicle control point, which in this case comprises the boom gate on car park level one, and the property boundary along Bonner Street (including the Services Easement). For this analysis, *Austrroads Guide to Traffic Management: Part 2 – Traffic Theory Concept (2020)* was used to undertake analysis of the queuing provision for the proposed development.

For the analysis, the mean arrival rate was 223 vehicles per hour 'IN' to the site in the AM peak hour based on a 60%:40% IN:OUT split. The service rate for egressing vehicles was based on a transfer period of 10 seconds per vehicle through the boom gate.

A summary of the variables adopted for the queuing assessment of the boom gate operation is detailed in **Table 4.3.1**.

Table 4.3.1 Adopted queuing assessment parameters

Variable	Adopted Value	Comment
r	223 veh/h	average arrival rate
t	10 sec	Maximum waiting time for boom gate operation
s	720 veh/h	average service rate
p	0.31	utilisation factor ¹
Notes:		
1. The utilisation factor is the ratio of the average arrival rate, r, to the average service rate, s, that is $p=r/s$.		

Using *Equation 4.3²* in Austroads, the 98th percentile queue is three vehicles or 18m (assuming a 6.0m queue length per vehicle). The plans of development (**Appendix A**) demonstrate that there is approximately 30m of available queueing area between the front end of the boom gate on Level 1 and the Bonner Street vehicle crossing, which is adequate to queue up to five vehicles (6.0m per vehicle) if required. Therefore, no queuing issues that could impact the local road network are expected to arise due to the proposed boom gate system. The results of the queueing assessment are summarised in **Table 4.3.2**. Swept path sketches have been provided in **Appendix B** that utilise AutoTURN software to demonstrate that a B99 design vehicle exiting the development site can successfully pass three B99 passenger vehicles queueing at 6m intervals within the queueing area prior to the proposed boom gate whilst maintaining sufficient clearances to surrounding objects.

Table 4.3.2 Vehicle queuing assessment summary

Queue Length		Probability	
Vehicles	Metres	Exactly x Vehicles	Less or Equal to x Vehicles
0	0	69.03%	69.03%
1	6.0	21.38%	90.41%
2	12.0	6.62%	97.03%
3	18.0	2.05%	99.08%
4	24.0	0.64%	99.71%

4.4 Bicycle parking

The *Parklands Priority Development Area Development Scheme (December 2013)* stipulates that a development:

“Provides end of trip facilities for pedestrian and cyclists, including secure undercover bicycle storage facilities, showers and lockers are to be provided as part of development”

The proposed development provides a total of 40 secure (Class 2) bicycle parking spaces located in a designated bicycle parking room on the ground floor level and nine (Class 3) freely accessible bicycle parking spaces located within the Level 1 car park. The bicycle parking and storage facilities are provided in accordance with *MP 4.1 – Sustainable Buildings of the QDC*. The bicycle parking facilities are accompanied by end of trip facilities, comprising changing rooms that will include adequate showers, sanitary compartments, wash basins and mirrors. Adjacent to the bicycle storage room there is adequate provision for securing belongings in the form of personal lockers. The location of the facilities is easily accessible and within 100m of the entrance on the western side of the development site. The QDC stipulates that bicycle parking is provided to accommodate five percent (5%) of the number of employees, based on the work force numbers. The provision of 40 bicycle parking spaces equates to a work force of up to 800 people, which is considered not to exceed the number of employees of a development of this scale, and therefore the bicycle parking provision is expected to meet the needs of the development.

² Austroads (April 2020), *Guide to Traffic Management Part 2: Traffic Theory Concept*, p.33.

5. Access and servicing assessment

5.1 Access arrangement

The development proposes access from Bonner Street via a single, two-way 5.5m wide 'General Wide' vehicle crossing in accordance with IPWEA *Standard Drawing RSD-102 – Heavy Duty Vehicle Crossing*. The access will cater for all movements and provides direct access to the proposed Service Easement on the northern side of the development.

Figure 5.1 shows the proposed 'On-Street' parking plan for Bonner Street including landscape build-outs and the proposed driveway, while a detailed layout plan is provided as **Appendix C**. As a result of the proposed vehicle crossing and complying with AS2890 sight distance requirements, four on-street car parking spaces will be removed. Landscaping within the build-outs will be low level planting that does not exceed a mature height greater than 500mm above road level.



Figure 5.1 On-street parking plan on Bonner Street

5.2 Sight distance assessment

A sight distance assessment has been undertaken in accordance with AS2890.1 and AS2890.2 to ensure that the location of the vehicle crossing provides sufficient sight distance for road users to find a safe gap in oncoming traffic when leaving the site. The minimum gap sight distance requirements (MGSD) for a vehicle departing the site are provided in **Table 5.2**. It is anticipated that vehicles travelling towards the development site along Bonner Street would likely have an operating speed of 30km/h having traversed the 90-degree turn from either Knowledge Street or Nexus Way, and therefore this speed has been adopted for this assessment.

Table 5.2 Sight distance requirements

Frontage road	Vehicle speed assessed (km/h)	Sight distance requirements (5s Gap)
Bonner Street	30km/h	42m

Figure 5.2 shows the required sight distance and associated sight lines for vehicles travelling along Bonner Street to vehicles departing the development site, demonstrating compliance with specified requirements.

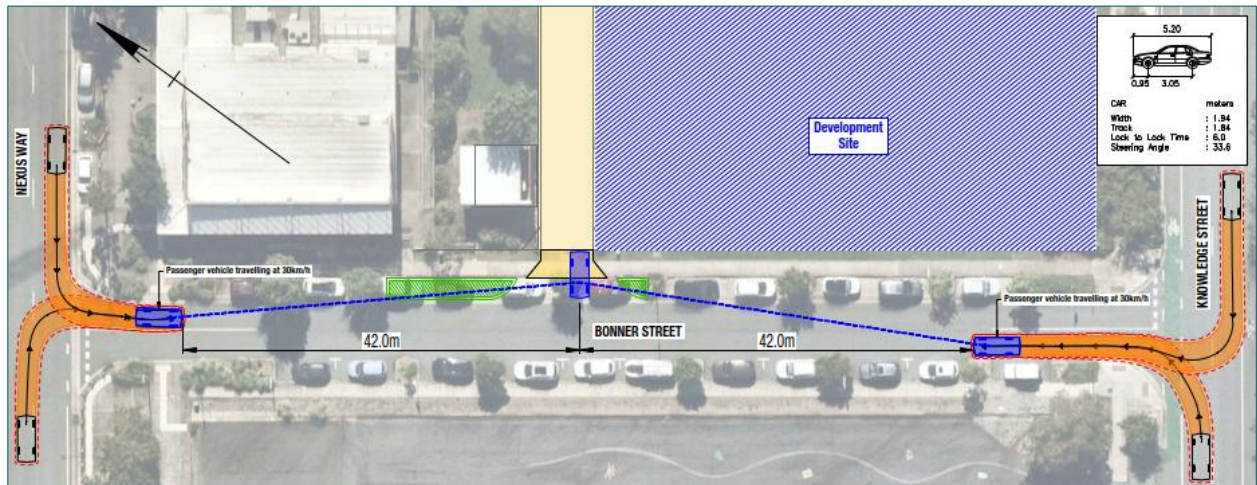


Figure 5.2 Sight distance assessment

5.3 Servicing

A review of the *Parklands Priority Development Area Development Scheme (December 2013)* has not identified service vehicle requirements for the proposed land uses. In lieu of PDA specific service vehicle requirements, service vehicle requirements for the proposed development have been based on the functionality and operations of the proposed commercial tenancies. A letter prepared by the applicant has been provided in **Appendix D** which confirms the largest service vehicle requirement for the development comprises an 8.8m Medium Rigid Vehicle (MRV).

The proposed development provides a dedicated servicing area to service the proposed commercial tenancies (**Figure 5.3**). The service area is located on the northern side of the development and is accessible via a 6m wide services easement provided along the northern boundary that provides direct connectivity to the Bonner Street frontage. The service area also provides parking for a 6.4m SRV / ambulance. A swept path assessment has been undertaken using AutoTURN Software to demonstrate that a MRV can satisfactorily enter the site in a forward gear, reverse into the service area, stand, and then exit the development in a forward gear (**Appendix B**).

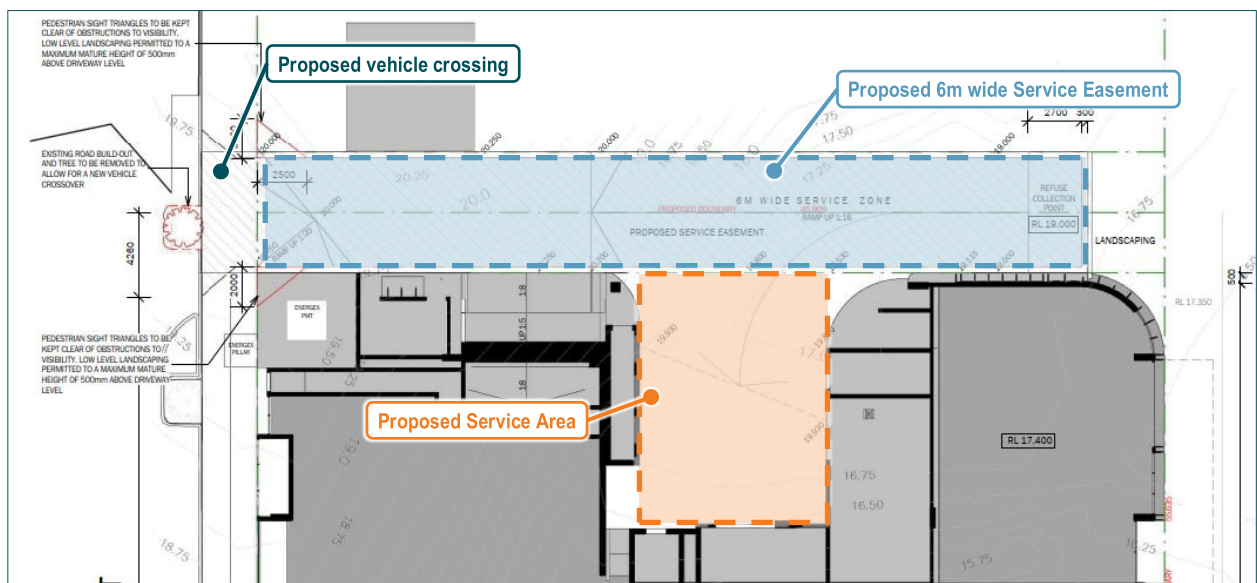


Figure 5.3 Proposed servicing arrangement

6. Conclusion

This report presents the findings related to assessment of traffic and transport related matters for a proposed development located at 5 Bonner Street, Southport. Based on the above assessment, it can be concluded that the proposed development will not introduce adverse traffic or transport impacts which would prevent its approval with appropriate conditions.

7. References

1. State of Queensland, *Parklands Priority Development Area Development Scheme (December 2013)*, Brisbane
2. State of Queensland, *Queensland Development Code (QDC) – MP4.1 Sustainable buildings - Version 1.13*, September 2020, Brisbane.
3. City of Gold Coast, *City Plan – Version 11 (February 2024)*, Gold Coast.
4. New South Wales Government (Roads and Traffic Authority), *Guide to Traffic Generating Developments – Issue 2.2*, 2002, Sydney.
5. Institute of Transportation Engineers, *Trip Generation Manual (10th Edition)*, 2017, Washington.
6. Queensland Government (Department of Transport and Main Roads), *Traffic Generation Data - 2006 - 2018*, November 2018, Brisbane.
7. Queensland Government (Department of Main Roads), *Road Planning and Design Manual: Chapter 3 Road Planning and Design Fundamentals*, December 2005, Brisbane.
8. Queensland Government (Department of Transport and Main Roads), *Guide to Traffic Impact Assessment*, December 2018, Brisbane.
9. Austroads (April 2020), *Guide to Traffic Management Part 2: Traffic Theory Concept*, 2020, Sydney
10. Australian Building Codes Board, *National Construction Code (NCC) Volume 1*, May 2019.
11. Standards Australia/Standards New Zealand 2004, *AS2890.1: Off-street Car Parking Facilities*.
12. Standards Australia/Standards New Zealand 2002, *AS2890.2: Off-street Commercial Vehicle Facilities*.
13. Standards Australia/Standards New Zealand 2016, *AS2890.3: Bicycle Parking*.
14. Standards Australia/Standards New Zealand 2022, *AS2890.6: Off-street parking for people with disabilities*.

Appendix A Plans of development

BONNER STREET

1
05.002

STREET PARKING

STREET PARKING

STREET PARKING

EXISTING FOOTPATH

ENERGEX
PMT
ABOVE

PUMP ROOM
23 m²
RL 16,500

SPRINKLER TANKS
65 m²
RL 16,500

STAIR 4

CORRIDOR
9 m²

EOT LOBBY
28 m²
RL 16,500

BIKE
RAMP

CORRIDOR
108 m²
RL 17,400

COMMERCIAL LOBBY
73 m²
RL 17,400

TENANCY 1
596 m²
RL 17,400

TENANCY 5
166 m²
RL 17,400

TENANCY 4
312 m²
RL 17,400

TENANCY 3
140 m²
RL 15,420

TENANCY 2
105 m²
RL 15,420

TENANCY 6
183 m²
RL 17,400

BICYCLE PARKING x 40
66 m²

MALE
32 m²

PWD
9 m²

FEMALE
32 m²

LOCKERS
15 m²

LOBBY
34 m²
RL 17,400

MECH

SERVICES

ENTRY PLAZA
RL 17,400

ENTRY FOYER
52 m²
RL 17,400

EMERGENCY
EXIT

KNOWLEDGE STREET

1
05.003

AWNING ABOVE

3400

RL 15,370

RL 17,350

RL 15,370

RL 17,350

PLANTING AT END OF SERVICE
LANE TO INTEGRATE INTO
DESIGN OF PIAZZA - REFER TO
LANDSCAPE DESIGN

APPROXIMATE AREAS	
COMMERCIAL LOBBY	73 m ²
TENANCY 1	596 m ²
TENANCY 2	105 m ²
TENANCY 3	140 m ²
TENANCY 4	312 m ²
TENANCY 5	166 m ²
TENANCY 6	183 m ²
COMMON: 15	481 m ²
GROUND FLOOR: 22	2056 m ²

BICYCLE PARKING	66 m ²
BOOSTER/HYDRANT	2 m ²
CLEANER	1 m ²
CORRIDOR	9 m ²
CORRIDOR	108 m ²
ENTRY FOYER	52 m ²
EOT LOBBY	28 m ²
FEMALE	32 m ²
LOBBY	34 m ²
LOCKERS	15 m ²
MALE	32 m ²
PUMP ROOM	23 m ²
PWD	9 m ²
SPRINKLER TANKS	65 m ²
WATER METERS	5 m ²
COMMON: 15	481 m ²
GROUND FLOOR: 22	2056 m ²

CARPARKING

TANDEM	26
VISITOR	7
LEVEL 1: 33	33

SMALL	11
TANDEM	48
VISITOR	11
LEVEL 2: 70	70

SHORT TERM	14
SMALL	2
TANDEM	34
VISITOR	9
LEVEL 3: 59	59

INDICATIVE LINE OF PROPOSED
PAVEMENT NOT INCLUDED IN THIS
APPLICATION - DESIGN BY OTHERS -
REFER TO PIAZZA DESIGN

1
05.002

AWNING ABOVE

RL 17,350

RL 15,370

RL 15,370

PRELIMINARY

1. The Client/Consultant/Builder understands that they accept all responsibility and must check all details for the accuracy and information presented on the JWS/2 file provided electronically by TVS Architects.
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5. The drawings should not be used by the Client/Consultant/Builder for design purposes that are not directly related to this project.
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LEGEND

V	Preliminary	28-04-25	TJC
Y	Design Updates	28-03-25	TJC
U	Facade Updates	03-04-25	TJC
S	Design Updates	25-03-25	TJC
R	PMT Added	24-03-23	CZ
Q	Further Issues Response #2	01-02-23	CZ
P	Further Issues Response	16-12-22	CZ
O	Preliminary F1 Response	07-12-22	CZ
N	Preliminary F1 Response	30-11-22	CZ
M	Development Application	03-08-22	CZ
L	Predevelopment Updates	18-07-22	CZ
K	Amended Site Boundaries	28-03-22	CZ

Revision	Description	Date	Initials
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0 2 4 10
Scale (m) 1 : 100 @A1 Scale (m) 1 : 200 @A3

PROJECT

NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

CLIENT

GOLD COAST 888 TRUST

DRAWING TITLE

GROUND FLOOR PLAN

Project Architect/Designer	Drawn By	Date Drawn
----------------------------	----------	------------

MK	TJC	
----	-----	--

Checked	Date Checked	Scale @ A1
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-		1 : 100
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Drawing No.	Revision
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6140.1S.02.001	V
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6. Any drawing issued without a current revision date represents an uncontrolled copy of the original document.

LEGEND

APPROXIMATE AREAS

CARPARK LEVEL 1	1061 m ²
CARPARK: 1	1061 m ²

COMMERCIAL LOBBY	104 m ²
FEMALE	9 m ²
MALE	10 m ²
PWD	6 m ²
TENANCY 1	122 m ²
TENANCY 2	137 m ²
TENANCY 3	163 m ²
COMMON: 14	390 m ²
LEVEL 1: 22	2002 m ²

CLINICAL WASTE	11 m ²
CORRIDOR	26 m ²
LOADING BAY	95 m ²
LOBBY	37 m ²
MEDICAL GAS ROOM	54 m ²
MSB	12 m ²
NBN/COMMS	8 m ²
REFUSE	47 m ²
STAIR 1	51 m ²
STAIR 3	8 m ²
STAIR 4	5 m ²
STAIR 5	16 m ²
STAIR 6	3 m ²
STORES	17 m ²
COMMON: 14	390 m ²
LEVEL 1: 22	2002 m ²

CARPARKING

TANDEM	26
VISITOR	7
LEVEL 1: 33	33

SMALL	11
TANDEM	48
VISITOR	11
LEVEL 2: 70	70

SHORT TERM	14
SMALL	2
TANDEM	34
VISITOR	9
LEVEL 3: 59	59

U	Preliminary	28-04-25	TJC
S	Design Updates	28-03-25	TJC
Y	Facade Updates	03-04-25	TJC
R	Design Updates	25-03-25	TJC
Q	PMT Added	25-03-25	CZ
P	Further Issues Response	16-12-22	CZ
O	Preliminary FI Response	07-12-22	CZ
N	Preliminary FI Response	30-11-22	CZ
M	Development Application	03-08-22	CZ
L	Prelodgement Updates	26-07-22	CZ
K	Prelodgement Updates	18-07-22	CZ
J	Amended Site Boundaries	28-03-22	CZ

Revision	Description	Date	Initials
----------	-------------	------	----------



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0 2 4 10
Scale (m) 1 : 100 @A1 Scale (m) 1 : 200 @A3

PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

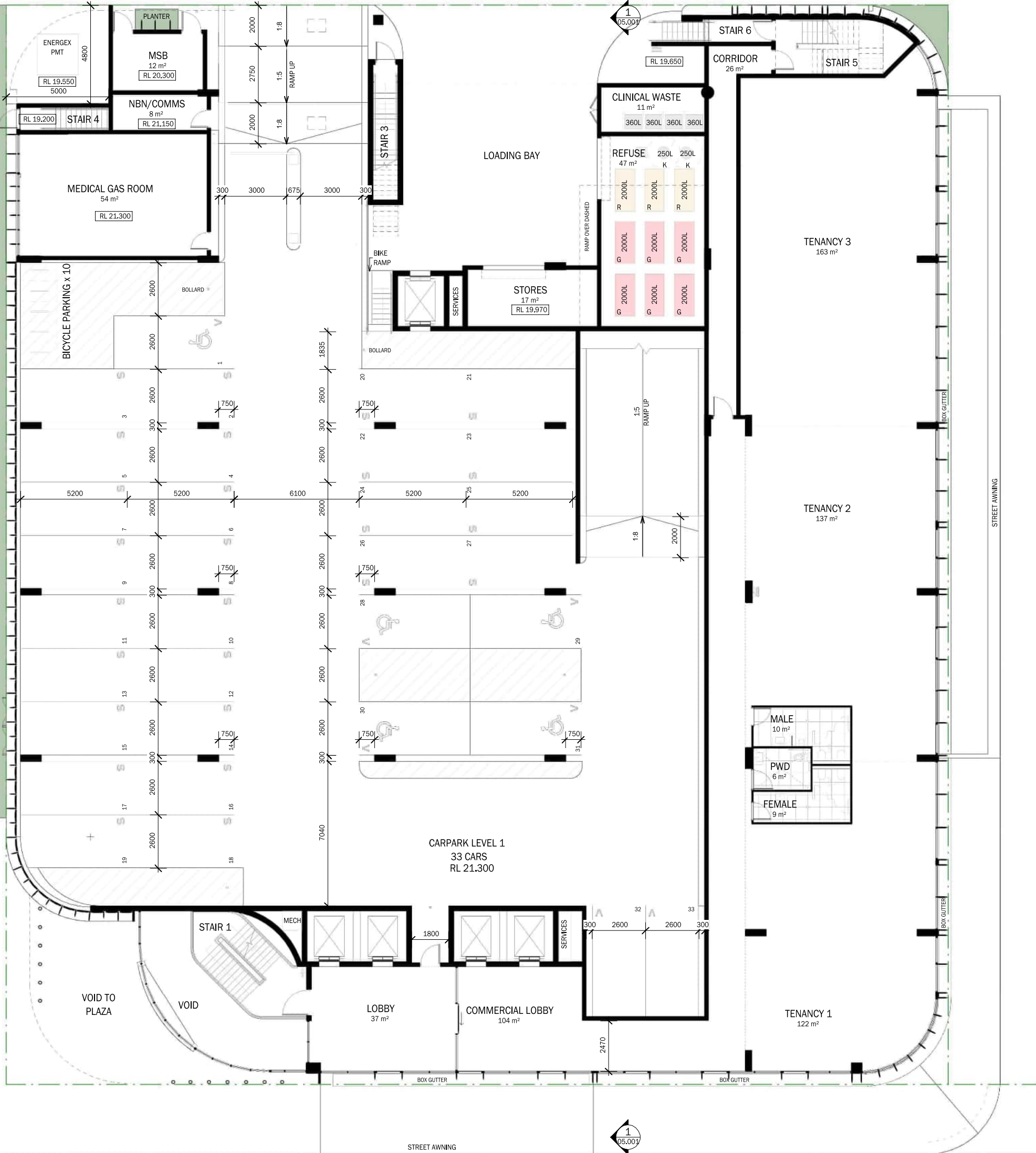
CLIENT
GOLD COAST 888 TRUST

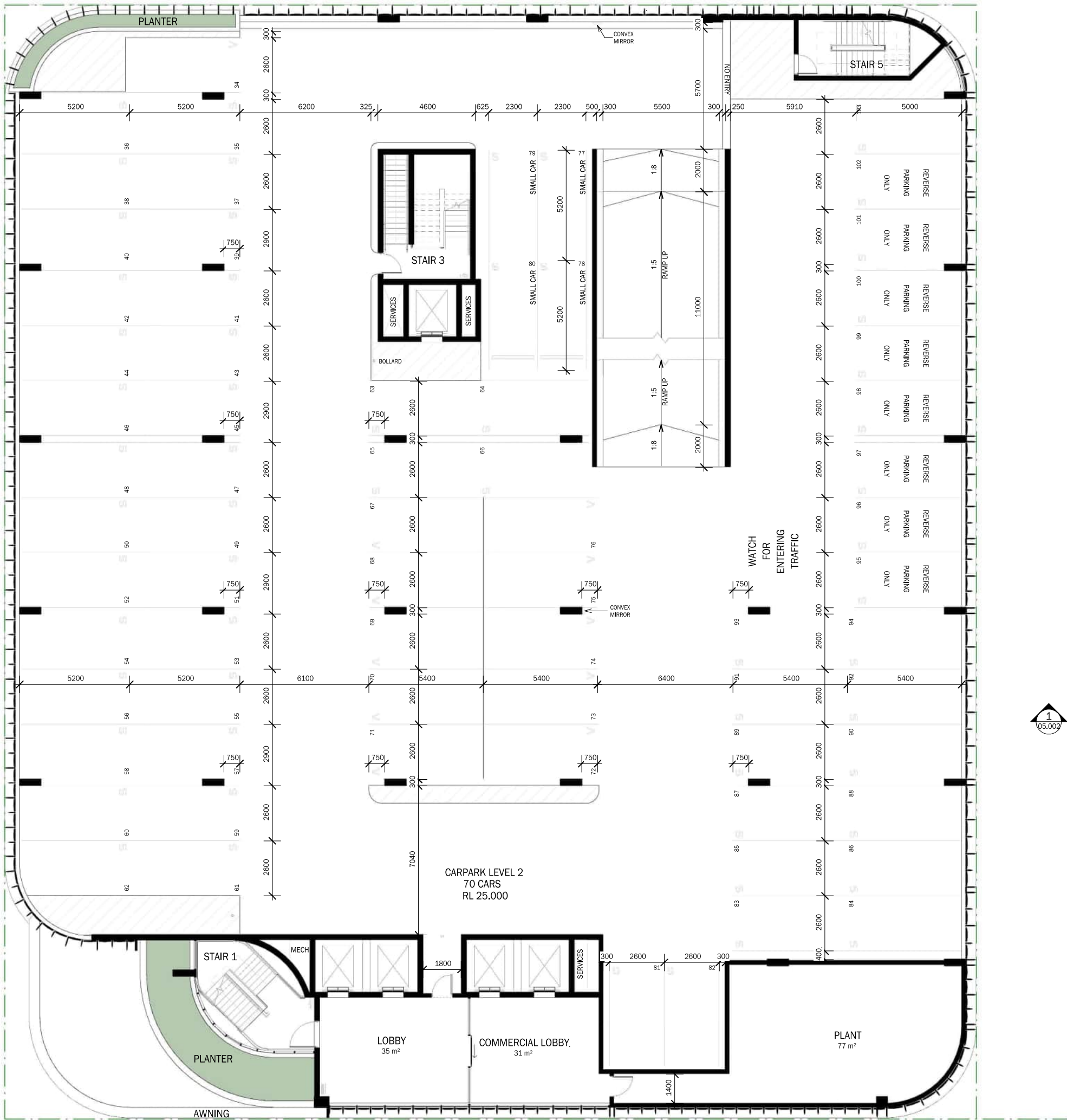
DRAWING TITLE
LEVEL 1 FLOOR PLAN

Project Architect/Designer	Drawn By	Date Drawn
MK	TJC	
Checked	Date Checked	Scale @ A1
-		1 : 100
Drawing No.	Revision	

6140.1S.02.002

U





APPROXIMATE AREAS

CARPARK LEVEL 2	1887 m²
CARPARK: 1	1887 m²

COMMERCIAL LOBBY	31 m²
PLANT	77 m²
COMMON: 2	108 m²

LOBBY	35 m²
STAIR 1	23 m²
STAIR 3	16 m²
COMMON: 3	74 m²
LEVEL 2: 6	2069 m²

CARPARKING

TANDEM	26
VISITOR	7
LEVEL 1: 33	33

SMALL	11
TANDEM	48
VISITOR	11
LEVEL 2: 70	70

SHORT TERM	14
SMALL	2
TANDEM	34
VISITOR	9
LEVEL 3: 59	59

PRELIMINARY

1. The Client/Consultant/Builder understands that they accept all responsibility and must check all details for the accuracy and information presented on the JWDG file provided electronically by TVS Architects.
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LEGEND

R	Preliminary	26-04-25	TJC
P	Design Updates	28-03-25	TJC
Q	Facade Updates	03-04-25	TJC
O	Design Updates	25-03-25	TJC
N	Further Issues Response	16-12-22	CZ
M	Preliminary PI Response	07-12-22	CZ
L	Preliminary PI Response	30-11-22	CZ
K	Development Application	03-08-22	CZ
J	Prelodgement Updates	26-07-22	CZ
I	Prelodgement Updates	18-07-22	CZ
H	Amended Site Boundaries	28-03-22	CZ
G	General Amendments	16-12-21	CZ

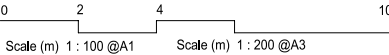
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PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

CLIENT
GOLD COAST 888 TRUST

DRAWING TITLE
LEVEL 2 FLOOR PLAN

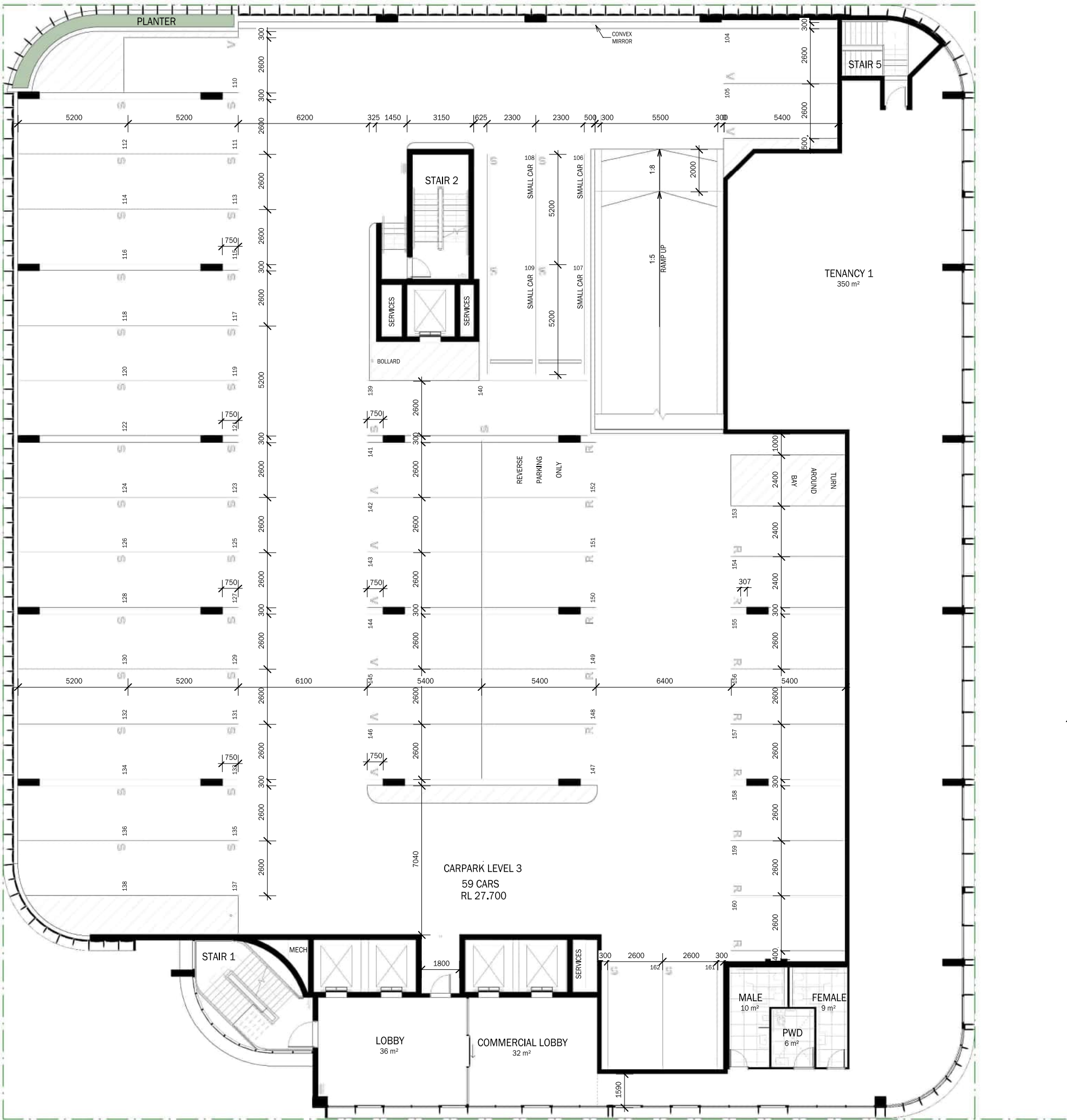
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MK	TJC	
Checked	Date Checked	Scale @ A1
-		1 : 100
Drawing No.	Revision	
6140.1S.02.003	R	

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7. Any drawing issued without a current revision date represents an uncontrolled copy of the original document.

LEGEND

APPROXIMATE AREAS		CARPARKING	
CARPARK LEVEL 3	1605 m ²	TANDEM	26
CARPARK: 1	1605 m ²	VISITOR	7
LEVEL 1: 33		33	
COMMERCIAL LOBBY	32 m ²	SMALL	11
FEMALE	9 m ²	TANDEM	48
MALE	10 m ²	VISITOR	11
PWD	6 m ²	LEVEL 2: 70	
TENANCY 1	350 m ²	70	
COMMERCIAL: 5	407 m ²	SHORT TERM	14
LOBBY	36 m ²	SMALL	2
STAIR 1	24 m ²	TANDEM	34
STAIR 2	16 m ²	VISITOR	9
COMMON: 3	76 m ²	LEVEL 3: 59	
LEVEL 3: 9	2088 m ²	59	



S	Preliminary	28-04-25	TJC
Q	Design Updates	28-03-25	TJC
R	Facade Updates	03-04-25	TJC
P	Design Updates	25-03-25	TJC
O	Further Issues Response	16-12-22	CZ
N	Preliminary PI Response	07-12-22	CZ
M	Preliminary PI Response	30-11-22	CZ
L	Development Application	03-08-22	CZ
K	Prelodgement Updates	26-07-22	CZ
J	Prelodgement Updates	18-07-22	CZ
I	Amended Site Boundaries	28-03-22	CZ
H	General Amendments	16-12-21	CZ

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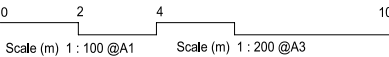
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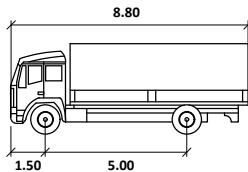
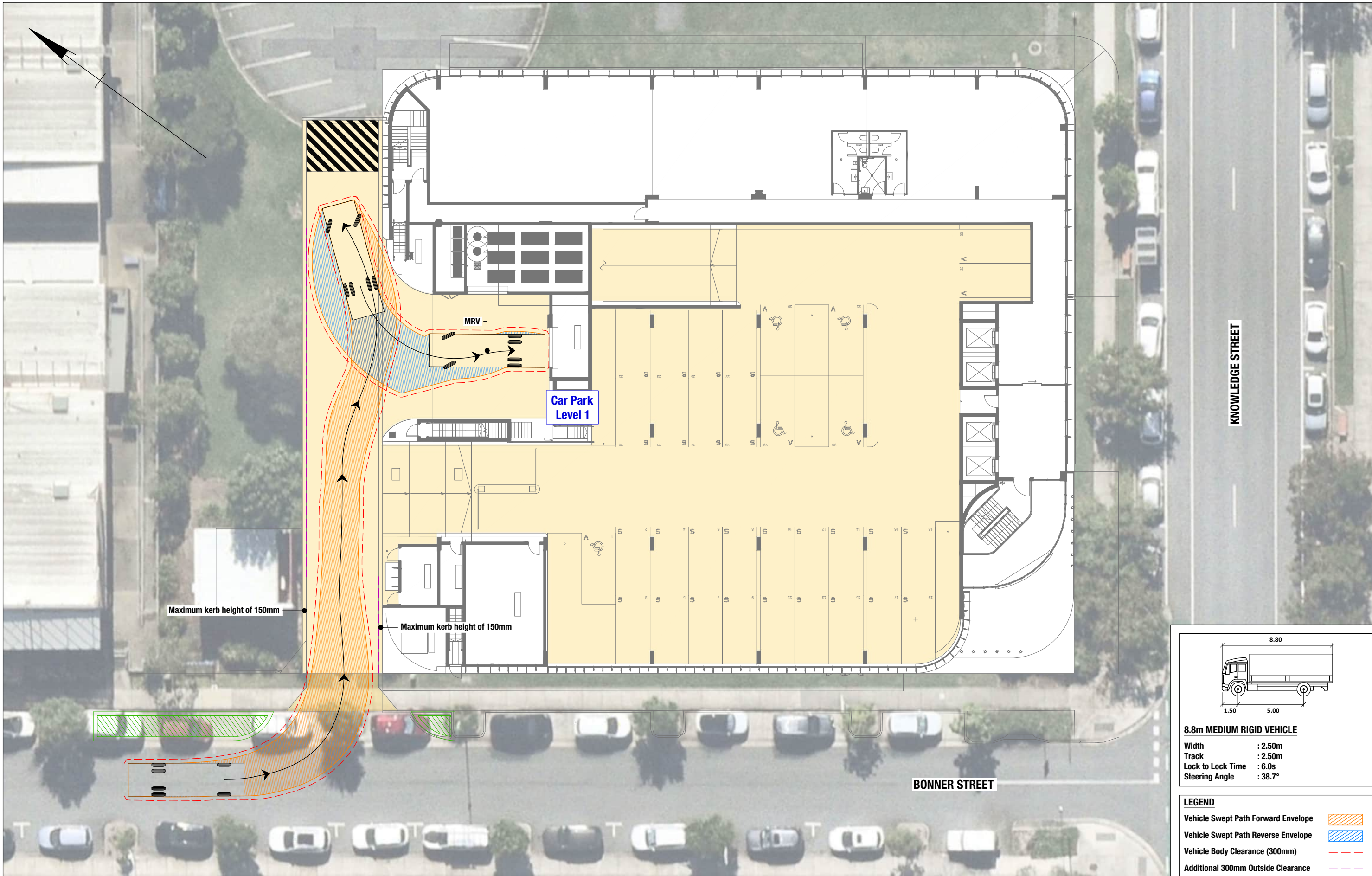
PROJECT
NORTH STAR
LOT 3A-2 CORNER OF KNOWLEDGE AND
BONNER STREET, GCHKP

CLIENT
GOLD COAST 888 TRUST

DRAWING TITLE
LEVEL 3 FLOOR PLAN

Project Architect/Designer	Drawn By	Date Drawn
MK	TJC	
Checked	Date Checked	Scale @ A1
-		1:100
Drawing No.	Revision	
6140.1S.02.004	S	

Appendix B Swept path assessment

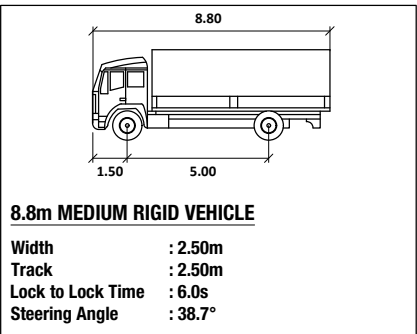
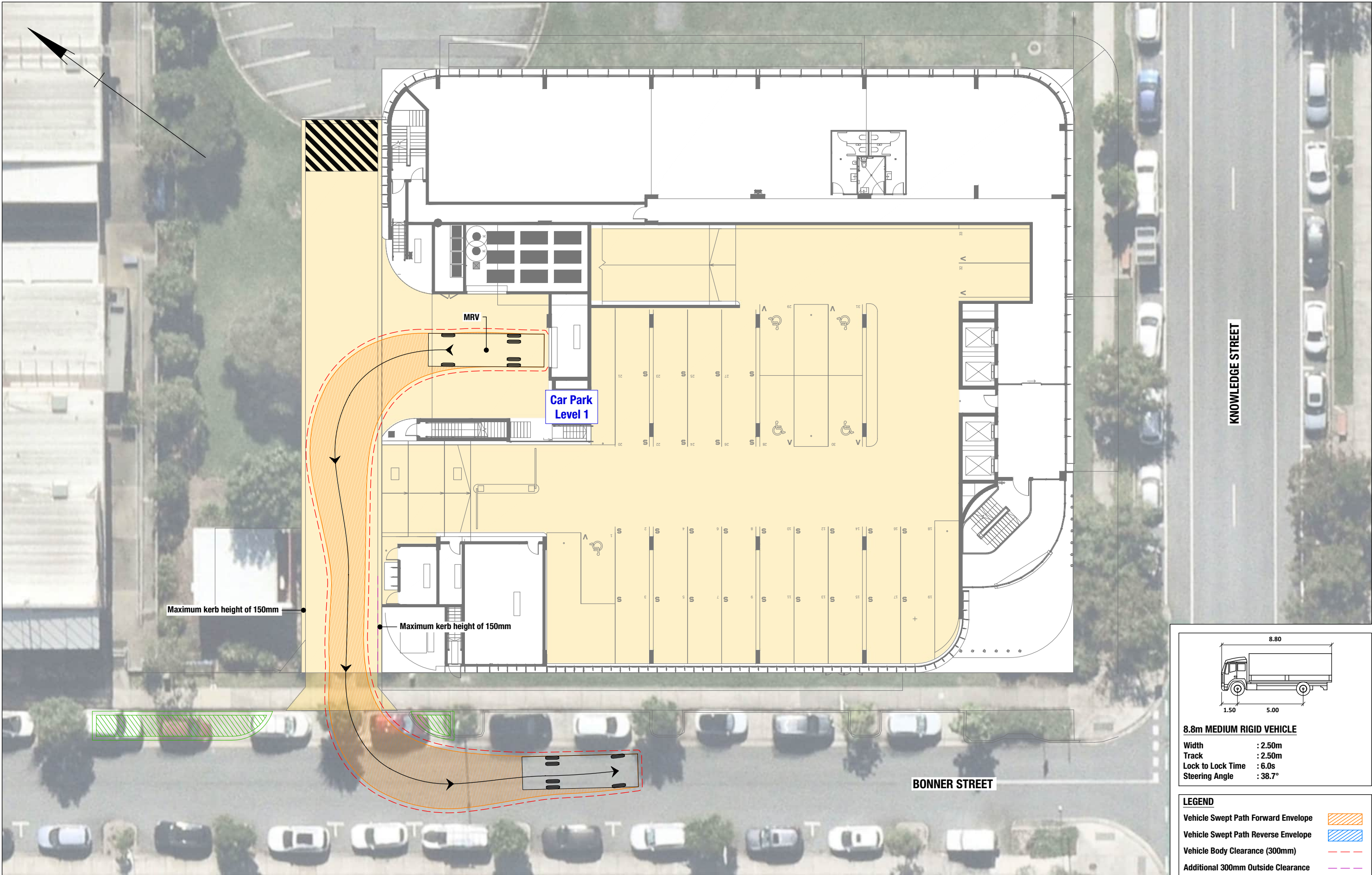


8.8m MEDIUM RIGID VEHICLE

Width	: 2.50m
Track	: 2.50m
Lock to Lock Time	: 6.0s
Steering Angle	: 38.7°

LEGEND

Vehicle Swept Path Forward Envelope	
Vehicle Swept Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	



LEGEND	
Vehicle Swept Path Forward Envelope	
Vehicle Swept Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	

GELEON

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0 1 2 3 4 5m

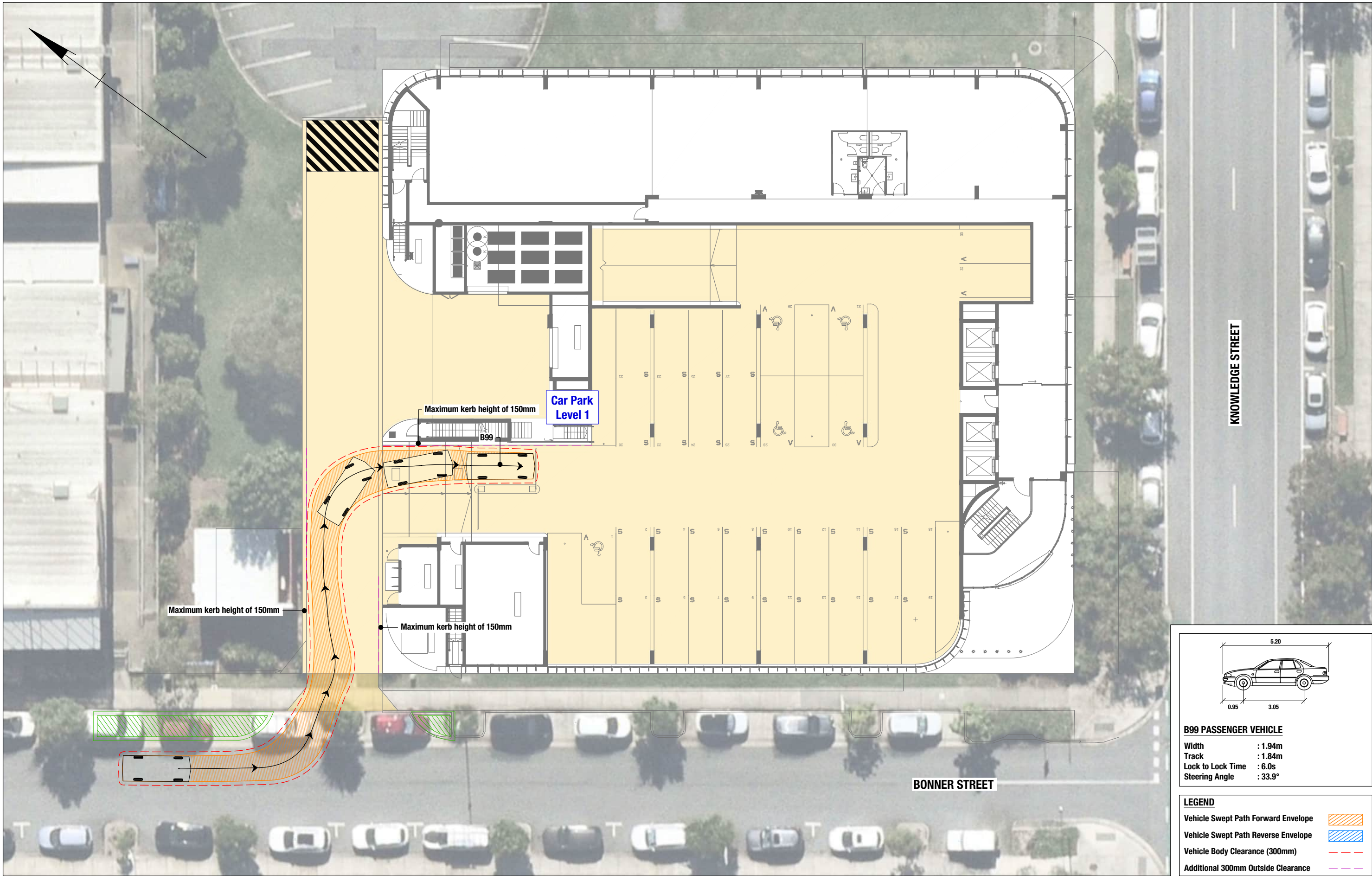
5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

SWEPT PATH ASSESSMENT
8.8m MEDIUM RIGID VEHICLE
EXIT FROM DEVELOPMENT SITE

Project No.
50971 Issue Date
09/05/25

Drawing No.
50971-SP002-A

Series No. 2 of 8



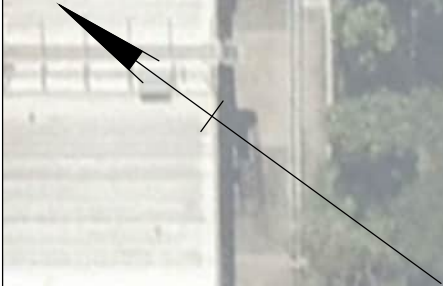
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5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

**SWEPT PATH ASSESSMENT
B99 PASSENGER VEHICLE
ACCESS TO BOOM GATE**

Project No. 50971	Issue Date 09/05/25
Drawing No. 50971-SP003-A	
Series No. 3	of 8



B99 passenger vehicles queued at 6m intervals (Refer to Drg No. 50971-SP003-A)

Car Park Level 1

Maximum kerb height of 150mm

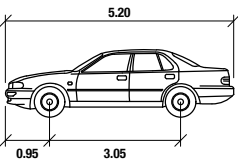
Recommened kerb alignment

Maximum kerb height of 150mm

B99

BONNER STREET

KNOWLEDGE STREET



B99 PASSENGER VEHICLE

Width : 1.94m
Track : 1.84m
Lock to Lock Time : 6.0s
Steering Angle : 33.9°

LEGEND

- Vehicle Swept Path Forward Envelope
- Vehicle Swept Path Reverse Envelope
- Vehicle Body Clearance (300mm)
- Additional 300mm Outside Clearance

GELEON

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PO Box 454 Nerang Qld 4211
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0 1 2 3 4 5m

5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

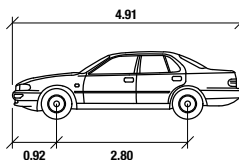
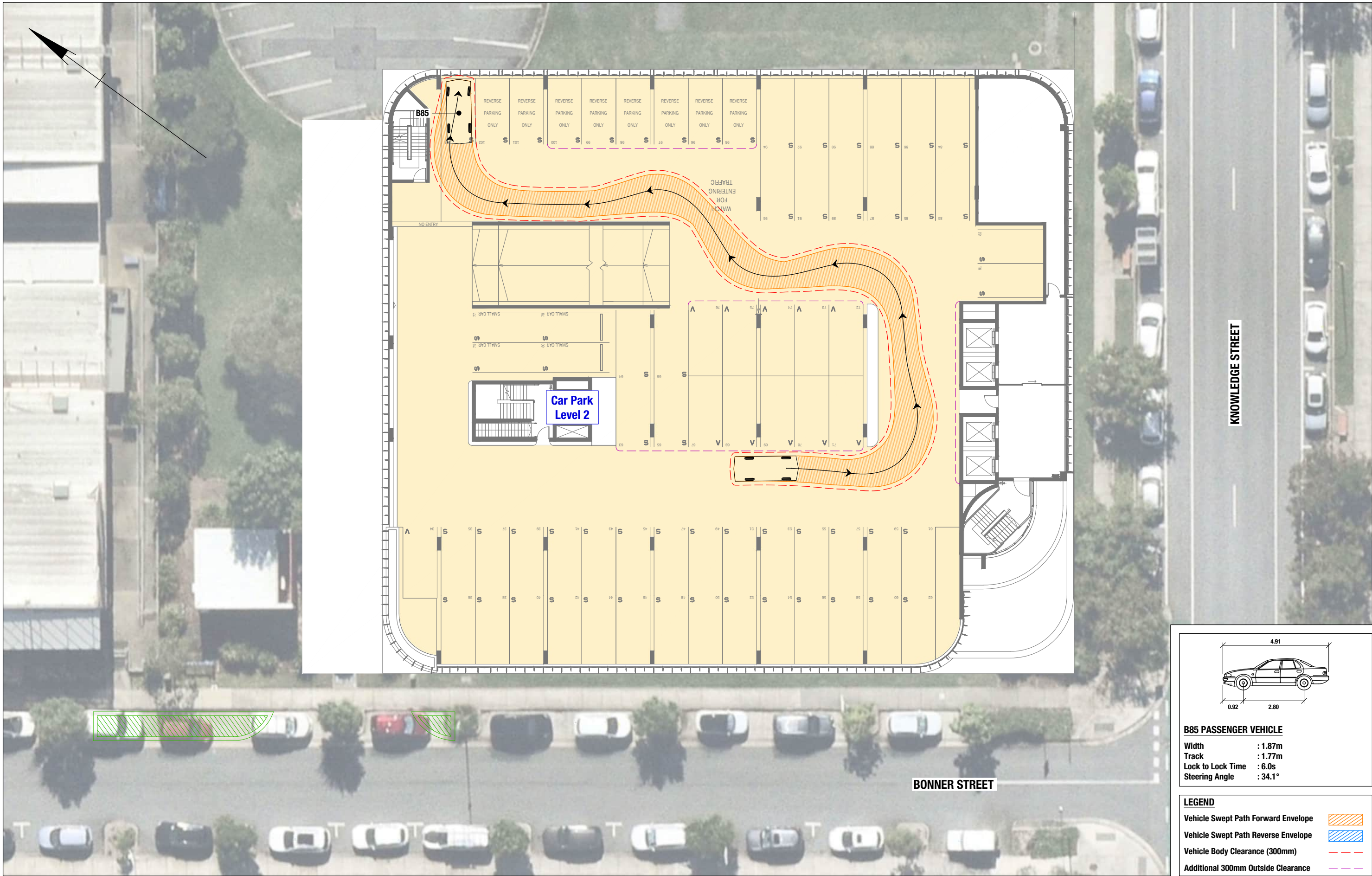
SWEPT PATH ASSESSMENT
B99 PASSENGER VEHICLE
EXIT FROM DEVELOPMENT SITE

Project No.
50971

Issue Date
09/05/25

Drawing No.
50971-SP004-A

Series No. 4 of 8



B85 PASSENGER VEHICLE

Width	: 1.87m
Track	: 1.77m
Lock to Lock Time	: 6.0s
Steering Angle	: 34.1°

LEGEND

Vehicle Swept Path Forward Envelope	
Vehicle Swept Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	

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Suite 12, Level 1, 3029 The Boulevard
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PO Box 454 Nerang Qld 4211
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0 1 2 3 4 5m

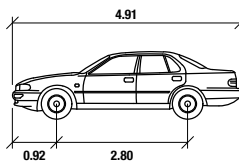
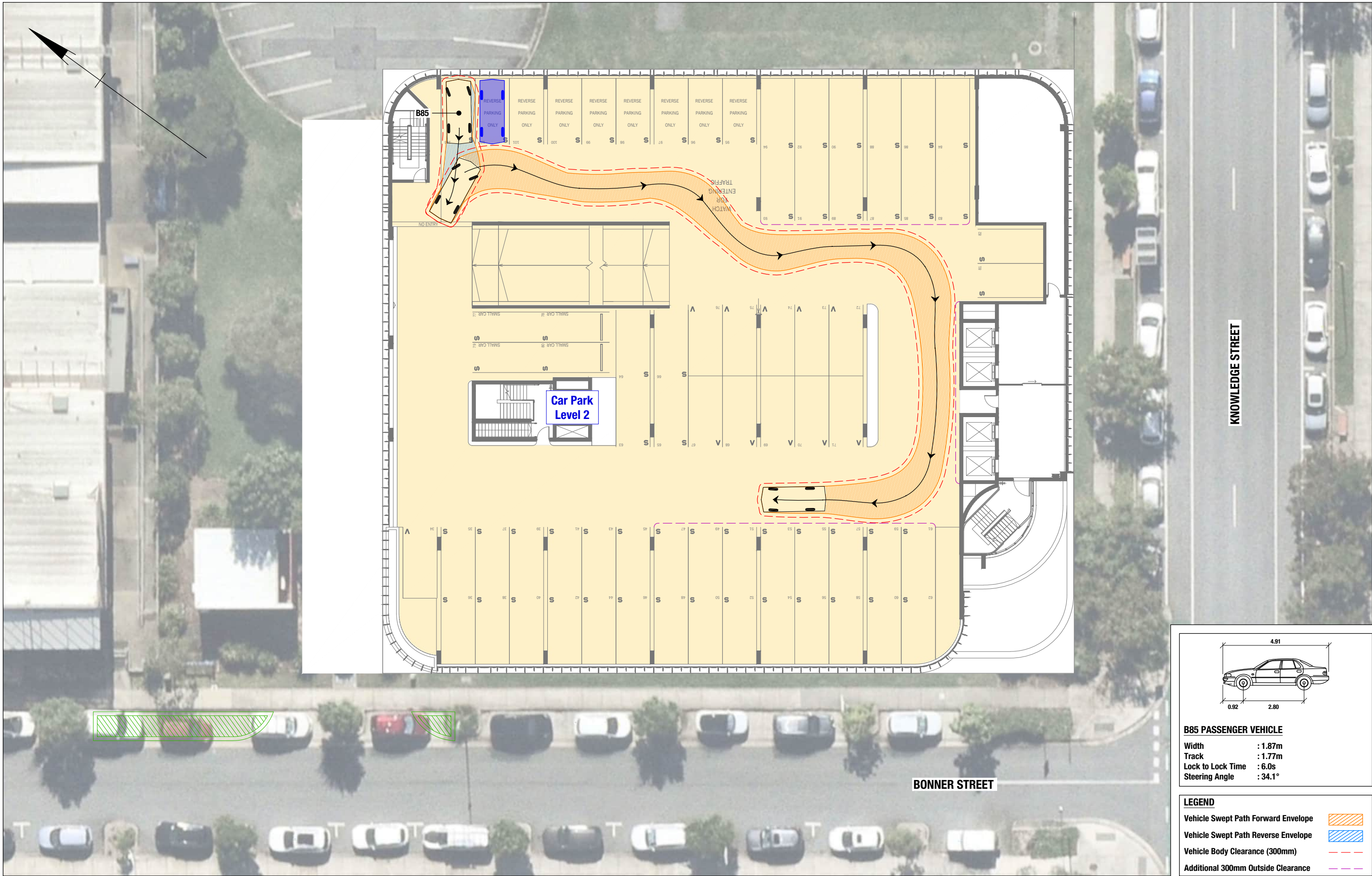
5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

**SWEPT PATH ASSESSMENT
B85 PASSENGER VEHICLE
ENTRY INTO CAR PARK**

Project No.
50971 Issue Date
09/05/25

Drawing No.
50971-SP005-A

Series No. 5 of 8



B85 PASSENGER VEHICLE

Width	: 1.87m
Track	: 1.77m
Lock to Lock Time	: 6.0s
Steering Angle	: 34.1°

LEGEND

Vehicle Swept Path Forward Envelope	
Vehicle Swept Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	

GELEON

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0 1 2 3 4 5m

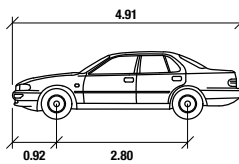
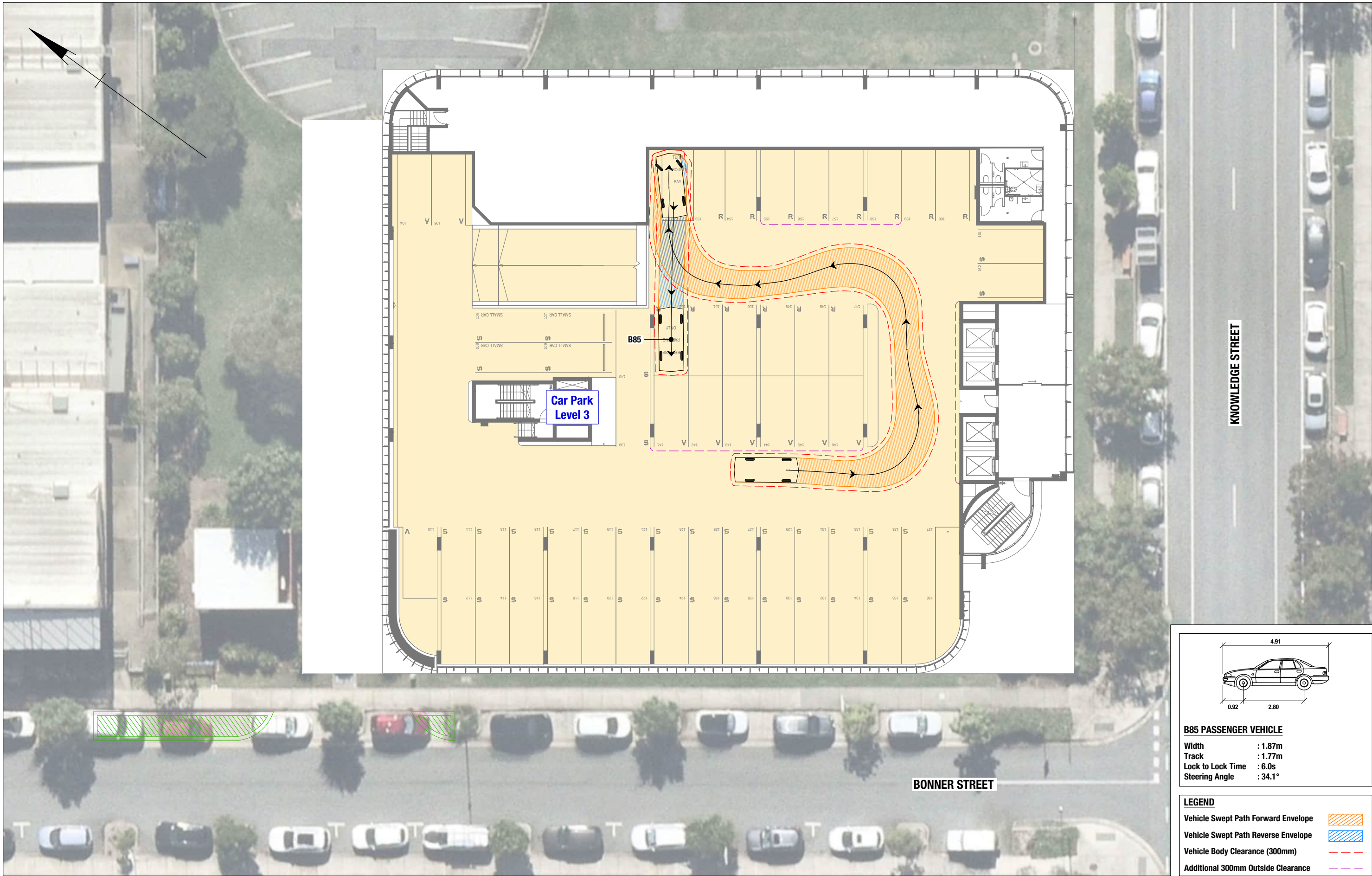
5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

**SWEPT PATH ASSESSMENT
B85 PASSENGER VEHICLE
EXIT FROM CAR PARK**

Project No.
50971 Issue Date
09/05/25

Drawing No.
50971-SP006-A

Series No. 6 of 8



B85 PASSENGER VEHICLE

Width	: 1.87m
Track	: 1.77m
Lock to Lock Time	: 6.0s
Steering Angle	: 34.1°

LEGEND

Vehicle Swept Path Forward Envelope	
Vehicle Swept Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	

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ABN 58 668 001 303
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Emerald Lakes, Carrara
PO Box 454 Nerang Qld 4211
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0 1 2 3 4 5m

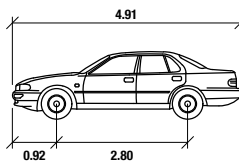
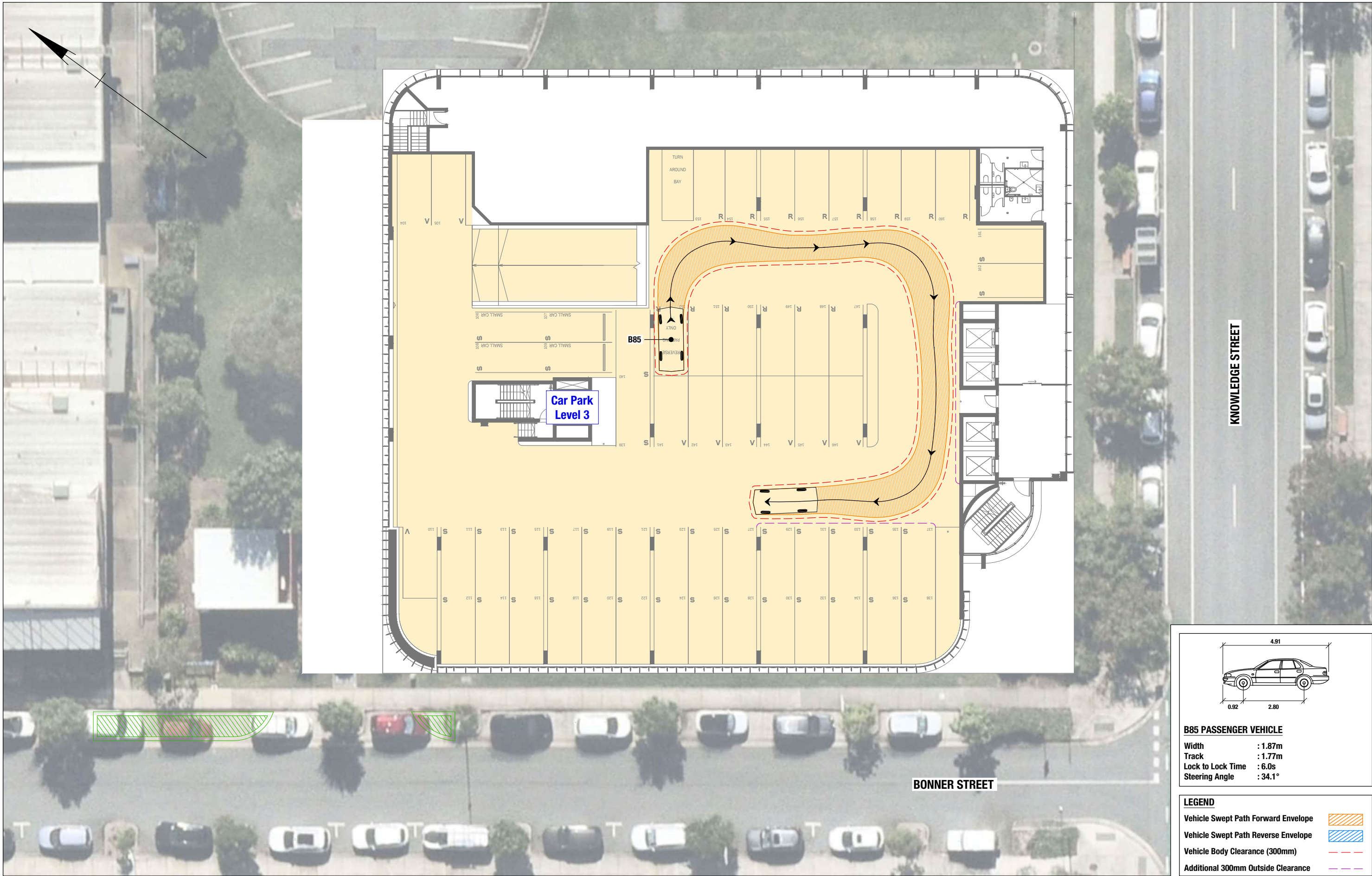
5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

**SWEPT PATH ASSESSMENT
B85 PASSENGER VEHICLE
ENTRY INTO CAR PARK**

Project No. 50971 Issue Date 09/05/25

Drawing No. **50971-SP007-A**

Series No. 7 of 8



B85 PASSENGER VEHICLE

Width	: 1.87m
Track	: 1.77m
Lock to Lock Time	: 6.0s
Steering Angle	: 34.1°

LEGEND

Vehicle Swept Path Forward Envelope	
Vehicle Swept Path Reverse Envelope	
Vehicle Body Clearance (300mm)	
Additional 300mm Outside Clearance	

GELEON

ABN 58 668 001 303
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Emerald Lakes, Carrara
PO Box 454 Nerang Qld 4211
tel +61 7 5594 4473

0 1 2 3 4 5m

5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

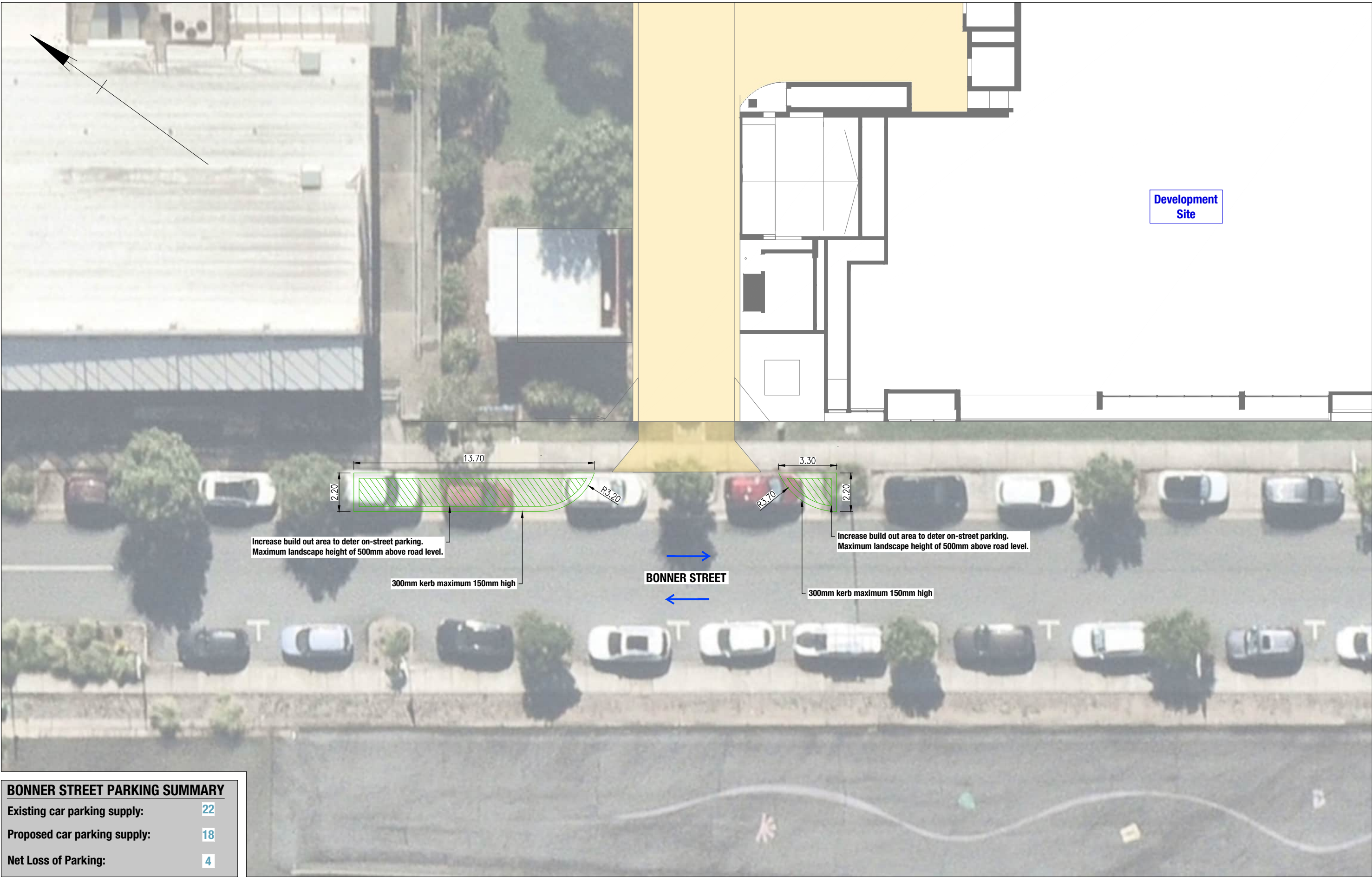
**SWEPT PATH ASSESSMENT
B85 PASSENGER VEHICLE
EXIT FROM CAR PARK**

Project No.
50971 Issue Date
09/05/25

Drawing No.
50971-SP008-A

Series No. 8 of 8

Appendix C On-street parking layout plan



BONNER STREET PARKING SUMMARY

Existing car parking supply:	22
Proposed car parking supply:	18
Net Loss of Parking:	4

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0 1 2 3 4m

5 BONNER STREET, SOUTHPORT
PROPOSED MIXED USE DEVELOPMENT

ON-STREET PARKING PLAN

Project No. 50589	Issue Date 09/05/25
Drawing No. 50971-WS001-A	
Series No. 1 of 1	

Appendix D Service vehicle letter

19-12-2022

Att: Elizabeth Piper
The Assessment Manager
EDQ Development Assessment Team
Economic Development Queensland
GPO Box 2202
Brisbane QLD 4001

Dear Elizabeth,

LETTER OF ADVICE – SERVICE VEHICLE REQUIREMENTS
DEVELOPMENT APPLICATION FOR MATERIAL CHANGE IN USE
LOT 3A, 16 NEXUS WAY, SOUTHPORT (APPLICATION REFERENCE: DEV2022/1325)

I write to you as the developer of the proposed building at 16 Nexus Way, Southport to provide supporting information in relation to service vehicle requirements. I make the following comments:

- It is understood that the proposal includes the 'Research and Technology Industry' land use to accommodate potential future tenants, such as myself, that seek to establish a medical laboratory within the building.
- My practice generally requires a Medium Rigid Vehicle (MRV) to service our needs, including relevant loading and unloading.
- I do not consider it necessary to provide an Articulated Vehicle (AV) service vehicle on the site, given the intention for medical laboratories (or similar) only.

I request Economic Development Queensland take into consideration my above comments, noting that the requirements for an AV do not reflect my general requirement for an MRV instead.

Yours sincerely,

Signature	
Name	Vincent Yu



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