Traffix Group

Traffic Engineering Assessment

Proposed Mixed Use Development

511-537 Sydney Road, Coburg

Prepared for
Assemble SRC Development Nominee Pty Ltd

March 2024

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Table of Contents

List of Figures

List of Tables

List of Appendices

1. Introduction

1.1. Preamble

Traffix Group has been engaged by Assemble SRC Development Nominee Pty Ltd to undertake a Traffic Engineering Assessment for the Proposed Mixed Use Development at 511-537 Sydney Road, Coburg.

This report provides a detailed traffic engineering assessment of the parking and traffic issues associated with the proposed development.

In the course of undertaking this assessment, we inspected the subject site, reviewed development plans and background material, and assessed the car parking and traffic impacts of the proposal.

This report has been updated to include responses to the relevant traffic and transport matters raised by the Department of Planning and Transport received on 18/01/24.

Our assessment is as follows.

1.2. Existing Permit

In August 2015, a town planning permit (MPS/2011/266/A) was issued by the City of Moreland (now Merri-bek) for the development of a mixed-use development comprising residential, office and retail land uses.

The proposal included 270 dwellings, 2,346 square metres of commercial floor area (retail and office) and 338 car spaces as allocated and summarised in Table 1.

Table 1: Approved Scheme – Development Summary Car Parking Allocation

Use	Type	Size/Number (Variation)	Car Parking Allocation	Car Parking Rate
Residential	One-bedroom Apt.	176 dwellings	176	1 space per dwelling
	Two-bedroom Apt.	94 dwellings	109 [1]	1.16 spaces per dwelling
	Residential Subtotal	*270 dwellings*	*285 car spaces*	
Commercial	Office	419 m^2	14	3.34 spaces per 100m^2
	Retail	1,927 m^2	39	2.02 spaces per 100m^2
	Commercial Subtotal	*2,346* m^2	*53 car spaces*	-
Total		**-**	**338 car spaces**	**-**

[1] Assumed allocation of 1 car space for each 1-bedroom apartment and the remainder to the 2-bedroom apartments

The previously approved scheme included the provision of 287 bicycle parking spaces, with an allocation of 270 spaces for the residential apartments (1 space per apartment) and 17 spaces for commercial (1 space per 138 sqm of office/retail floor area).

Reductions in the statutory car parking requirements for the office and retail uses were approved.

The proposal required the provision of a new fourth leg to the existing signalised intersection at Sydney Road and Urquhart Street, which would serve the subject site as a private accessway to on-site car parking and loading.

The proposal included a separate loading bay for residential and retail adjacent to the ramp to the car park.

The above permit scheme has been considered in this application.

1.3. This Proposal

Architectural Plans dated February 2024 have been prepared by JCBA for a new Application on the site for a mixed-use development.

In comparison with the existing permit, the new Application proposes a number of key changes, including:

- An increase in the number of residential dwellings to provide 326 dwellings, and the introduction of a Build-to-Rent-to-Own model,
- A reduction in the commercial and retail land use floor areas (by some 1,192 square metres),
- A decrease in the number of car parking spaces by 182 spaces,
- An increase in the bicycle parking provisions by 323 spaces and the intention to provide 4 car share spaces.

Our assessment of the proposal is as follows and considers the existing permit as a 'base line', noting that this application is for under a new permit pathway.

2. Existing Conditions

2.1. Subject Site

The subject land, addressed as 511-537 Sydney Road, Coburg, is located on the western side of Sydney Road, approximately 35 metres north of its intersection with Bell Street.

The subject site is rectangular in shape with frontages to Sydney Road (at the east), Ross Street (at the west) and a Right of Way (RoW) (at the south) of approximately 91, 89 and 50 metres, respectively.

A number of crossovers are provided along Sydney Road and Ross Street.

The site is currently undeveloped.

Land to the immediate north has an existing permit which allows for a mixed use development. It includes a setback along the southern boundary to provide for a 'green link' which will serve as an east-west pedestrian link between Sydney Road and Ross Street. We understand that the subject site will have access to this green link.

A locality plan is provided at Figure 1 and an aerial image detailing the existing crossovers is given at Figure 2.

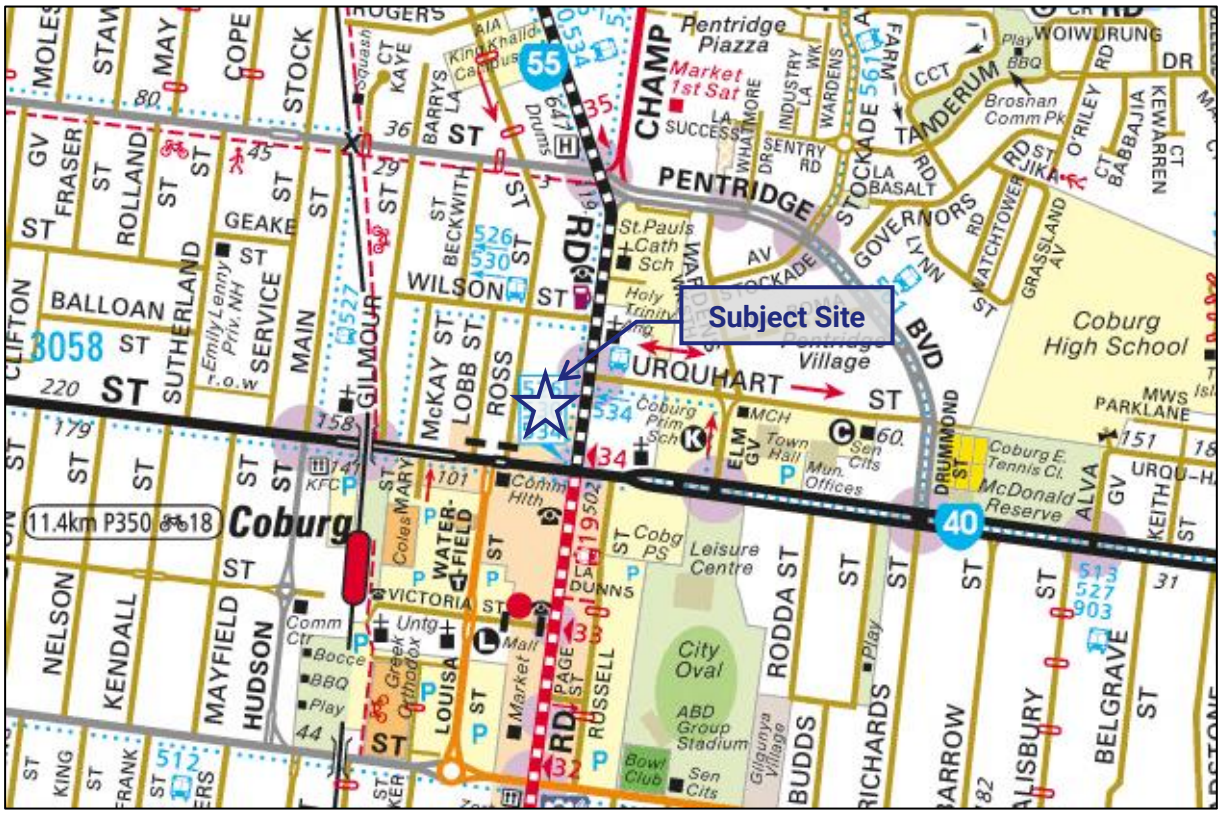


Figure 1: Locality Map

Figure 2: Aerial Image *Source: Nearmap*

2.2. Planning Scheme Zones & Surrounding Uses

The subject site is situated within an Activity Centre Zone – Schedule 1 (ACZ1) under the Merri-bek Planning Scheme, as shown in the zoning map at Figure 3.

The site is situated within the Coburg Major Activity Centre, which accommodates a mixture of land uses including food and drink premises, offices, a mixture of residential density (including apartments) and other commercial uses.

Existing land uses surrounding the site are predominantly commercial in nature along Sydney Road, commercial and school uses to the east and residential uses immediately west of the site. Further to the site, there are some Public Use – Local government and Public Park and recreation uses.

Other notable land uses in the nearby area include Coburg Primary School approximately 90 metres east of the site, and Coburg Railway Station located just 380 metres walking distance to the south-west of the subject site.

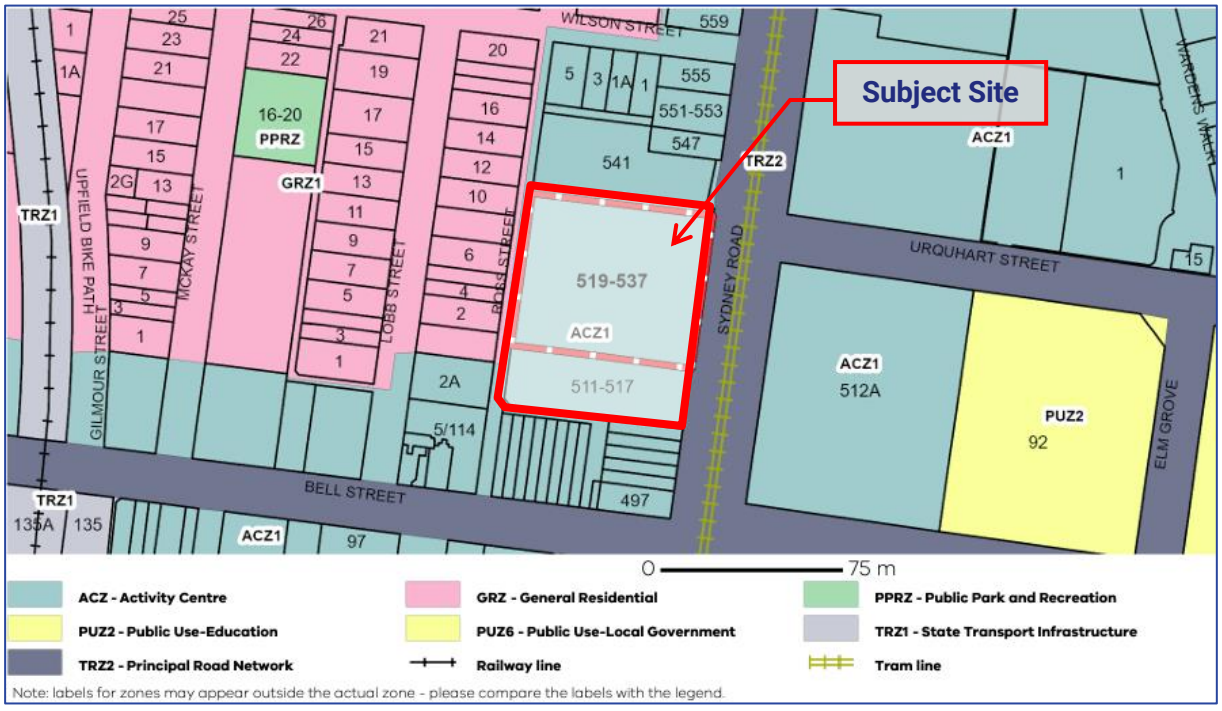
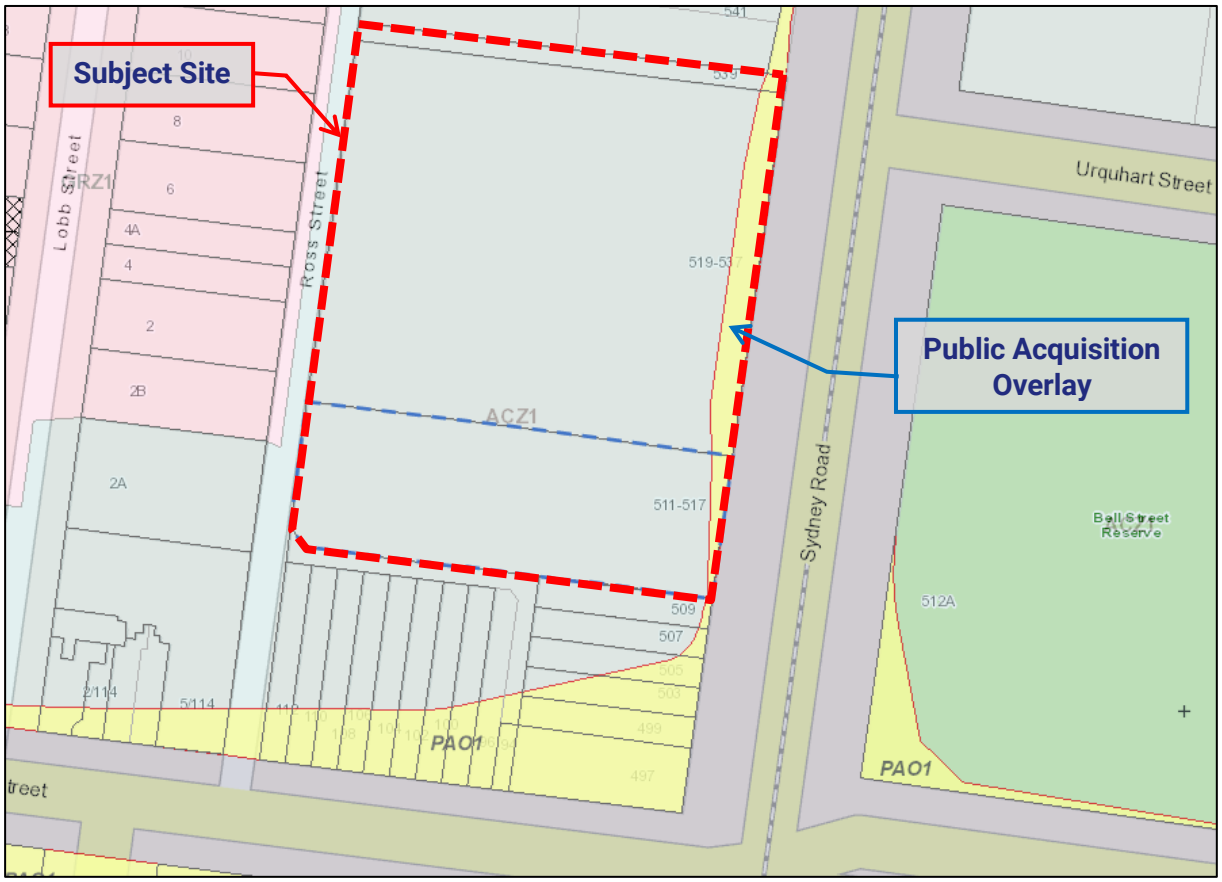


Figure 3: Planning Zone Map – Merri-bek *Source: VicPlan*

A Public Acquisition Overlay (PAO) applies to Sydney Road generally between the Wilson Street at the north and Bell Street at the south.

Along the subject site, the PAO incorporates a small portion along the Sydney Road frontage, encroaching into the site from a minimum of 1 metre and a maximum of 5 metres, as shown at Figure 4.



Source: Vicplan

Figure 4: Public Acquisition Overlay – Merri-bek City Council

2.3. Road Network

Sydney Road is a State Arterial Road located within a Transport Zone 2 – Principal Road Network (TRZ2). It generally extends in a north-south direction between Cooper Street to the north, where it continues as the Hume Highway, and Brunswick Road to the south, where it continues as Royal Parade to the City.

In the vicinity of the site, Sydney Road provides two through traffic lanes in each direction, separated by a central dedicated tram reserve. South of Bell Street, Sydney Road merges to a single carriageway with shared tram, vehicle and parking lanes. North of Urquhart Street, Sydney Road has a bicycle lane.

A bus stop is located along the site's frontage on Sydney Road.

Along the site's frontage, parking is otherwise restricted to '1/2 P 9am-4pm Mon-Fri 9am-1pm Sat and 'No Stopping 7am-9am 4pm-6pm Mon-Fri'. Further north from Urquhart Street, parking is restricted to '2P 9am-4pm Mon-Fri 9am-1pm Sat' and 'Clearway 7am-9am 4pm-6pm Tow away'.

A signed speed limit of 40km/h 7am-7pm applies to Sydney Road, reverting to 60km/h outside of these periods.

Ross Street is classified as an 'Access Road' under Council's Road register, aligned in a general north-south direction, running between Gaffney Street in the north and Bell Street in the south.

In the vicinity of the site, Ross Street has a carriageway width of approximately 4.0 metres within a 6-metre wide road reservation, essentially operating as a rear laneway/Right of Way that provides some parking and limited access to existing lots to the west of the site.

Kerbside parking along the site frontage is restricted to 'No Stopping' on both sides of Ross Street. Some unrestricted parking is provided further south along the east side of Ross Street.

The road reserve of Ross Street continues to Bell Street, but there is no vehicular access between the two.

An L-shaped **Right-of-Way (RoW)** extends in an easterly direction from Ross Street before turning south and terminating at the rear of 94 Bell Street, Coburg. The east-west section of the RoW has a varying carriageway width ranging from approximately 3.4 metres to 3.7 metres.

Urquhart Street is a declared Arterial Road and is located within a Transport Zone 2 – Principal Road Network (TRZ2) under the Planning Scheme as it provides for a key vehicular route from Sydney Road (north) to Bell Street (east) allowing a bypass of the Sydney Road/Bell Street intersection.

Urquhart Street extends to Blackwood Close in the east and at its western end, intersects Sydney Road opposite the north-eastern corner of the site at a signalised intersection (currently a T-intersection). The current permit requires the additional of a fourth (western) leg to this intersection which would serve a private access road and on-site parking.

West of Elm Grove, Urquhart Street provides for a lane for through traffic in each direction, with kerbside parallel parking on the south side and indented 90° angled parking on the north side.

East of Elm Grove, Urquhart Street operates in a one-way arrangement (eastbound), with kerbside parallel parking on the south side and indented 90° angled parking on the north side. Within this section Urquhart Street is a local Council Road.

On-street parking is a mixture of short-term (2P) and unrestricted parking on Urquhart Street east of the signals.

A posted speed limit of 40km/h applies to Urquhart Street during school times, with a 60km/h limit applying outside these times.

Figure 5 to Figure 10 provide views of the surrounding road network.

Figure 5: Sydney Road – View North

Figure 6: Sydney Road – View South

Figure 7: Ross Street – View North

Figure 8: Ross Street – View South

Figure 9: RoW – View East

Figure 10: Urquhart Street – View East

2.4. Sustainable Modes of Transport

2.4.1. Walkability

The site is extremely walkable in the context of its location within the Coburg Major Activity Centre and access to multiple sustainable transport modes, retail and essential services, and other community and daily residential needs.

Figure 11 illustrates the site location in this context, including 400 metre and 800 metre radii, and demonstrates how easily the site can access these daily services.

Figure 11: Walkability Map

2.4.2. Rideability

Merri-bek is a very bicycle friendly municipality and the Coburg suburb provides for access to multiple on and off-road bike lanes, paths and routes in proximity to the site.

On-road bicycle lanes are located along the Sydney Road frontage and the Upfield Bike Path is located to the west of the subject site providing connections to North Coburg to the north and Moonee Ponds Creek Trail in the south. The Merri Creek Trail is also accessible from the site, located approximately 1.2km to the east.

Sydney Road is a nominated bicycle route in the Principal Bicycle Network as shown at Figure 12 and additional informal bicycle routes are also nominated on roads in the immediate vicinity of the subject site, including Bell Street.

This provides opportunities for the site to connect with existing and future bicycle infrastructure.

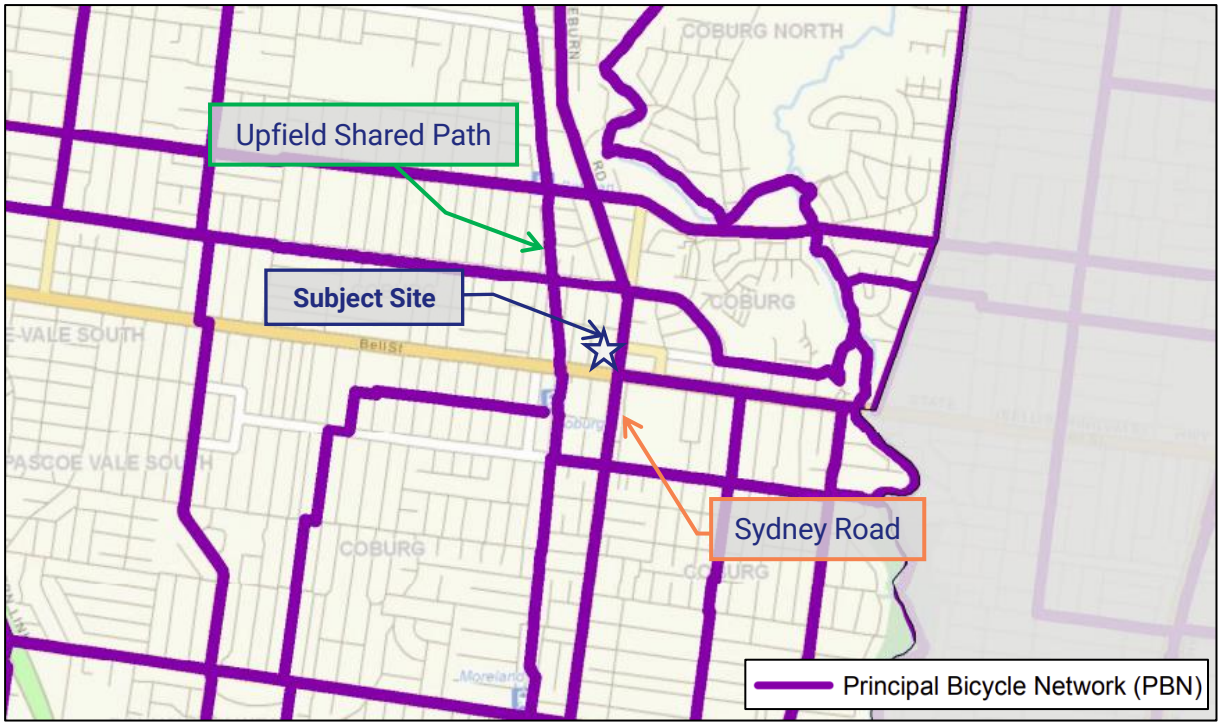


Figure 12: Principal Bicycle Network - Merri-bek

Source: https://www.vicroads.vic.gov.au/traffic-and-road-use/cycling/bicycle-network-planning

2.4.3. Public Transport

The site has excellent access to public transport services with Coburg Railway Station (a Premium Train Station) located 450m to the southwest of the site. Tram Route 19 and three bus routes operate along the Sydney Road site frontage.

Table 2 summarises the key available services, whilst Figure 13 illustrates the surrounding public transport network.

Table 2: Public Transport Services in the Immediate Vicinity of the Site

Service	Route		Nearest Stop
Train	Upfield Station – Flinders Street Station		Coburg Station ~380 metres southwest
Tram	Route 19	North Coburg – Flinders Street Station & City	~ 70 metres south
Bus	Route 526	Coburg – Reservoir via Elizabeth Street	Sydney Road Frontage
	Route 530	Campbellfield Plaza – Coburg via Fawkner	Sydney Road Frontage
	Route 534	Glenroy to Coburg via Boundary Road & Sydney Road	~115 metres southeast
	Route 527	Gowrie – Northland via Murray Road	
	Route 513	Eltham – Glenroy via Lower Plenty	
	Route 514	Eltham – Glenroy via Greensborough	
	Route 561	Macleod – Pascoe Vale via La Trobe University	
	Route 903	Altona – Mordialloc (SMARTBUS Service)	
	Route 512	Strathmore – East Coburg via Pascoe Vale South	

Figure 13: Public Transport Map (Courtesy of PTV)

2.4.4. Existing Car Share Opportunities

Car share offers an opportunity to provide access to a car for residents (and workers) where they may need it for occasional use.

A few commercially operated car share pods are available proximate to the site, with the following most closely accessible:

- McKay Street near Bell Street (1 car) (GoGet),
- Victoria Street (Coburg Station) (1 car) (GoGet),
- Stockade Avenue near Pentridge Boulevard (1 car) (GoGet).

Figure 14 illustrates proximate car share pod locations to the subject site.

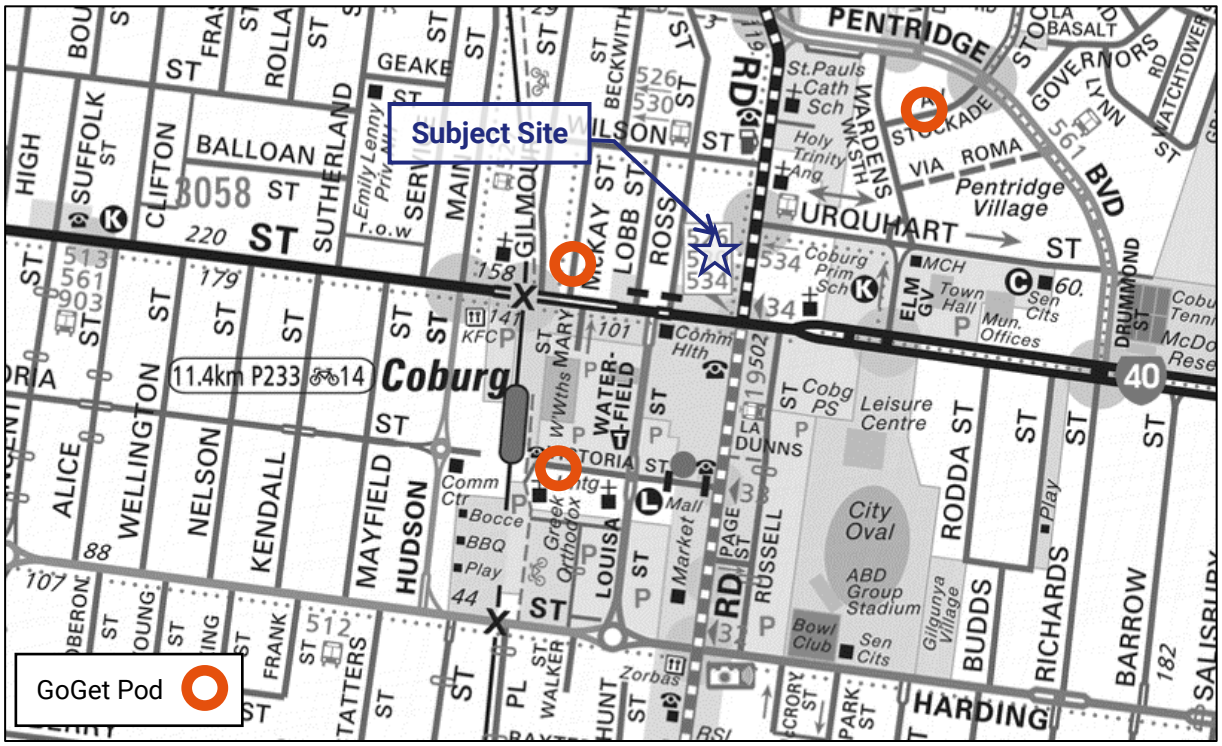


Figure 14: Proximate Carshare Pods *Source: Melways Online*

3. Proposal

3.1. Development Schedule

The proposal is for a Mixed Use Development with 326 dwellings (operating under a Build-to-Rent-to-Own model with ancillary uses and amenities) with 1,154 square metres of office floor area, and a retail/shop/food and drink premises.

A development summary of the proposal is shown in Table 3.

Table 3: Proposed Development Summary

Use	Type	Proposed
Residential	Studios	26 dwellings
	One-bedroom	75 dwellings
	Two-bedroom	156 dwellings
	Three-bedroom	69 dwellings
	Residential Subtotal	***326 dwellings***
Commercial	Office	1,051 m^2 NLA / 1,207 m^2 of NFA[2]
	Retail (Shop/Food and Drink)	103 m^2 NLA
	Commercial Subtotal	***1,154 m^2 NLA***

3.2. Access

3.2.1. Pedestrian and Bicycle Access

Primary pedestrian access for staff and visitors to the site is proposed via two points along the Sydney Road frontage. A further four access points are provided along Ross Street and a new private accessway which is intended to operate along the northern boundary of the site from Sydney Road.

The existing Right of Way (RoW) that runs along the southern boundary of the site is retained and not being altered. The site will setback at ground level to provide for a fire escape path.

A widened footpath is proposed along the site's frontage to Sydney Road (allowing for the existing Public Acquisition Overlay)

Bicycle access can be taken from the pedestrian routes as well as via the vehicle access at the north of the site.

[2] Includes a proportion of the circulation and EOT areas per the definition in the Planning Scheme.

3.2.2. Vehicle Access

The proposal provides a setback to the northern boundary to provide a new private access road as a new western leg to the existing Sydney Road/Urquhart Street intersection, consistent with the existing permit and Section 173 agreement on title.

This new road serves the on-site car parking and loading/waste collection.

This accessway also provides access to a pocket park to the west and pedestrian access to Ross Street and intends to:

- Maintain unrestricted public pedestrian and bicycle access through the northern accessway (between the building and ROW)
- Will not prevent or impede physical access from the driveway to the adjoining right of way, except to the extent required to provide an appropriate separation between vehicular and pedestrian movement.

No vehicle access is provided to Ross Street or the Right of Way (RoW).

A summary of the access arrangements is provided in Figure 15.

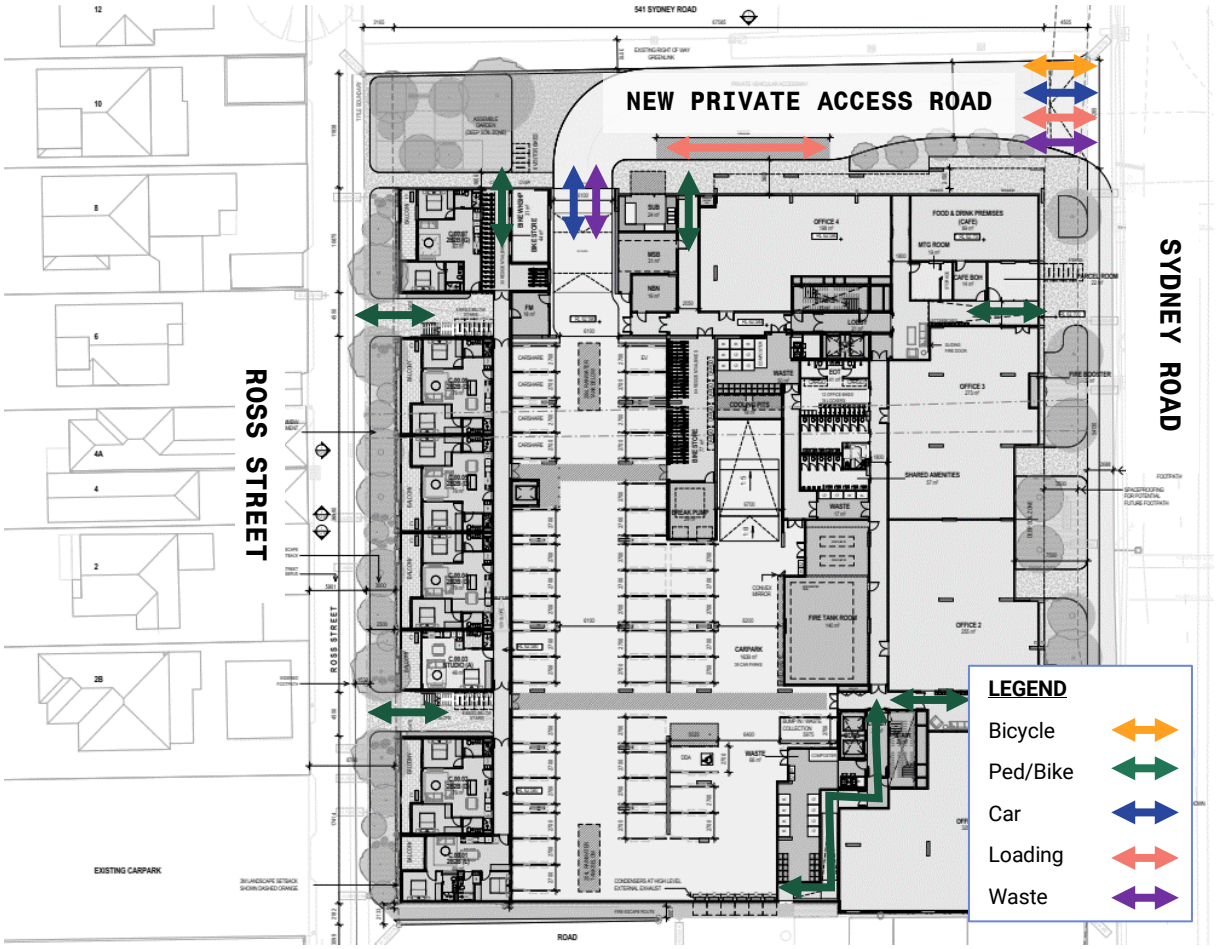


Figure 15: Proposed Site Access and Movement Arrangements (All Modes of Transport)

3.3. Parking

3.3.1. Bicycle Parking Provision & Allocations

The application proposes the provision of 610 bicycle spaces, allocated as follows:

- 562 resident spaces (492 stacker spaces, 66 vertical spaces and 4 cargo spaces) across ground, level 1 and level 2.
- 36 visitor spaces (18 double sided horizontal hoops) within the public realm.
- 12 office staff spaces (10 vertical spaces rail and 2 cargo spaces) at the ground floor.

End of Trip facilities are proposed on-site for staff, inclusive of 3 showers and changerooms with sufficient lockers provided for commercial staff located adjacent the staff bicycle parking area on the ground floor.

Access to bicycle parking is available via pedestrian entrances to Sydney Road and Ross Street as well as the private vehicle accessway to the north of the site (Figure 15).

3.3.2. Car Parking Provisions and Allocations

A total of 156 car parking spaces are proposed which are intended to be allocated as:

- 139 car spaces for residents (inc. 14 tandem spaces at level 2),
- 13 car spaces for commercial uses (inc. 1 DDA spaces at ground level),
- 4 car share spaces.

One EV charging space is provided at the ground floor.

A Build-to-Rent-to-Own model is proposed for the residential component which allows for parking to be managed by Assemble and leased on a per demand basis.

The intention is that the 4 car share spaces will be managed by Assemble (but may be contracted to a commercial provider if there is demand).

Three motorcycle parking spaces are provided at the level 2 carpark.

3.3.3. Loading & Waste Collection

Loading is proposed on site from the private accessway via the dedicated loading bay/drop-off bays provision for the loading vehicles to turnaround on-site.

Waste collection is proposed within the ground floor car park off the private accessway via private contractor.

3.4. Comparison to Existing Permit

Whilst this application is for a new permit, a comparison of the existing permit is provided in Table 4.

The key changes with the scheme (compared with the existing approval) are:

- An increase in the number of residential dwellings to provide 326 dwellings, and the introduction of a Build-to-Rent-to-Own model,
- A reduction in the commercial and retail land use floor areas (by some 1,192 square metres),
- Decrease in the number of car parking spaces by 182 spaces to provide a total of 156 spaces,
- A commensurate increase in the bicycle parking provisions by over 300 spaces and the intention to provide 4 car share spaces.
- Modifications to the proposed private accessway to reduce the carriageway width to improve the pedestrian interface along the northern boundary. At the new signals, the access will provide a single egress lane compared to the permitted scheme which contemplates 2 egress lanes. An assessment of the traffic implications of this change is provided later in this report.

Table 4: Development Summary (Approved versus Proposed)

Use	Type	Approved	Proposed	Net Change
Residential	Studios	-	26 dwellings	+26 dwellings
	One-bedroom	176 dwellings	75 dwellings	-101 dwellings
	Two-bedroom	94 dwellings	156 dwellings	+62 dwellings
	Three-bedroom	-	69 dwellings	+69 dwellings
	Residential Subtotal	***270 dwellings***	***326 dwellings***	***+56 dwellings***
Commercial	Office[3]	419 m^2	1,051 m^2	+632m^2
	Retail Shop (/Food and Drink	1,927 m^2	103 m^2	-1,824 m^2
	Commercial Subtotal	***2,346 m^2***	***1,154 m^2***	***-1,192 m^2***

[3] Presumes previous schedule based on Net Leasable Area

4. Car Parking Considerations

4.1. Statutory Requirements – Clause 52.06

Clause 52.06 lists the applicable rates to the proposal whilst Parking Overlay 1 (PO1) under Clause 45.09 is applicable to the subject site and applies Column B rates by default.

A statutory assessment of the proposal under Clause 52.06 is provided at Table 5.

Table 5: Statutory Car Parking Requirements (Clause 52.06)

Use	No / Size	Statutory Requirement	No. Spaces Required
Residential Apartments	257	1 car space to each 1 & 2-bed dwelling for tenants	257 spaces
	69	2 car spaces to each 3+ bed dwelling for tenants	138 spaces
Retail (Food and Drink)	103 m^2	3.5 car spaces per 100 square metres of net leasable area	3 spaces
Office	1,207 m^2	3.0 car spaces per 100 square metres of net floor area	36 spaces
Total			**434 spaces**

Based on the table above, the development is statutorily required to provide a total of 434 car spaces comprising 395 car spaces for residents, 36 car spaces for office and 3 car spaces for the retail tenancy.

The proposal includes a provision of 156 car spaces to be allocated as follows:

- 143 resident car spaces (including 4 car share spaces),
- 13 commercial spaces for office staff and retail staff (1 car space per 100 m^2 of NLA).

The application therefore seeks a permit to reduce the parking provisions by 252 residential car spaces and 26 commercial retail/office spaces.

Clause 52.06-7 of the Planning Scheme allows a permit to be granted to vary the statutory car parking to further reduce the dispensation for car parking.

Planning Practice Note (August, 2022) specifies that the provisions draw a distinction between the assessment of likely demand for parking spaces, and whether it is appropriate to allow the supply of fewer spaces. These are two separate considerations, one technical while the other is more strategic. Different factors are taken into account in each consideration.

It should be noted that the existing approval already allows for reduced rates for the one-bedroom apartments and the office and retail uses at 1.95 car spaces per 100 square metres of floor area and 1 car space per 100 square metres of floor area, respectively (significantly lower than those in the table above).

An assessment of the appropriateness of reducing the car parking provision below the statutory requirement (and what has already been permitted) is set out as follows.

4.2. Car Parking Demand Assessment

Clause 52.06-7 specifies that:

> *An application to reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5 or in a schedule to the Parking Overlay must be accompanied by a Car Parking Demand Assessment.*
>
> *The Car Parking Demand Assessment must assess the car parking demand likely to be generated by the proposed:*
>
> - *new use; or*
> - *increase in the floor areas or site area of the existing use; or*
> - *increase to the existing use by the measure specified in Column C of Table 1 in Clause 52.06-5 for that use.*
>
> *The Car Parking Demand Assessment must address the following matters, to the satisfaction of the responsible authority:*
>
> - *The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use.*
> - *The variation of car parking demand likely to be generated by the proposed use over time.*
> - *The short-stay and long-stay car parking demand likely to be generated by the proposed use.*
> - *The availability of public transport in the locality of the land.*
> - *The convenience of pedestrian and cyclist access to the land.*
> - *The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.*
> - *The anticipated car ownership rates of likely or proposed visitors or occupants (residents or employees) of the land.*
> - *Any empirical assessment or case study.*

An assessment of the projected car parking demand for the proposed development, accounting for the above factors follows.

4.2.1. Residential Parking Demands

ABS Car Ownership Data (Residents)

To understand existing car ownership proximate to the site, we have sourced 2021 Australian Bureau of Statistics (ABS) Census data for 'flats, units or apartments' in all developments within the suburb of Coburg. The data includes social housing.

We have used the 2016 ABS Census data for studios as there is insufficient data within the 2021 ABS Census data.

A summary of our findings is presented in Table 6.

The data shows that:

- Car ownership for 1-bed, 2-bed and 3-bedrooom dwellings is less than the statutory rate being 0.7 spaces per 1-bed, 0.9 spaces per 2-bed and 1.1 car spaces per 3-bed,
- 55% of studios, 36% of 1-bed apartments, 25% of 2-bed apartments and 20% of 3-bed apartments do not own a vehicle, and
- 68% of three-bedroom dwelling own 1 or less vehicle.

Table 6: 2021 ABS Census Data 'All Dwelling Types' – Coburg Suburb

Type	All Apartments		
	Average Car	% 0 vehicle	% ≤1 vehicle
Studios (2016 data)	0.5	55%	100%
1-bed	0.7	36%	97%
2-bed	0.9	25%	86%
3-bed	1.1	20%	68%

Application of the existing Coburg Suburb ABS rates to the proposal would suggest that if current trends were representative of this proposal, there may be a demand for 283 residential spaces (13 x studio spaces + 53 x 1-bed spaces + 141 x 2-bed spaces + 76 x 3-bed spaces).

The provision of only 143 car parking spaces (including share car spaces) is clearly lower than the existing average.

It should be noted that existing average ABS Data and average car ownership rates are only a snapshot in time, based on existing rates and trends.

Build to Rent to Own Model

The proposal will operate under a Build-to-Rent-to-Own model.

This model includes car parking lots not sold but kept in an ongoing rental pool for individual lease by residents on demand to allow for efficiencies in the management and allocation of parking, supporting the potential for reduced demands and provisions.

Tenants must apply, and pay, for parking separate to their dwelling lease. As parking is managed through the Building Manager, and allocated purely on a demand basis, it allows tenants to only lease a car space if it is necessary.

Furthermore, as there is a direct and ongoing cost involved with leasing of the car space (and it is not tied to the apartment lease), some residents are likely to consider whether they actually 'need' the space, or if, by making more sustainable travel choices they wouldn't require a car, and hence can avoid the financial cost.

In this respect, the Built-to-Rent-to-Own model is likely to reduce overall car parking demands for the residential development.

4.2.2. Commercial Parking Demands

ABS Journey to Work Data (2011 & 2016)

A review of the ABS 'journey to work' data for the 2011 & 2016 Census identifies employees in the Coburg SA2 are currently reliant on cars for access to employment.

The journey to work data highlights a slight decrease in the reliance and use of private cars from 2011 to 2016.

This data is summarised in Table 7.

Table 7: Journey to Work Data (based on place of employment) – 2011 & 2016 Coburg SA2 Census Data

% Mode of Travel for 'journey to work' trips	Work within Coburg SA2 2011	Work within Coburg SA2 2016
Car as driver	66.4%	65.4%
Public Transport	7.3%	8.0%
Walking	3.6%	3.5%
Cycling	2.0%	1.9%
Other Mode of Travel (Note 1)	20.7%	21.2%
Note 1: Includes car as passenger, motorcycle, taxi, and other modes and people who did not travel to work, or state method of travel.		

It should be noted, however that there has historically been an abundance of parking available within the precinct to facilitate work trips by car.

The site has convenient accessibility to multiple public transport modes and includes a generous provision of bicycle parking for employees with End of Trip facilities including showers and change rooms.

These facilities will actively encourage future tenants and employees to travel to the site using alternative transport (including running, walking, cycling).

Generous provision of bike and End of Trip facilities (allowing for approximately 10% of staff to ride and the majority of residents) will allow for a significant shift away from cars to support the reduced provisions.

It Is typical for a site in this location to adopt a rate of 1 space per 100 square metres for staff car parking demands, as this strikes the balance of allowing for those staff who need to drive (due to mobility or location issues) to drive, and encouraging other staff, who do not need to drive, to use alternative means.

The allocation of 13 spaces for staff of the office and retail use will meet the expected demands of these uses, equating to a rate of 1 space per 100 square metres.

4.2.3. Retail (Food and Drink) Visitors

The proposed allocations include 1 staff space, which is considered appropriate, with the expectation that visitor demands, if any, would be accommodated on-street.

The food and drink premises that is proposed is of a size that it will be primarily serve residents and workers on the site and in the surrounding precinct. It is unlikely that it will generate any significant visitor demands in its own right.

Even if it is accepted that the statutory requirement for 3 parking spaces is representative of the demand, this equates to an expected visitor demand for up to 2 car parking spaces. This is a sufficiently modest demand that is appropriate to be accommodated on-street and is unlikely to have any impacts on the availability of parking in the area.

4.2.4. Summary of Expected Demands

Based on the preceding, if considering the existing ABS Car Ownership data, the proposal would likely generate higher residential parking demands than the current allocations.

It is expected that commercial staff will be accommodated on-site, and that there may be a reliance on up to 2 retail visitor spaces.

4.3. Appropriateness of Sought Reduction

Clause 52.06-7 specifies that:

Before granting a permit to reduce the number of spaces, the responsible authority must consider the following, as appropriate:

- *The Car Parking Demand Assessment.*
- *Any relevant local planning policy or incorporated plan.*
- *The availability of alternative car parking in the locality of the land, including:*
    - *Efficiencies gained from the consolidation of shared car parking spaces.*
    - *Public car parks intended to serve the land.*
    - *On street parking in non residential zones.*
    - *Streets in residential zones specifically managed for non-residential parking.*
- *On street parking in residential zones in the locality of the land that is intended to be for residential use.*
- *The practicality of providing car parking on the site, particularly for lots of less than 300 square metres.*
- *Any adverse economic impact a shortfall of parking may have on the economic viability of any nearby activity centre.*
- *The future growth and development of any nearby activity centre.*
- *Any car parking deficiency associated with the existing use of the land.*
- *Any credit that should be allowed for car parking spaces provided on common land or by a Special Charge Scheme or cash-in-lieu payment.*
- *Local traffic management in the locality of the land.*

- *The impact of fewer car parking spaces on local amenity, including pedestrian amenity and the amenity of nearby residential areas.*
- *The need to create safe, functional and attractive parking areas.*
- *Access to or provision of alternative transport modes to and from the land.*
- *The equity of reducing the car parking requirement having regard to any historic contributions by existing businesses.*
- *The character of the surrounding area and whether reducing the car parking provision would result in a quality/positive urban design outcome.*
- *Any other matter specified in a schedule to the Parking Overlay.*
- *Any other relevant consideration*

The following section considers how the relevant factors apply to the proposal in relation to the proposed parking provisions and likely demands.

4.3.1. Relevant Policy

Council Planning Scheme Policies

The City of Merribek supports sustainable transport and design in new and existing developments through a number of policies and initiatives. Excerpts from some of the relevant Clauses within the Merri-bek Planning Scheme are provided as follows:

Clause 18.02-1 Sustainable Personal Transport

- *Ensure development and the planning for new suburbs, urban renewal precincts, greyfield redevelopment areas and transit-oriented development areas (such as railway stations) provide opportunities to promote more walking and cycling.*
- *Encourage the use of walking and cycling by creating environments that are safe and attractive.*

Clause 2.03-4: Environmentally Sustainable Design

Council is committed to best practice environmentally sustainable development (ESD). Development should integrate sustainability principles in the design of buildings provides ongoing benefits by:

- *Reducing living costs associated with housing, such as energy costs. Improved amenity and liveability.*
- *Reduced greenhouse gas emissions.*
- *Greater resilience to the impacts of climate change.*

Clause 2.03-7 Strategic Direction 7: Transport Network

Merri-bek is to be a connected city through a transport system that is diverse, progressive and sustainable that achieves a shift towards sustainable modes of travel, including zero emissions transport modes.

Council seeks to create a transport system that is diverse, progressive and sustainable by: Planning for a transport network that:

- *Caters for all ages, is accessible and equitable for all road users.*
- *Reduces local vehicle traffic and safeguards the wellbeing of the community.*
- *Achieves a shift towards sustainable modes of travel, including a transition to active transport or zero-emissions transport.*
- *Focuses on transport safety, improving personal security and safety. – Connects people to local jobs and services.*
- *Caters for population and employment growth.*

Prioritising our transport network according to the following 'road user hierarchy', while ensuring access for those who walk, cycle, wheel or drive:

- *People who are walking.*
- *People who are cycling.*
- *People who are using public transport.*
- *People who are driving.*

Council encourages integrated transport and land use planning that will support residents and visitors to reduce their travel by ensuring access to local services, education and employment.

Council will continue to advocate for improved public transport services and grade separation at Glenroy Road, Glenroy and Bell Street, Coburg.

Freight and commercial vehicle access to activity centres and Core and Secondary Industrial and Employment Precincts will be protected in recognition of the needs of businesses.

The Strategic Framework of the MSS is predicated on developing sustainable neighbourhoods by integrating transport and land use planning decision making which maximise people's opportunities to walk, cycle and use public transport.

Clause 18.02-4L Car Parking

Policy Objectives

To promote the use of sustainable transport through car parking provision.

Policy

It is policy to:

- Support reduced car parking rates in developments within and in close proximity to activity centres, with excellent access to a range of public transport options and with increased provision of bicycle parking above the rates specified in clause 52.34.

Moreland (Merri-bek) Integrated Transport Strategy 2019

Merri-bek City Council's Integrated Transport Strategy 2019 (MITS) establishes Council's strategic direction for transport planning for the next decade and future. Four key objectives have been developed. They are:

> ***A liveable Merri-bek*** *where the transport network caters for all ages and where we consciously reduce local vehicle traffic and safeguard the wellbeing of our community.*
>
> ***A sustainable Merri-bek*** *which achieves a city-leading shift toward sustainable modes of travel, supporting the transition to active and zero-emissions transport by 2040 and addressing the climate emergency.*
>
> ***A Merri-bek that is safe and healthy*** *where transport safety is a key focus, we improve personal security and safety and promote a healthy community with cleaner air.*
>
> ***A Merri-bek that is accessible and equitable for all*** *where we reduce barriers to community movement and strongly commit to making Merri-bek accessible to all.*
>
> ***A prosperous Merri-bek*** *which connects people to local jobs and services, encourages people to visit shopping strips and activity centres, focuses on the reliability of the transport system for people and goods and caters for population and employment growth.*

Key action areas of the strategy specifically relating to car parking include:

- *Permitting less parking in new developments to allow people to choose a lower level of parking to suit their needs.*
- *Expanding parking restrictions to protect local streets from changes to parking requirements in new developments.*
- *Using paid parking in some areas for all-day parking.*
- *Expanding the number of accessible (disabled) parking bays*

Broader action areas include prioritising sustainable transport by:

- *Reallocating road space*
- *Creating safer, quieter streets*
- *Advocating for better public transport*
- *Fostering partnerships for sustainable transport.*

Merri-bek Zero Carbon – 2040 Framework

The Zero Carbon Framework that sets out the City of Merri-bek's plan to reduce carbon emissions across the Merri-bek community by 75% by 2030, and net zero by 2035. The policy details that 26% of the Merri-bek Community greenhouse gas emissions in 2014, were associated with transport.

The Framework focuses on three Strategic Directions, with strategy 2 related to transportation. The key priorities are as follows:

- *Transitioning Council vehicles to low or 'zero emissions'.*
- *Investment in transport infrastructure and streetscape renewal to create walking- and cycling- friendly neighbourhoods and activity centres.*

- *Foster public transport use.*
- *Amend Planning Scheme to reduce requirements for car parking.*
- *Support access to electric vehicle charging stations (powered by renewable energy).*

Central Coburg Structure Plan

The Central Coburg Structure Plan establishes Council's strategic direction for development in the Coburg Activity Centre. Some of the relevant visions and outcomes of the Structure Plan with regard to transport and reducing reliance on motor vehicles include the following:

- *make the centre more accessible and inter-connected by nonmotorized (non-car) travel.*
- *enhance the environmental sustainability of the centre by prioritising pedestrian, cycling and public transport facilities.*
- *reduce vehicle congestion to enable improved vehicle access for those reliant on the private car and for delivery vehicles.*
- *link rail, bus and taxi services.*
- *integrate the railway station with the Central Coburg area.*
- *improve the efficiency of the Sydney Road tram service.*
- *facilitate greater use of public transport through improved service and train station, bus and tram-stop amenity.*
- *improve the safety and ease of movement on foot, for people of all ages and abilities, to shops, schools and community facilities.*
- *improve the safety and ease of bicycling.*

Activity Centre Parking Approach

It has been a long-held practice within Activity Centres to rely on a centre-based approach to parking. That is, individual sites do not provide car parking on their land but rather rely on a pool of car parking throughout the activity centre.

Practice Note 22 (Using the Car Parking Provisions, August 2022) states:

> *In an Activity Centre, car parking issues have a part to play, but should not dominate when assessing an application for a use or development. Where a change of use or relatively small extension is consistent with the strategic plan for the centre and car parking cannot easily be provided, it will often be more sensible to reduce the car parking requirement, rather than prevent the use or development. Some activity centres will have excellent public transport access, ample car parking or mainly serve local customers who arrive on foot. In such circumstances, an increase in business and activity would increase the overall viability of the centre, and the reduced number of car trips would have a positive impact.*

Parking Suppression and Maximum Rates Approach

Inner City Municipalities and the State Government is progressively approaching car parking via a suppression and limitation approach. This approach takes the view that the reliance on private car should, and can, be reduced in areas where there is good alternative mode accessibility and access to other services.

This is often done through maximum parking restrictions through a Parking Overlay, or through Development Plans or generally accepting significant parking reductions for suitable applications. Municipalities taking this approach include Cities of Melbourne, Port Phillip, Yarra, Stonnington, Maribyrnong, Whitehorse and Merri-bek.

Essentially, by limiting on-site parking and allocations, residents and staff are forced to choose alternative transport modes, which in turn can have positive impacts to health, safety and reduce congestion and the impacts on the environment.

This site is perfectly located to make a strategic decision to limit on-site parking demands by limiting the provisions.

A summary of some similarly located examples of approvals for mixed and commercial uses and their staff parking rates is provided in Figure 16 and example of similar approved residential developments and the resident parking rates per dwelling is provided in Figure 17.

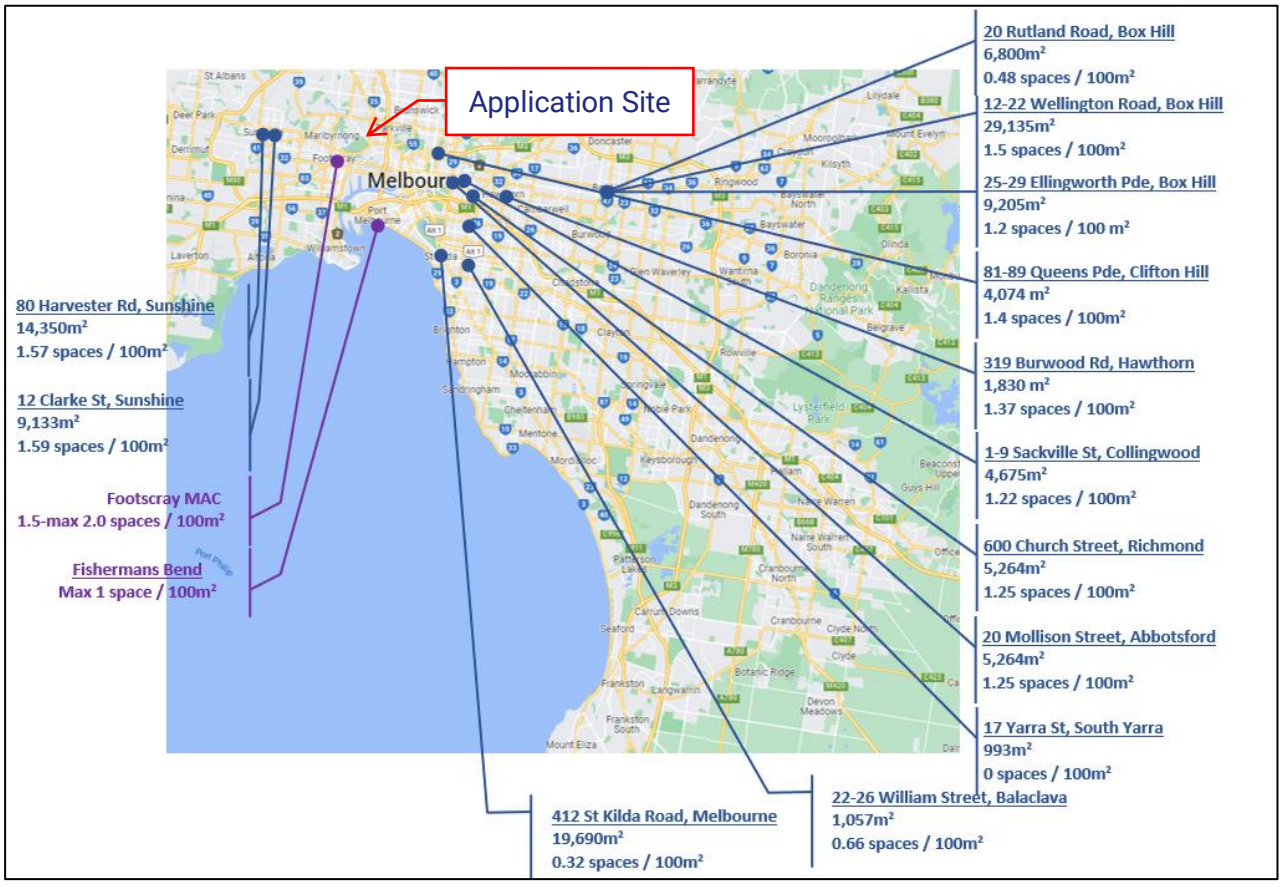


Figure 16: Approved Reduced Car Parking Rates for Mixed and Commercial Uses

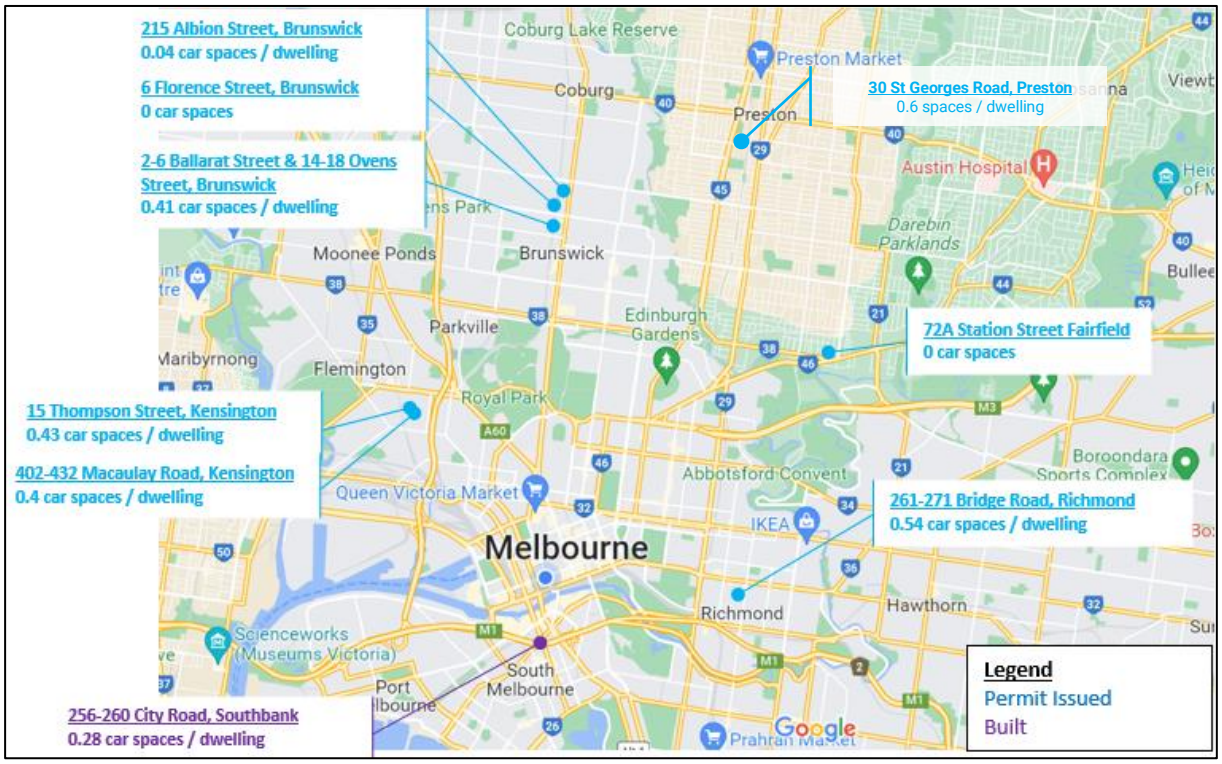


Figure 17: Approved Reduced Car Parking Rates for Residential Developments

The subject site is located within the Coburg Activity Centre which has similar transport characteristics to the approved sites which have provided reduced car parking rates.

On this basis, the proposed provision of ~1 car space per 100 square metres of commercial floor area and 0.44 car spaces per dwellings for residents can be accepted as it is consistent with emerging trends for similar types of developments.

4.3.2. Sustainable Transport Opportunities

The applicant is committed to establishing sustainable transport trends for future residents, staff and visitors from the outset of the development.

This includes, but is not limited to, the initiatives outlined below:

Car Share

The proposal will include car share parking on-site for use by residents and also have access to existing commercially managed schemes that offer existing surrounding residents and employees car share opportunities.

We understand from existing operators that each car share pod can support between 30-50 dwellings without car parking.

This means that the provision of 4 car share pods could potentially support up to 120-200 apartments without a car in addition to existing pods in the precinct.

Green Travel Plan

Developing a Green / Sustainable Transport Plan that highlights initiatives and opportunities to help future residents and staff be less car dependent.

The requirement and development of a Green Travel Plan can be incorporated into any planning permit should one issue.

Generous Bicycle Parking

Providing generous bicycle parking provisions for residents, staff and visitors, with high quality and secure bicycle parking arrangements, convenient access, and an on-site resident workshop and servicing tools.

Bicycle parking rates for this site will provide well in excess of the minimum standard Requirements and be ambitious in seeking to provide close to parking rates set out in the Activity Centre Zoning under the Merri-bek Planning Scheme.

4.3.3. Existing On-Street Parking

In the vicinity of the site, Sydney Road accommodates short-term kerbside parking on the west side only. Clearway restrictions apply to the west side of Sydney Road between 7-9am and 4-6pm Monday to Friday. No Stopping restrictions apply on the east side of Sydney Road. Short-term kerbside parking is accommodated south of Bell Street along Sydney Road which can accommodate customers associated with the retail component.

On-street parking is generally not accommodated along Ross Street near the site due to No Stopping restrictions. The site has a limited supply of kerbside parking to south of the site along Ross Street.

In the vicinity of the subject site, on-street kerbside parking is generally not accommodated along Bell Street near the site due to No Stopping, Bus Zone and Clearway restrictions.

There is a mixture of short term and unrestricted parking available on Urquhart Street.

It should be noted that future residents will not have access to residential parking permits and therefore should Council seek to further restrict parking in the area, future residents would not be able to practically park, if they do not have an on-site parking space.

To this end, we are of the view that the parking supply will effectively dictate the resident and commercial staff demands.

The availability of parking in the area is also considered sufficient to accommodate potential visitor demands.

4.3.4. Appropriateness of Parking Provisions

This site is very well serviced by public transport and has excellent access to everyday services and multiple fixed rail and priority bus routes.

The location of the site being within the Coburg Activity Centre offers a significant opportunity to be much less reliant on car parking.

Future residents can enjoy the benefits of inner city living and have little or no need for a private car.

A reduced and financially managed supply of parking, supported by generous bicycle parking provisions, includes the preparation of a Green Travel Plan, and inclusion of on-site car share parking will encourage residents to become carless and to seek alternate modes of transport.

This site is strategically located to implement Local and State policies to encourage active transport modes by reducing parking provisions for new developments in areas close to public transport and in and around activity centres. The setting of strategically low parking rates will force a shift in travel behaviours and trends.

We are of the view that this is the parking provisions are therefore appropriate.

4.4. Car Parking Layout & Access Arrangements

The car park layout and access arrangements have been developed with design advice provided to the project architect (Jackson Clements Burrows Architects) and is considered to principally meet the relevant requirements of the Merri-bek Planning Scheme and where applicable, the Australian Standard for Off-Street Parking (AS2890.1:2004).

A review of the car park layout reveals:

4.4.1. General Car Parking Layout

- Car spaces have typical dimensions of 2.7 metres width, 4.9 metres length and are accessed from a 6.1 metre aisle, in accordance with an interpolation of the dimensions at Clause 52.06.
- Tandem spaces have a length of 10.3 metres in accordance with Clause 52.06.
- Car spaces have been provided with appropriate clearances to allow for satisfactory car door opening and in accordance with the clearance envelope at Diagram 1 of Clause 52.06-9 (Design Standard 2), allowing a minimum 2.9 metres width where against a wall or large column.
- Sufficient headroom clearances are to be provided to, from and throughout the proposed car parks. In particular, a minimum headroom clearance of at least 2.2 metres is to be provided in excess of Clause 52.06 of the Planning Scheme (Design Standard 2) and per AS2890.1:2004.
- Two DDA parking bays have been provided in accordance with the requirements of AS2890.6:2009. A dedicated bay and shared area have been dimensioned at a minimum width of 2.4 metres. A length of 5.4 metres can be provided by extending the linemarking into the aisle as suggested under Clause 52.06. A minimum headroom clearance of 2.5 metres will be provided.
- Motorcycle spaces have been designed with 1.2 metres width by 2.5 metres length which accords with the Australian Standards.

4.4.2. Private Access Road

- The proposed vehicle access to the on-site car parking is generally retained compared to the approved scheme. However, it has been shifted 1.5 metres east, slightly closer to the signalised intersection of Sydney Road/Urquhart Street.

- The proposed private access road is between 7.8 and 9.5 metres wide which will allow for:
  - A single egress traffic lane and separate entry lane at the intersection with Sydney Road (the section which is 7.8 metres wide).
  - Where the accessway widens to 9.5 metres, this will provide for two separate traffic lanes (eastbound and westbound) and a separate parallel parking/loading bay.
  - A footpath on the southern side of the road which provides access to the main lobbies and the pocket park/Upfield Shared Path.
  - A turnaround area is provided toward the western end as the accessway does not continue through to the site, and a pocket garden is located at the corner with Ross Street. The turnaround area and private accessway has been designed for a Medium Rigid Vehicle (MRV).

It is noted that this design is varied from the original permit approval, including the number of egress lanes at the intersection with Sydney Road, however these changes have been proposed to reflect the reduction in traffic associated with the proposed scheme, and also comments provided by the Department of Transport and Planning and Office of the Victorian Government Architect (OVGA) to improve the urban design and interface to Sydney Road and the northern accessway.

4.4.3. Access & Ramps

- Vehicle access to the ground floor car park is to be provided via a ramp connection to the private vehicular accessway along the northern boundary of the site measured to be 6.1 metres (excluding 300mm kerb on both sides) wide which complies with the Planning Scheme.
- Accessways have been designed with a minimum width of 6.1 metres (between walls), as per the requirements of Clause 52.06 and in accordance with AS/NZS 2890.1-2004 for dual-lane accessways.
- In relation to the ramps between ground level to level 2, we recommend adjusting the 300mm wide inside kerb to the wall adjacent to the storage at level 1 and the motorcycle spaces at level 2. This will effectively shorten the ramp, whereby grades and transitions will have to be updated to reflect these changes. We have provided an illustration in our swept paths at Appendix A.
- Ramps should be designed with a maximum grade of 1 in 5 and transitions of 1 in 8, according with the requirements of the Clause 52.06-9 (Design Standard 3) for private car parks. The plans can appropriate accommodate these minor changes.
- A grade no steeper than 1 in 10 for the first 5 metres is provided from the property boundary, satisfying the requirements of the Clause 52.06-9 (Design Standard 3).
- Vehicles can enter and exit the car park in a forward direction, in accordance with Clause 52.06-9 (Design Standard 1).
- Passing at the site access and circulation within the lower ground floor car park has been checked for the 99th percentile design vehicle and are satisfactory, as demonstrated by the swept path diagrams attached at Appendix A.

- Access to and from each of the critical to access car spaces have been checked for the 85th percentile design vehicle and has been found to be satisfactory, as demonstrated by the swept path diagrams attached at Appendix A. Some car spaces may require an additional manoeuvre to access, however, this is expressly permitted by AS2890.1-2004 for long-term (i.e. resident) parking and is consistent with current practice. Convex mirrors are proposed adjacent to ramps to assist with sight lines for vehicles.
- The proposed DDA ramp has been designed with a maximum grade of 1:14 with landings (flat portions) every 9 metres satisfying the requirements of the relevant Australian Standard.

Based on the foregoing, the car park layout and access arrangements are considered satisfactory and accord with the requirements of Clause 52.06-9 of the Planning Scheme and AS2890.1-2004 (where relevant).

5. Traffic Considerations

5.1. Sydney Road / Urquhart Street Signalised Intersection – Fourth Western Leg)

The original permit for the site required the construction of a new, fourth western leg to the existing signalised intersection at Sydney Road and Urquhart Street. The fourth leg would serve the subject site as a private accessway to on-site car parking and loading.

The proposal maintains these access arrangements, however proposes only a single exit lane at the western approach (the current permit proposed two egress lanes due to higher traffic volumes).

A Functional Layout Plan has been prepared to show the proposed arrangements attached at Appendix C.

The following section provides preliminary traffic modelling of the proposed intersection layout.

5.2. Existing Traffic Volumes

To determine the existing traffic conditions within the vicinity of the site Traffix Group sourced historical SCATS data for the signalised intersection of Sydney Road and Urquhart Street.

Data was collected for the week of Monday 13th November 2023 to Friday 17th November 2023 and averaged to demonstrate normal conditions. The data identified an average peak hour between 7:45am to 8:45am and 4:45pm and 5:45pm for the morning and afternoon peak hours, respectively.

A summary of the existing traffic movements at the intersection Sydney Road and Urquhart Street is provided at Figure 18.

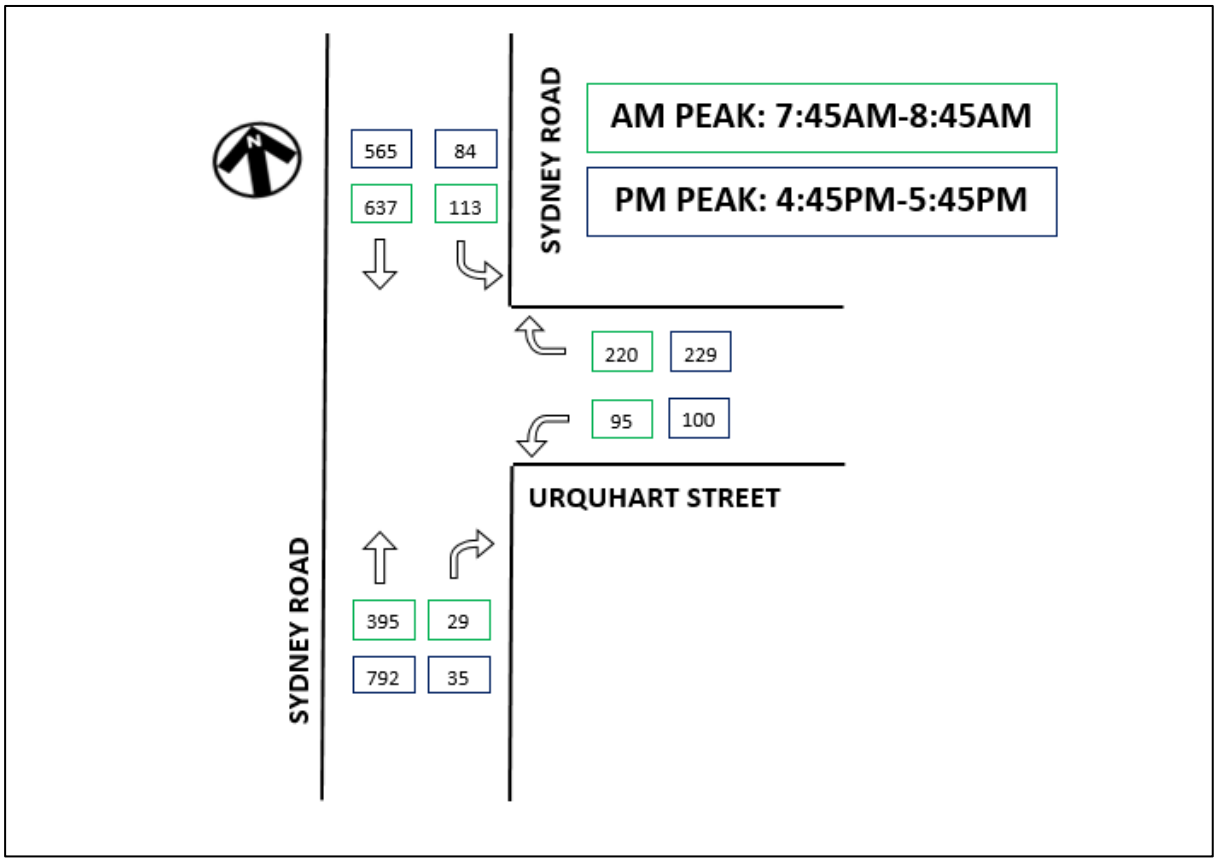


Figure 18: Existing Traffic Volumes - Sydney Road and Urquhart Street

5.3. Traffic Generation

5.3.1. Commercial Component

Based on our experience with commercial staff parking, it is expected that 50% of the allocated office parking supply will fill in the morning peak hour and 50% will vacate during the afternoon peak hour on a weekday.

A total of 13 car spaces are proposed to be allocated to staff, which would equate to a total of 7 additional vehicle movements during each of the road network peak hours.

5.3.2. Residential Component

Traffic generation rates of residential dwellings vary dependent on the size of the dwelling and proximity to everyday services and the location of nearby public and alternative transport modes.

In consideration of the location of the site and size of the dwellings, a daily traffic generation rate of 2 vehicle movements, inclusive of 0.2 movements per car parking space allocated to the residential dwellings (inclusive of car share spaces) in peak hours is considered appropriate for the dwellings. This rate is consistent with traffic generation rates recorded for apartment dwellings in South Melbourne, Fitzroy, and Abbotsford.

Application of the above rate to the 143 residential car spaces equates to a total of 28 movements.

A typical AM peak traffic split of 20% arrivals and 80% departures and PM peak traffic split of 60% arrivals and 40% departures for the residential spaces has been adopted.

It is therefore projected the development will generate an additional:

AM PEAK: *6 arrival and 22 departures.*

PM PEAK: *17 arrivals and 11 departures.*

5.3.3. Total Traffic Generation

On the basis of the above, the proposal will generate up to 35 traffic movements in the peak hours, as summarised in Table 8.

Table 8: Proposed Development Traffic Generation (Peak Hour Summary)

Use	In	Out	Total	In	Out	Total
Staff	7	0	7	0	7	7
Residential	6	22	28	17	11	28
Total	**13**	**22**	**35**	**17**	**18**	**35**

This level of traffic is considered relatively low in traffic engineering terms, equal to an average of less than 1 vehicle movement every minute in the peak hours. This will be immaterial to the operation of the surrounding network, with the exception of the new access arrangements, which are considered below.

5.4. Traffic Distribution and Volumes

The proposed traffic distributions and post development traffic volumes are presented at Table 9.

These distributions are based on the fact that there will not be an ability to turn right into the site from Sydney Road at the north, and therefore drivers will arrive via an alternative direction, either from Bell Street (west) or via Urquhart Street (from the east).

Table 9: Traffic Distributions

	In		Out	
	AM Peak	**PM Peak**	**AM Peak**	**PM Peak**
Sydney Road (N)	-	-	50%	40%
Sydney Road (S)	70%	70%	40%	50%
Urquhart Street (E)	30%	30%	10%	10%

Based on the foregoing, Figure 19 has been prepared to illustrate the distribution of the additional traffic across the AM and PM peak hours.

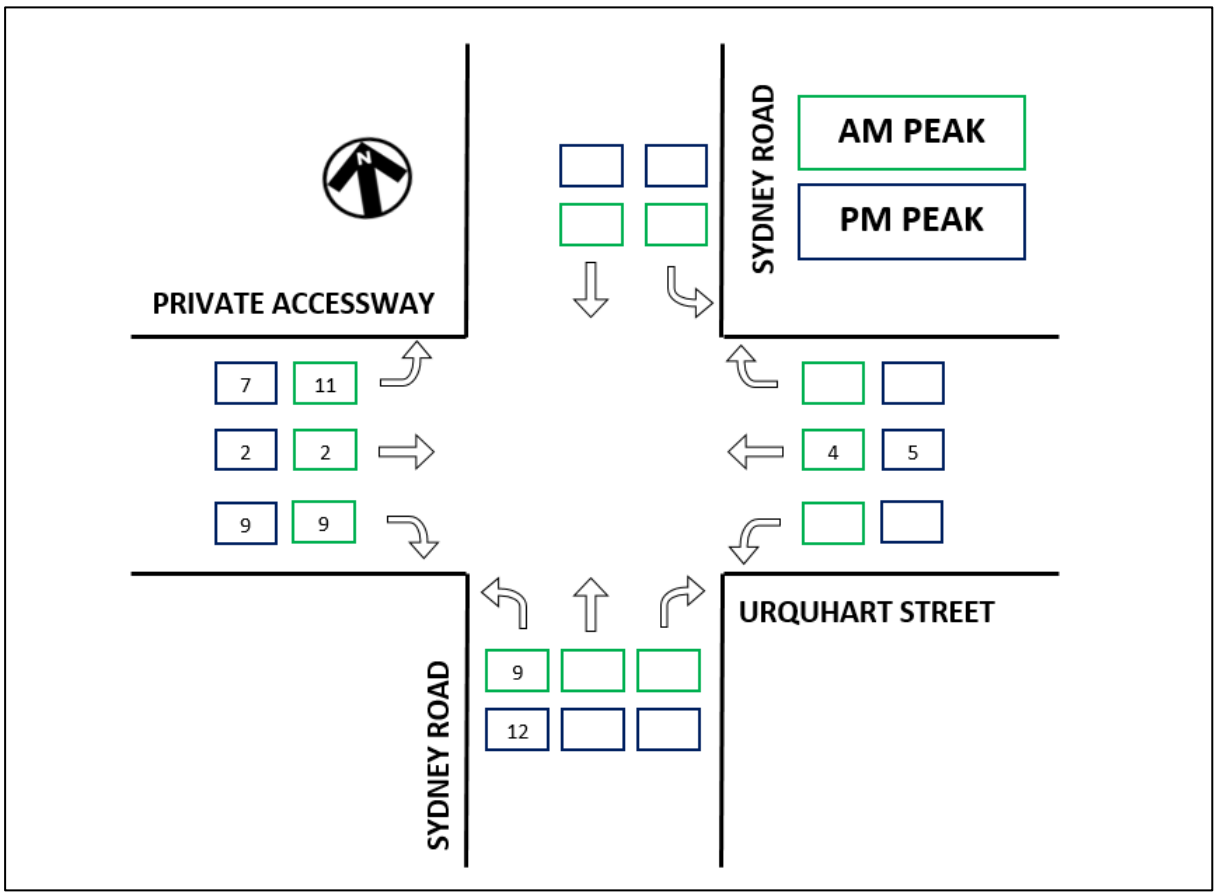


Figure 19: Projected Distributions of the Additional Traffic

These volumes have been superimposed on the existing intersection volumes to identify the post development traffic volumes during peak hours and provided at Figure 20.

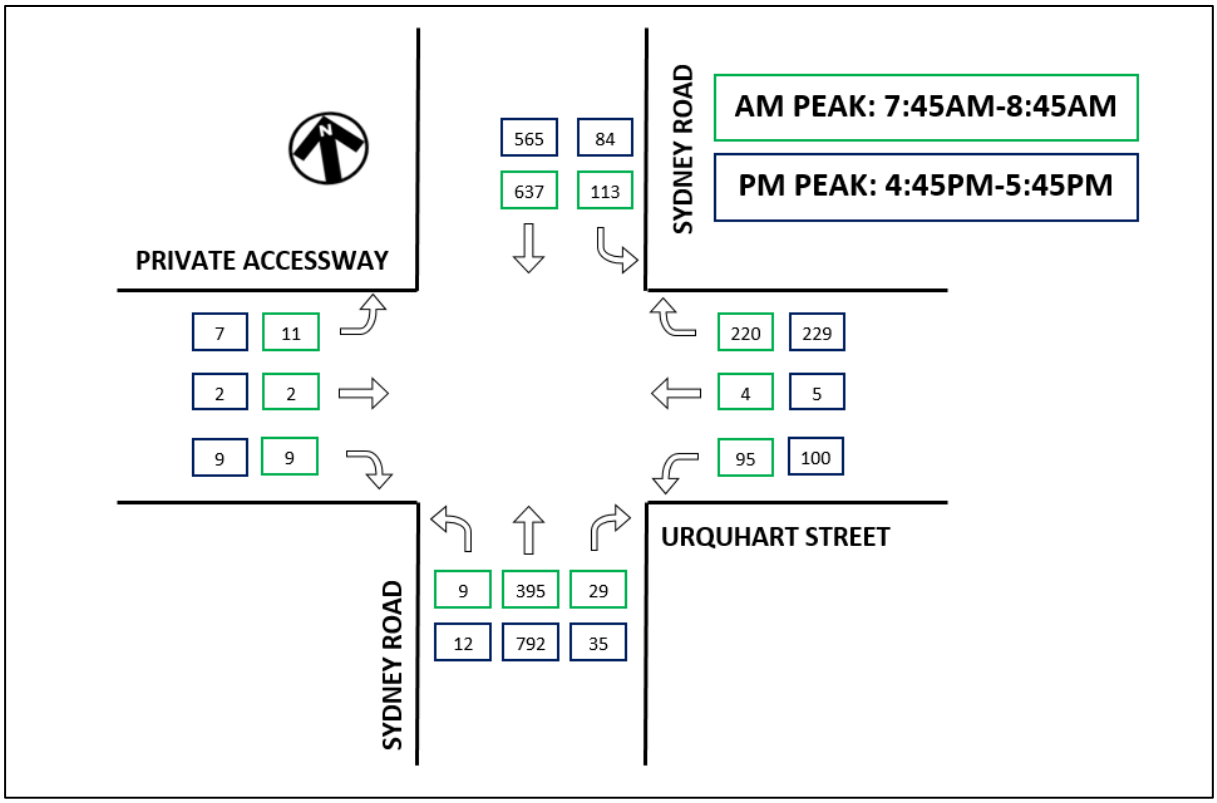


Figure 20: Post Development Traffic Volumes (Existing SCATS Volumes + Development Traffic)

5.5. Traffic Impact

The post development volumes for the intersection have been input to SIDRA and models run for the AM and PM peak hours based on the single lane exit scenario.

Due to the timing of this application, we were not able to access signal timing data, however we have made some assumptions in relation to the operation of the intersection. This includes a cycle time of 120 seconds, and the expectation that the site access and the southern right turn phase will operate at minimum phase times across the peak.

The results identify the intersection will operate under 'excellent' conditions in both peak hours as shown in the diagrams at Figure 21 and Figure 22.

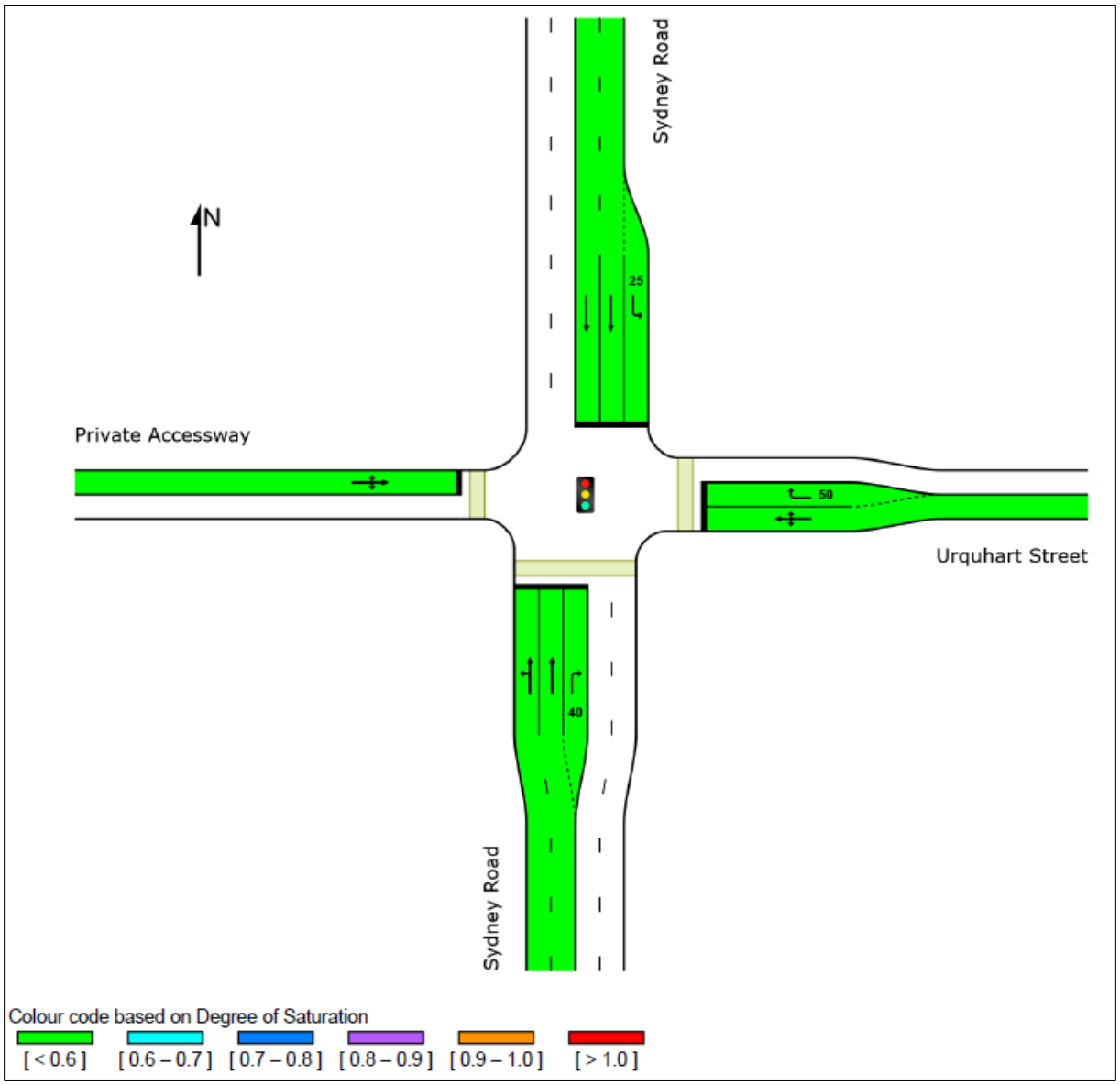


Figure 21: AM Peak Hour Post Development Intersection Operation - SIDRA Lane Display (Degree of Saturation)

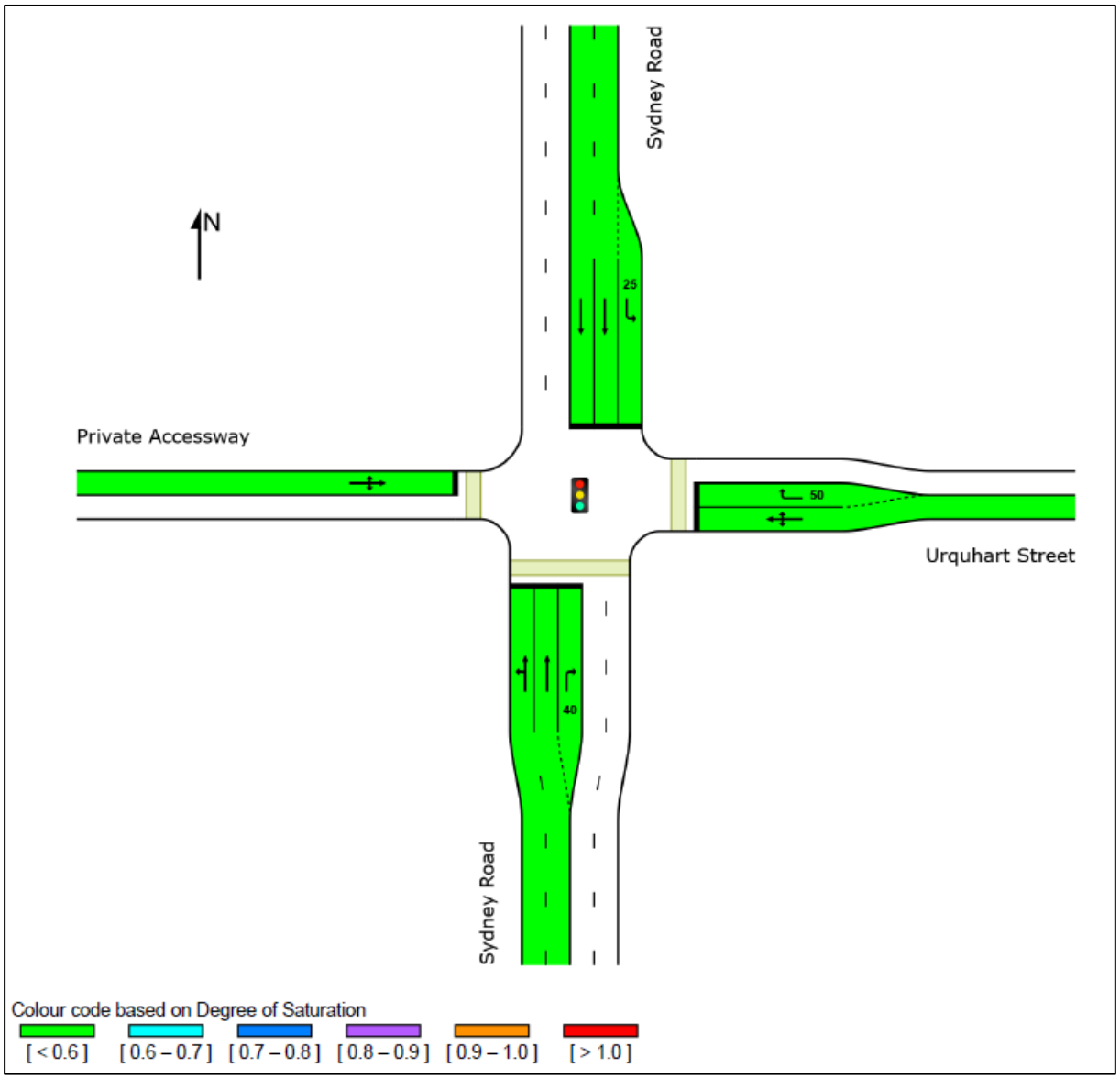


Figure 22: PM Peak Hour Post Development Intersection Operation - SIDRA Lane Display (Degree of Saturation)

Further analysis will be undertaken as part of the subsequent Functional Layout Plan and Traffic Signal Plan approvals with Department of Transport and Planning, however it is clear that the proposed single lane exit can support the proposed development.

Whilst it is acknowledged that the existing permit required 2 egress lanes, this proposal will provide 179 fewer car parking spaces (over a 50% reduction) and therefore will also result in a commensurate reduction in traffic generation to/from the site.

On this basis, no further detailed traffic assessment of the wider external network is considered to be required and the proposal strikes an appropriate balance for access and amenity.

6. Bicycle Considerations

Clause 52.34 of the Planning Scheme specifies the bicycle parking requirement for new developments. However, the subject site is zoned "Activity Centre Zone – Schedule 1 (ACZ1)" which specifies bicycle parking rates for dwelling, office and shop uses which supersede the rates specified within Clause 52.34. For all other uses, the rates set out in 52.34 are applicable.

The proposed retail floor area does not trigger a statutory requirement to provide any bicycle parking spaces.

The relevant requirements for the residential and office components are summarised in Table 10.

Table 10: Statutory Bicycle Parking Requirements

Use	Units	Statutory Requirement	No. Of Spaces Required
Dwellings	101 no.	1 space per studio and 1-bedroom dwelling	101 resident spaces
	225 no.	2 spaces per 2+ bedroom dwelling	450 residential spaces
	326 no.	1 per 10 dwellings for visitors	33 residential visitor spaces
Office	1,104 m^2[4]	1 space per 200m^2 of GFA for staff 1 space per 750m^2 for visitors over 1,000m^2 of GFA	6 staff spaces 1 visitor spaces
Total		**Resident** **Staff** **Visitors**	**551 resident spaces** **6 staff spaces** **34 visitor spaces**

Based on the above assessment, the development is required to provide a total of 591 bicycle spaces, comprising 551 resident spaces, 34 residential/commercial visitor spaces and 5 staff spaces.

The requirement for 6 staff spaces also triggers a requirement for End of Trip Facilities at a rate of 1 shower/changeroom for the first 5 bicycle spaces and 1 space for each 10 bicycle spaces thereafter.

The application proposes the provision of 610 bicycle spaces, allocated as follows:

- 562 resident spaces (492 stacker spaces, 66 vertical spaces and 4 cargo spaces) across ground, level 1 and level 2.
- 36 visitor spaces (18 double sided horizontal hoops) within the public realm.
- 12 office staff spaces (10 vertical spaces rail and 2 cargo spaces) at the ground floor.

End of Trip facilities are proposed on-site for staff, inclusive of 2 showers and changerooms with sufficient lockers provided for commercial staff located adjacent the staff bicycle parking area on the ground floor.

[4] NLA*1.05=GFA

These above noted provisions exceed the minimum requirements under Clause 52.34.

The layout of the proposed bicycle parking has been provided in accordance with AS2890.3-2015 with a mix of vertical and horizontal rails, as follows:

- Cargo Bikes have been designed with dimensions of 1 metre deep by 2.5 metres length which has been designed in accordance with AS2890.3-2015.
- Vertical rails are provided with dimensions of 1.2 metre length and spaced at 0.5 metre centres, accessible from a minimum 1.5 metre aisle.
- Horizontal rails are provided with dimensions of 1.8 metre length and spaced at 1.0 metre centres, accessible from a minimum 1.5 metre aisle.
- Double sided horizontal rails are provided with dimensions of 1.86 metres deep spaces, 0.4 metres spacings (staggered) and are accessible from a minimum aisle 2.0 metres. These spaces have been designed in accordance with the relevant product data sheet (Cora – E3DT Series, attached at Appendix B) and is in accordance with AS2890.3-2015.

We further note, a minimum of 20% of bicycle parking are provided as ground (floor) level horizontal rails therefore meeting the requirements of AS2890.3-2015.

All access to bike corridors has been designed generally been designed with a minimum width of 1.5 metres which accords with the requirements of AS 2890.3. All staff and resident bicycle areas are intended to be secured with the provision of sliding doors.

The proposed bicycle parking arrangements and facilities are therefore considered appropriate.

7. Loading and Waste Considerations

7.1. Loading

Clause 65.01 of the Planning Scheme states that the responsible authority must consider a number of matters as appropriate including:

- *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*

Loading activities associated with the proposal are to be accommodated within a dedicated loading bay located within the private vehicular accessway. Outside of loading hours these parking spaces would be used for drop-off/pick-up.

The loading bay will accommodate loading vehicles up to an 8.8 metre long MRV.

These arrangements are generally consistent with the approved scheme.

Swept path diagrams that demonstrate satisfactory vehicle movements for a MRV are attached at Appendix A.

7.2. Waste Collection

Individual building refuse stores are identified within the ground floor car park and waste collection is to occur within the ground floor car park by a private contractor utilising a Hino mini rear loader waste vehicle (nominal 6.4 metre length, 2.1 metre height).

A minimum 2.5 metres height clearance is provided at the waste collection point which is considered to be acceptable.

The waste vehicle can satisfactorily enter/exit the site in a forward facing direction via the private vehicular accessway and enter the ground floor car park using the proposed residential bump-in/bump-out space.

Swept path diagrams that demonstrate satisfactory waste vehicle movements are attached at Appendix A.

These arrangements are generally consistent with the approved scheme.

On this basis, we are satisfied that suitable waste collection arrangements can be accommodated.

Further details on waste arrangements can be found in the Traffix Group Waste Management Plan accompanying this application.

8. Conclusion

Having undertaken a detailed traffic engineering assessment of the proposed mixed use development at 511-537 Sydney Road, Coburg, we are of the opinion that:

a. the proposed development has a statutory car parking requirement of 434 car spaces under the Merri-bek Planning Scheme and the provision of 156 car spaces results in a shortfall of 278 car spaces (252 resident spaces and 26 commercial spaces),

b. the required reduction in parking under Clause 52.06-6 is supported on the following grounds:

   i) The site is located within the Coburg Major Activity Centre and is excellently served by public transport and alternative transport modes,

   ii) ABS data and case study data shows there is demand for apartments without parking in this area,

   iii) The Built-To-Rent-To-Own model allows for more efficient parking management that can assist in reducing parking demands,

   iv) The application is committed to sustainable transport initiatives, such as the preparation of a Green Travel Plan, generous bicycle parking provisions, and incorporating Car Share spaces on-site,

   v) For staff and residents who do not have an on-site parking space, parking on-street will be impractical and they will be forced to make a mode shift to more sustainable transport to access the site.

   vi) There is strong State and Local Strategic support to reduce parking demands through suppressing supply, and this site is appropriately located to do so.

c. The proposed parking layout and access arrangements are generally appropriate and appropriately respond to the requirements of Clause 52.06 of the Planning Scheme and/or AS2890.1:2004 where relevant.

d. The level of traffic generated is a reduction when compared to the approved scheme and will not have a material impact on the surrounding road network and the analysis demonstrates that the proposed access design will appropriately integrate with the existing signals at Sydney Road/Urquhart Street.

e. Bicycle parking is provided in accordance with the requirements set out at Clause 52.34 and considered appropriate.

f. the on-site loading area has been designed to meet the objectives of Clause 65.01 of the Planning Scheme.

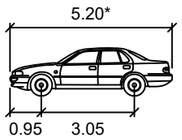
There are no traffic engineering reasons why a planning permit for the proposed mixed use development at 511-537 Sydney Road, Coburg, should not be issued, subject to appropriate conditions.

Appendix A
Swept Paths

VEHICLE PROFILE

VEHICLE USED IN SIMULATION

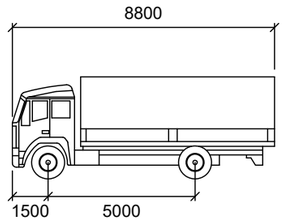
(VEHICLE SPEED - 5KM/H)



99th percentile
(AS/NZS 2890.1:2004)

Width	:	1.94
Track	:	1.84
Kerb to Kerb Radius	:	12.5m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004



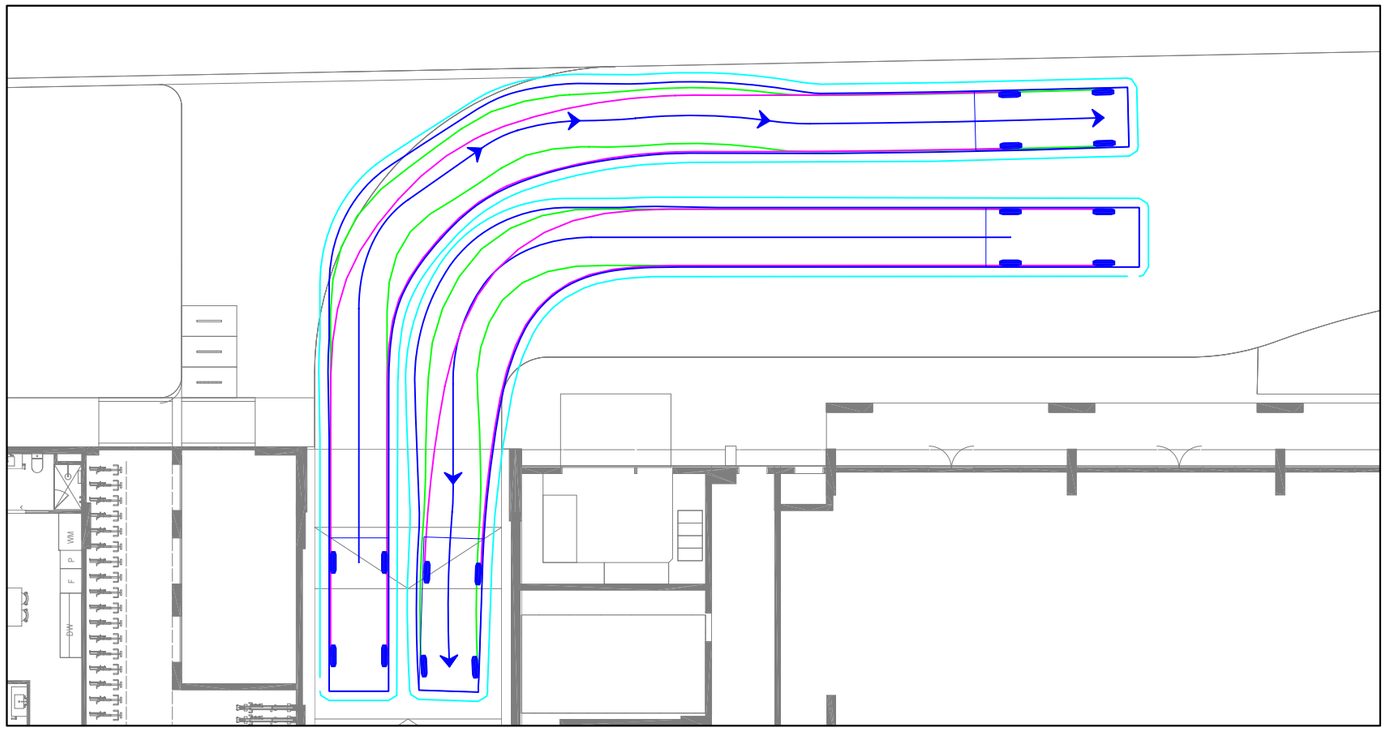
MRV (AS 2890.2) mm

Width	:	2500
Track	:	2500
Lock to Lock Time	:	6.0
Steering Angle	:	34.0

LEGEND

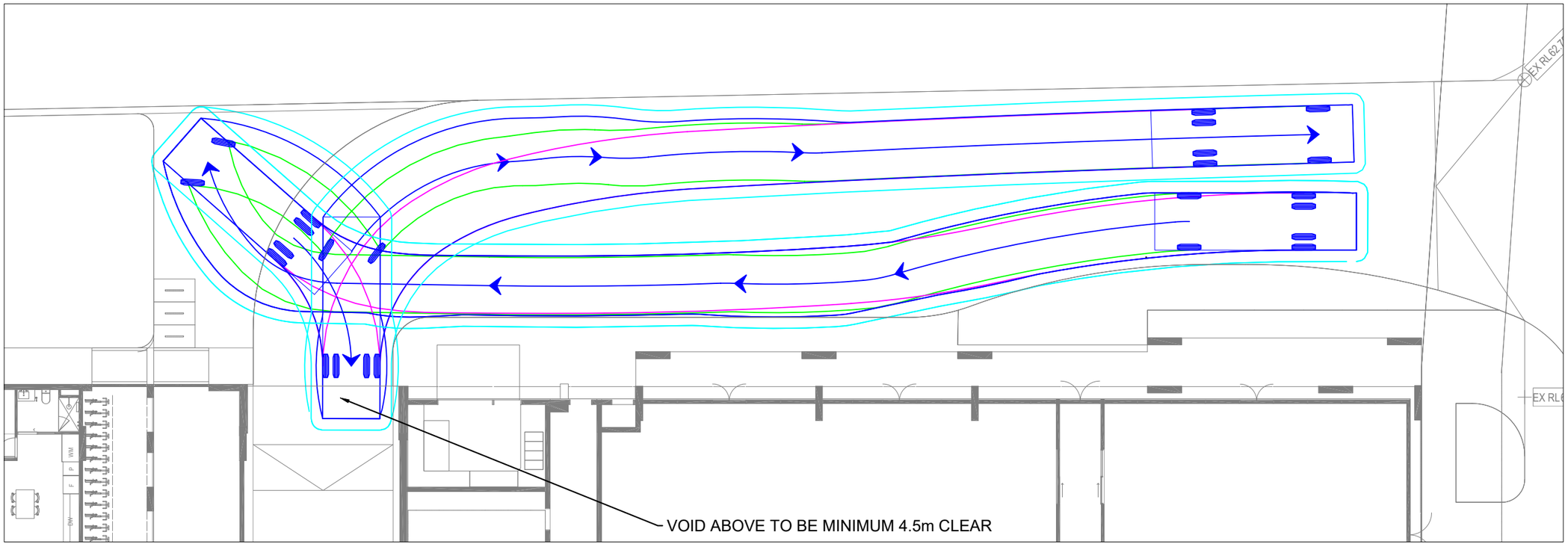
REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

B99 SITE ACCESS & PASSING VIA THE NEW PRIVATE ACCESSWAY



ADVERTISED PLAN

MRV PRIVATE ACCESSWAY ACCESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	21/12/2023	TOWN PLANNING	H. ROBERTSON	C. MORELLO (7781)
B	12/02/2024	DoTP DRAFT	H. ROBERTSON	C. ROCHE
C	16/02/2024	DoTP DRAFT	H. ROBERTSON	C. ROCHE
D	01/03/2024	DoTP DRAFT	H. ROBERTSON	C. ROCHE

511-537 SYDNEY ROAD, COBURG
PROPOSED MIXED USE DEVELOPMENT

GENERAL NOTES:

BASE PLANS PREPARED BY JACKSON CLEMENTS BURROWS ARCHITECTS, RECEIVED FEBRUARY 2024.

FILE NAME: G32746-01-00
SHEET NO.: 01

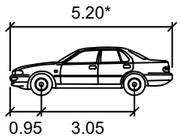
SCALE: 1:200 (A3)
0 2 4

Traffix Group
Level 28, 459 Collins St, MELBOURNE VIC 3000
T: (03) 9822 2888
www.traffixgroup.com.au

VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



99th percentile
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Track	: 1.84
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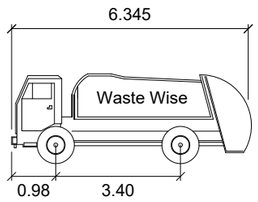


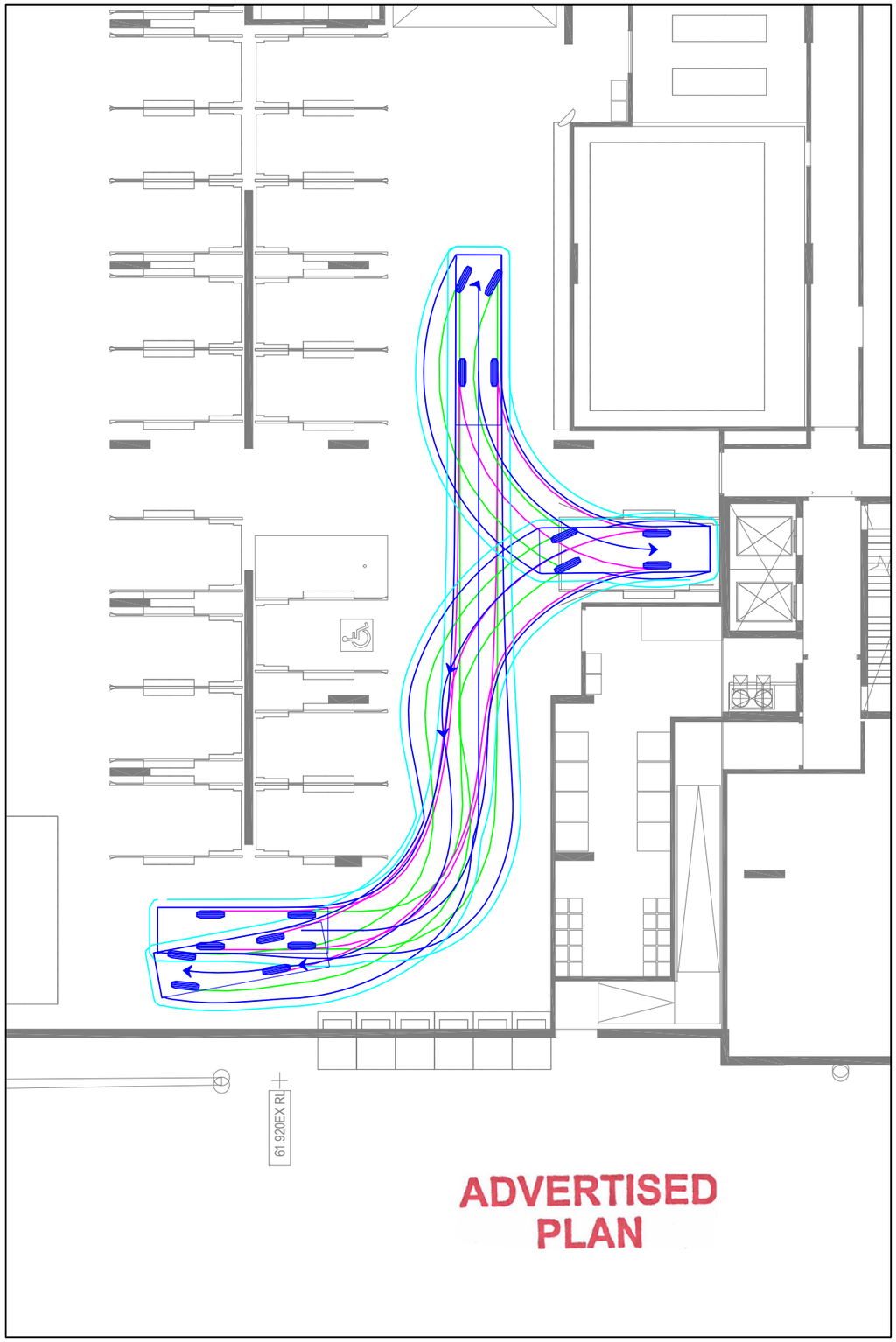
Waste Wise Mini (Hino 300)

Width	: 1.7m
Front Track	: 1.4m
Rear Track	: 1.44m
Kerb to Kerb Radius	: 12.4m

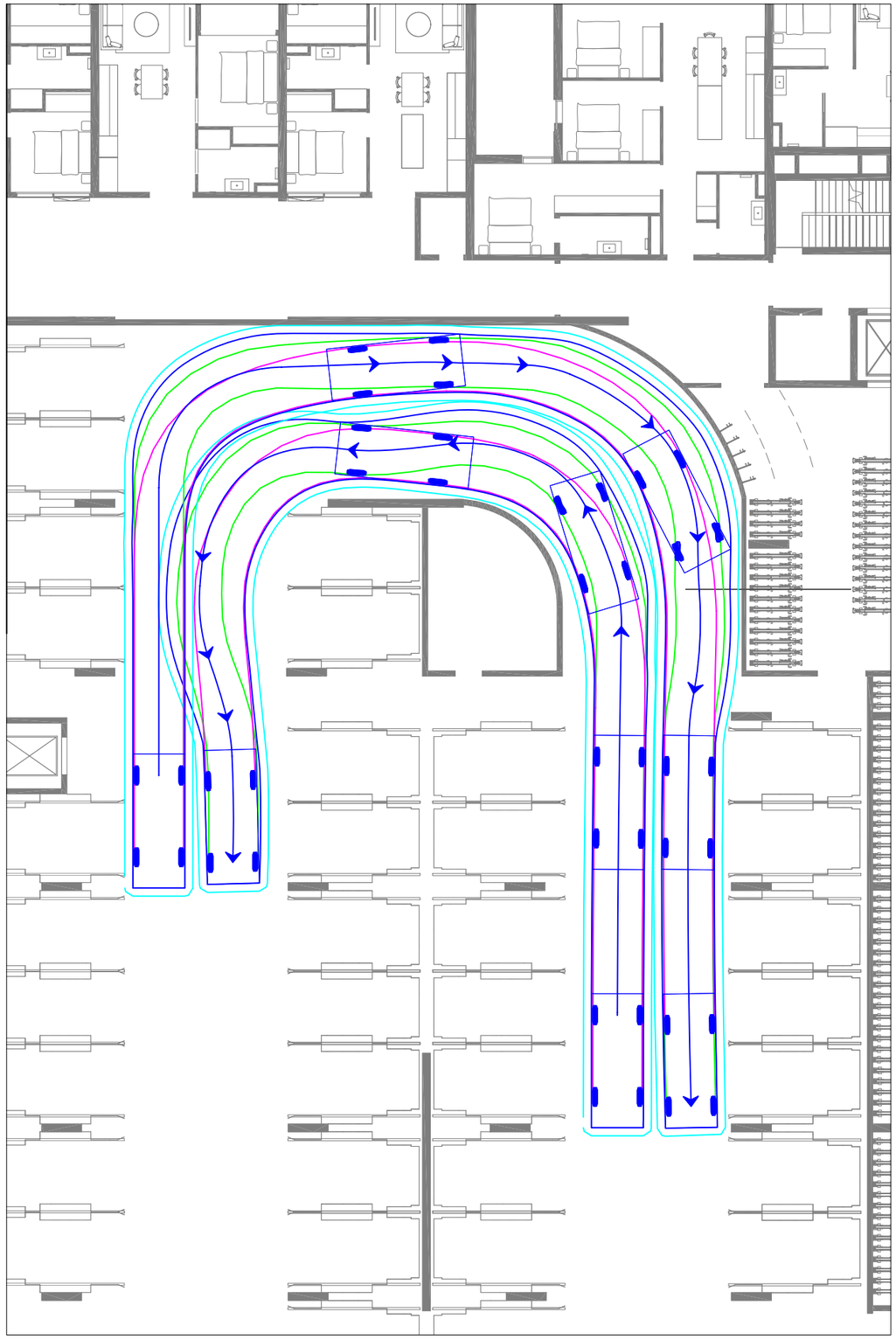
LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

6.4m WASTE VEHICLE PRIVATE COLLECTION



B99 TYPICAL RAMP CIRCULATION & PASSING



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511-537 SYDNEY ROAD, COBURG
PROPOSED MIXED USE DEVELOPMENT

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FILE NAME: G32746-01-00
SHEET NO.: 02

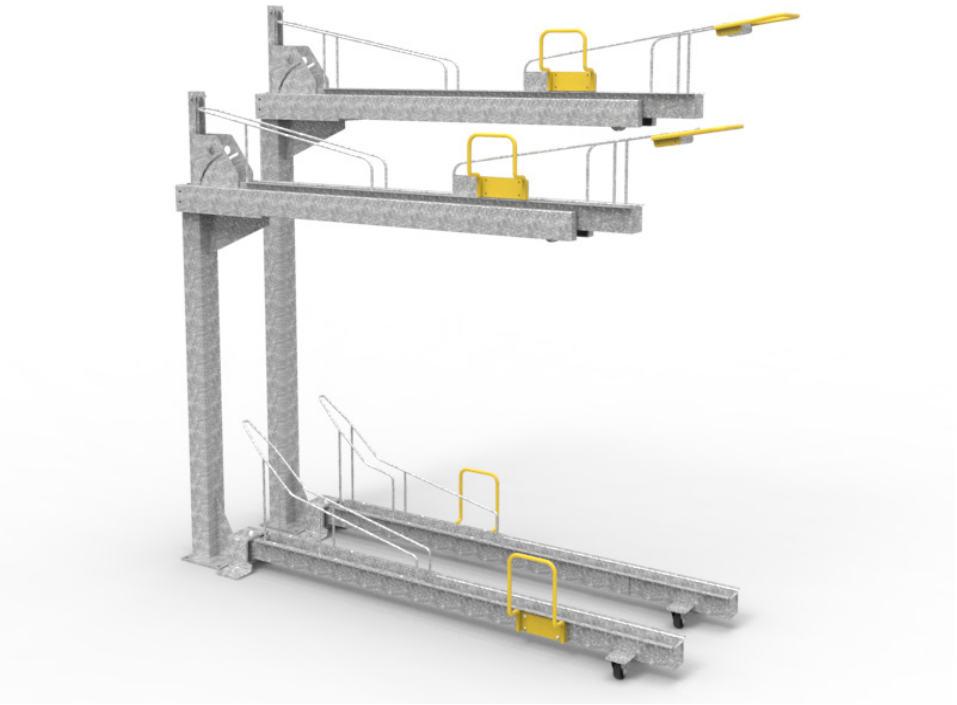
SCALE: 1:200 (A3)
0 2 4

Traffix Group
Level 28, 459 Collins St, MELBOURNE VIC 3000
T: (03) 9822 2888
www.traffixgroup.com.au

Appendix B
Cora Bike Rack Specification

CORA BIKE RACK

PRODUCT SPECIFICATION SHEET



E3DT SERIES

E3DT-GP

DYNAMIC UPPER TIER

DYNAMIC LOWER TIER

Australia's ONLY fully dynamic 2 tier system to provide reduced AS2890.3 compliant spacing of 400mm on both tiers. A Dynamic upper tier combined with a dynamic lower tier provides the maximum capacity possible. Upper tier includes gas assist lift for ease of use and is available in alternating heights. Lower tier uses the E3GP bike ground pivot rack that allows users to move the rack left or right for ease of access.

Capacity

- E3ST-H: 1 bike
- E3ST-L: 1 bike
- E3GP-F: 1 bike
- E3GP-B: 1 bike

Construction

- Heavy duty high quality steel

Fixings

M10 anchor bolts with security nuts

Finishes

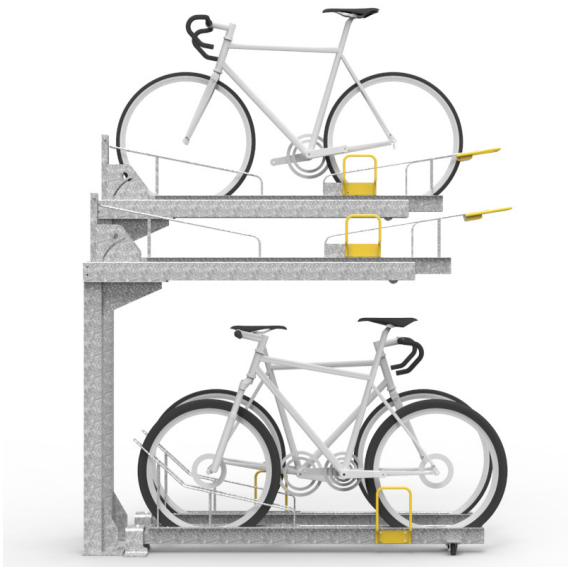
- Galvanised with powder coated accents on handles
- Option - Colour Powder Coat (Cora standard colour range)

Assembly

- Supplied partially assembled for assembly and mounting on site

Compliance

- Rack is AS2890.3 (2015) compliant

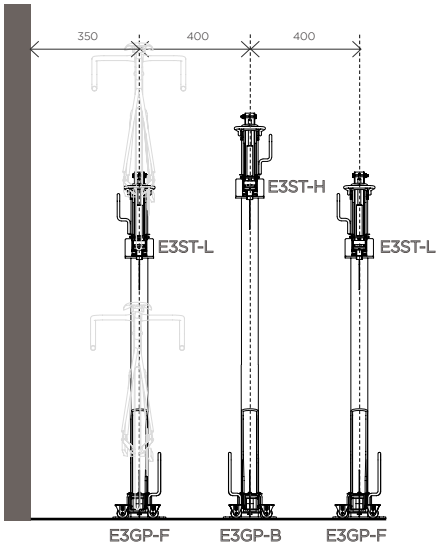


CORA BIKE RACK

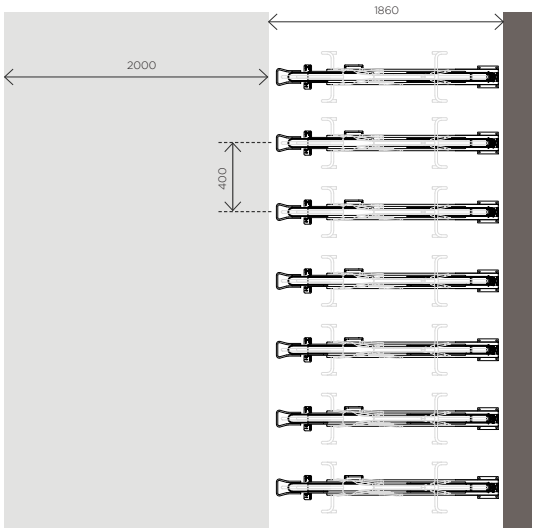
PRODUCT SPECIFICATION SHEET

ADVERTISED PLAN

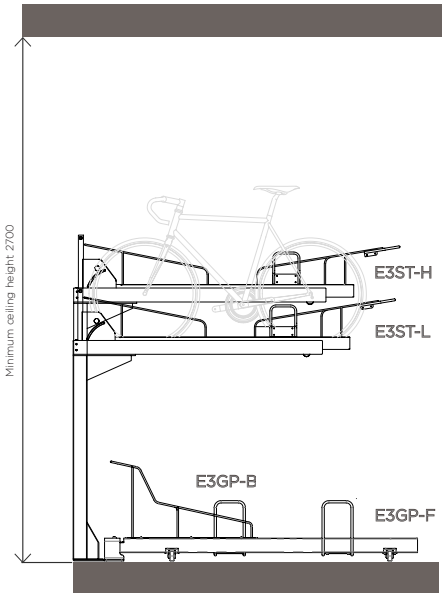
STAGGERED LAYOUT



Front view

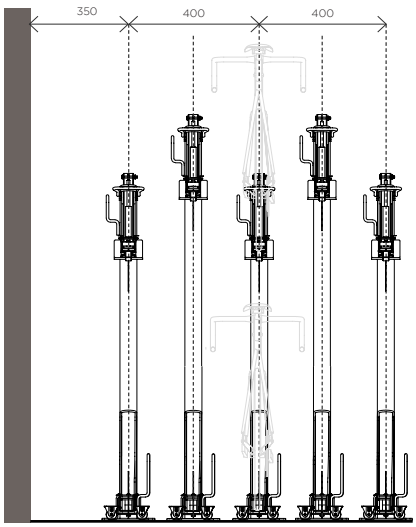


Top view

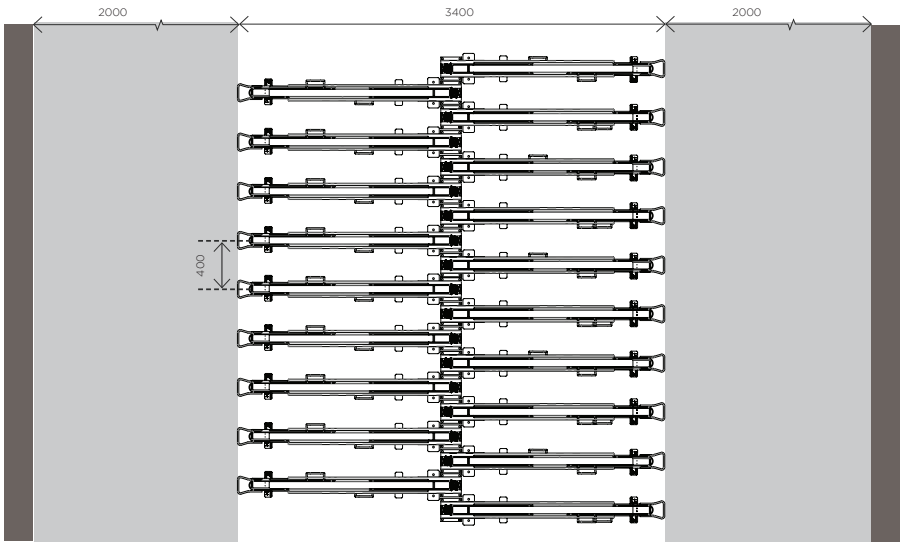


Side view

NESTED LAYOUT



Front view

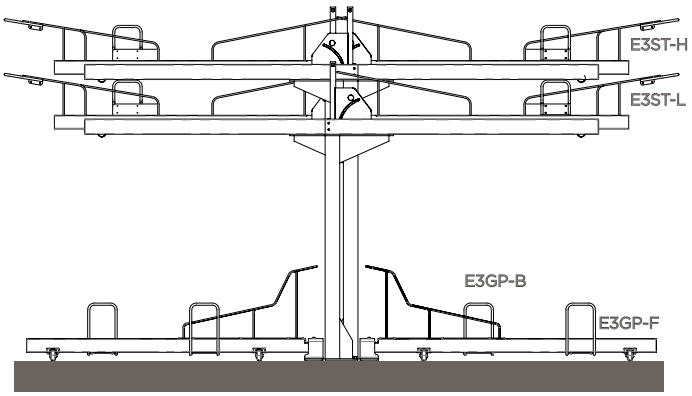


Top view

E3DT-GP DYNAMIC UPPER AND LOWER TIER LAYOUT GUIDE

For specific assembly and installation instructions relating to E3DT-GP series racks, please refer to individual instruction information sheets.

Racks should not be installed, based on the information on this sheet alone.



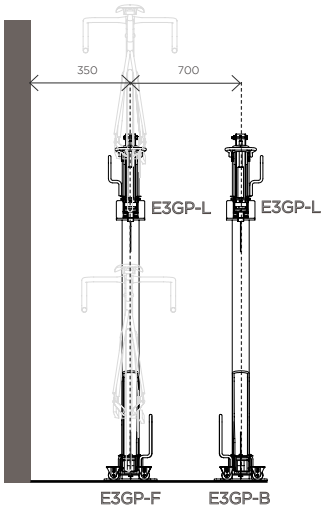
Side view

CORA BIKE RACK

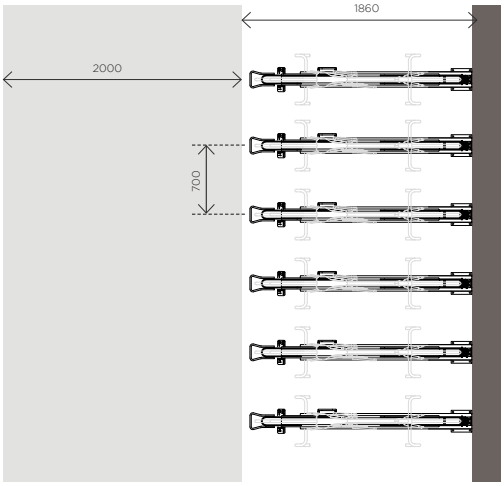
PRODUCT SPECIFICATION SHEET

ADVERTISED PLAN

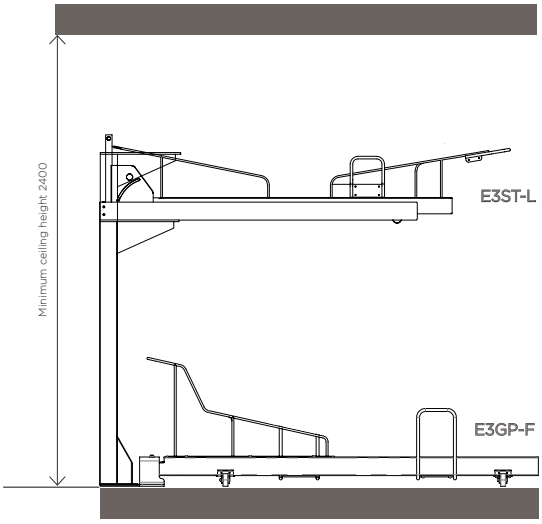
SINGLE LEVEL LAYOUT



Front view



Top view



Side view

E3DT-GP DYNAMIC UPPER AND LOWER TIER LAYOUT GUIDE

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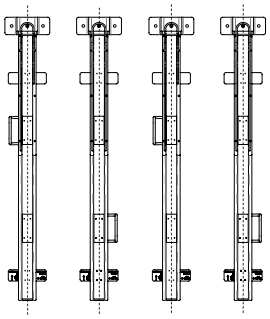
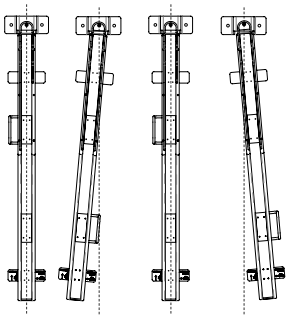
Racks should not be installed, based on the information on this sheet alone.

Dynamic side to side movement of lower rack

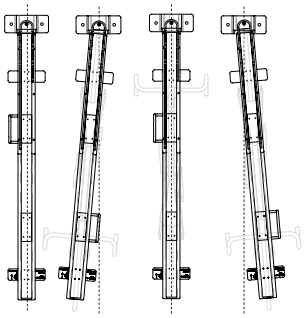


Racks in neutral position



Racks Pivoted

Racks either side of free rack, can be pivoted, to increase access for racking or removal



Bike placed in rack

Bike is wheeled in to rack, either front or rear wheel-in first depending on rack type

CORA BIKERACK

PH 1800 249 878

sales@cora.com.au

www.cora.com.au

Appendix C
Functional Layout Plan

SUBJECT SITE

PRIVATE ACCESS ROAD

WILSON STREET

SYDNEY ROAD

SYDNEY ROAD

URQUHART STREET

EXISTING PUBLIC ACQUISITION OVERLAY

REMOVE REDUNDANT CROSSOVERS AND REINSTATE KERB AND CHANNEL

CLEARWAY (TOW AWAY) 7-9AM & 4-6PM MON-FRI BUS ZONE

CLEARWAY (TOW AWAY) 7-9AM & 4-6PM MON-FRI NO STOPPING (ALL OTHER TIMES)

CLEARWAY (TOW AWAY) 7-9AM & 4-6PM MON-FRI 2P 9AM-4PM MON-FRI, 9AM-1PM SAT

CLEARWAY (TOW AWAY) 7-9AM & 4-6PM MON-FRI 1P 9AM-4PM MON-FRI

CLEARWAY (TOW AWAY) 7-9AM & 4-6PM MON-FRI NO STOPPING (ALL OTHER TIMES)

NO STOPPING

NO STOPPING

NO STOPPING

1/4P 8-9.15AM 3-4PM SCHOOL DAYS

PARKING 90°

9.7

3.5 3.5

2.4

2.4

3.2 3.5

3.2

3.0

2.8

3.4

3.0

2.5

3.4

#1(E) #16 #14(E) #3(E) #2(E) #4(E) #3(E) #7(E) #8(E) #2(E) #5(E) #6(E) #2(E) #10(E) #15(E) #13(E) #12(E) #9(E) #3(E) #16 #10(E) #11(E) #9(E) #2(E)

SIGN SCHEDULE

#1	KEEP LEFT	R2-3(L)	#5	LOCAL TRAFFIC ONLY	D7-1-4	#10	LANE	R7-1-4	#14	SAFETY ZONE / KEEP LEFT	R3-2 / R2-3(L)
#2	40 7-7	R4-V114-1	#6	IN URQUHART STREET	R7-1-4	#11	7-9 4-6 MON-FRI	R9-1-2	#15	END	R7-4
#3	40 ELECTRONIC	R4-1-40	#7	40	R4-V115	#12		R5-39	#16		R2-6(R)
#4		D8-2	#8	7-7	R9-1-1	#13	WATCH FOR	G9-57			
			#9	CLEARWAY 7-9 4-6 MON-FRI	R5-50-1						

MELWAY MAP REF 17 J12

PRELIMINARY PLAN
FOR DISCUSSION PURPOSES ONLY

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services shown are approximate only and their exact position should be proven on site.

ISSUE	ISSUE DESCRIPTION	DESIGNER	CHECKED/APPROVED	ISSUE DATE
A	INITIAL ISSUE	A.L.N	C.M (RPE0007781)	23 NOV 2023
B	UPDATED ISSUE	A.L.N	C.M (RPE0007781)	19 DEC 2023
C	UPDATED ISSUE	A.L.N	C.M (RPE0007781)	21 FEB 2024

GENERAL NOTES

1. BASE INFORMATION FROM FEATURE SURVEY (9971 feature plan 22.10.23.dwg) / AERIAL PHOTOGRAPH (SOURCE: NEARMAP SEP 2023).
2. ALL DIMENSIONS ARE TO FACE OF KERB & CHANNEL.
3. MAIN ROAD - SYNDEY ROAD (SPEED ZONE 40km/h FROM 7AM-7PM, 60km/h ALL OTHER TIMES). LOCAL ROAD - URQUHART STREET (SPEED ZONE 40km/h).
4. ALL PROPOSED FOOTPATHS AND PRAM CROSSINGS ARE TO BE CONSTRUCTED WITH TACTILE GROUND SURFACE INDICATORS TO DDA COMPLIANCE GUIDELINES. REFER TO AS 1428.4:2009.

DESIGNED: A. LAWRENCE-NAIDU
CHECKED/APPROVED: C. MORELLO (RPE0007781)
FILE NAME: G32746-02.dgn

Traffix Group
Level 28, 459 Collins Street
Melbourne, Victoria 3000
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www.traffixgroup.com.au

SYDNEY ROAD / URQUHART STREET

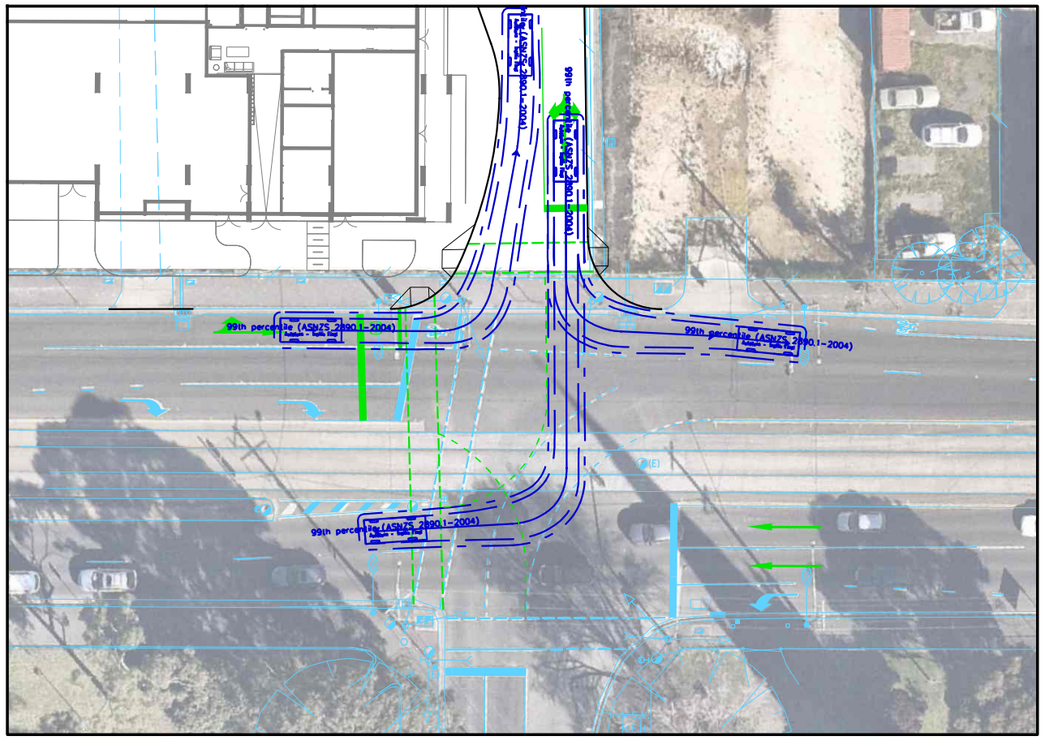
MORELAND CITY COUNCIL

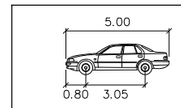
FUNCTIONAL LAYOUT PLAN

SCALE 1:500 (A3) 0 2.5 5 7.5 10 | SHEET No. 1 of 2 | DWG No. G32746-02-01

DATE: 21/02/2024
MODEL: G32746-02-01
FILE: P:\Synergy\Projects\GRP3\GRP32746\03-Drawings\G32746-02.dgn

DESIGN VEHICLE ANALYSIS (B99)





99th percentile (ASNZS 2890.1-2004)

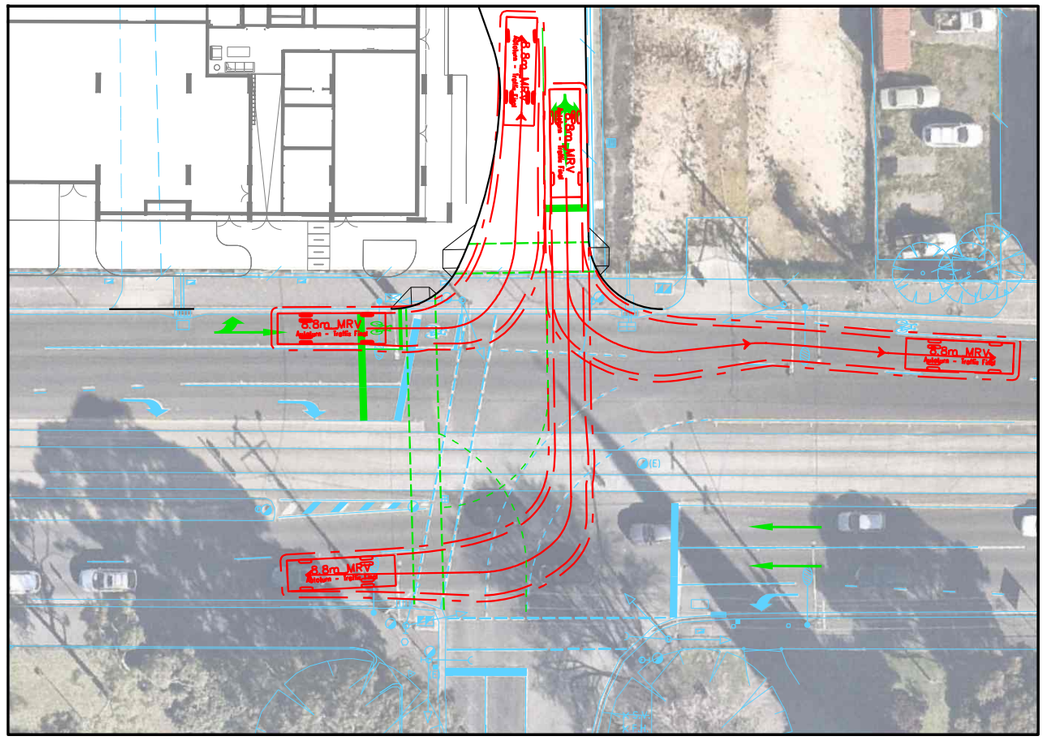
	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

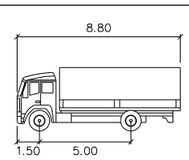
SWEPT PATH LEGEND

VEHICLE BODY

500mm BODY CLEARANCE

CHECKING VEHICLE ANALYSIS (8.8m MRV)





8.8m MRV

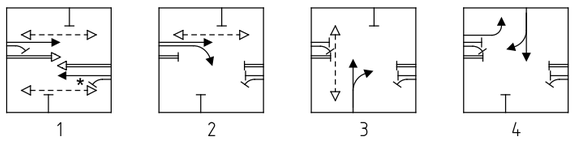
	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

SWEPT PATH LEGEND

VEHICLE BODY

500mm BODY CLEARANCE

PROPOSED PHASING

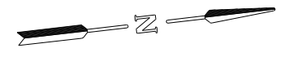


* RED ARROW DROPS IN PHASE 1

1. TRAM ACTIVATED PHASES NOT SHOWN.
2. FOR FULL PHASING DETAILS REFER TO CONTROLLER OPERATION SHEETS.

ADVERTISED PLAN

MELWAY MAP REF 17 J12



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FOR DISCUSSION PURPOSES ONLY

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DESIGNED: A. LAWRENCE-NAIDU
CHECKED/APPROVED: C. MORELLO (RPE0007781)
FILE NAME: G32746-02.dgn

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SYDNEY ROAD / URQUHART STREET

MORELAND CITY COUNCIL

SWEPT PATH ANALYSIS

SCALE 1:200 (A3) 0 1 2 3 4 | SHEET No. 2 of 2 | DWG No. G32746-02-02

DATE: 21/02/2024
MODEL: G32746-02-02
FILE: P:\Synergy\Projects\GRP3\GRP232746\03-Drawings\G32746-02.dgn