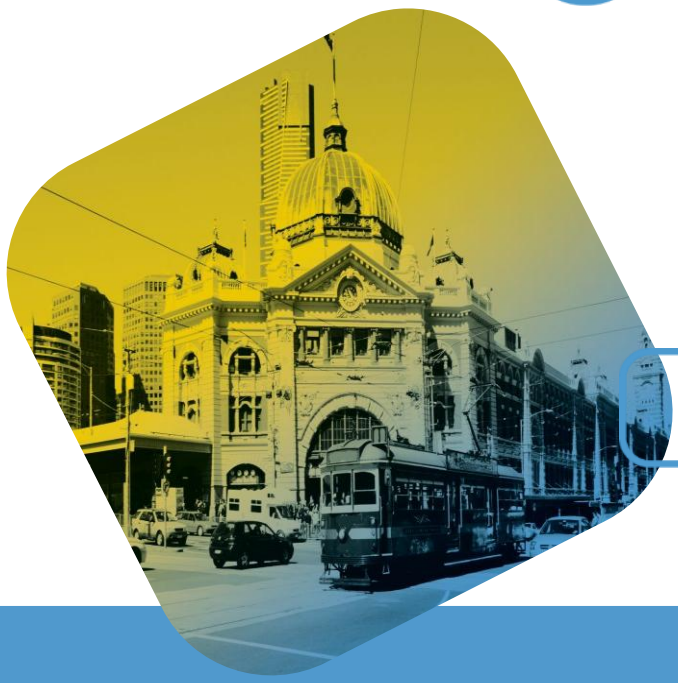
37°44'50" S
144°54'41" E

Mixed-Use Development: 1009-1013 Mt. Alexander Road, Essendon



Traffic and Transport Assessment

13 April 2026
Prepared for Kincrest

IMP2505046TTA01F02

Impact

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Document Information

Client	Kincrest
Report Title	Mixed-Use Development: 1009-1013 Mt. Alexander Road, Essendon
Report Reference	IMP2505046TTA01F02
Date of Issue	13 April 2026
Approved By	David Ho

Document Control

Version	Date	Author
F03	13 April 2026	Will Kelso
F02	30 January 2026	Shen Wang
F01	12 December 2025	Shen Wang
D01	9 September 2025	Shen Wang

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1 IMPACT® Snap Shot

Development Proposition

Location	37°44'50" S 144°54'41" E	1009-1013 Mt. Alexander Road, Essendon
Use	Mixed-use development: Retail & Residential Dwellings	
Yield	**Retail:**	221 sq.m NLA
	Dwellings:	36 dwellings - 14x two-bedroom, 20x three-bedroom, 2 x four-bedroom dwellings.
Car Parking	80 spaces	
Bicycle Parking	38 residential & 8 residential visitor spaces 4 staff spaces	

Statutory Controls

Particular Provisions

Clause 52.06 - Car Parking

Requirement vs Provision	**Retail (Shop)**	Between 0 & 4 car parking spaces required. 2 spaces provided
	Dwelling	Between 0 & 72 car parking spaces 78 spaces provided
	While the retail component and the majority of the residential units comply with the maximum rates specified in Clause 52.06-5, the proposal includes three (3) spaces for each of the six (6) premium dwellings on Levels 6 and 7. This results in a exceedance of six (6) spaces for the dwellings. A permit is therefore sought under Clause 52.06-3 to provide more than the maximum number of car parking spaces specified in Clause 52.06-5.	
Adequacy of Provision	The car parking demand generated by the Level 6 and 7 dwellings is expected to differ from standard commuter-driven residential models. Given the targeted older profile demographic and larger dwelling sizes, trip generation is typically more distributed throughout the day rather than concentrated in AM and PM commuter peaks. While the additional spaces provide residents with the flexibility to house multiple vehicles, the overall traffic impact remains negligible. Providing sufficient on-site capacity ensures that residents do not contribute to "parking search" traffic, a significant factor in local congestion thereby maintaining the degree of saturation and operational safety of the surrounding road network, including Mt Alexander Road.	
Design	The proposed car parking layout has been assessed and satisfies the relevant design guidelines contained within the relevant Australian Standards and Clause 52.06 of the Planning Scheme.	

Clause 52.34 - Bicycle Facilities

Requirement vs Provision	7 resident and 4 visitor spaces required. 38 resident, 4 staff and 8 visitor spaces provided.
Adequacy of Provision	The provision of on-site bicycle parking exceeds the statutory requirement.
Design	The proposed bicycle parking layout has been assessed and determined to have satisfied the relevant design guidelines contained within Clause 52.34.

Clause 65.01 - Loading Arrangements

Design Considerations	The proposed loading arrangements have been assessed and determined to have satisfied the relevant design guidelines / principles contained within Clause 65.01 and AS2890.2:2018
Traffic Generation	The proposed development will generate up to 26 movements during the AM peak and 10 movements during the PM peak, or equivalent to an average of 1 vehicle movements every 2 minutes during the peak periods.
Traffic Impact	This level of traffic generation is not expected to have an adverse impact on the operation of the surrounding road network.

Conclusion

- The proposed development satisfies relevant statutory requirements and where the statutory requirements are not explicitly met, the development is deemed to satisfy decision guidelines that allow for an increase or waiver of the said requirement.
- There are no traffic and transport grounds that should prohibit the issue of a permit.

2 Introduction

2.1 Engagement

IMPACT® have been engaged by Kincrest to undertake a Traffic and Transport Impact Assessment for the proposed mixed-use development at 1009-1013 Mt. Alexander Road, Essendon.

2.2 Scope of Engagement

This Traffic and Transport Impact Assessment has been prepared to accompany a town planning submission.

In preparing this assessment we have referenced the following:

- Development plans prepared by Carr;
- Moonee Valley Planning Scheme, specifically:
  - Clause 52.06 - Car Parking;
  - Clause 52.29 - Land Adjacent to the Principal Road Network;
  - Clause 52.34 - Bicycle Facilities; and
  - Clause 65.01 - Approval of an Application or Plan

3 Existing Conditions

3.1 Location

The subject site is located on the western side of Mt. Alexander Road as illustrated in Figure 1 and Figure 2.

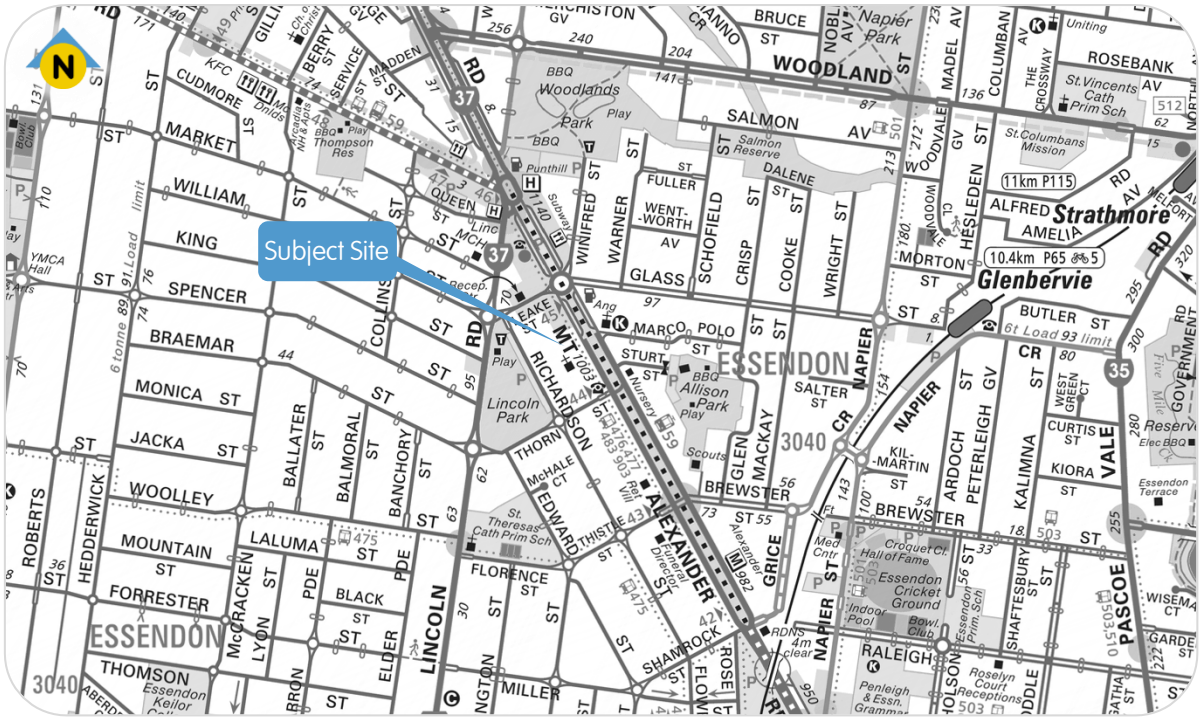


Figure 1 Location of Subject Site

Figure 2 Aerial View of Subject Site

The site is symmetrical in nature with a frontage of approximately 30 metres to Mt Alexander Road.

3.2 Planning Zone

The subject site is located within the Commercial 1 Zone (B1Z) as illustrated in Figure 3.

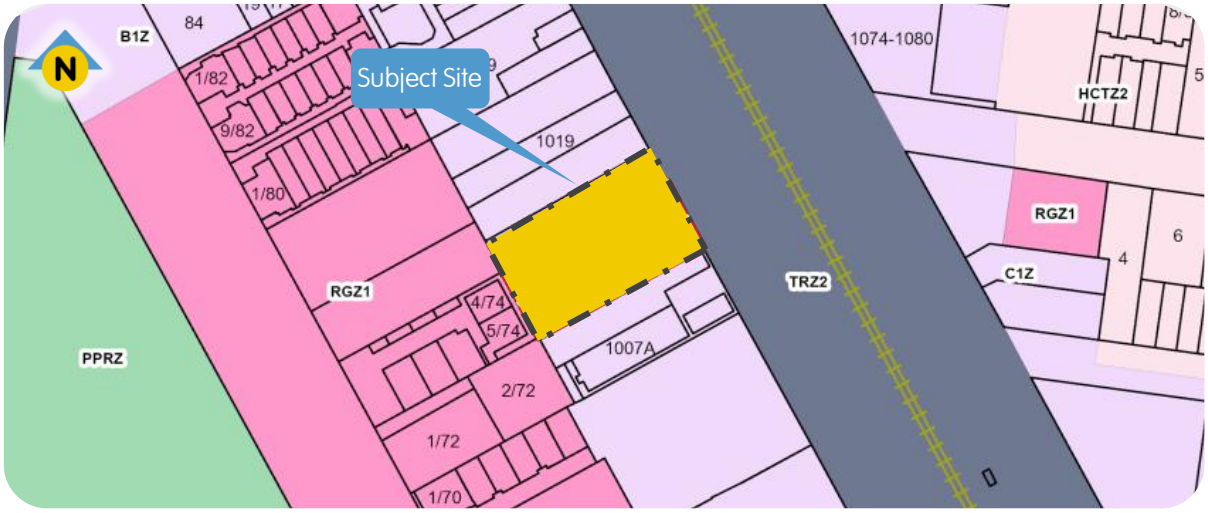


Figure 3 Land Use Planning Zone

The purpose of this zone is to:

- To create vibrant mixed use commercial centres for retail, office, business, entertainment and community uses.
- To provide for residential uses at densities complementary to the role and scale of the commercial centre.

Additionally, the site sits on Mt. Alexander Road which is a declared arterial road / Transport Zone (TRZ2)

3.3 Road Network

3.3.1 Mt. Alexander Road

Classified as a declared arterial road, Mt Alexander Road is aligned in a northwest to southeast direction.

Along the site frontage, Mt Alexander Road comprises an approximate 60 metre road reserve, consisting of two carriageways separated by a 28-metre landscaped median with a two-way light rail track incorporated. Each carriageway consists of two (2) trafficable lanes, flanked by dedicated bicycle lanes and kerbside, parallel parking. Further, auxiliary turning lanes are typically provided for access to adjoining local streets.

Its typical cross-section is illustrated in Figure 4 below.

Figure 4 View of Mt Alexander Road Facing North Adjacent the Subject Site

Along the site frontage, kerbside parallel car parking spaces are subject to 1P restrictions between 9:00am-6:00pm on Monday-Saturday. A posted speed limit of 60 km/hr applies.

3.4 Public Transport

The site has excellent access to public transport and is located proximate to a number of heavy rail, light rail and road-based options. The site in the context of local public transport options is shown below in Figure 5.

Figure 5 Public Transport Network Map

Details of nearby public transport options are listed below in Table 1.

Table 1 Public Transport Options

Service	Route	Nearest Station / Stop	Walking time / Distance
Train	Craigieburn	Essendon Station	15 min / 1.1km
		Glenbervie Station	12 min / 800m
Tram	59 Airport West - Flinders Street Station & City	Leake St / Mt Alexander Rd	
Bus	477 Moonee Ponds - Broadmeadows Station	Leake St / Mt Alexander Rd	Adjacent subject site
	483 Sunbury - Moonee Ponds via Diggers Rest		
	903 Altona - Mordialloc		
	959 City - Broadmeadows Station via Niddrie and Airport West		

In recognition of the site's access to public transport options, we note that it is located within the Principal Public Transport Network (PPTN) area, as shown in Figure 6. The PPTN reflects routes where high-quality public transport services are or will be provided and is intended to support integrated transport and land use planning, by encouraging more diverse and dense development near high-quality public transport to help support public transport usage.

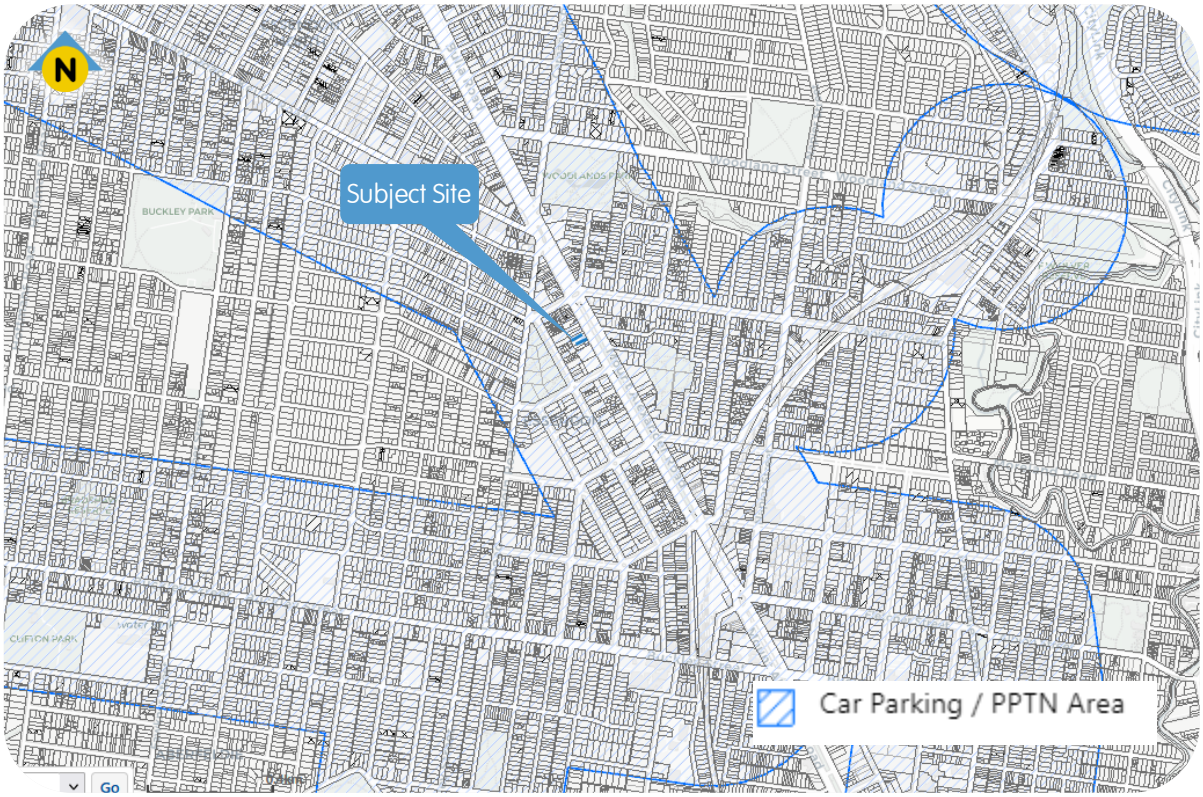


Figure 6 Public Transport Network Area Map (PPTN)

3.5 Bicycle Network

The site is accessible via Victoria's Principal Bicycle Network (PBN) which provides connection to Victoria's Strategic Cycling Corridor (SCC). These corridors are important transport routes for cycling. The PBN and SCC corridors are intended to support the needs of commuter trips (to work or education) and other important trips, such as to stations, shops or schools.

On-Street bike paths along Mt. Alexander Road provide connection to the north and south as illustrated in Figure 7.

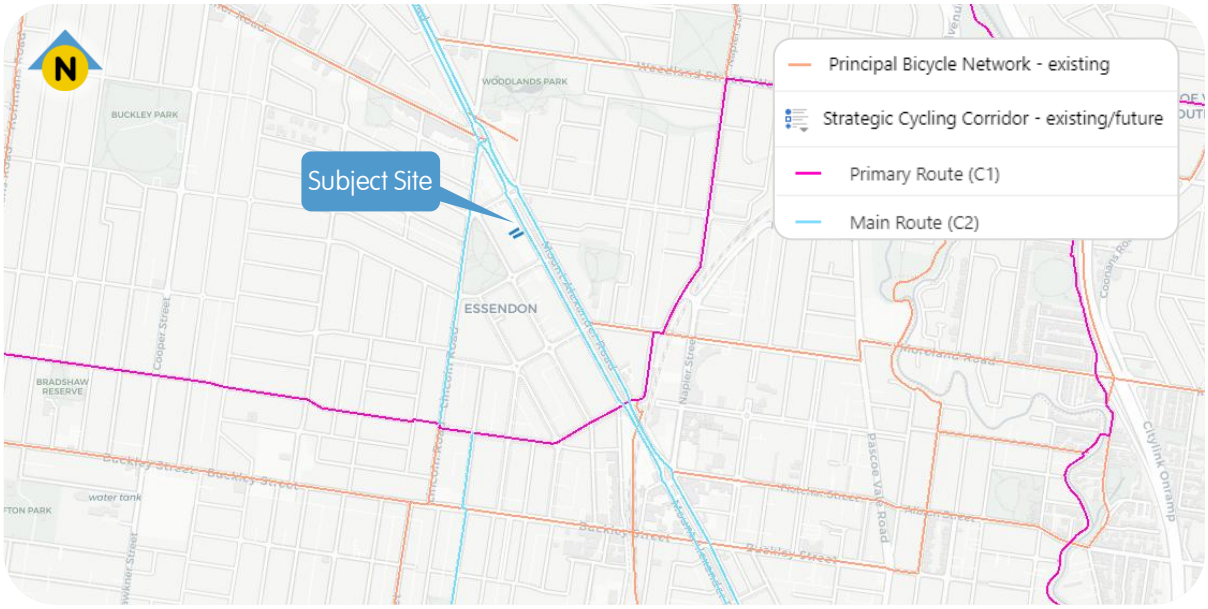


Figure 7 Strategic Cycling Corridors

4 Development Proposition

4.1 Use and Yield

It is proposed to develop the subject site for the purposes of accommodating a mixed-use development. The proposal is summarised in Table 2.

Table 2 Development Schedule

Use	Proposed Floor Area / Number
Retail	221 sq.m
Dwellings	36 residential apartments, specifically: — 14 x two-bedroom dwellings; — 20 x three-bedroom dwellings; and — 2 x four-bedroom dwellings.

4.2 Car Parking

A total of **80** car parking spaces are planned across three (3) basement car park levels. Parking will be allocated as follows:

Retail 2 spaces (including 1x DDA compliant space)

Dwellings 78 spaces

4.3 Bicycle Parking

A total of **50** bicycle parking spaces are contemplated as part of the development comprising:

- 38 bicycle parking spaces for residents and four (4) spaces for staff provided within a secure room at ground level adjacent the substation;
- Eight (8) bicycle spaces for visitors provided in the form of ground-mounted double-sided hoops at ground level.

Secure bike spaces are proposed to be allocated to residents, residential visitor and staff of the development. Residents/visitors and retail staff wanting to utilise the secure ground level bike stores will enter the site via the access to Mt. Alexander Road. The ground mounted hoops are intended for visitors of the subject site. Where required, adequate wayfinding signage will be provided.

4.4 Access Arrangements

Access will be via the existing single-width crossover on Mt. Alexander Road, which currently serves the easement along the north of the site. To improve vehicle flow, a hold line is proposed for exiting vehicles, giving way to vehicles entering the site. Once at the site boundary the accessway widens to a total width of 6.2 metres, see attached swept paths as Appendix A.

It is proposed to move the single car space along the site frontage further south to accommodate the modifications to the existing northern crossover to allow for access by an 6.4m SRV. No on-street parking will be lost.

The southern existing crossover will be converted back to a standard kerb and channel.

5 Statutory Controls

The relevant traffic and transportation Statutory Controls are:

Particular Provisions

- Clause 52.06 - Car Parking
- Clause 52.29 - Land Adjacent to the Principal Road Network
- Clause 52.34 - Bicycle Facilities
- Clause 65.01 - Approval of an Application or Plan

5.1 Clause 52.06 - Car Parking

5.1.1 Purpose

The purpose of Clause 52.06 is:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

5.1.2 Provision and Design Requirements

To satisfy the above purpose, Clause 52.06 of the Moonee Valley Planning Scheme specifies requirements relating to the provision and design of car parking as follows:

5.1.3 Car Parking Provision Requirements - Clause 52.06-5

Table 1 of this clause sets out the minimum and maximum car parking requirements that apply to a use specified in the table based on the land category identified in the *Car Parking Requirement Maps* (Department of Transport and Planning, 2025).

The site sits within Category 3, and the following applies to the proposed development:

- **Retail (shop)** — Minimum of 0 spaces to each 100 sq.m of leasable floor area
Maximum of 2 spaces to each 100 sq.m of leasable floor area
- **Dwelling** — Minimum of 0 spaces to each dwelling
Maximum of 2 spaces to each dwelling

Application of the above rates reveals a requirement for a total of **76 spaces** on site, specifically:

- **Retail (shop)** — Between 0 & 4 car parking spaces
- **Dwelling** — Between 0 & 72 car parking spaces

5.1.4 Proposed Provision

The development is planned with **80 spaces** on site allocated as follows:

- **Retail (shop)** 2 car parking spaces (including 1x DDA compliant space)
- **Dwelling** 78 car parking spaces

While the retail component and the majority of the residential units comply with the maximum rates specified in Clause 52.06-5, the proposal includes three (3) spaces for each of the six (6) premium dwellings on Levels 6 and 7. This results in a technical exceedance of six (6) spaces for the dwellings.

A permit is therefore sought under Clause 52.06-3 to provide more than the maximum number of car parking spaces specified in Clause 52.06-5.

5.1.5 Application Requirements and Decision Guidelines to Reduce Car Parking Requirement

An application to provide more than the maximum parking provision specified in clause 52.06-5 or 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 use or increase to the existing 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 to or occupants (residents or employees) of the land.
- Any empirical assessment or case study

Before granting a permit to provide more than the maximum car parking spaces specified under clause 52.06-5 or in a schedule to the Parking Overlay, the responsible authority must consider the following, as appropriate:

- The Car Parking Demand Assessment.
- Any relevant local planning policy or incorporated plan.
- Whether additional car parking is required for disability parking.
- 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.
- Local traffic management in the locality of the land.
- The impact of additional 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 modes of transport to and from the land.
- The character of the surrounding area and whether increasing 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.

Considering the foregoing, we have undertaken the following car parking demand assessment which outlines our expectations of likely parking demand.

5.1.6 Car Park Demand Assessment

5.1.6.1 Car Ownership and Demographic Profile

The provision is tailored to the specific functional requirements of the Level 6 and 7 premium dwellings. Empirical data for large-format, multi-bedroom dwellings in the Moonee Valley market suggests that 'downsizer' households often remain multi-vehicle possessors. Providing a third space ensures these vehicles are housed off-street, preventing 'overflow' into the surrounding restricted on-street network.

According to 2021 Australian Bureau of Statistics (ABS) Census data, 14% of three-bedroom and 21% of four-bedroom households own three or more motor vehicles. This data supports a demonstrable market demand for parking that exceeds the statutory requirements for larger dwellings.

5.1.6.2 Variation of Demand and Peak Hour Impact

The car parking demand generated by the Level 6 and 7 dwellings is expected to differ from standard commuter-driven residential models. Given the targeted older profile demographic and larger dwelling sizes, trip generation is typically more distributed throughout the day rather than concentrated in AM and PM commuter peaks.

While the additional spaces provide residents with the flexibility to house multiple vehicles, the overall traffic impact remains negligible. Providing sufficient on-site capacity ensures that residents do not contribute to "parking search" traffic, a significant factor in local congestion thereby maintaining the degree of saturation and operational safety of the surrounding road network, including Mt Alexander Road.

5.1.6.3 Short-stay and Long-stay Demand

The proposal ensures that all long-stay resident parking demand including secondary vehicles is fully internalised within the site. By accommodating the residents' full vehicle fleet on-site, the proposal proactively prevents the "overflow" of long-stay storage onto the surrounding street network. This protects local amenity and ensures that high-turnover on-street parking remains available for visitors, supporting the broader community and nearby commercial activity.

5.1.7 Response to Decision Guidelines

5.1.7.1 Urban Design and Local Amenity

The additional parking is integrated entirely within the building's basement levels. Unlike lower-scale developments where increased parking might result in excessive hardstand. Furthermore, the exceedance does not require an increase in crossover width, thereby maintaining pedestrian priority and the quality of the urban design outcome at the street interface.

5.1.7.2 Alternative Transport and Site Context

The site is well-serviced by public transport, specifically the Route 59 tram on Mt Alexander Road. The provision of on-site storage for secondary vehicles does not discourage the use of sustainable transport for daily commuting; rather, it acknowledges the reality of multi-modal households. By providing secure on-site storage, the development supports the transition to tram and active transport use for primary daily trips while ensuring the public realm is not burdened by stationary vehicle storage.

5.1.7.3 Economic Impact and Activity Centre Growth

By catering to the operational needs of high-end, large-format dwellings, the development contributes to the diversity of housing stock within the Mt Alexander Road Activity Centre. Ensuring that the parking demand for these dwellings is met on-site prevents future friction between residential growth and the commercial parking requirements of the centre, thereby supporting the long-term economic viability and growth of the precinct.

5.1.8 Adequacy of Proposed Provision

The exceedance of the maximum parking provision is considered appropriate for the following reasons:

- Aligns with the empirical car ownership rates for large-format, premium dwellings.
- Internalises all demand, ensuring no adverse impact on local traffic management or peak hour capacity.
- Protects local residential amenity by eliminating the need for on-street vehicle storage.
- Achieves a positive urban design outcome by concealing all parking within the existing basement envelope without increasing the street-level building bulk.

5.1.9 Conclusion - Car Parking Provision

The proposed parking provision provides an appropriate balance between the functional requirements of the dwellings and the strategic objectives of the Moonee Valley Planning Scheme. It ensures the site is self-sufficient without compromising the capacity, safety, or amenity of the surrounding transport network.

Accordingly, the proposal satisfies the purpose of Clause 52.06 by providing an appropriate number of spaces having regard to the activities on the land and the nature of the locality.

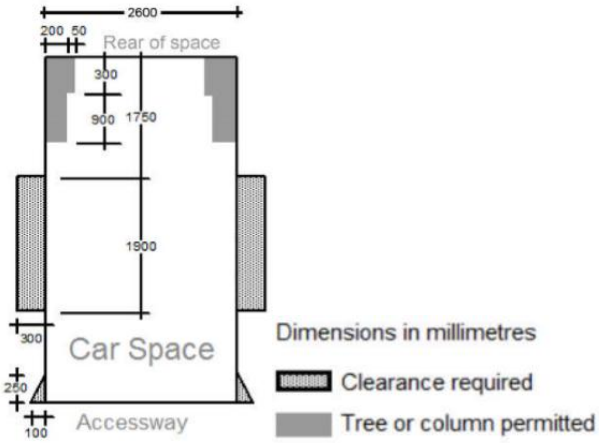
5.1.10 Design Standard for Car Parking - Clause 52.06 - 9

We have assessed the proposed car parking design and access arrangements against the requirements of Clause 52.06-9 of the Planning Scheme. Our findings are as follows:

5.1.10.1 Design Standard 1 - Accessways

Requirements		Design Response	Status
Accessways Must:			
1	Be at least 3 metres wide.	Accessways exceed 3 metres in width.	**Comply**
2	Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide	Accessways exceed 4.2 metres in width at changes of direction.	**Comply**
3	Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.	No publicly accessible dead-end accessways are proposed.	**N/A**
4	Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.	Headroom clearances more than 2.1 metres are provided across all trafficable areas.	**Comply**
5	If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.	All vehicles can exit the site in a forward direction.	**Comply**
6	Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or Transport Zone 3.	An appropriate passing area has been provided at the site entrance	**Comply**
7	Have a corner splay or area at least 50 percent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.	Due to the adjacent retail store's wall, a corner splay area cannot be physically provided on the north side of the easement. To assist drivers and pedestrians with sightlines, convex mirrors will be installed on either side of the easement/site access. Additionally, a warning light triggered by exiting vehicles could be considered to further enhance safety.	**Deemed Satisfactory**
8	If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6 metres from the road carriageway.	All car parking spaces are proposed on basement levels	**Comply**
9	If entry to the car spaces is from a road, the width of the road accessway may include the road.	No parking is accessed directly from a road.	**N/A**

5.1.10.2 Design Standard 2 - Car Parking Spaces

<table>
<tr><th colspan="2">Requirements</th><th>Design Response</th><th>Status</th></tr>
<tr><td>1</td><td>Car parking spaces and accessways must have the minimum dimensions in Table 2 of Clause 52.06-9.
<table>
<tr><th>Angle of car parking spaces to access way</th><th>Accessway width</th><th>Car space width</th><th>Car space length</th></tr>
<tr><td>Parallel</td><td>3.6 m</td><td>2.3 m</td><td>6.7 m</td></tr>
<tr><td>45°</td><td>3.5 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td>60°</td><td>4.9 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td>90°</td><td>6.4 m</td><td>2.6 m</td><td>4.9 m</td></tr>
<tr><td></td><td>5.8 m</td><td>2.8 m</td><td>4.9 m</td></tr>
<tr><td></td><td>5.2 m</td><td>3.0 m</td><td>4.9 m</td></tr>
<tr><td></td><td>4.8 m</td><td>3.2 m</td><td>4.9 m</td></tr>
</table></td><td>Car parking spaces dimensions align with those provided in Table 2 of Clause 52.06-9 and Figure 2.2 of AS2890.1.</td><td>Comply</td></tr>
<tr><td>2</td><td>A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1 other than:
A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1 of the design standard
A structure, which may project into the space if it is at least 2.1 metres above the space.
 
</td><td>Walls and column locations are outside of the required clearance zones specified in Diagram 1 of Clause 52.03-9.

Spaces have been offset 300mm from abutting walls.</td><td>Comply</td></tr>
<tr><td>3</td><td>Car spaces in garages or carports must be at least 6 metres long and 3.5 metres wide for a single space and 5.5 metres wide for a double space measured inside the garage or carport.</td><td>No garages are proposed.</td><td>N/A</td></tr>
<tr><td>4</td><td>Where parking spaces are provided in tandem (one space behind another) an additional 500mm in length must be provided between each space.</td><td>No tandem spaces are proposed.</td><td>N/A</td></tr>
<tr><td>5</td><td>Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.</td><td>All spaces are undercover.</td><td>Comply</td></tr>
<tr><td>6</td><td>Disabled car parking spaces must be designed in accordance with AS 2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 500mm.</td><td>Disabled car parking has been designed in accordance with AS2890.6-2022.</td><td>Comply</td></tr>
</table>

Note: An EV charging space is proposed on Basement 1 to allow for EV charging.

5.1.10.3 Design Standard 3 - Gradients

<table>
<tr><th colspan="2">Requirements</th><th>Design Response</th><th>Status</th></tr>
<tr><td>1</td><td>Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.</td><td>No grades are proposed within 5 metres of the site frontage.</td><td>Comply</td></tr>
<tr><td>2</td><td>Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction.
<table>
<tr><th>Type of car park</th><th>Length of ramp</th><th>Maximum grade</th></tr>
<tr><td rowspan="2">Public car parks</td><td>20 metres or less</td><td>1:5 (20%)</td></tr>
<tr><td>longer than 20 metres</td><td>1:6 (16.7%)</td></tr>
<tr><td rowspan="2">Private or residential car parks</td><td>20 metres or less</td><td>1:4 (25%)</td></tr>
<tr><td>longer than 20 metres</td><td>1:5 (20%)</td></tr>
</table></td><td>Maximum grades proposed are in accordance with Table 3, with maximum grades of 1:4 proposed for the basement access ramp.</td><td>Comply</td></tr>
<tr><td>3</td><td>Where the difference in grade between two sections of ramp or floor is greater than 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.</td><td>Suitable transitions are provided along the basement access ramp to ensure scraping or bottoming does not occur.</td><td>Comply</td></tr>
<tr><td>4</td><td>Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority.</td><td>No grade changes greater than 1:5.6 or less than 3 metres apart are proposed.</td><td>Comply</td></tr>
</table>

5.1.11 Conclusion - Car Park Design

The proposed car park and accessways have been assessed and determined to have satisfied the relevant design guidelines.

Accordingly, the proposal satisfies the purpose of Clause 52.06, specifically:

- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

5.2 Clause 52.29 - Land Adjacent to the Principal Road Network

5.2.1 Purpose

The purpose of Clause 52.29 is to:

- Ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network; and
- Ensure appropriate subdivision of land adjacent to the Principal Road Network or land planned to form part of the Principal Road Network.

5.2.2 Permit Requirement

A permit is required to:

- Create or alter access to:
  - A road in a Transport Zone 2;
  - Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road.
- Subdivide land adjacent to:
  - A road in a Transport Zone 2;
  - Land in a Public Acquisition Overlay if a transport manager (other than a municipal council) is the acquiring authority and the acquisition is for the purpose of a road

In response to the above, it is noted that the proposal seeks to modify one access and close another access to Mt. Alexander Road (Transport Zone 2).

Therefore, a permit under Clause 52.29 is therefore required.

5.2.3 Decision Guidelines

Before deciding on an application, in addition to the decision guideline in Clause 65, the responsible authority must consider:

- The Municipal Planning Strategy and the Planning Policy Framework;
- The view of the relevant road authority;
- The effect of the proposal on the operation of the road and on public safety; and
- Any policy made by the relevant road authority pursuant to Schedule 2, Clause 3 of the Road Management Act 2004 regarding access between a controlled access road and adjacent land.

5.2.4 Response to Decision Guidelines

5.2.4.1 Effect of the Proposal on the Operation of the Road

As described in Section 6, the proposal will result in 26 trips in the AM period (or one additional movement every 2 minutes on average).

This level of traffic is considered minimal and will not have any noticeable impact on the operation of Mt. Alexander Road.

Council could give consideration to adding additional on-street parking where the crossover is reinstated with kerb and channel.

5.2.4.2 Effect of the Proposal on Public Safety

As part of the development, we propose modifying one crossover and reinstating another to a kerb and channel on Mt. Alexander Road.

This design outcome will allow the access to conform to the relevant design guidelines set out in Clause 52.06, specifically:

- If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.
    - Design Response: The accessway is designed so that cars can exit the site in a forward direction (Swept paths attached in Appendix A).
- Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or Transport Zone 3.
    - Design Response: Allowance for passing has been made at the site frontage.
- Have a corner splay area at least 50 percent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road.
    - Design Response: Due to the adjacent retail store's wall, a corner splay area cannot be physically provided on the north side of the easement. To assist drivers and pedestrians with sightlines, convex mirrors will be installed on either side of the easement/site access. Additionally, a warning light triggered by exiting vehicles could be considered to further enhance safety.
- If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6 metres from the road carriageway.
    - Design Response: Access to the car spaces is at least 6 metres from the road carriageway.

5.3 Clause 52.34 - Bicycle Facilities

5.3.1 Purpose

The purpose of Clause 52.34 is to encourage cycling as a mode of transport, and provide secure, accessible and convenient bicycle parking spaces and associated shower and change facilities.

5.3.2 Provision Requirements - Clause 52.34.3

— **Retail**	Employees:	1 to each 300 sqm of leasable floor area if the leasable floor area exceed 1000 sq m
	Shoppers:	1 to each 500 sqm of leasable floor area if the leasable floor area exceed 1000 sq m
— **Dwelling**	Residents:	In developments of four or more storeys, 1 space to each 5 dwellings
	Visitors:	In developments of four or more storeys, 1 space to each 10 dwellings

Based on the above, the proposed development has a requirement for on-site bicycle parking spaces, comprising:

— **Retail (shop)**	Employees:	0 spaces
	Shoppers:	0 space
— **Dwelling**	Residents:	7 spaces
	Visitors:	4 spaces

5.3.3 Proposed Provision

The development plans show **38 spaces for residents**, **4 spaces for employees** and **8 spaces for visitors**. This provision exceeds the statutory requirements and is therefore considered adequate.

5.3.4 Design Requirements

Bicycle spaces should:

- Provide a space for a bicycle of minimum dimensions of 1.7 metres in length, 1.2 metres in height and 0.7 metres in width at the handlebars.
- Be located to allow a bicycle to be ridden to within 30 metres of the bicycle parking space.
- Be located to provide convenient access from surrounding bicycle routes and main building entrances.
- Not interfere with reasonable access to doorways, loading areas, access covers, furniture, services and infrastructure.
- Not cause a hazard.
- Be adequately lit during periods of use.

5.3.5 Design

The bicycle spaces are to be provided in the form of proprietary bicycle hoops designed to satisfy the relevant standards.

5.3.6 Conclusion - Bicycle Parking

We can conclude that bicycle parking provided as part of this development satisfies the purpose of Clause 52.34, specifically:

- To encourage cycling as a mode of transport, and provide secure, accessible and convenient bicycle parking spaces.

5.4 Clause 65.01 - Approval of An Application or Plan

5.4.1 Loading Requirements and Objectives

To address the adequacy of loading for new developments, the Moonee Valley Planning Scheme specifies the following:

- The responsible authority must consider, as appropriate, the adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.

5.4.2 Adequacy of Proposed Loading Facilities

The site has been provided with a dedicated on-site loading bay at ground level, designed to accommodate loading vehicles up to a 6.4m small rigid truck in size;

The relevant swept path sketches attached as Appendix A show a 6.4m small rigid vehicle accessing the ground floor loading area.

In this regard, we are of the opinion that:

- The proposed on-site parking layout has been designed to physically separate loading and car parking areas; and
- Loading vehicles are able to conveniently enter and exit the subject site.

We also highlight that the proposed on-site loading bay provided is to be graded flat. Further, a height clearance of at least 3.5 metres is provided above the proposed loading bay and along the commercial vehicle's path of travel internal to the site.

This design outcome satisfies the requirements of Australian Standard for Off-street Commercial Vehicle Facilities - AS 2890.2-2018.

5.4.3 Conclusion - Loading Arrangements

The proposed loading arrangements have been assessed and determined to have satisfied the relevant design guidelines / principles contained within Clause 65.01 and AS2890.2:2018.

Accordingly, it is considered that the proposal:

- Provides adequate vehicle loading and unloading facilities, which will not result in associated amenity, traffic flow and road safety impacts.

6 Traffic Considerations

6.1 Traffic Generation

6.1.1 Retail

The traffic generated by the proposed retail component is to be restricted to staff movements.

Accordingly, considering the two (2_ car parking spaces are allocated to the development's retail tenancy, be used by staff, traffic generated by these components will coincide with the AM and PM commuter peak periods as inbound and outbound movements, respectively.

Consequently, a total of two (2) inbound movements during the AM peak period and two (2) outbound movements during the PM peak period are expected to be generated, based on the number of allocated staff spaces. It is noted that this represents a conservative approach as it is unlikely that all inbound and outbound staff movements would occur during these periods.

6.1.2 Residential

Reference is made to Transport for New South Wales (TfNSW) Guide to Transport Impact Assessments. This document, informed by comprehensive case studies, provides guidance on traffic generation rates for medium density residential developments. In metropolitan locations with high public transport accessibility, the TfNSW publication suggest the following rates:

- AM Peak 0.66 movements per dwelling; and
- PM Peak 0.24 movements per dwelling.

It is typically accepted that 80% of residential vehicle movements will be outbound in the AM peak period, whilst 60% of the movement in the PM peak will be inbound. Application of these splits to the anticipated peak movements yields the following residential vehicle movements:

- AM Peak 5 inbound and 19 outbound
- PM Peak 5 inbound and 3 outbound

6.1.3 Summary

Based on the preceding projections, the proposed development is expected to generate 26 trips in the AM peak and 10 trips in the PM peak.

During the identified development-generated peak periods, the level of traffic expected to be generated by the proposed development (as detailed above) effectively translates to one (1) inbound or outbound movement every 2 minutes on average.

6.2 Traffic Impact

The projected level of traffic anticipated to be generated by the proposed mixed-use development will result in Mt. Alexander Road carrying an additional 26 movements during the AM Peak

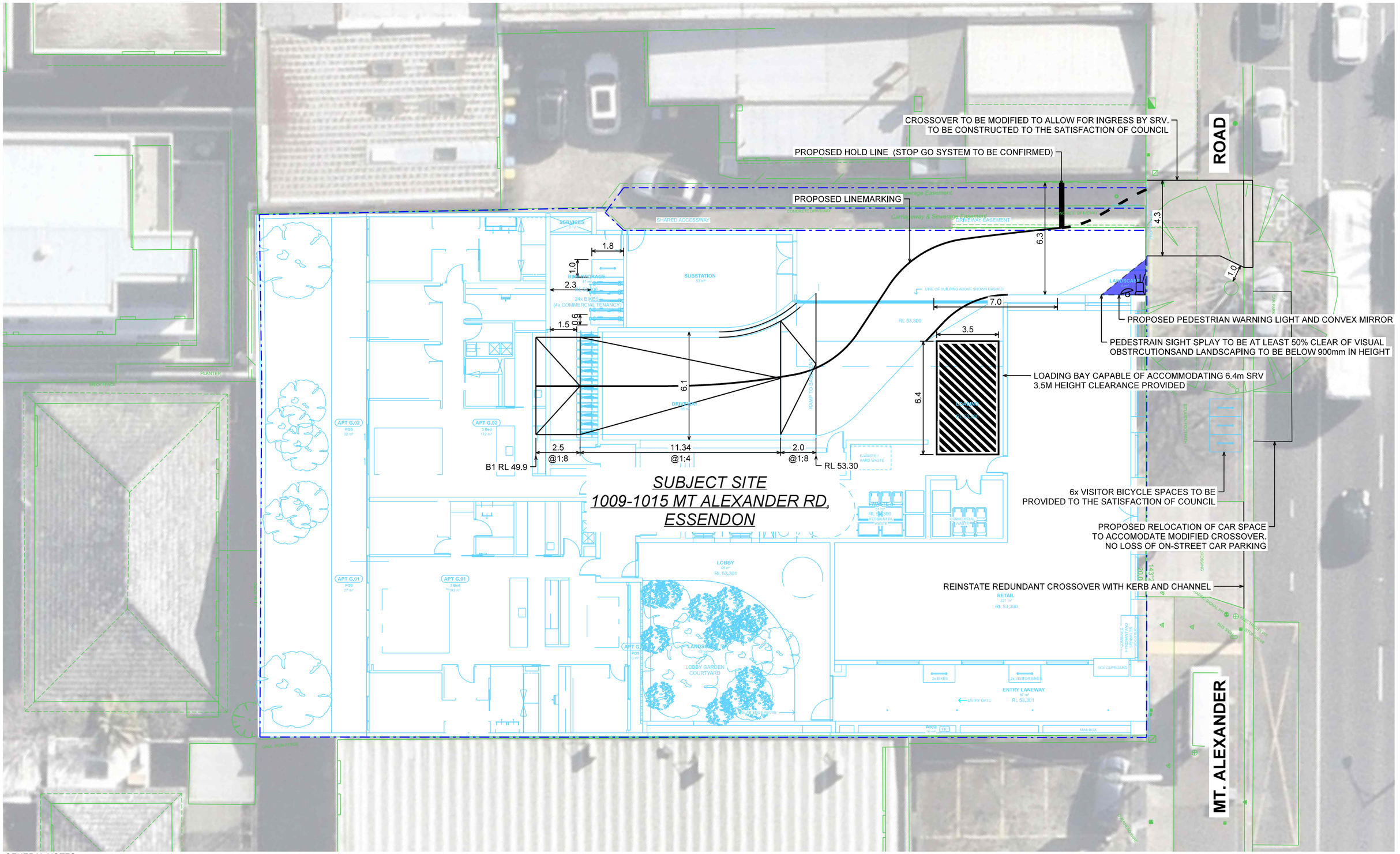
This is a conservative estimate, as it does not discount the level of traffic generated by the uses currently occupying the subject site.

Notwithstanding, post-development traffic volumes are expected to fall within Mt. Alexander Road's capacity threshold, with any additional traffic generated by the proposed development expected to be comfortably accommodated without detriment to safety or road performance.

APPENDIX A
Swept Path Analysis

Design Vehicles:

- B85 Car
- B99 Car
- 6.4m Small Rigid Vehicle



GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - MT. ALEXANDER ROAD (SPEED ZONE 60KM/H).
3. BASE INFORMATION FROM NEARMAP AERIAL PHOTOGRAPHY DATED 04.08.2024 AND TP-1000-DWG(TP1) - GROUND LEVEL.dwg DATED 12.12.2025

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Date **2026-04-13**
Drawn / Approved **WK / DH**

Project
MIXED-USE DEVELOPMENT
1009-1015 Mt. ALEXANDER ROAD, MELBOURNE
CITY OF MOONEE VALLEY

Title
TRAFFIC & TRANSPORT ASSESSMENT
SITE LAYOUT PLAN

Status
PRELIMINARY

Drawing Number
IMP2505046 - DRG-01-01

Revision
F

B85 CAR EGRESS SWEPT PATH
0.3m CLEARANCE SHOWN

B99 CAR INGRESS SWEPT PATH
0.3m CLEARANCE SHOWN

ROAD

MT. ALEXANDER

B99 CAR		B85 CAR	
	METERS		METERS
WIDTH	: 1.94	WIDTH	: 1.87
TRACK	: 1.84	TRACK	: 1.77
LOCK TO LOCK TIME	: 6.0	LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 33.9	STEERING ANGLE	: 34.1

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Project
MIXED-USE DEVELOPMENT
1009-1015 Mt. ALEXANDER ROAD, MELBOURNE
CITY OF MOONEE VALLEY

Title
TRAFFIC & TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
B85 & B99 CAR DESIGN VEHICLES

Status
PRELIMINARY

Drawing Number
IMP2505046 - DRG-01-02

Revision
F

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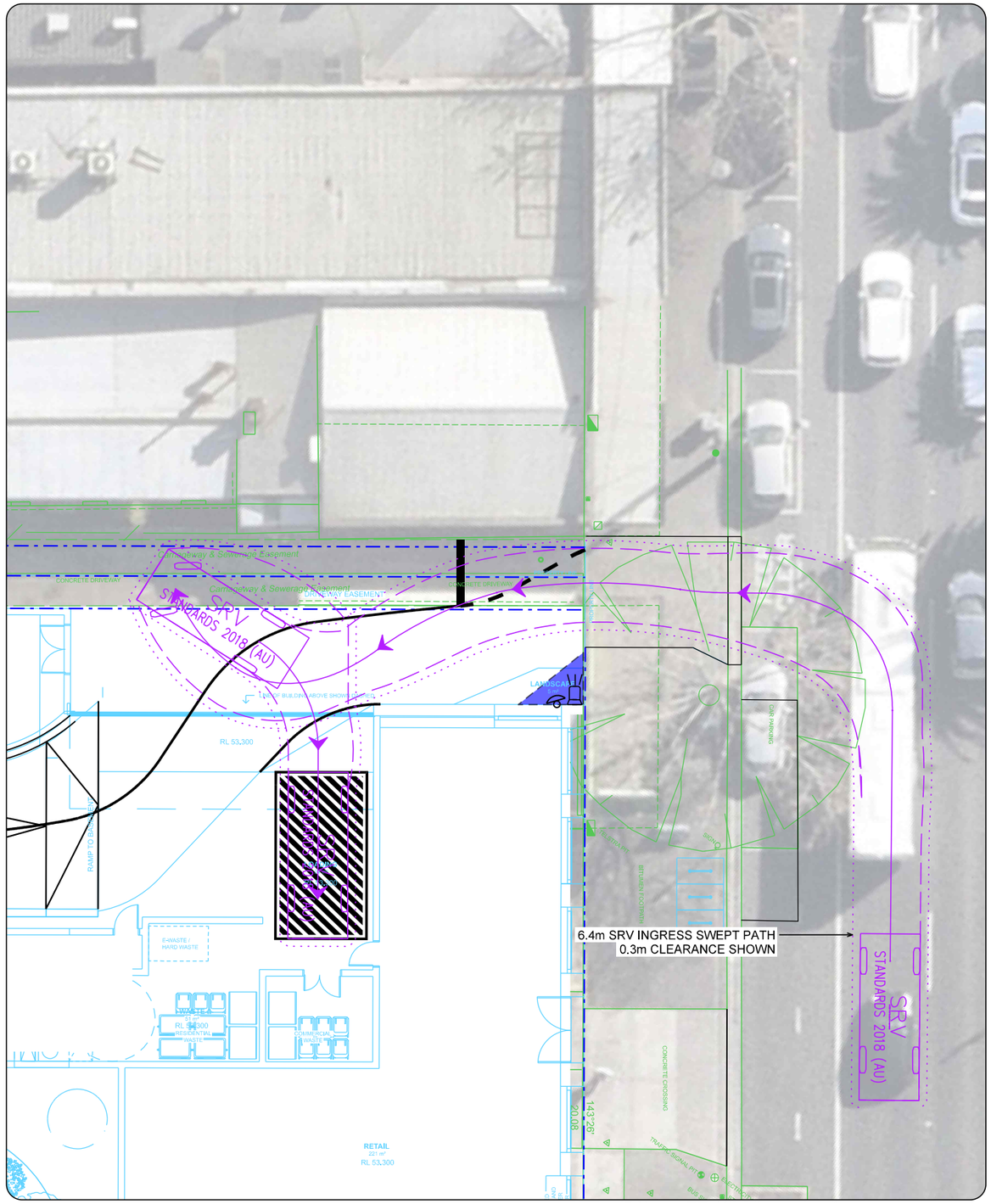

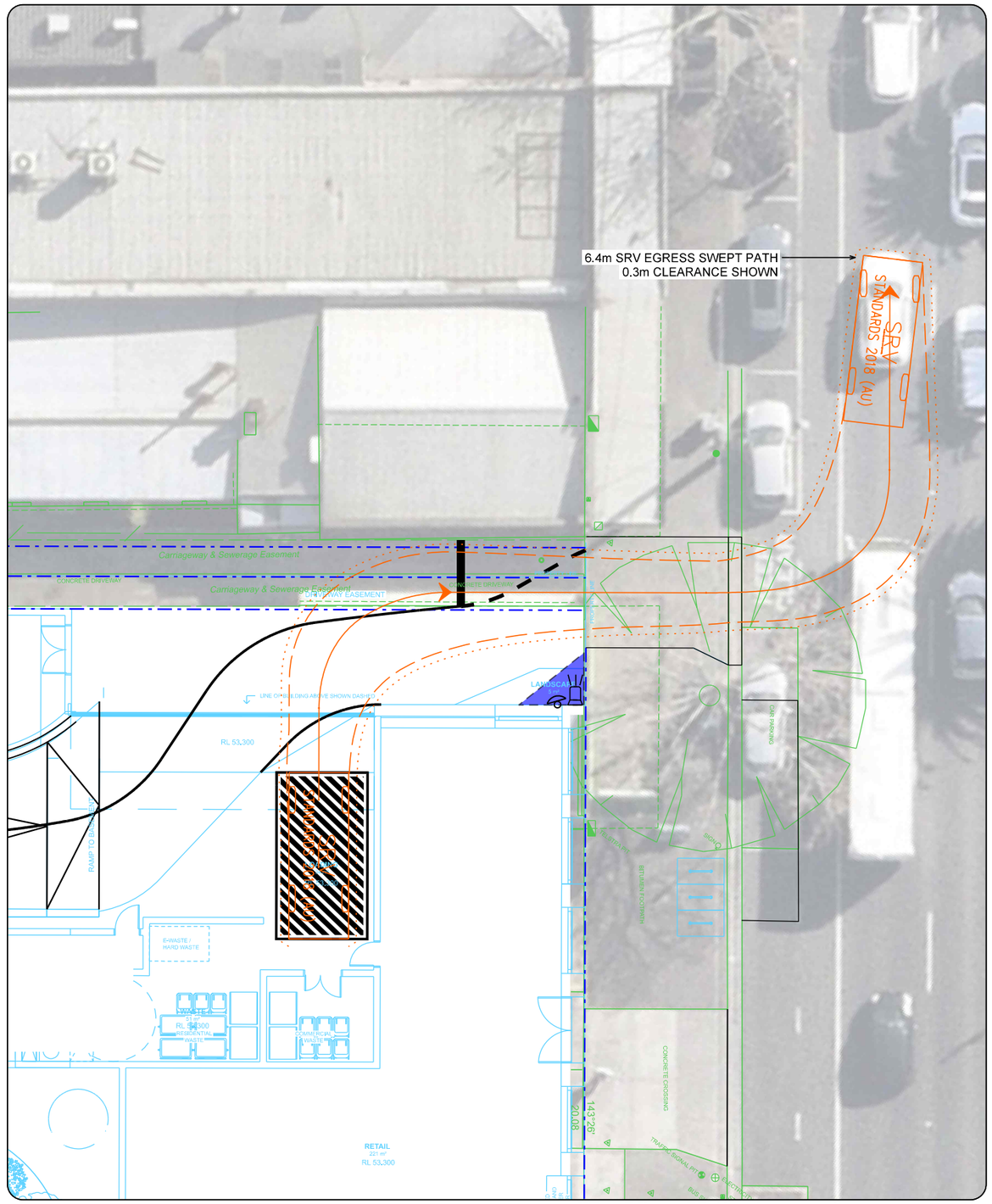

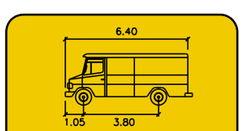

6.4m SMALL RIGID VEHICLE

	METERS
WIDTH	: 2.30
TRACK	: 2.30
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 38.1

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Project
MIXED-USE DEVELOPMENT
1009-1015 Mt. ALEXANDER ROAD, MELBOURNE
CITY OF MOONEE VALLEY

Title
TRAFFIC & TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
6.4m SRV DESIGN VEHICLE

Status
PRELIMINARY

Drawing Number
IMP2505046 - DRG-01-03

Revision
F

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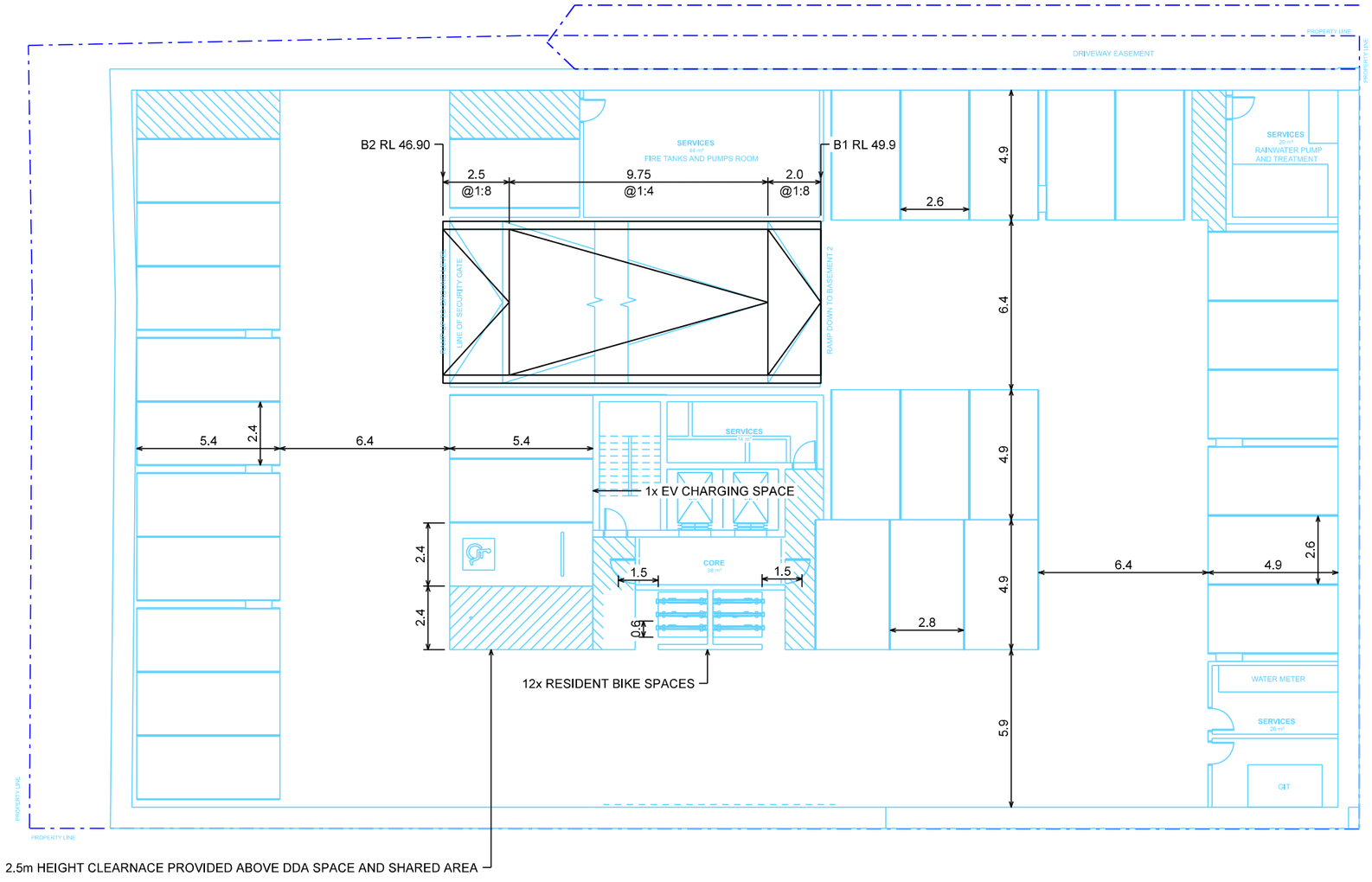
SUBJECT SITE
1009-1015 MT ALEXANDER RD, ESSENDON



GENERAL NOTES:
1. ALL DIMENSIONS ARE TO FACE OF KERB AND CHANNEL UNLESS NOTED OTHERWISE.
2. DECLARED ROADS - MT. ALEXANDER ROAD (SPEED ZONE 60KM/H).
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Project
MIXED-USE DEVELOPMENT
1009-1015 Mt. ALEXANDER ROAD, MELBOURNE
CITY OF MOONEE VALLEY

Title
TRAFFIC & TRANSPORT ASSESSMENT
B1 - SITE LAYOUT PLAN

Status
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Drawing Number
IMP2505046 - DRG-02-01

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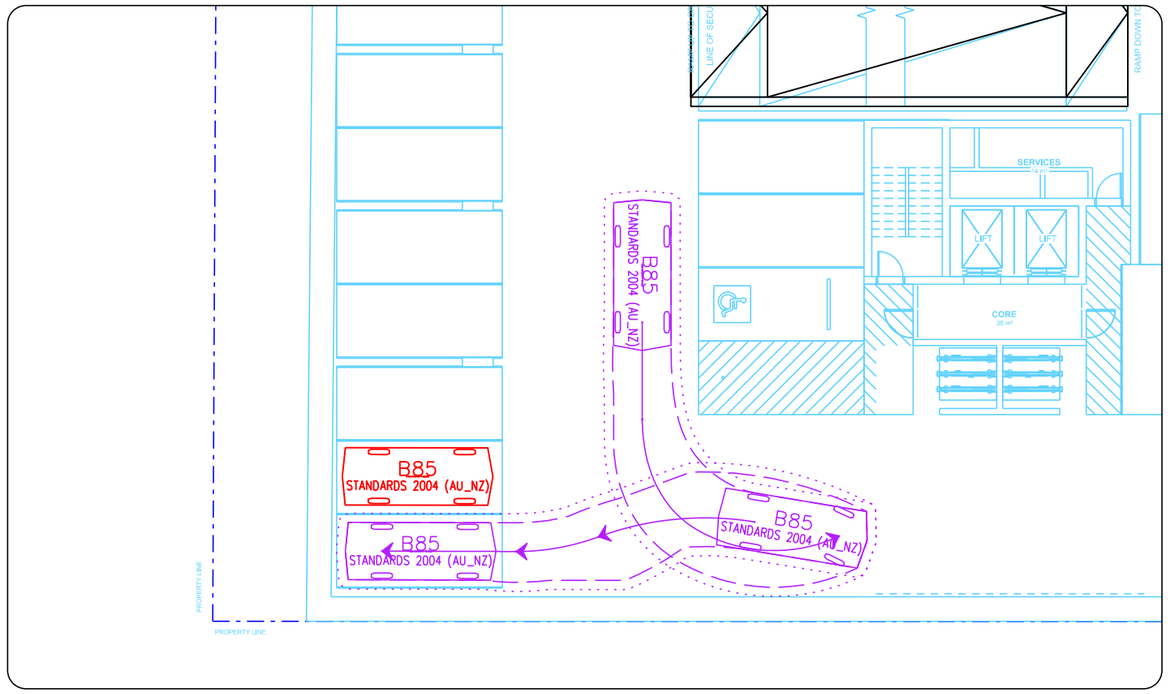

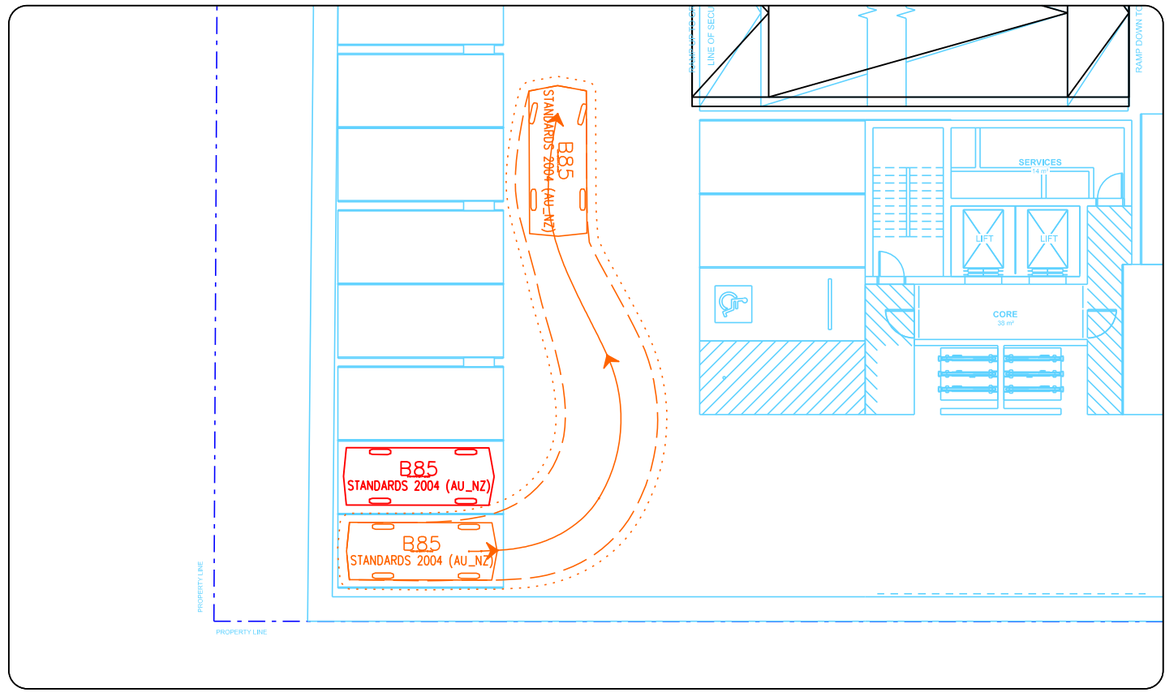

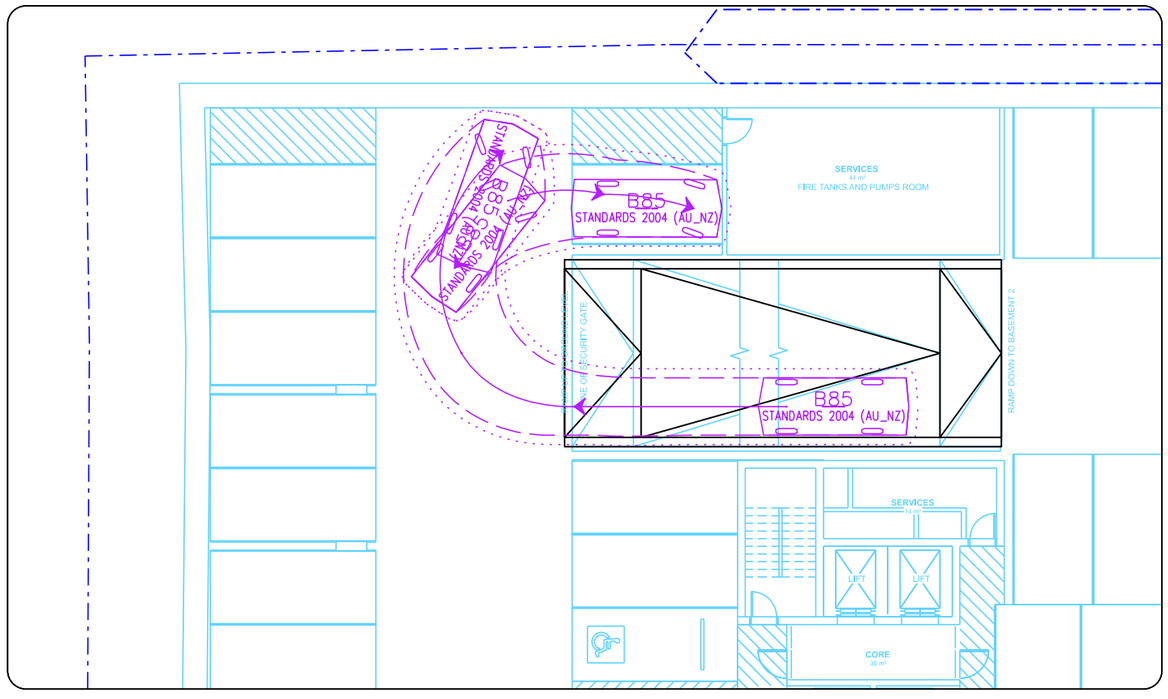

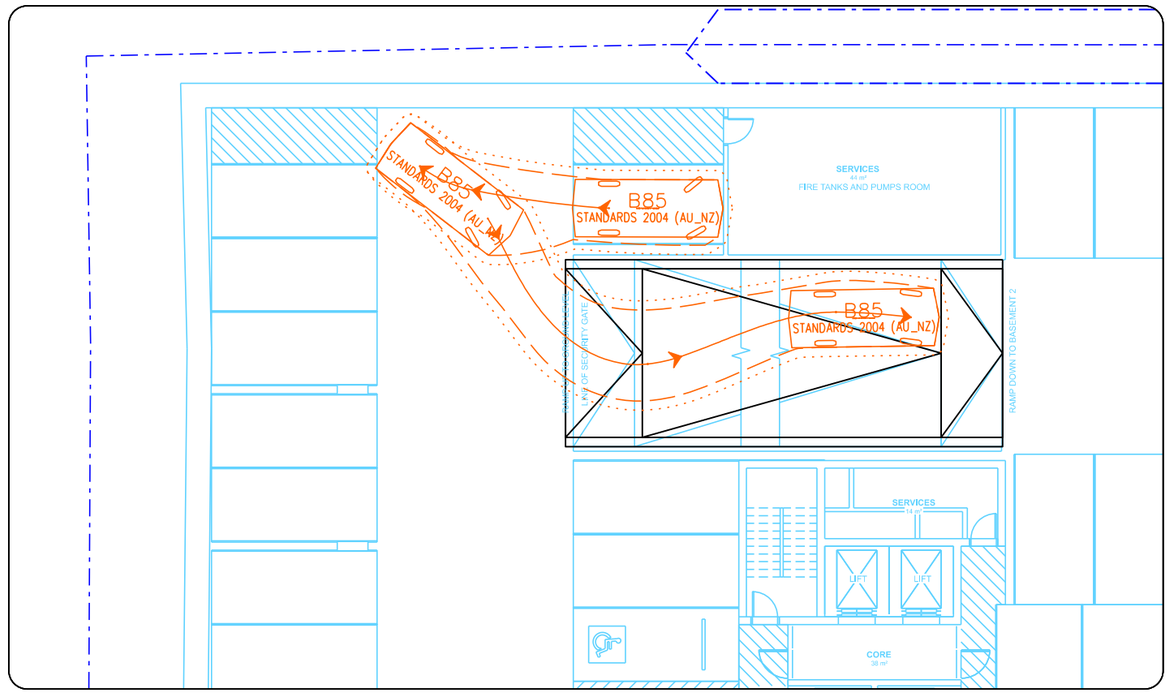

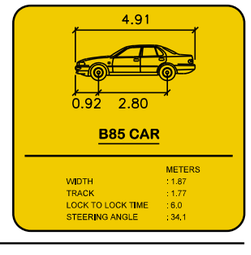

B85 CAR

	METERS
WIDTH	: 1.87
TRACK	: 1.77
LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 34.1

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Project
MIXED-USE DEVELOPMENT
1009-1015 Mt. ALEXANDER ROAD, MELBOURNE
CITY OF MOONEE VALLEY

Title
TRAFFIC & TRANSPORT ASSESSMENT
SWEPT PATH ANALYSIS
B85 CAR

Status
PRELIMINARY

Drawing Number
IMP2505046 - DRG-02-02

Revision
D

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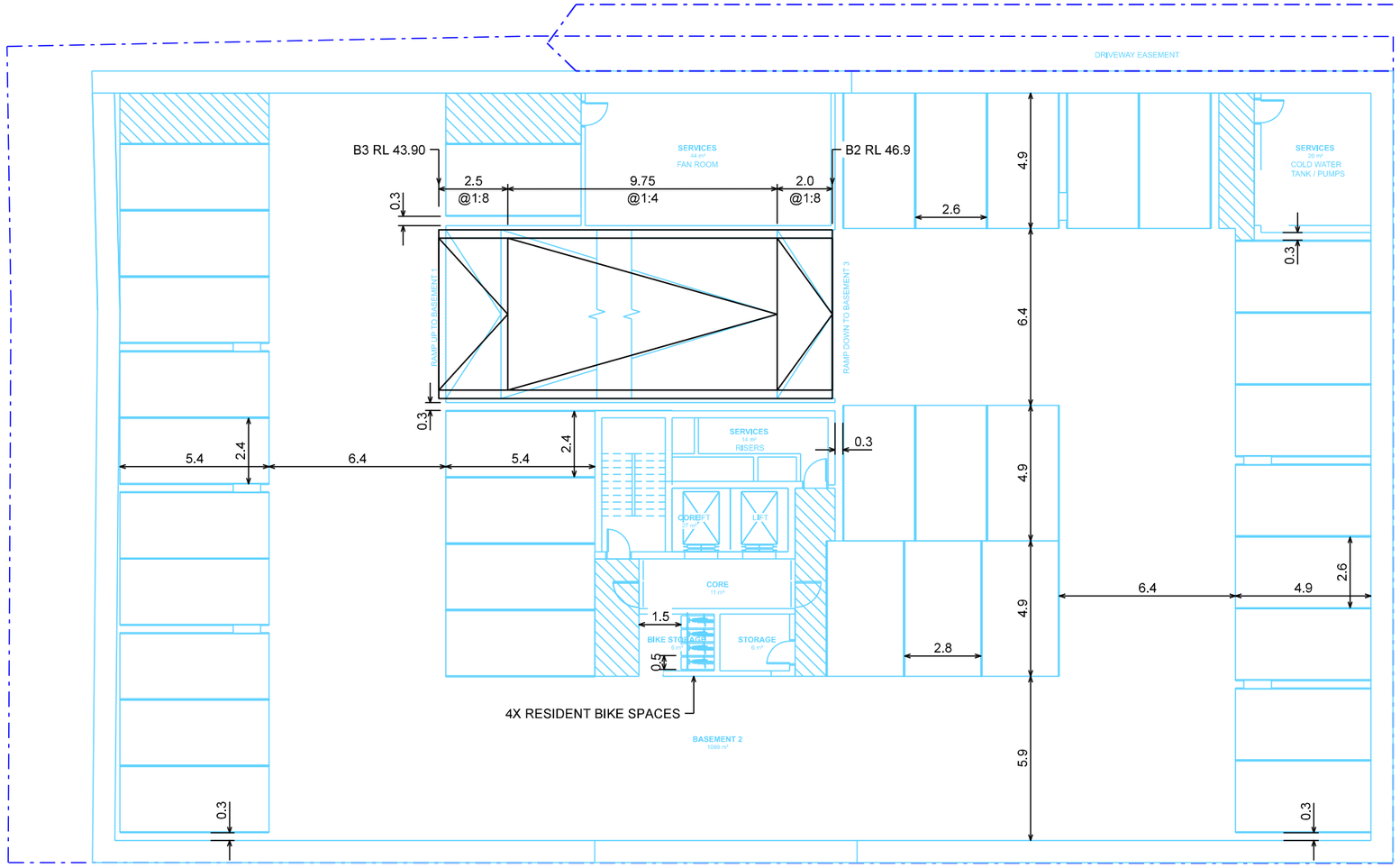
SUBJECT SITE
1009-1015 MT ALEXANDER RD,
ESSENDON



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Project
MIXED-USE DEVELOPMENT
1009-1015 Mt. ALEXANDER ROAD, MELBOURNE
CITY OF MOONEE VALLEY

Title
TRAFFIC & TRANSPORT ASSESSMENT
B2 - SITE LAYOUT PLAN

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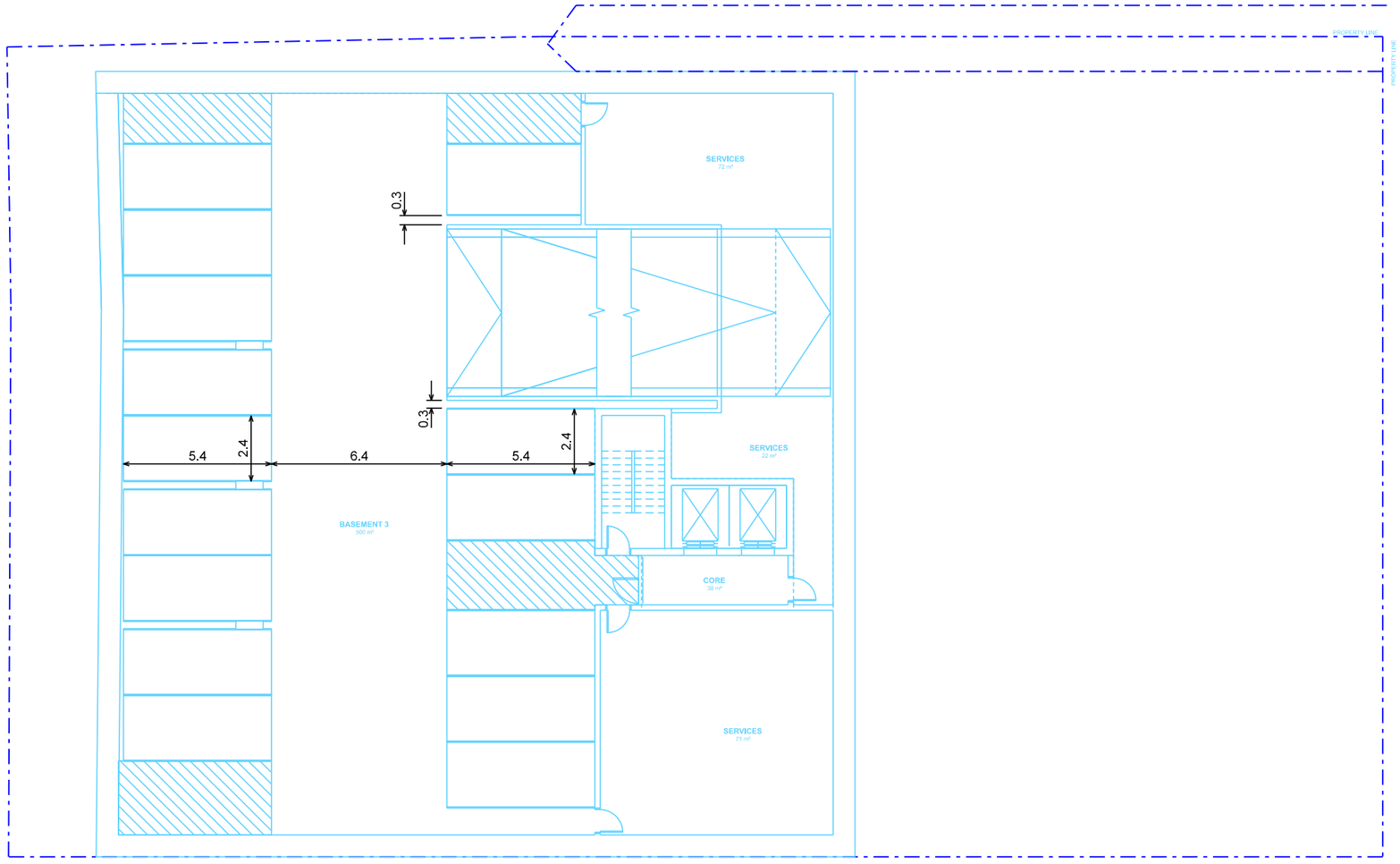
SUBJECT SITE
1009-1015 MT ALEXANDER RD,
ESSENDON



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Project
MIXED-USE DEVELOPMENT
1009-1015 Mt. ALEXANDER ROAD, MELBOURNE
CITY OF MOONEE VALLEY

Title
TRAFFIC & TRANSPORT ASSESSMENT
B3 - SITE LAYOUT PLAN

Status
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Revision
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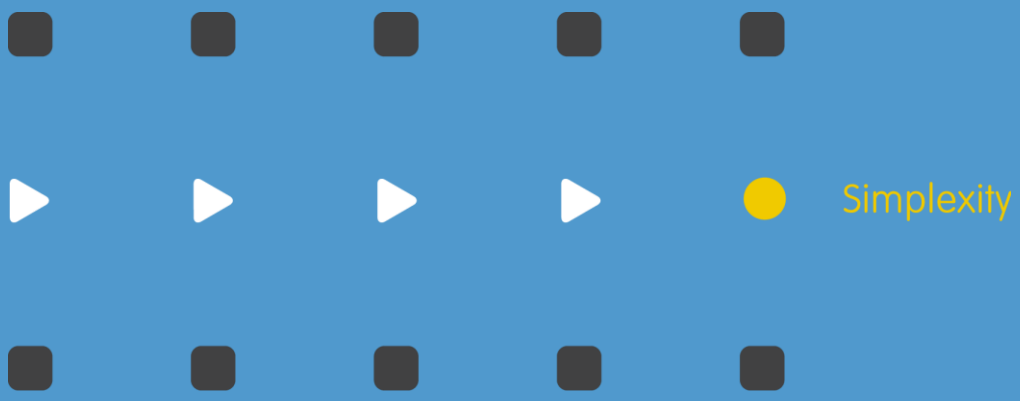
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