



Transport Management & Accessibility Plan

155-251 & 141-153 Aldington Road Estate, Kemps Creek

3/11/2023

P1043r06



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APPENDICES

- Appendix A. Hourly Traffic Generation**
- Appendix B. Framework Sustainable Travel Plan**
- Appendix C. Swept Path Analysis**
- Appendix D. Draft Construction Traffic Management Plan**

Glossary

Acronym	Description
ABS	Australian Bureau of Statistics
AGRD	Austrorads Guide to Road Design
AGTM	Austrorads Guide to Traffic Management
BWSEA	Broader Western Sydney Employment Area
CC	Construction Certificate
Council	Penrith City Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPE	Department of Planning and Environment (formerly Department of Planning, Industry and Environment (DPIE))
EIS	Environmental Impact Statement
FPI	Fraser's Property Industrial
GFA	Gross Floor Area
JTW	Journey-to-Work
LEP	Local Environmental Plan
LGA	Local Government Area
LOG	Mamre Road Precinct Land Owners Group
LoS	Level of Service
MRP	Mamre Road Precinct
NHVR	National Heavy Vehicle Regulator
RTA Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SSD	State Significant Development
TDT 2013/04a	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TMAP	Transport Management and Accessibility Plan
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)

1 Introduction

1.1 Overview

Ason Group has been engaged by Frasers Property Industrial (FPI) to prepare a Transport Management and Accessibility Plan (TMAP) in relation to the State Significant Development (SSD) for the proposed industrial development known as Edge South (the Proposal) located at 155-251 & 141-153 Aldington Road Estate, Kemps Creek (the Site).

The Site is located to the west of Aldington Road and lies within the Mamre Road Precinct (the MRP), which was rezoned by the NSW Department of Planning and Environment (DPE) in June 2020 for primarily industrial uses.

The MRP Structure Plan was finalised in June 2020, followed by the adoption of the MRP Development Control Plan (DCP) on the 19 November 2021 (MRP DCP).

The Proposal itself relates to the provision of an industrial warehouse development, with ancillary offices, loading areas and car parking; providing for a total of 153,700m² of industrial Gross Floor Area (GFA). Full details are provided in the Environmental Impact Statement (EIS) prepared by Ethos Urban, which this TMAP accompanies.

1.1.1 Amendment to Prior Submission

This document serves as an amendment report to the previous submission for the Site (file reference: P1043r02v4 TMAP_155-217 Aldington Rd, Kemps Creek, Issue), which sought approval for:

- 2 warehouses with a total building area of 65,327m²;
- Creation of 9 individual development lots; with Lot 9 the subject of an industrial development;
- Internal road layouts and road connection to Aldington Road;
- Provision for 477 car parking spaces; and
- Associated landscaping.

Figure 1 provides a site plan of the previous submission.

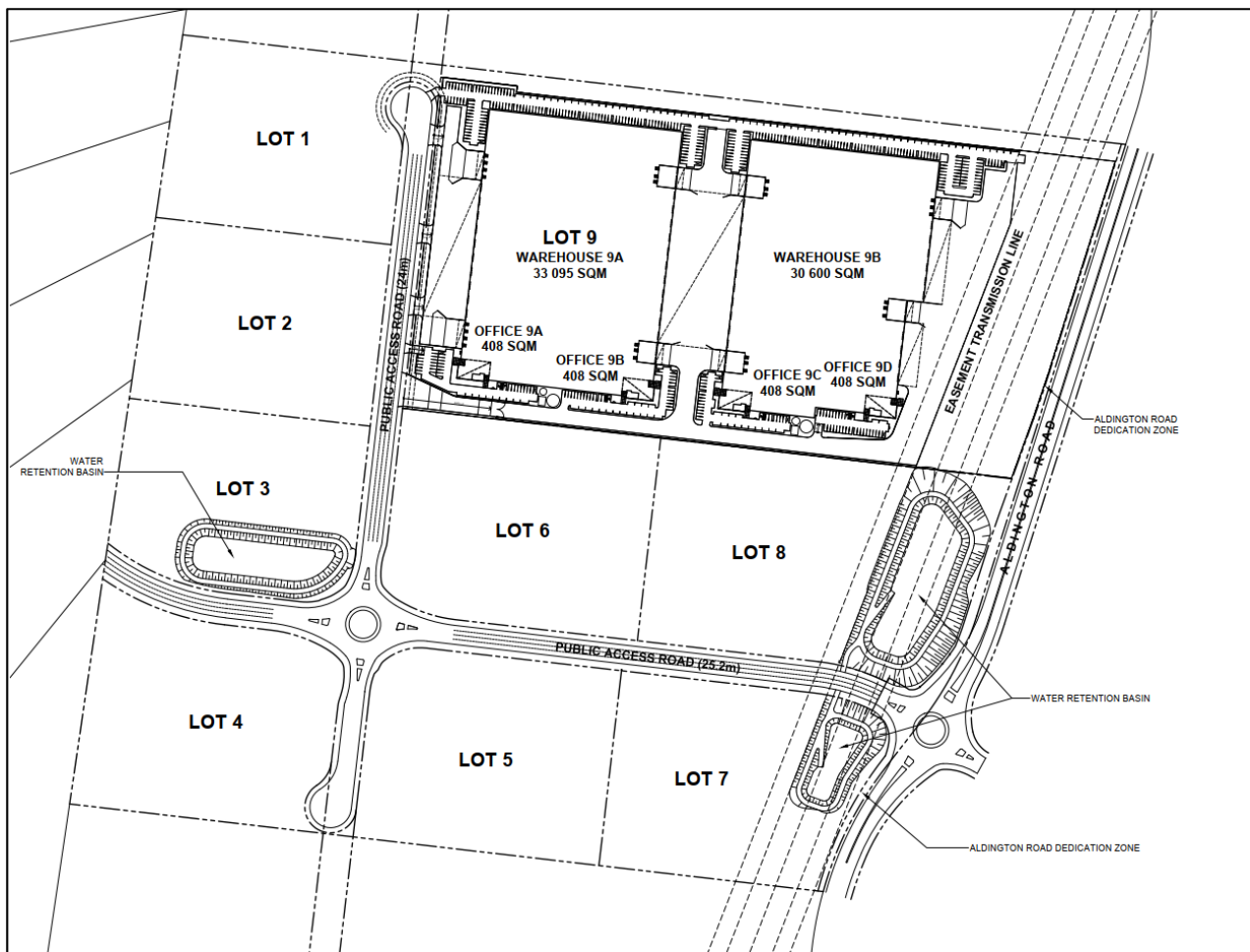


Figure 1: Previous Submission Site Plan

The key difference in this amendment being this application seeks approval for 8 warehouses and provision of 652 car parking spaces, further detailed in **Section 2**.

1.2 Mamre Road Precinct Road Network Requirements

1.2.1 Strategic Road Network Requirements

The background traffic modelling to identify the required road network layout to facilitate the development of the MRP, whilst accommodating the wider background traffic growth associated with the development of Western Sydney, was finalised in late 2021. The results of this modelling assessment have underpinned the road network layout detailed within the MRP DCP.

Ason Group worked with DPE and Transport for New South Wales (TfNSW) collectively, to deliver this assessment (herein referred to as the MRP modelling assessment), which focused on the future forecast years of 2031 and 2036.

The Proposal is consistent with the assumptions made within the MRP modelling assessment for the Site, which was undertaken for the future assessment years of 2031 and 2036.

As such, the key focus of this Proposal is for the assessment year of 2026.

1.2.2 Interim Intersection Requirements

While the MRP DCP identifies the ultimate road network (by 2036), no staging strategy has been identified which allows for the initial stages of development in the interim period prior to delivery of the ultimate road network.

Therefore, a group of landowners who have significant landholdings on Aldington Road have worked together to identify the relevant upgrades to the Abbots Road and Aldington Road corridor. Referred to as the Land Owners Group East (LOG-E) the sites include:

- FPI, developing 2 land holdings known as Edge North (99-111 Aldington Road) and Edge South (being the Site).
- ESR Australia, developing the Westlink Industrial Estate at 59-63 Abbots Road & 290-308 Aldington Road, Kemps Creek. Stage 1 has received development consent (SSD-9138102¹);
- Fife Kemps Creek, developing the 200 Aldington Road Estate. The Concept Masterplan and Stage 1 development has received development consent (SSD- 10479²).

Ason Group worked on behalf of LOG-E to deliver the modelling assessment of the interim road network (summarised in Section 6.5). The scope of this modelling was discussed with Transport for New South Wales (TfNSW) and DPE, and the results have been documented separately within the following report:

- Ason Group, *P1815 – Mamre Road Precinct – LOG East – Revised Modelling*, P1815m03_v4 MRP_LOG East 2026 Revised Modelling, 19 September 2022 (LOG-E Modelling Memo).

TfNSW have now endorsed this modelling assessment.

The road upgrades proposed by LOG-E have formed the basis for approval of the Westlink Industrial Estate as well as the 200 Aldington Road Estate. They will be delivered through a joint Voluntary Planning Agreement (VPA) between LOG-E and Council for Aldington Road and Abbots Road and DPE for the Mamre Road / Abbots Road intersection.

1.3 Assessment Objectives

The key objectives of this TMAP are as follows:

- To establish that the development of the Site further to the Proposal is compliant and consistent with the relevant access, traffic and parking requirements.
- To establish that the trip generation of the Proposal can appropriately be accommodated by interim upgrades to the local road network.
- To demonstrate that there is an appropriate and sustainable provision of car parking across the Site.
- To demonstrate that the proposed access driveways, internal roads, car parks and service facilities can provide a design compliant with the relevant Australian Standards.

¹ <https://www.planningportal.nsw.gov.au/major-projects/projects/westlink-industrial-estate-stage-1>

² <https://www.planningportal.nsw.gov.au/major-projects/projects/200-aldington-road-industrial-estate>

1.4 Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements (SEARs) were issued by the DPE in May 2021 in relation to the SSD (SSD-17552047), and include both general DPE SEARs and more specific TfNSW SEARs.

The DPE and TfNSW SEARs relating to transport issues are outlined in **Table 1** and **Table 2** below. Ason Group has provided a summary response to each SEAR, and reference to the section of this TMAP providing a more detailed analysis of each SEAR.

TABLE 1: DPE TRAFFIC & TRANSPORT SEARS - SSD-17552047

SEARs Item	Report Section / Response
details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access / haul routes. Traffic flows are to be shown diagrammatically to a level of detail sufficient for easy interpretation	See Section 6. Construction traffic flows cannot be accurately determined at this time; however, the currently anticipated traffic volumes, Site access provisions and potential haul routes have been identified in the Draft Construction Traffic Management Plan (CTMP) provided at Appendix D .
an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity. The assessment needs to consider the impact on Mamre Road for the duration of the works because traffic growth in this area is expected to increase more rapidly than standard growth rates	Section 6
details how the proposed development connects to adjoining sites as outlined in the Draft Mamre Road Precinct DCP	Refer to plan set showing links
plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network	Refer to plan set
detailed plans of the site access and proposed layout of the internal road and pedestrian network and parking on site in accordance with the relevant Australian Standards and DCP	Refer to plan set and section 9
swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site	Section 9 and Appendix C
details of road upgrades, infrastructure works or new roads or access points required for the development	Section 6
details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and	Appendix B

specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site	
details of the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development	Section 5
measures to integrate the development with the existing/future public transport network	Section 5 and Appendix B.

TABLE 2: TFNSW TRAFFIC & TRANSPORT SEARS - SSD-17552047

Item	SEARs Item	Report Section / Response
1.	Details of all traffic types and volumes likely to be generated by the proposed development during construction and operation, including a description of haul route origins and destinations, including:	As above.
a.	Daily inbound and outbound vehicle traffic profile by time of day and day of week (if travel patterns differ across the week)	Appendix A
b.	Site and traffic management plan on how to manage number of vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the surrounding road network;	A Draft Construction Traffic Management Plan has been provided as Appendix D. It is anticipated that individual lots within the wider Site will be subject to Operational Traffic Management Plans, to be implemented via a suitable Condition of consent as part of Occupation Certificate Works. Swept path analysis demonstrating how loading activities will occur are shown in Appendix C.
c.	Detailed plan of proposed layout of internal road network to demonstrate that the site will be able to accommodate the most productive vehicle types and parking on site in accordance with the relevant Australian Standard and Council's Development Control Plan;	Refer to architectural plan set, and civil plans prepared separately.
d.	Plans detailing how the proposed development connects to adjoining sites to facilitate their future development for their intended purposes;	Refer to architectural plan set
e.	Demonstrate compliance with the Western Sydney Employment Area State Environmental Planning Policy, Part 6; clause 33C; Development within the Mamre Road Precinct; specifically: integration with the Mamre Road Precinct dedicated freight corridor (DFC), including provision for access from the DFC to the entire estate. The applicant should continue to liaise with TfNSW to ensure the DFC is incorporate;	Currently, there is no clear direction on how the future DFN is anticipated to be developed and implemented. However, it is noted that the design of the proposed subdivision from a civil engineering perspective has sought to not preclude any future connection to the DFN in the future. The built form development proposal has been designed in compliance with the requirements of the MRP DCP. It is noted that the future development proposed on Lots with direct

		access to the DFN would consider the future incorporation of a DFN.
f.	Swept path diagrams to demonstrate vehicles entering, exiting and manoeuvring throughout the site;	Appendix C
g.	An assessment of the forecast impacts on traffic volume generated on road safety and capacity of road network including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model as prescribed by TfNSW (former Roads and Maritime). The traffic modelling should consider the scenarios of year 2026, 2031, 2036.	Section 6 The cumulative impacts of the MRP have ultimately been assessed as part of the MRP modelling assessment which informed the road network detailed within the MRP DCP. The results of this modelling (undertaken in 2031 and 2036) was submitted to DPE and TfNSW and ultimately accepted following finalisation of the MRP DCP.
h.	An assessment of potential impact on load road pavement lifespan including: i. Aldington Road/ Bakers Lane/ Abbots Road; and ii. Mamre Road.	The design of Aldington Road is currently being agreed with Council. Once agreed, the design of the pavement lifespan would be acceptable to Council. Noting that Mamre Road is an approved B-double route, the pavement would be capable of accommodating any vehicle access the Site.
i.	To ensure that the above requirements are fully addressed, an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity. The assessment needs to consider the impact on Aldington Road for the duration of the works because traffic growth in this area is expected to increase more quickly than standard growth rates	Section 6
j.	details of road upgrades, infrastructure works, or new roads or access points required for the development	Refer to Section 6 and the civil engineering submission for more details on the upgrades to Aldington Road.
k.	details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace Travel Plan) and the provision of facilities to increase the non-car mode share for travel to and from the site	Appendix B
l.	details of the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand for the proposed development	Sections 5 and 7 Appendix B
m.	measures to integrate the development with the existing/future public transport network	
n.	The preparation of a preliminary Construction Pedestrian and Traffic Management	Appendix D

	Plan (CPTMP) to demonstrate the proposed management of the impact in relation to construction traffic	
2.	Traffic Counts: TfNSW requests that any counts undertaken are not within close proximity to the school holidays/long weekend.	Traffic counts have been referred to that were undertaken in 2018. However, it is noted that due the significant change expected in the area, the traffic conditions will be significantly changed in the future year assessment. Therefore, the modelling assessment has ultimately been based on STFM data.

1.5 Reference Documents

As discussed, the Site lies with the MRP; as such, Ason Group has referenced the MRP DCP as it will ultimately provide the overarching controls for the Site and the wider MRP:

- DPE, *Western Sydney Employment Area, Mamre Road Precinct, Development Control Plan*, November 2021 (MRP DCP).

Further to the above, the Site lies within the Penrith City Council Local Government Area (LGA); as such, Ason Group has also referenced the following key Council controls in preparing this TMAP:

- Penrith City Council Local Environmental Plan 2010 (Penrith LEP).
- Penrith City Council Development Control Plan 2014 (Penrith DCP).

Ason Group has also referenced the following additional policies and guidelines relevant to the assessment of the Proposal:

- TfNSW (formerly Roads Traffic Authority) Guide to Traffic Generating Developments 2002 (RTA Guide).
- TfNSW Guide to Traffic Generating Developments Updated Traffic Surveys, August 2013 (TfNSW TDT 2013/04a).
- Department of Planning & Environment (DPE) Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan Stage 1: Initial Precincts (WSA Stage 1 Plan).
- State Environmental Planning Policy (Western Sydney Employment Area) 2009 (SEPP WSEA).
- DPE Mamre West Land Investigation Area Development Control Plan 2016 (Mamre West DCP).
- Australian Standard 2890.1:2004: Parking Facilities – Off Street Car Parking (AS 2890.1:2004).
- Australian Standard 2890.2:2018 Parking Facilities – Off Street Commercial Vehicle Facilities (AS 2890.2:2018).
- Australian Standard 2890.3:2015: Parking Facilities – Bicycle Parking (AS 2890.3:2015).
- Australian Standard 2890.6:2022 Parking Facilities – Off Street Parking for People with Disabilities (AS 2890.6:2022).
- AECOM *Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report*, October 2020 (AECOM Report).

Finally, Ason Group has specifically referenced the most recent assessments available in regard to the recent rezoning of the MRP, including:

- NSW Government *Mamre Road Precinct Rezoning Exhibition Discussion Paper*, November 2019 (MRP Rezoning Paper).
- NSW Government *Mamre Road Precinct Rezoning Finalisation Report*, June 2020 (MRP Finalisation Report).
- Roads & Maritime *Mamre Road Upgrades Kerrs Road to M4 Motorway*, November 2017 (MR Upgrade Report).
- Roads & Maritime *Mamre Road Upgrade Community Consultation Report* May 2019 (MR Upgrade CC Report).
- AECOM *Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report*, October 2020 (AECOM Report).
- Ason Group, *P1815 – Mamre Road Precinct – LOG East – Revised Modelling*, P1815m03_v4 MRP_LOG East 2026 Revised Modelling, 19 September 2022 (LOG-E Modelling Memo).

2 The Proposal

2.1 Overview

A detailed description of the SSD Proposal is included in the EIS which this TMAP accompanies. In summary, the application relates to the construction of an industrial development with associated hardstand and parking. The following summarises key aspects of the Proposal:

- Provision of 8 warehouses with a total building area of 153,285m², comprising:
 - 146,480m² warehouse GFA,
 - 6,805m² of ancillary office GFA,
- Internal roads and signalised intersection with Aldington Road, as per the MRP DCP. Turning heads will be provided temporarily until the connection of the roads through to the neighbouring development sites. The signalised intersection will be provided as part of the works being undertaken by LOG-E;
- Provision for 681 car parking spaces; and
- Associated site landscaping.

The proposed Masterplan is reproduced at a reduce scale in **Figure 2**.

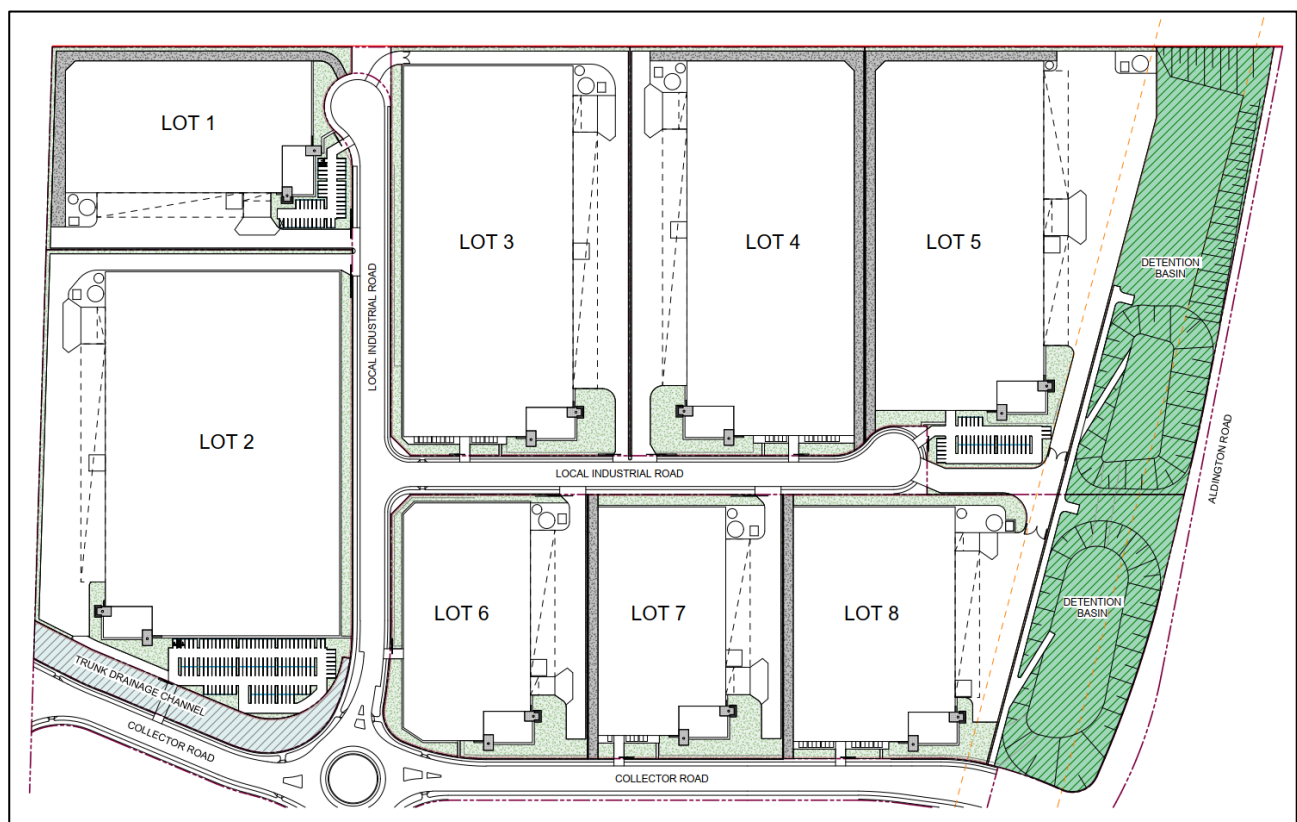


Figure 2: Proposed Site Plan

3 The Existing Site

3.1 Location

The Site is comprised of 7 separate Lots (refer to **Table 3**) and is located at 155-251 Aldington Road, Kemps Creek. It is approximately 11km north-east of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 10km south-east of the Penrith CBD and 40km west of the Sydney CBD.

The Site is shown in its sub-regional context in **Figure 3**, as well as the broader MRP area in which it lies.

TABLE 3: SITE DESCRIPTION

Address	Title	Area (Ha)
155 - 167 Aldington Road	33 / DP258949	10.12
169 – 181 Aldington Road	28 / DP255560	10.12
183 – 197 Aldington Road	27 / DP255560	10.12
199 Aldington Road	26 / DP255560	2.54
201 - 217 Aldington Road	25 / DP255560	10.12
219 - 233 Aldington Road	24 / DP255560	10.12
235-251 Aldington Road	10 / DP253503	10.14

3.2 Current Site Land Usage

The Site has historically been used for a number of rural residential properties, as well as for small scale agricultural businesses. The properties along the length of Aldington and Abbotts Roads can be categorised on this manner.

3.3 Site Access

The Site currently has access points onto Aldington Road through various access driveways into private properties. Aldington Road connects with Mamre Road, by way of Abbotts Road, to the west of the Site, and to the north, Bakers Lane. From Mamre Road, access is available north to the M4 Motorway, Great Western Highway, Lenore Drive and M7 Motorway; and south to Elizabeth Drive, the M7 Motorway and the future M12 Motorway.

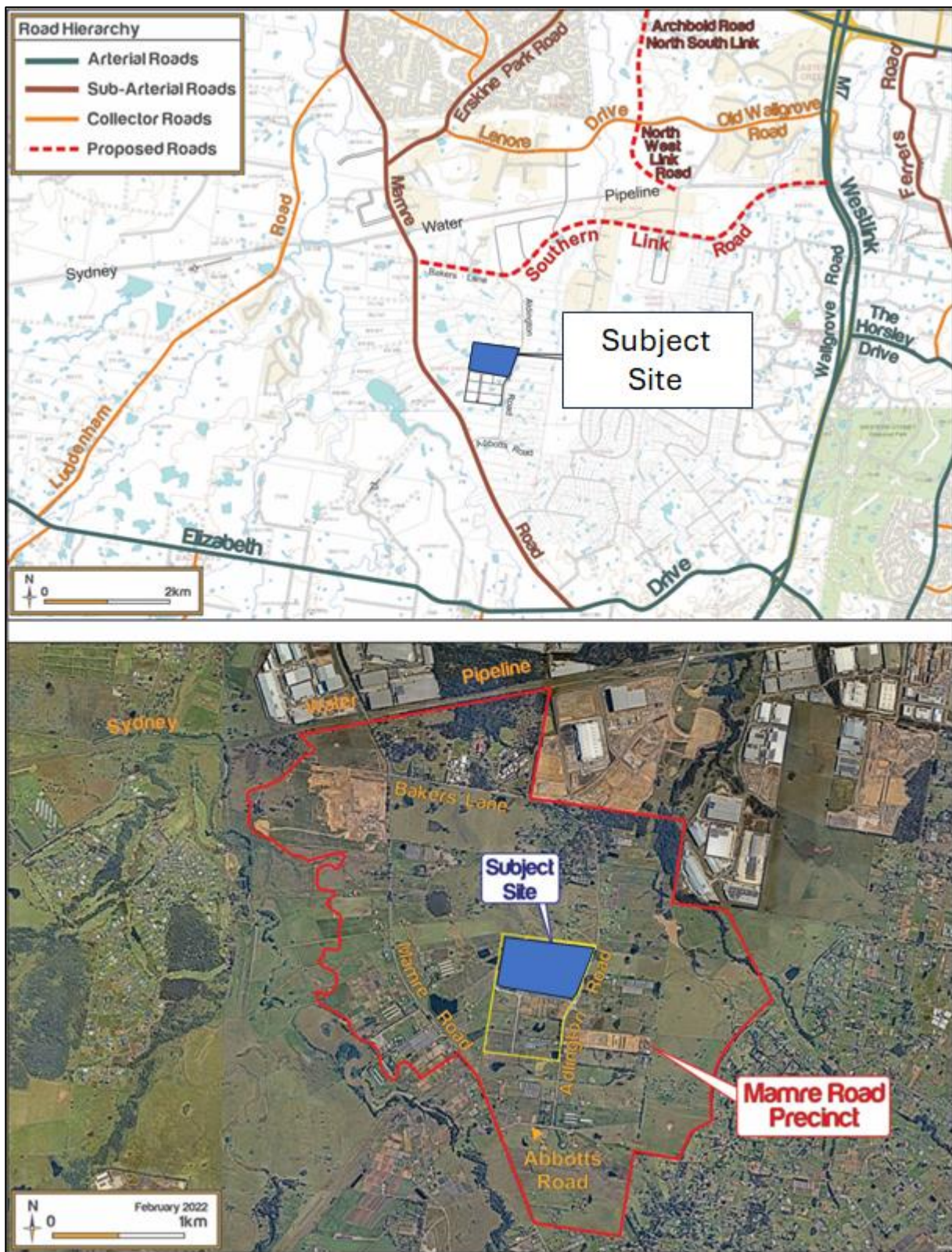


Figure 3: Site Location & Road Hierarchy

3.4 The Existing Road Network

3.4.1 Key Roads

The existing road network providing access to the Site is shown in Figure 3, and detailed further below.

TABLE 4 KEY ROAD NETWORK

Road	Description	Typical Road Characteristics
Mamre Road	An arterial road which runs north-south between the Great Western Highway and M4, and Elizabeth Drive respectively. through the MRP, Mamre Road has a posted speed limit of 80km/h	
Aldington Road	A local access that runs north-south (to the east of Mamre Road) and currently provides access for a number of rural residential properties. It connect with Bakers Lane to the north and Abbots Road to the south. It provides 1 traffic lane in each direction and has a posted speed limit of 80km/h.	
Bakers Lane	A local access that runs east-west (to the east of Mamre Road) and currently provides access for a number of rural residential, educational and retirement sites. It provides 1 traffic lane in each direction and has a posted speed limit of 60km/h.	

3.4.2 Existing Traffic Flows

Ason Group conducted AM and PM peak period traffic surveys in Mamre Road south of Bakers Lane in 2018; based on the minimum number of traffic generating developments in the vicinity of the Site, these flows provide a good representation of current traffic flows in Mamre Road west of the Site.

The results of the surveys are shown in **Table 5**.

TABLE 5: 2018 MAMRE ROAD TRAFFIC FLOWS

Peak Period	Total Volumes	Directional Volumes
AM	1,391	NB: 782 vph
		SB: 609 vph
PM	1,541	NB: 678 vph
		SB: 863 vph

4 Mamre Road Precinct Rezoning

4.1 Strategic Context

4.1.1 Policy

In June 2020, the NSW Government rezoned MRP from rural uses to IN1 General Industrial. In summary, the rezoning sought to:

- Responds to the demand for industrial land in Western Sydney, as well as the future freight, logistics and industrial needs of Greater Sydney.
- Facilitates the NSW Government's vision for the Western Parkland City.
- Facilitate the delivery of a 30-minute city as detailed in the Western City District Plan.

The rezoning provides for approximately 850 hectares of industrial land with an approximate capacity of 17,000 jobs, and the creation of new environmental conservation areas and public open space.

The Mamre Road Precinct Structure Plan (the MRP Structure Plan) is shown in **Figure 4**.

4.1.2 Key Infrastructure

- **Mamre Road:** Mamre Road provides the central north-west access corridor to/through the MRP and is the subject to planned upgrades by TfNSW.
- **Southern Link Road:** The SLR is a proposed east-west link from Wallgrove Road to Mamre Road, connecting the MRP to the existing Western Sydney Employment Area (WSEA) lands.
- **Future Internal Roads:** The internal network to service the MRP has been detailed within the MRP DCP.

The design of the Proposal provides for full integration with the future internal MRP road network.

- **Active & Public Transport:** As discussed further below, there is very little active transport infrastructure within the MRP at this time.

The future primary active transport corridor is expected to be designed around Mamre Road itself, with the shared paths along its full length.

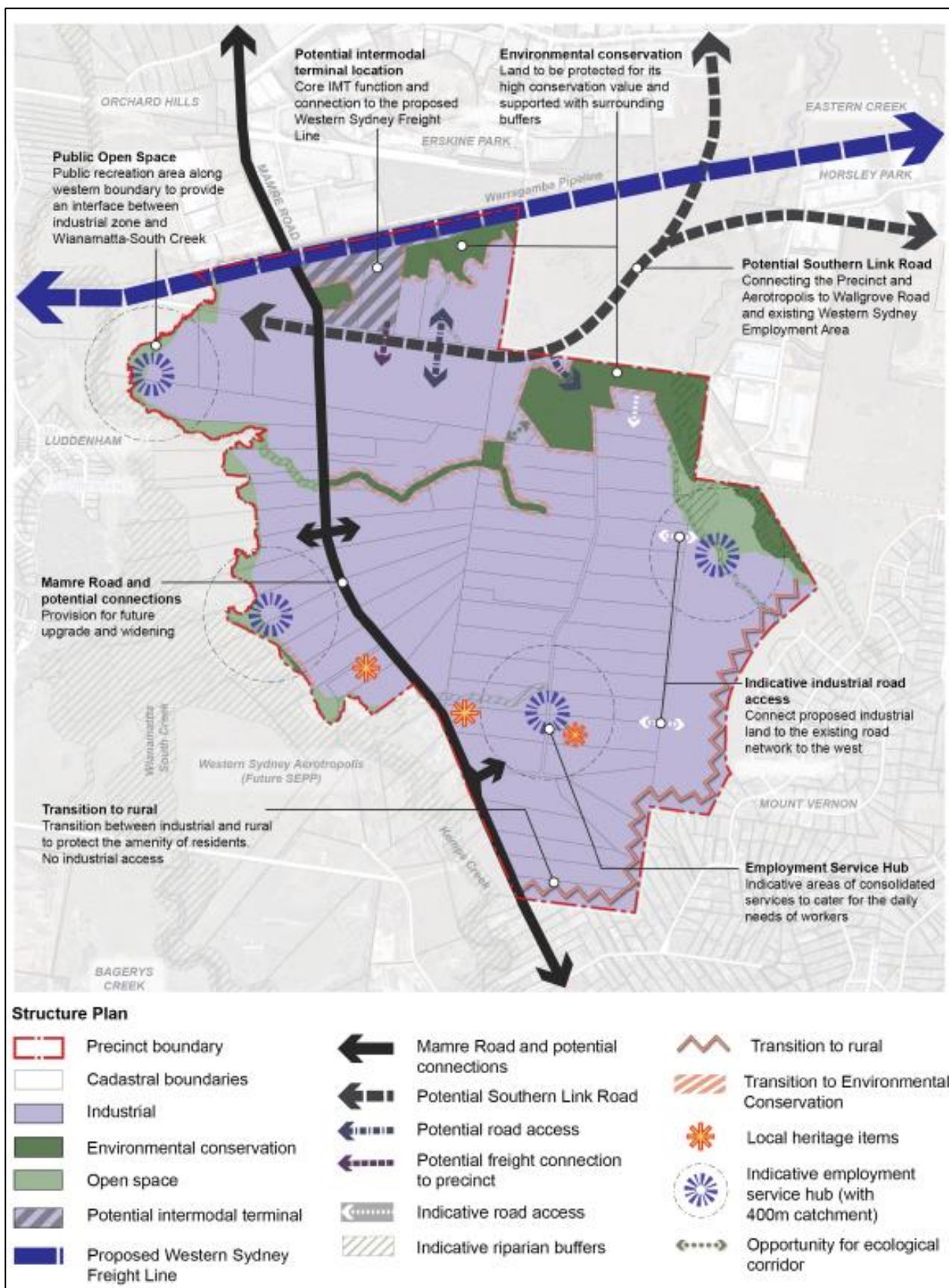


Figure 4: Mamre Road Precinct Structure Plan

Source: NSW Government

4.2 Mamre Road Upgrade

4.2.1 Overview

The MR Upgrade Report details the proposed MR Upgrade between the M4 Motorway and Kerrs Road (south of the Site, and north of Elizabeth Drive). The NSW Government has committed \$220 million to Stage 1 of the upgrades, between the M4 Motorway and Erskine Park Road (north of the MRP). Stage 2 of the upgrades from Erskine Park Road to Kerrs Road is subject to funding.

The objectives of the MR Upgrade – which essentially mirror those of the broader MRP Rezoning Paper - are stated as:

- *Meeting the future transport demand associated with the Western Sydney Priority Growth Area and the Western Sydney Airport at Badgerys Creek;*
- *Reducing future road transport costs by improving corridor performance;*
- *Improving liveability and sustainability and support economic growth and productivity by providing road capacity for projected freight and general traffic volumes;*
- *Improving road safety in line with the NSW Road Safety Strategy;*
- *Improving quality of service, sustainability and liveability by providing facilities for walking and cycling and future public transport needs;*
- *Delivering good urban design outcomes; and*
- *Minimising environmental and community impacts.*

4.2.2 Mamre Road Upgrade Design Components

The MR Upgrade provides the following key infrastructure proposals:

- A typical cross section that includes:
 - 2 traffic lanes in each direction with a wide central median between the M4 Motorway and Kerrs Road;
 - Provisions for the central median to provide third traffic lane in each direction to meet growing demand; and
 - Shared bicycle and pedestrian paths to promote active transport.
- New or upgraded intersections.

The broader MR Upgrade proposal (per the MR Upgrade Report) is shown in **Figure 5**.

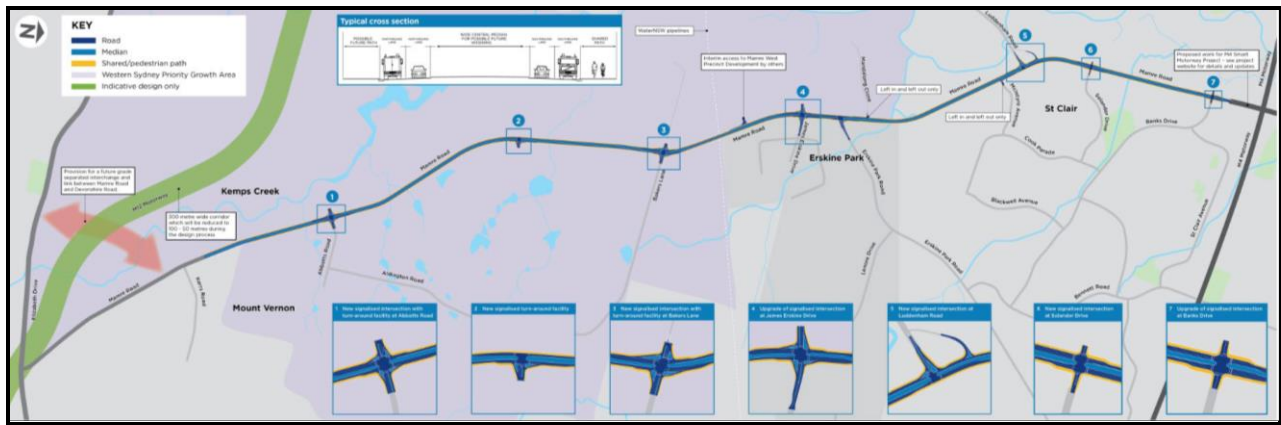


Figure 5: Mamre Road Upgrade

Source: Mamre Road Upgrade Report

4.2.3 Abbots Road & Bakers Lane Intersection Upgrades

The ultimate capacity requirements for the future signalised intersections at the Abbots Road and Bakers Lane intersections with Mamre Road have been identified as part of the MRP modelling assessment process.

While the capacity requirements have been determined as part of the MRP modelling assessment for the future years of 2031 and 2036 (which has been confirmed as part of the finalisation of the MRP DCP), it is noted that the detailed design is yet to be finalised.

Therefore, the LOG-E are proposing an upgrade to the Mamre Road / Abbots Road intersection, with the relevant VPA currently being agreed following development consents being granted for both the Westlink and 200 Aldington Road Estates.

Acquisition of land is currently being facilitated by LOG-E to support the ultimate road upgrade per TfNSW's directive for the ultimate road network to be delivered. The ultimate intersection developed is shown by **Figure 6**.

The intersection (minus the western leg) will be delivered collectively by the LOG-E.

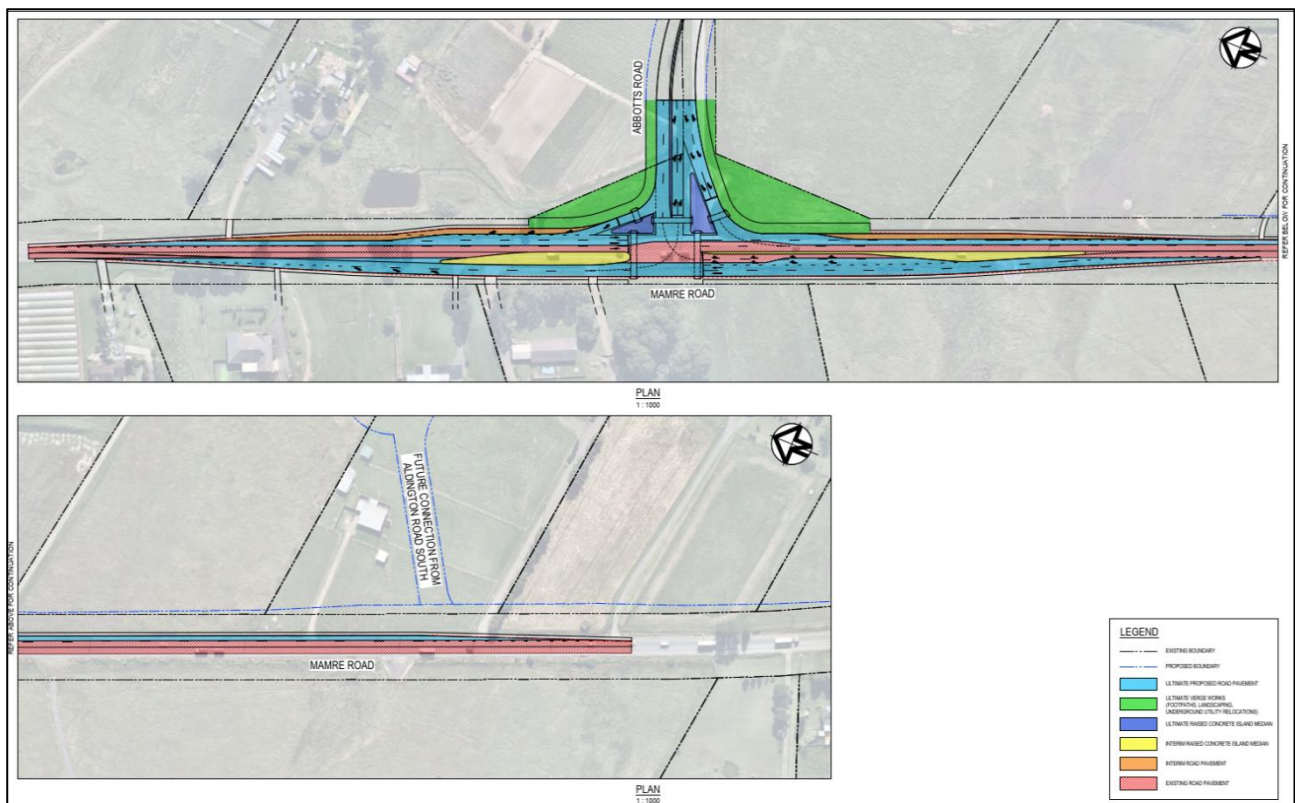


Figure 6: Abbots Road / Mamre Road Intersection – Currently Proposed Ultimate Intersection

Further to the upgrades planned to Mamre Road / Abbots Road, the approved development located at 657-769 Mamre Road (SSD 9522³) includes a requirement to upgrade the Mamre Road / Bakers Lane intersection by 2025, in advance of the delivery of the ultimate intersection.

The approved intersection design is reproduced in **Figure 7**. The intersection is currently under construction.

³ <https://www.planningportal.nsw.gov.au/major-projects/project/10376>

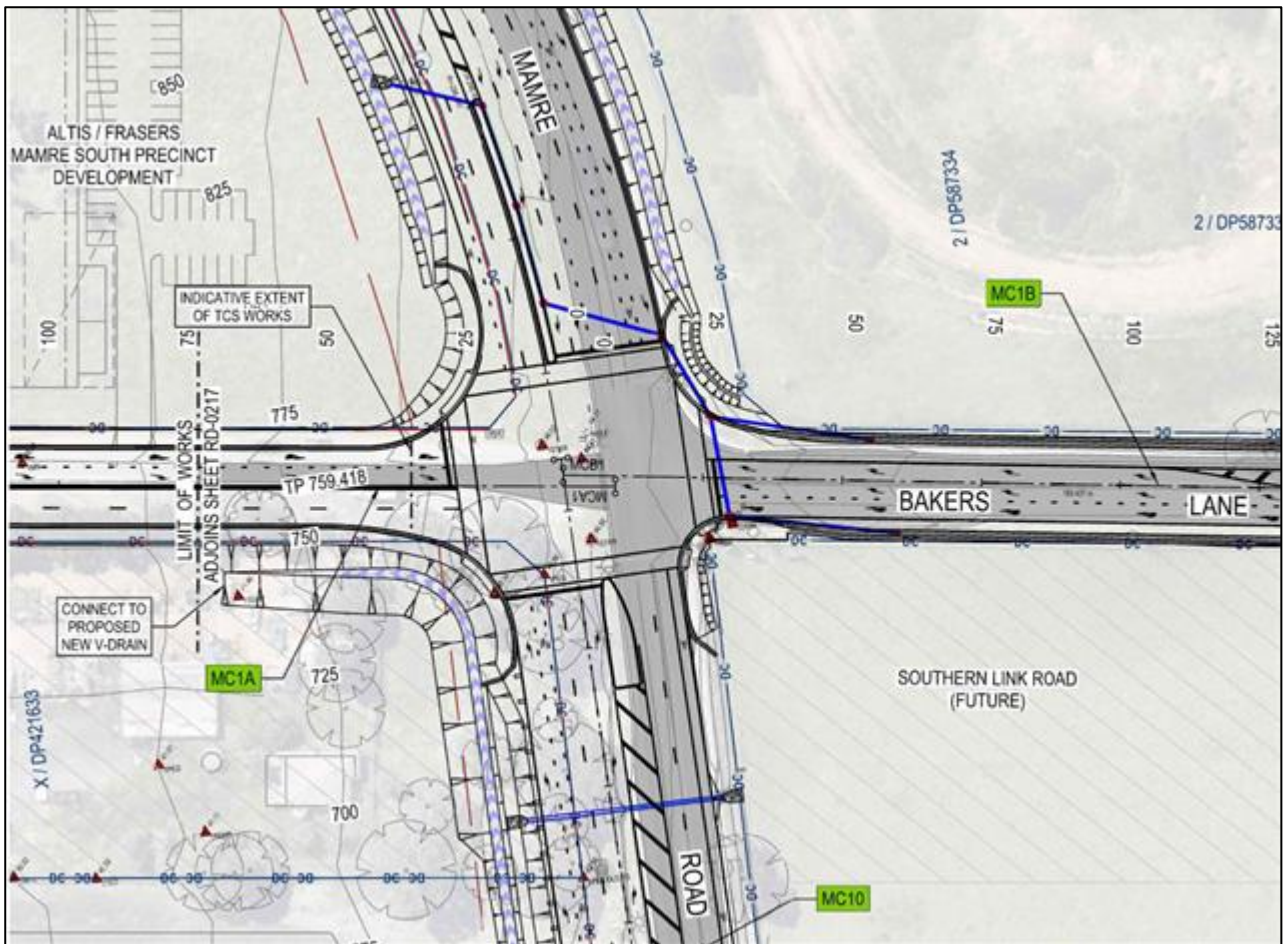


Figure 7: Approved Bakers Lane / Mamre Road Intersection

4.2.4 Mamre Road / Aspect Industrial Estate Approved Intersection

Further to the above, a new signalised intersection is to be delivered as part of the approved SSD-10448⁴ located at Lots 54 - 58 in DP 259135, on Mamre Road. The intersection relates intersection 2 of the Mamre Road Upgrade (Figure 5). The approved intersection is shown by **Figure 8** and will provide a key access to the internal MRP road network.

⁴ <https://www.planningportal.nsw.gov.au/major-projects/projects/aspect-industrial-estate>

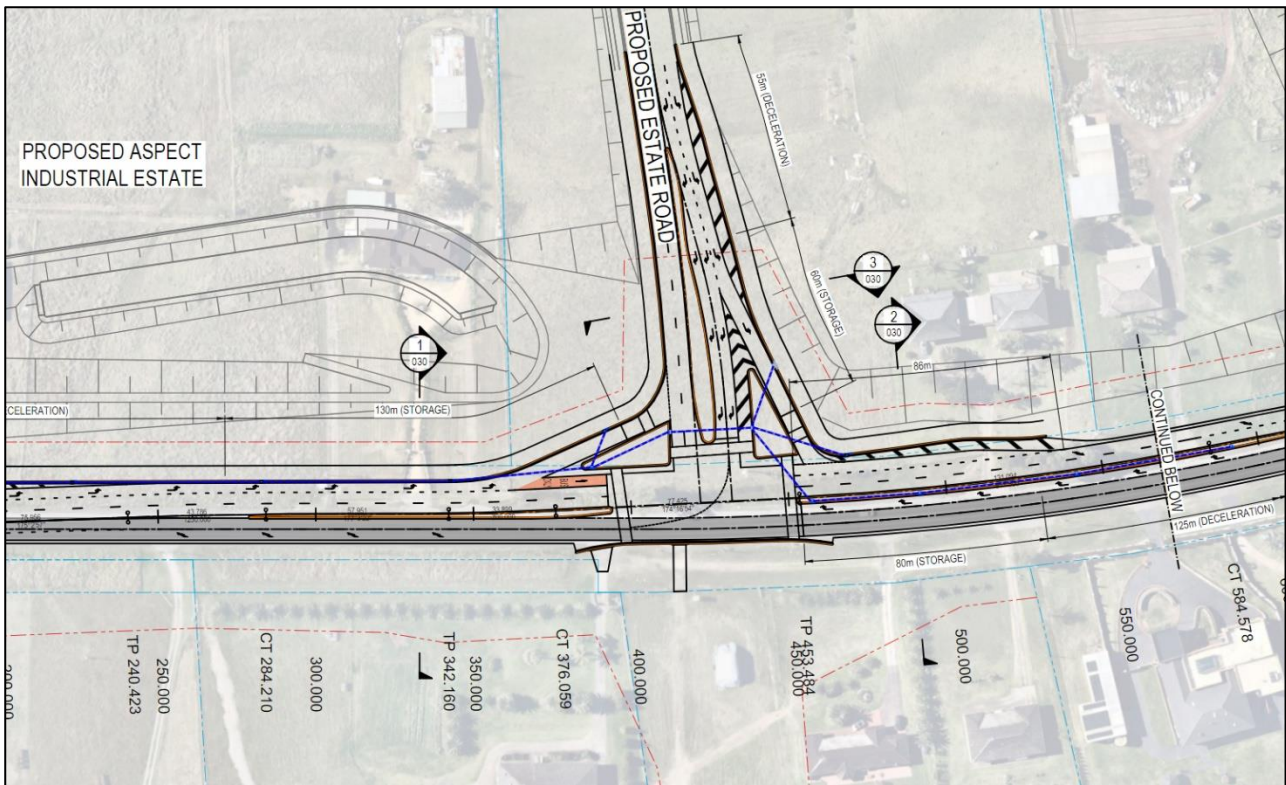


Figure 8: Approved Mamre Road / Aspect Industrial Estate Intersection

4.3 Mamre Road Precinct Development Control Plan

The MRP DCP has now been finalised and provides the planning controls for future development in the MRP including building design controls, the road network and parking requirements. The currently proposed road network is shown by **Figure 9**.

As is shown, the existing section of Abbots Road and Aldington Road form Distributor Roads and the internal north-south Site road would eventually form a local industrial road. The east-west road will take the form of a Collector and will intersect with Aldington Road via a signalised intersection.

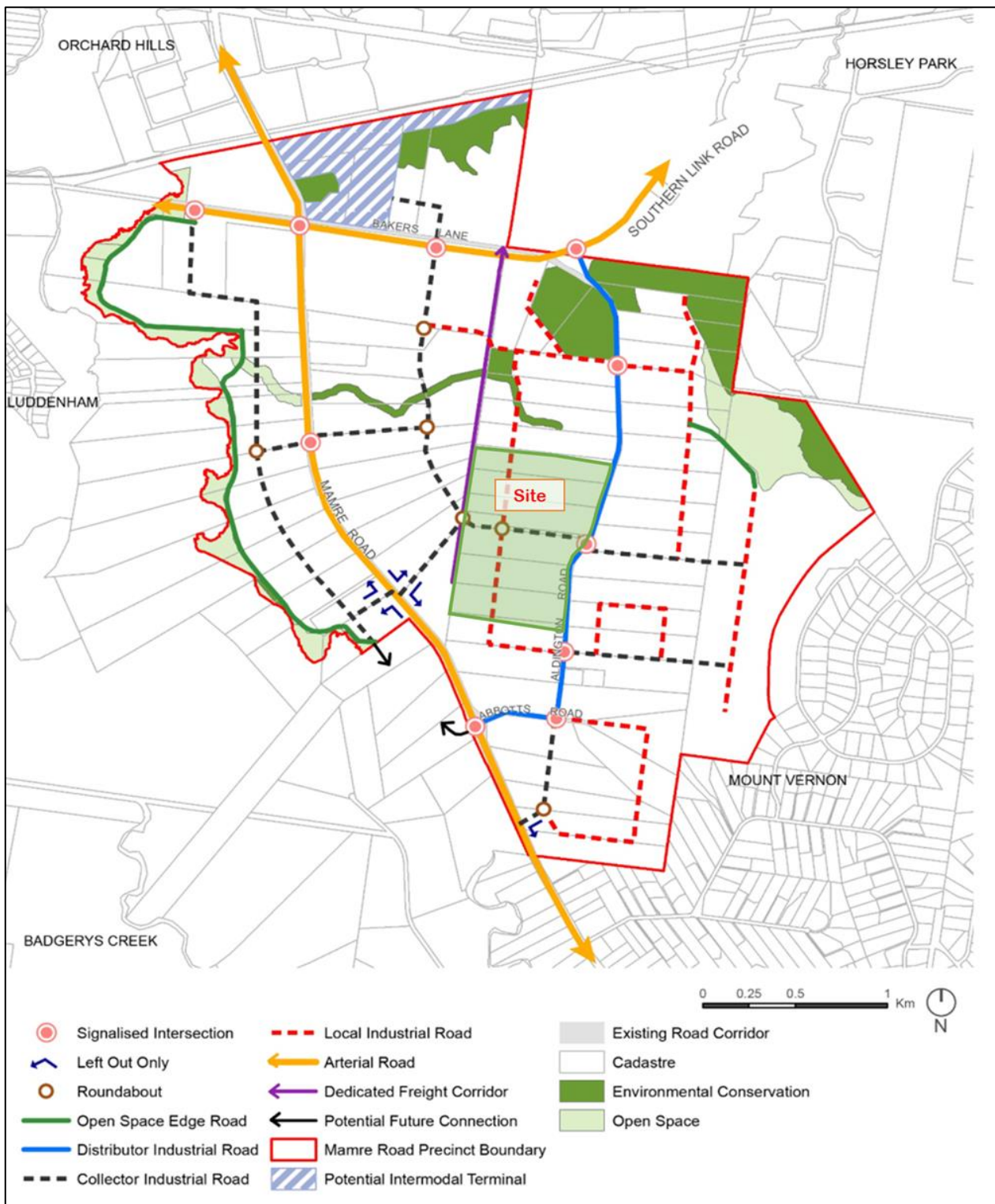


Figure 9: MRP DCP Proposed Precinct Roads

Source: Mamre Road Precinct DCP 2021

The requirements for the Collector and Local Industrial Road typologies, as per the MRP DCP, are shown by **Figure 10** and **Figure 11**.

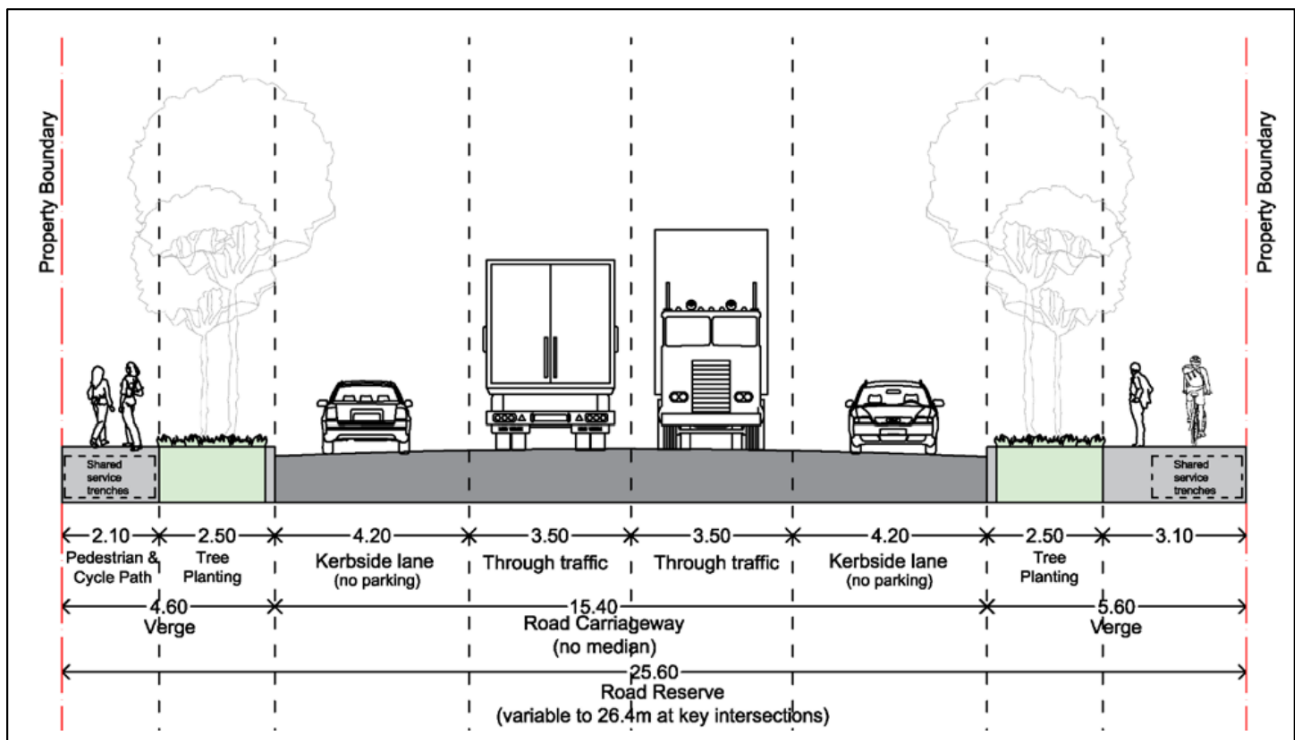


Figure 10: MRP DCP Typical Collector Road

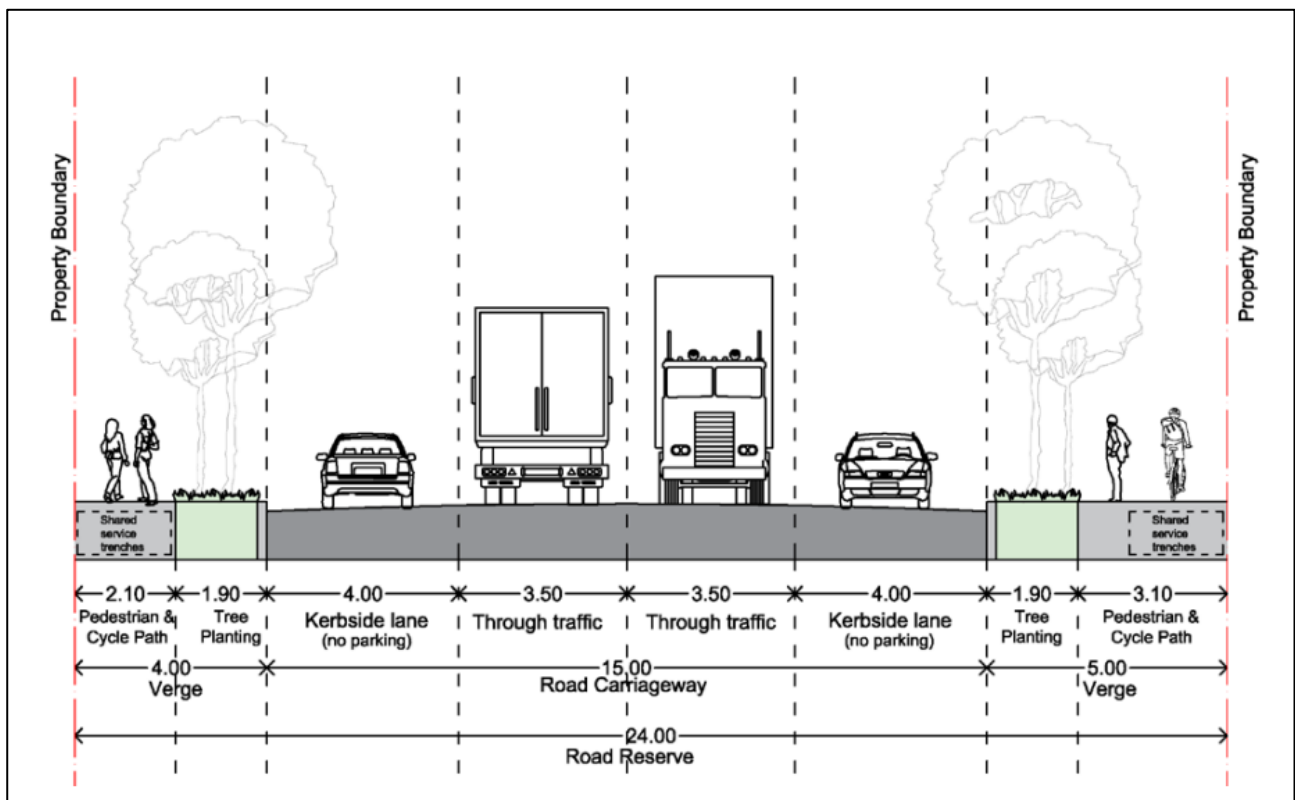


Figure 11: MRP DCP Typical Local Industrial Road

Source: Mamre Road Precinct DCP 2021

5 Public & Active Transport Opportunities

5.1 Public Transport

5.1.1 Introduction

It is evident that the Site is not directly serviced by public transport at this time (**Figure 12**); notwithstanding, opportunities for future connections have been identified, noting again that the MR Upgrade specifically provides for new bus stops along its entire route.

Establishment of public transport services as early as possible in the development stages of the MRP is important to achieve a culture of public transport use from the outset. To make public transport a viable choice in the study area, the services will ideally:

- Integrate with existing bus services in the area;
- Connect to regional centres of Penrith, Mt Druitt and Blacktown; and
- In the long term, connect to areas such as Leppington in the South West Growth Centre, Prairiewood and the Liverpool to Parramatta T-Way.

However, it should be noted that as this stage there is no immediate priority for the MRP to be serviced by new bus services. Due to the availability of new buses and drivers, additional services are being prioritised in other growth areas within the Aerotropolis.

Nevertheless, the 779-bus route was extended in 2022 from a route that terminated at James Erskine Drive to connect with the Amazon Fulfilment Centre on Emporium Avenue. This route provides a key connection to the St Mary's railway station and to the broader transport network. If a connection to Compass Drive is delivered (via the SLR) then this could present an opportunity to extend this service further.

Further to the bus connectivity, it is noted that the closest train station to the Site is currently some 10km away. However, the Metro Western Sydney Airport will provide 23km of new railway to link residential areas with jobs hubs and the rest of Sydney's public transport network.

The alignment of the Metro is shown by Figure 12. While the closest station to the Site will likely be Luddenham Station, located approximately 4km west of the Site, it will undoubtedly improve public transport accessibility to the wider area. This provides an opportunity for bus services to combine with the Metro to improve connectivity to/from the residential areas to the north of the Site.

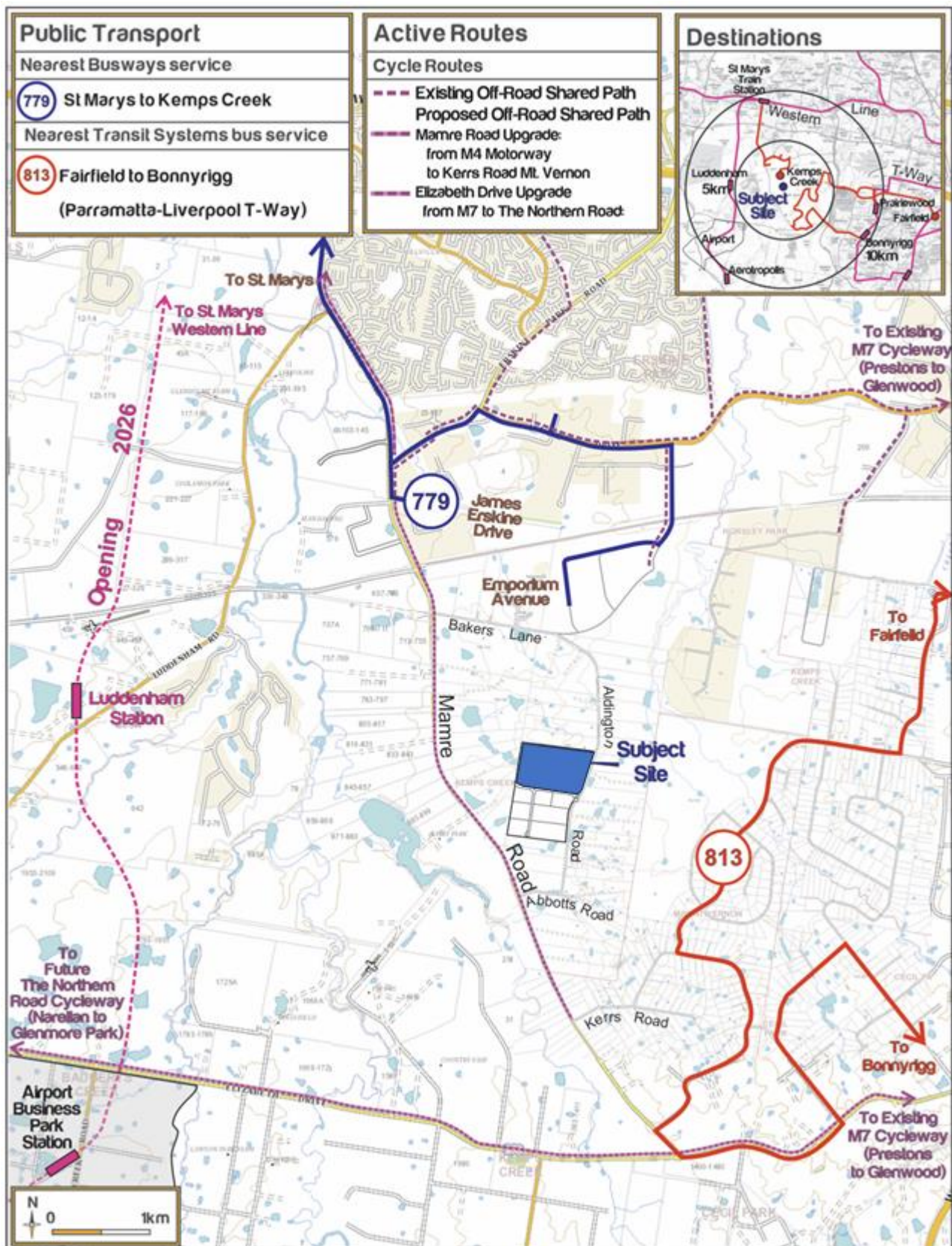


Figure 12: Public & Active Transport Network

5.1.2 Bicycle Network

At present, shared paths (pedestrian and cycle) are provided along Erskine Park Road and sections of Mamre Road to the north of the Site, but there is little cycling (or pedestrian) infrastructure in Mamre Road between Distribution Drive to the north and Elizabeth Drive to the south.

The BWSEA Structure Plan provides a detailed outline of future active transport objectives and strategies, acknowledging that the provision of such will be essential to encourage the use of active transport from the outset. In this regard, the BWSEA provides the following key objectives:

- *Provide quality pedestrian and cycling environments around transit corridors and facilities.*
- *Understand the key walking and cycling needs in the region and the need for the separation of pedestrians and cyclists from motor vehicle traffic.*
- *Recognise that all trips involve walking at either the beginning or end of the journey, resulting in the need for connections between parking and public transport areas and destinations.*
- *Recognise that walking and cycling paths can form key routes between destinations.*
- *Understand that walking and cycling trips perform a variety of functions, not only travel from an origin to a destination, but such trips are also undertaken for recreation and/or health benefits, which can be influenced by the amenity of the route.*

Key active transport routes identified in the BWSEA Structure Plan are shown in **Figure 13**, noting again that the Mamre Road upgrade Project will provide shared paths along at least one side of the road for its entire length.

Further, the MRP DCP requires internal roads to provide a footpath of 1.5m on one side (minimum) and shared path of 2.5m (minimum) on the opposing side of the road. It also requires roads to be provided with shared cycle and footpaths.

5.1.3 Pedestrian Connectivity

Due to the current largely undeveloped nature of the land immediately surrounding the Site, pedestrian infrastructure is currently non-existent. Key pedestrian desire lines in the vicinity of the Site would be triggered by connections to future public transport infrastructure, noting the nature of the area being largely industrial and therefore not representing key destinations and attractions for people to walk to.

In this regard, it is noted that the upgraded Mamre Road will include shared cycle and pedestrian pathways along its length. Further, the MRP DCP requires internal roads to provide a footpath of 1.5m on one side (minimum) and shared path of 2.5m (minimum) on the opposing side of the road. It also requires roads to be provided with shared cycle and footpaths.



Figure 13: BWSEA Cycle Routes

Source: BWSEA Structure Plan

6 Traffic Impact Assessment

6.1 Assessment Methodology

As discussed, the road layout detailed within the MRP DCP network has been informed by the MRP modelling assessment. Accordingly, the traffic generation impact assessment for the Proposal has considered the following separately:

- The wider MRP modelling assessment in relation to the Ultimate MRP DCP road network, of which development of the Site was considered (see Section 6.5); and
- The MRP DCP does not provide for a staging strategy. As such, the operation of the road network in 2026 (i.e. the “interim” scenario”) has been considered.

As discussed, the results of the most recently undertaken modelling assessment undertaken by Ason Group for LOG-E has been submitted separately to DPE and TfNSW is detailed in the LOG-E Modelling Memo.

The key results of this assessment are summarised below. It is worthy of note that the methodology for the modelling assessment was presented to, and agreed, with TfNSW prior to its commencement. Further, the assessment has now been endorsed by TfNSW.

6.2 Trip Rates

6.2.1 TfNSW MRP Trip Rates

For the MRP modelling assessment, TfNSW provided Ason Group with trip rates for adoption, as shown by **Table 7**.

The purpose of these trip rates were to provide for some consideration to a range of uses that may be permissible under the current IN1 General Industrial land zoning.

TABLE 6: TFNSW PROVIDED TRIP RATES

Time Period	Rate per 100m ²
Daily Trips	2.91
Local Road AM Peak (7am – 8am)	0.23
Local Road PM Peak (4pm – 5pm)	0.24
Site Maximum Generation Rate (All Vehicles)	0.26
Site Maximum Generation Rate (Heavy Vehicles)	0.07

6.2.2 Surveyed Trip Rates

It is however noted that Ason Group conducted a number of surveys of industrial warehouses in the WSEA for the purposes of the MRP modelling assessment, including:

- Mirvac Calibre;
- Huntingwood Drive;
- Eastern Creek Drive;
- Roussell Road;
- First Estate; and
- Sarah Andrews Close.

The average trip generation rate for general warehousing developments found by the surveys are summarised in **Table 7** below.

While adoption of conservative rates is deemed appropriate for strategic level assessment, where limited information is known on the ultimate development, it is noted that the Proposal has been designed with the intent for general warehouses and logistics uses. Therefore, adoption of a rate more aligned with the actual use of the Site could be considered appropriate.

TABLE 7: SURVEYED TRIP RATES – WAREHOUSE DEVELOPMENT

Time Period	Rate per 100m ²
Daily Trips	2.31
Local Road AM Peak (7am – 8am)	0.18
Local Road PM Peak (4pm – 5pm)	0.16

6.3 Traffic Generation

Further to the adoption of the trip rate as described above, **Table 8** provides a summary of the Site's traffic generation further to the Proposal. A breakdown of the Site's daily traffic profile, based on the TfNSW trip rate and survey data available, is shown in **Appendix A**. It is noted that there are minor differences between the peak hour volumes reported in **Table 8** and those reported in Appendix A further to minor rounding changes.

TABLE 8: PROPOSAL TRAFFIC GENERATION

Time Period	GFA	Rate per 100m ²	Trips
Daily Trips	153,285	2.91	4,461
Local Road AM Peak (7am – 8am)		0.23	353
Local Road PM Peak (4pm – 5pm)		0.24	368
Site Maximum Generation Rate (All Vehicles)		0.26	399
Site Maximum Generation Rate (Heavy Vehicles)		0.07	107

6.4 Traffic Impact Assessment – Ultimate Road Network

With regard to the ultimate road layout and intersection configuration, it is notable that development of the Site was considered within the MRP modelling assessment.

It is understood that the assumptions that underpinned this modelling assessment was as follows:

- The majority of land use will take the form of a large format industrial warehousing;
- The land was separated into smaller land parcels for the purposes of identifying any constraints which will impact the developable GFA;
- The sub-precinct in which the Site lies was assumed to be able to accommodate a GFA which represented 55% of the total site area; and
- Trips rates adopted (detailed in Table 6), included a level of conservatism to allow for more intensive uses that may be located in the MRP, which are permissible under the land use zoning.

Of particular note to the Proposal is the assumption that 55% of the Site area represented developable GFA. With a Site area of 632,887m², this equates to a GFA of 348,088m². The Proposal currently provides for a GFA of 153,285m².

Therefore, the Proposal is within the assumptions that would have been made for the Site with the MRP modelling assessment. The assessment undertaken for the MRP DCP has already determined the road layout and intersection capacity requirements for the assessment years of 2031 and 2036, on the basis of a precinct-wide cumulative assessment. As such, further assessment of the Site with consideration to the ultimate road network, is not deemed necessary.

Noting that development is not currently proposed across the whole Site, further applications will need to reconsider the consistency with the MRP modelling assessment at that stage.

6.5 Traffic Impact Assessment – 2026 Interim Assessment

6.5.1 Assessment Inputs

The road network which was adopted for the LOG-E modelling assessment (reported in the LOG-E Modelling Memo), forms part of the relevant applications either currently under consideration or those which have been approved by DPE, as shown in **Figure 14**.

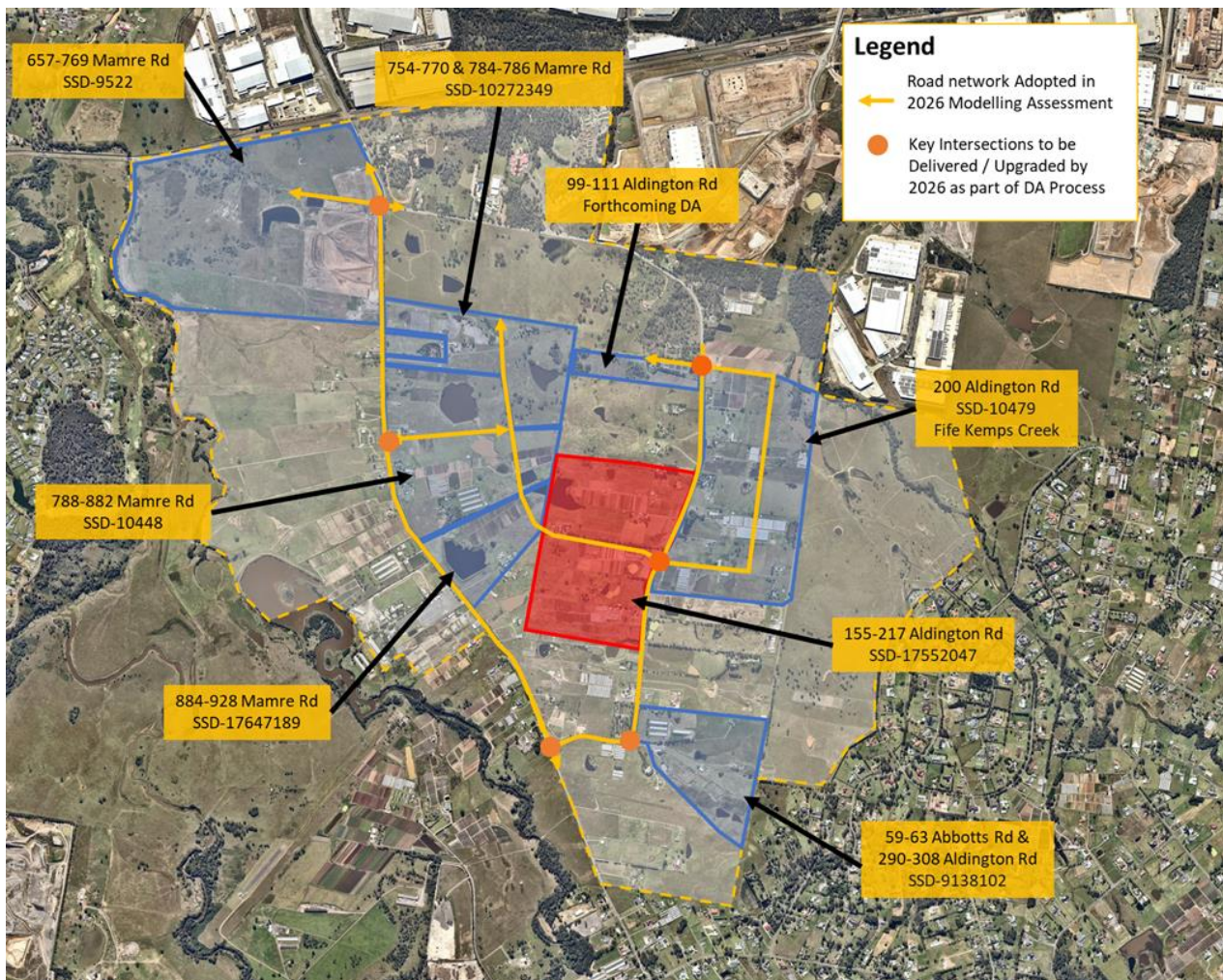


Figure 14: 2026 Interim Modelling Assessment Road Network

Of relevance to the project Site, it is noted that the Conditions of Consent associated with the Westlink, and 200 Aldington Road Estates for future assessment requirements refer specifically to the following key intersections:

- Mamre Road / Abbots Road;
- Aldington Road / Abbots Road; and
- Aldington Road / Site Access

These are the key intersections that the Proposal will have the most direct impact. As such, interim upgrades are included within the LOG-E VPA.

The key inputs into the 2026 assessment were as follows:

- Approximately 990,215m² of the total GFA within the MRP;
- Trip rates as provided by TfNSW (Table 6);

- The road network as currently proposed. That is, completely consistent with either the current SSD applications, approved intersection layouts or current VPA offers; and
- Internal MRP road network assumed to be delivered by 2026 (as per Figure 14).

6.5.2 Modelled Site Traffic volumes

Within the LOG-E modelling assessment, traffic generation assumptions for each of the relevant sites was included. For the Site, the following peak hour trip generation was adopted:

- 402 veh/hr in the AM peak; and
- 419 veh/hr in the PM peak

With reference to Table 8, the forecast trip generation for the Proposal, based on the TfNSW provided trip rates, represents 87% of the modelled trip generation in the AM and PM peak hours for the Site. The Proposal is therefore within the thresholds assessed for the LOG-E model.

6.5.3 Intersection Performance

A summary of the modelling results for three key intersections are provided in **Table 9**.

TABLE 9: 2026 INTERSECTION PERFORMANCE

Intersection	Control	AM		PM	
		DOS	LOS	DOS	LOS
Mamre Road / Abbots Road	Signal	0.39	A	0.63	A
Aldington Road / Abbots Road	Signal	0.13	B	0.30	B
Site Access / Aldington Road	Signal	0.15	C	0.28	C

The modelling demonstrates that all intersections and movements operate within acceptable thresholds in the assessment year of 2026. It is therefore evident that, subject to the upgrades currently proposed by LOG-E, the Proposal is acceptable from a traffic generation perspective.

6.6 Trip Rate Comparison

While the LOG-E modelling assessment demonstrated that a trip generation of the Site of 402 veh/hr in the AM peak and 419 in the PM peak is acceptable, it is noted that this was based on the TfNSW provide trip rates, and not the surveyed average. Therefore, the below provides consideration to the GFA that could be achieved on the Site, should the surveyed trip rates be adopted.

This has been provided for information only, noting that the Proposal is seeking a GFA of approximately 150,000m².

The assessment detailed in the LOG-E Modelling Memo has established the volume of trips that the road network can accommodate. More specifically, the volumes assumed for the Site in the LOG-E model represented an assumed GFA of 174,572m², based on adoption of the TfNSW trip rates (**Table 10**).

TABLE 10: 2026 SITE TRIP GENERATION – TFNSW TRIP RATE

Site	Period	Trip Rate (per 100m ²)	Modelled Trips	GFA (m ²)
Edge South	AM	0.23	402	174,572
	PM	0.24	419	

As demonstrated by a comparison of the TfNSW trip rates and the surveyed trip rates (Table 6 and Table 7), it is evident that a level of conservatism has been provided for within the rates provided by TfNSW. While this is suitable for strategic level assessment, it is noted that the current Proposal has been developed with specific users in mind, which are warehouse and logistics businesses.

Therefore, it is deemed entirely appropriate to consider adoption of the surveyed trip rates, with the sites included in the survey being of a similar nature to the uses that will occupy the warehouses of the Proposal.

Considering the trips assumed for the Site within the LOG-E model (Table 10) as being achievable by the modelling assessment, a comparison of the total GFA achievable has been undertaken. This comparison has been assessed for the PM peak (being the most critical); and is on the basis of the trip rate provided by TfNSW, alongside the surveyed trip rates.

TABLE 11: TRIP GENERATION COMPARISON

Source	PM Permissible Site Trips	Daily Trip Rate (per 100m ²)	GFA (m ²)
TfNSW	419	0.24	174,572
Surveyed		0.18	261,875
		Difference	+87,303

As shown, adoption of the surveyed trip rate would suggest that up to 260,000m² of GFA could be achieved on the Site by 2026. Therefore, it is evident that the level of GFA being sought by the Proposal is acceptable from a traffic generation perspective.

7 Transport Assessment

7.1 Existing Travel Patterns

7.1.1 Journey to Work Data Analysis

Journey-to-Work (JTW) data from the Australian Bureau of Statistics (ABS) 2021 Census and specifically aggregated Destination Zones (DZ) have been referenced to understand the baseline travel characteristics of the Site.

A summary of key travel modes for those travelling to the locality for work have been reviewed with regard for the surrounding Destination Zone 115184210, within the Horsley Park – Kemps Creek statistical area. The travel modes are presented in **Table 12**.

TABLE 12: TRAVEL MODE SUMMARY (JOURNEY TO WORK)

Travel Mode	Mode Share of Employees
Car as driver	91%
Train	1%
Bus	0%
Walked only	1%
Car as passenger	5%
Motorbike/Scooter	0%
Bicycle	0%
Taxi	0%
Other Modes	1%

With reference to Table 12, it is evident that the private vehicle (car) is the overwhelming preferred mode of choice for commuters travelling to work in the area. The data indicates that 96% travel to work by car with 91% as the driver and 5% as passenger i.e. car-pooling.

This is reflective of the current nature of the area, which accommodates rural residential properties and agricultural businesses only. However, noting the future land use of the Site as industrial in nature, it is expected that the JTW data accurately reflects the current trends for travel to places of work at industrial sites.

The TfNSW TDT 2013/04a itself provides details in relation to the principal mode of travel used by staff at the Erskine Park and Eastern Creek warehouses surveyed by TfNSW. These surveys indicate that 90% of all workers would travel via private vehicles, with 8% travelling as passengers. Therefore, the existing census data is reflective of existing travel patterns of industrial development.

7.2 Measures to Reduce Private Vehicle Use

7.2.1 Delivering the Vision of the Aerotropolis

The MRP forms one of the initial precincts of the Aerotropolis (although subject to separate planning controls), the background studies provide some context with regards to travel demand management.

Specifically the AECOM *Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report* from October 2020 (AECOM Report) highlights the importance of implementing transport policies and strategies that promote a shift to sustainable modes of transportation.

The AECOM Report provides 2 key “enablers” being “*Transport Policies and Strategies*”, which includes travel demand strategies; and “*Transport Infrastructure and Services*” which requires planning of a multi-modal, connected network.

Of most relevance to the Site are the following objectives identified for Travel Demand Strategies:

- Provide excellent travel choices and encourage walking, cycling and public transport trips;
- Limit unnecessary car trips, particularly for shorter trips;
- Promote alternatives to vehicle ownership;
- Reduce the need to travel, especially in peak periods;
- Facilitate the efficient use of land, through road space allocation and proximity of jobs and services to people; and
- Create a liveable community, with excellent local environmental quality and community cohesion.

Measures include implementation of Travel Plans and provision of adequate bicycle parking and End of Trip Facilities.

7.2.2 Implementation at Subject Site

A Framework Sustainable Travel Plan (FSTP) has been prepared that will inform future site-specific travel plans, expected to be implemented for each of the warehouse sites within the Estate (refer to **Appendix C**). Each of the end users within the Estate will have slightly different travel characteristics and therefore individual travel plans will be prepared to address the specific needs of the occupier.

A travel plan is a package of measures to assist in managing the transport needs of an organisation. It promotes the uptake of realistic choices of sustainable travel modes to and from a site, thereby reducing reliance upon single occupancy car travel. The travel plans will set targets, a series of measures to meet these targets and the process for monitoring and reviewing the travel plan, including the allocation of a Travel Plan Coordinator.

Each of the end users within the Estate will have slightly different travel characteristics and therefore individual travel plans will be prepared by the future occupiers on site to address their own specific needs.

7.2.3 Future Travel Patterns

The FSTP within Appendix C has identified an initial 5-year target for reducing travel by private vehicle on the Site.

These will be subject to review, prior to finalisation of any travel plan. Nevertheless, **Table 13** presents the relevant mode share details and the results of the application of these target percentages to the Proposal.

With regards to understanding the number of employees on the Site, at this stage in the development it is not clear how many employees the Site would accommodate. However, to inform this assessment, it is understood that the approximate 850 hectares of industrial land within the MRP could accommodate an approximate capacity of 17,000 jobs, based on information provided by DPE. The developable land within the portion of the Site to be developed at this stage totals 15.26 hectares. On this basis therefore, it is assumed that the Site could accommodate approximately 305 employees.

TABLE 13: SITE TRAVEL MODE TARGETS & PERSON ONE-WAY TRIPS BY 2026

Travel Mode	Mode Share Target	Daily
Car as driver	86%	262
Car as passenger	5%	15
Train	0%	0
Bus	4%	12
Walked only	1%	3
Motorbike/Scooter	1%	3
Bicycle	1%	3
Taxi	1%	3
Other Modes	1%	3

The analysis indicates that 12 people would use bus to access the Site during peak hours, or trips when accounting for arrivals and departures.

While these targets are not set, and while the bus services for the MRP are still being planned, it is not anticipated that this level of public transport travel would not be able to be accommodated. It is recommended to try to exceed the level of bus travel to the site; however, this would be subject to the implementation of appropriate services, which would be facilitated by TfNSW as the MRP develops and becomes better connected to the wider network.

8 Parking Assessment

8.1 Precinct Parking Rates

Parking rates from the MRP DCP have been adopted to assess the parking requirements of the Proposal.

The requirements of the DCP are provided within **Table 14**.

TABLE 14: MRP DCP PARKING RATES

Land Use	Minimum Parking Rate
Warehouse	1 space per 300m ² or 1 space per 4 employees, whichever is the greater.
Industries	1 space per 200m ² of gross floor area, or 1 space per 2 employees, whichever is the greater
Office	1 space per 40m ²

8.2 Parking Requirements & Provision

Table 15 details the requirements for Proposal, based on the parking rates detailed in Table 14.

TABLE 15: CAR PARKING REQUIREMENTS & PROPOSED PROVISION

Unit	Land Use	GFA (m ²)	Requirement (spaces)	Currently Proposed
1	Warehouse	11,710	39	70
	Office	615	15	
	Sub Total	12,325	54	
2	Warehouse	31,680	106	135
	Office	1030	26	
	Sub Total	32,710	132	
3	Warehouse	23,210	78	106
	Office	1,107	27	
	Sub Total	24,317	105	
4	Warehouse	23,110	77	105
	Office	1,107	27	
	Sub Total	24,217	104	
5	Warehouse	21,680	72	100
	Office	1,107	28	
	Sub Total	22,787	100	
6	Warehouse	10,800	36	52
	Office	613	15	

	Sub Total	11,413	51	
7	Warehouse	10,490	35	51
	Office	613	14	
	Sub Total	11,103	50	
8	Warehouse	13,800	46	62
	Office	613	15	
	Sub Total	14,413	61	
Total	-	153,285	658	681

As per Table 15, the Proposal requires 658 parking spaces and 681 parking spaces are provided. As such, the Proposal is consistent with the requirements stated in the MRP DCP.

8.3 Additional Parking Considerations

8.3.1 Accessible Parking

The MRP DCP provides the following in regard to accessible parking:

Accessible parking should be in accordance with the Access to Premises Standards, Building Code of Australia and AS2890.

In this regard, 1 accessible parking space is to be provided per every 100 spaces; therefore, providing compliance with the Disability (Access to Premises – Buildings) Standards 2010 from the BCA, as well as the accessible parking requirements provided in Appendix B of AS 2890.6.

8.3.2 Electric Vehicle Parking

Section 4.6.1(8) of the MRP DCP notes the following:

Parking areas should incorporate dedicated parking bays for electric vehicle charging

However, it does not provide for guidance on the specific number of bays. Therefore, it is proposed that a total of 2 spaces per warehouse will be designated as electric vehicle charging bays.

8.3.3 Bicycle Parking Requirements

Bicycle parking rates from the MRP DCP have been adopted to assess the parking requirements of the Proposal.

The requirements of the MRP DCP are provided within **Table 16**.

TABLE 16: MRP DCP PARKING RATES

Land Use	Minimum Parking Rate
Warehouse	1 space per 1000m ² of gross floor area of industrial activities (over 2000m ² gross floor area)
Office	1 space per 600m ² of gross floor area of office and retail space (over 1200m ² gross floor area)

Table 17 details the requirements for Proposal, based on the parking rates detailed in Table 16.

TABLE 17: BICYCLE PARKING REQUIREMENTS

Unit	Land Use	GFA (m ²)	Requirement (spaces)
1	Warehouse	11,710	10
	Office	615	-
	Sub Total	12,325	10
2	Warehouse	31,680	30
	Office	1030	-
	Sub Total	32,710	30
3	Warehouse	23,210	21
	Office	1,107	-
	Sub Total	24,317	21
4	Warehouse	23,110	21
	Office	1,107	-
	Sub Total	24,217	21
5	Warehouse	21,680	20
	Office	1,107	-
	Sub Total	22,787	20
6	Warehouse	10,800	9
	Office	613	-
	Sub Total	11,413	9
7	Warehouse	10,490	8
	Office	613	-
	Sub Total	11,103	8
8	Warehouse	13,800	12
	Office	613	-
	Sub Total	14,413	12
Total	-	153,285	130

As per Table 17, 130 bicycle spaces would be provided for the Proposal.

Additionally, the MRP DCP also references the following rates for End of Trip (EoT) facilities:

TABLE 18: END-OF-TRIP PARKING RATES	
Land-Use	Requirement
Office	For ancillary office and retail space with a gross floor area over 2500m ² , at least 1 shower cubicle with ancillary change rooms
Warehouse	For industrial activities with a gross floor area over 4000m ² , at least 1 shower cubicle with ancillary change rooms

On the basis of the above, the Proposal would need to provide for 1 shower cubicle for each of the 8 proposed warehouses. It is anticipated that provision of these EoT facilities could be ensured via a suitable Condition of Consent.

9 Access Parking and Servicing Design

9.1 Design Standards

The Site's access, car park and loading areas have been generally designed with reference to the following Australian Standards:

- Australian Standard 2890.1:2004: Parking Facilities – Off Street Car Parking (AS 2890.1)
- Australian Standard 2890.2:2018 Parking Facilities – Off Street Commercial Vehicle Facilities (AS 2890.2)
- Australian Standard 2890.3:2015: Parking Facilities – Bicycle Parking (AS 2890.3);
- Australian Standard 2890.5:2020: Parking Facilities – On Street Parking (AS2890.5)
- Australian Standard 2890.6:2022 Parking Facilities – Off Street Parking for People with Disabilities (AS 2890.6); and
- NSW Department of Planning, Industry and Environment, Mamre Road Precinct Development Control Plan, November 2021
- PCC Engineering Construction Specification for Civil works (Engineering Specifications);
- PCC Design Guidelines for Engineering Works for Subdivisions and Developments (Engineering Guidelines); and
- Austroads Guide to Road Design Part 3: Geometric Design (Edition 3.3, 23 April 2020)
- Fire + Rescue NSW, Fire Safety Guideline: Access for fire brigade vehicles and firefighters, Version 05, 4 October 2019 (NSW Fire Safety Guidelines)

9.2 Design Vehicles

The design vehicle adopted for the development is a 20m long articulated vehicle for each of the lots proposed.

The check vehicle adopted for the development is a 30m long PBS Type 2 vehicle for each of the lots proposed.

The 12.5 metre Heavy Rigid Vehicle has been adopted for the design of fire access trails in accordance with the NSW Fire + Rescue Guidelines.

The proposed car parking area has been designed to accommodate B99 Vehicles as per AS2890.1:2004.

9.3 Access Driveways

All access driveways (to the proposed road network within the MRP) have been, and shall be, designed with reference to AS 2890.1 and AS 2890.2.

Truck access driveways shall be designed to provide for vehicles up to and including a 30m long PBS Type 2 with maximum gradients, maximum rates of change of grades, and maximum crossfalls in accordance with relevant standards applicable at the time when Construction Certification drawings are prepared and/or in accordance with standards applicable at the time of construction.

Car access driveways shall be designed to provide for B99 vehicles, assuming simultaneous movements in accordance with AS 2890.1 and any other relevant Council Engineering Guidelines.

It is anticipated that full access driveway design compliance with AS 2890.1 and AS 2890.2 would form a standard Condition of Consent further to approval.

9.4 Parking Areas

All parking areas, including access aisles and parking modules shall be designed with reference to AS 2890.1 and AS 2890.6. It is anticipated that full parking area design compliance with AS 2890.1 and AS 2890.6 would form a standard Condition of Consent further to approval.

9.5 Service Areas

All service areas shall be designed with reference to AS 2890.2, and again provide for the movement of vehicles up to and including a 30m long PBS Type 2 as check vehicle, and 20m Articulated Vehicle as design vehicle.

It is anticipated that service area design compliance with AS 2890.2 would form a standard Condition of Consent further to approval.

10 Conclusions

Ason Group has been engaged by Frasers Property Industrial (FPI) to prepare a Transport Management & Accessibility Plan in relation to the State Significant Development (SSD) for the proposed industrial development (the Proposal) located at 155-251 & 141-153 Aldington Road Estate, Kemps Creek (the Site). Further to a detailed assessment of all relevant traffic and transport issues, Ason Group provides the following conclusions:

- The Site is well located for industrial development, with excellent existing and future connections to the sub-regional and regional network, as well as key growth centres across Western Sydney.
- Access to the Site will be provided via a signalised intersection with Aldington Road. Access to the wider road network will be provided via Mamre Road to the west of the Site, which itself is already planned to be upgraded to accommodate the anticipated growth in the MRP.
- The trip generation rate adopted for the assessment are consistent with the rates being adopted for the MRP background modelling, being undertaken by TfNSW.
- SIDRA analysis has identified the required configuration of the future intersection for Mamre Road & Abbotts Road to facilitate the Proposal by 2026, alongside a proportion of surrounding development, within the wider MRP. The analysis indicates that the signalised intersection design would more than provide for the development of the Proposal by 2026.
- All internal circulation, hardstand, and parking areas within each Lot (forming part of this specific SSD) have been designed with reference to the Australian Standards and provide for vehicles up to and including a 30m long PBS Type 2. It is anticipated that full design compliance with the relevant Australian Standards would form a standard Condition of Consent further to approval, which will also provide for any design changes if required.
- The Proposal currently provides for 652 car parking spaces with a requirement of 658 spaces, remaining generally consistent with the MRP DCP.
- All future operators will be encouraged to maximise the use of public and active transport, noting the future pedestrian, cycle and bus provisions included in the MR Upgrade design as well as that identified by the MRP DCP.
- All access driveways, parking areas and service areas have been designed with reference to the appropriate Australian Standards. It is anticipated that full design compliance with the relevant Australian Standards would form a standard Condition of Consent further to approval, which will also provide for any minor design changes if required.

Appendix A. Hourly Traffic Generation

Start Time	All Vehicle	Light Vehicle	Heavy Vehicle	Rigid	Semi-trailer	B-double	A-double
0:00	37	26	11	7	1	0	3
1:00	33	22	11	7	1	0	3
2:00	36	24	12	8	1	0	3
3:00	40	30	10	6	1	0	2
4:00	126	104	21	14	1	0	5
5:00	241	193	48	32	3	1	12
6:00	325	258	67	45	5	1	17
7:00	323	243	80	53	5	1	20
8:00	298	206	92	61	6	2	23
9:00	259	158	101	67	7	2	26
10:00	243	145	98	65	7	2	25
11:00	254	155	99	66	7	2	25
12:00	277	188	90	59	6	2	23
13:00	334	243	91	60	6	2	23
14:00	364	282	81	54	5	1	21
15:00	311	239	72	47	5	1	18
16:00	258	201	58	38	4	1	15
17:00	213	165	48	32	3	1	12
18:00	127	93	34	22	2	1	9
19:00	76	55	21	14	1	0	5
20:00	56	40	16	11	1	0	4
21:00	73	61	12	8	1	0	3
22:00	93	78	15	10	1	0	4
23:00	65	53	13	9	1	0	3
Total	4,461	3,261	1,200	794	81	20	304

Note: Minor discrepancies between sum numbers due to 'rounding'.

Appendix B. Framework Sustainable Travel Plan



Framework Sustainable Travel Plan

155-251 & 141-153 Aldington Road Estate, Kemps Creek

18/09/2023

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-	10/06/2021	Draft	R. Butler-Madden	T. Lewis
1	18/06/2021	Issue	R. Butler-Madden	R. Butler-Madden
2	30/03/2023	Issue	J. Wong	R. Butler-Madden
3	29/09/2023	Issue	S. Bandaranayake	R. Butler-Madden
4	18/09/2023	Issue	S. Bandaranayake	R. Butler-Madden

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APPENDICES

Appendix A. Travel Access Guide

Appendix B. Sample Questionnaire

1 Introduction

1.1 Context

This Framework Sustainable Travel Plan (FSTP) has been developed to support the application in relation to State Significant Development (SSD) 17552047. SSD-17552047 relates to a proposed industrial development at the 155-251 Aldington Road Estate, Kemps Creek (the Site), which is located to the west of Aldington Road, within the Penrith Local Government Area (LGA).

The Site sits within (what has been termed) the Mamre Road Precinct (MRP), which has recently been rezoned by the Department of Planning and Environment (DPE) for industrial land uses. The MRP provides about 850 hectares of industrial land which could accommodate up to 17,000 ongoing jobs when fully developed. The MRP Structure Plan was finalised in June 2020, followed by the adoption of the Mamre Road Precinct Development Control Plan in November 2021 (MRP DCP).

The land which forms the MRP is largely made up of rural residential properties, as well as small scale agricultural industry businesses, at present. Consequently, the Site itself is therefore not well connected by travel modes other than the private vehicle. However, the MRP DCP outlines a number of objectives to ensure that, as the MRP develops, an integrated public and active transport network also develops to service future development such as the subject site.

The purpose of this FSTP is to address the MRP DCP by outlining the overarching requirements for a future Sustainable / Green Travel Plan package for the Estate. This FSTP will inform the future site-specific Plans, expected to be implemented as part of a Condition of Consent relating to any detailed development approval.

1.1.1 Amendment to Prior Submission

This document serves as an amendment report to the previous submission for the Site (file reference: P1043r03v1 FTP_155-217 Aldington Rd Estate, kemps Creek), which sought approval for:

- 2 warehouses with a total building area of 65,327m²;
- Creation of 9 individual development lots; with Lot 9 the subject of an industrial development;
- Internal road layouts and road connection to Aldington Road;
- Provision for 477 car parking spaces; and
- Associated landscaping.

Figure 1 provides a site plan of the previous submission.

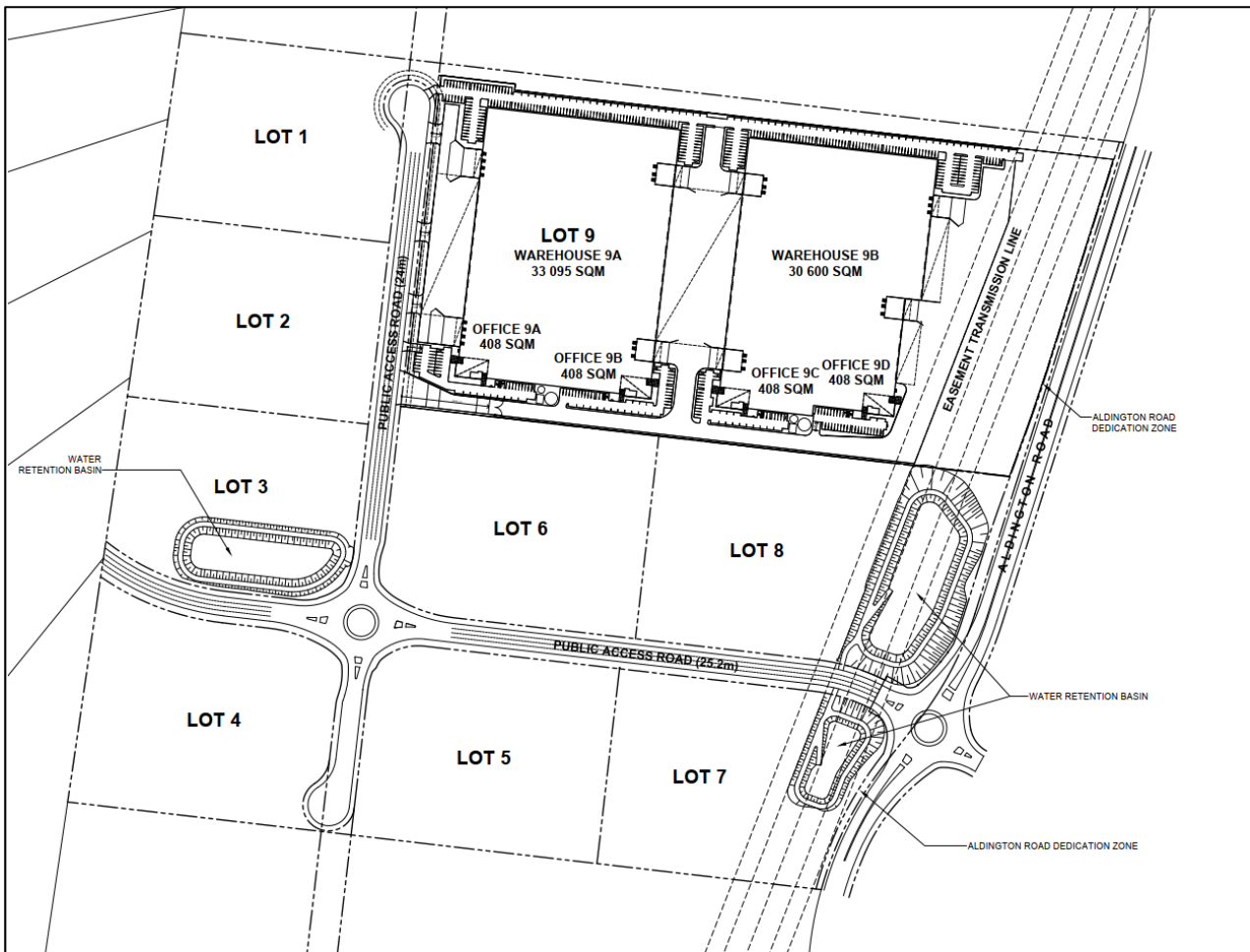


Figure 1: Previous Submission Site Plan

The key difference in this amendment being this application seeks approval for 8 warehouses and provision of 652 car parking spaces, further detailed in **Section 2.2.2**.

1.2 Background

MRP formed one of the initial precincts of the broader Western Sydney Aerotropolis. While the land was subject to an accelerated rezoning process, it is covered by different planning controls. Nevertheless, the background studies provide some context with regards to travel demand management, specifically the following report:

- AECOM *Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report*, October 2020 (AECOM Report).

The AECOM Report highlights the importance of implementing transport policies and strategies that promote a shift to sustainable modes of transportation.

As detailed in the AECOM report Travel Plans should include the following:

- Baseline travel data on the existing modal share.
- Targets.
- Action plan to achieve targets.
- Commitment to on-going review of the Travel Plan.
- Monitoring and review strategy.

Of particular relevance to this FSTP, are the mode share targets set by the AECOM Report for each of the Aerotropolis precincts, the most comparable precinct to the MRP being the Badgerys Creek and Agribusiness Precincts. Of the 5 Aerotropolis Precincts covered, Badgerys Creek and Agribusiness have the lowest sustainable mode share targets (by 2056) of 20% and 18% respectively (the Badgerys Creek Precinct is shown by).

This reflects the planned land uses, which are anticipated to support warehousing and logistic uses. Notably, the Agribusiness precinct will not be served by rail, but a number of bus services are planned.

Figure 2 below reproduces the mode share detailed by the AECOM Report for the Agribusiness Precinct for 2056.

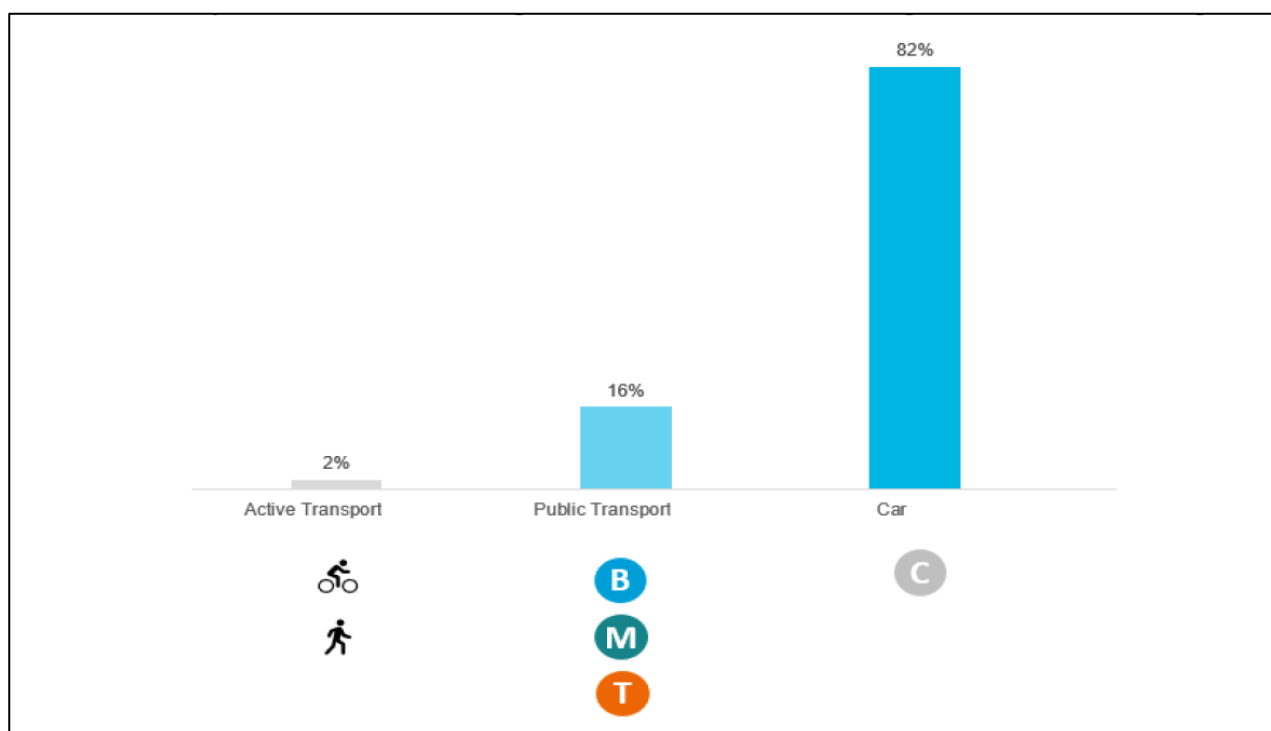


Figure 2: 2056 Agribusiness Precinct Mode Share Targets (Source: AECOM Report)

Further to the above, the finalised Western Sydney Aerotropolis Precinct Plan 2022 (Precinct Plan) details the same targets, as shown by **Figure 3**.

It is expected that these mode shares are reflective of the anticipated public and active transport links planned. Given the similarities between the MRP and the land uses of these Aerotropolis Precincts, the mode share from the Precinct Plan have informed the targets of this FSTP.

Precinct	Target mode share		
	Active transport	Public transport	Private Vehicle
2026			
Aerotropolis Core	4%	20%	76%
Northern Gateway	3%	16%	81%
Agribusiness	2%	16%	82%
Badgerys Creek	2%	18%	80%
Aerotropolis wide (average)	3%	18%	79%
2036			
Aerotropolis Core	6%	34%	60%
Northern Gateway	5%	31%	64%
Agribusiness	2%	16%	82%
Badgerys Creek	2%	18%	80%
Aerotropolis wide (average)	5%	30%	65%
2056			
Aerotropolis Core	9%	52%	39%
Northern Gateway	7%	43%	50%
Agribusiness	2%	16%	82%
Badgerys Creek	2%	18%	80%
Aerotropolis wide (average)	7%	43%	50%

Figure 3: Precinct Plan Objective MFO5 Travel Mode Share Targets

1.3 Goals

This FSTP has specifically been prepared to achieve the following key goals:

- a. Identify objectives and modes share targets (i.e., site and land use specific, measurable and achievable and timeframes for implementation) to define the direction and purpose of the future site-specific Plans;
- b. Suggest specific tools and actions to help achieve the objectives and mode share targets;
- c. (Suggest measures to promote and support the implementation of the plan, including financial and human resource requirements, roles and responsibilities for relevant employees involved in the implementation of the future site-specific Plans;
- d. Suggest a methodology and monitoring/review program to measure the effectiveness of the objectives and mode share targets of the future STP, including the frequency of monitoring and the requirement for travel surveys to identify travel behaviours at appropriate times.

1.4 Objectives

Underpinning this FSTP comprises a package of measures which could be adopted and designed to address the specific travel needs of the Site. In this regard, the overall intention is to encourage and facilitate the use of alternative and sustainable modes of transport and to reduce single-occupancy car travel for journeys to and from the Site.

The primary objectives of the FSTP will be to:

- Reduce the environmental footprint of the Estate.
- Set future staff travel mode share targets.
- Improve access, amenity, convenience, and safety of sustainable transport modes to/from the Site.
- Promote the use of 'active transport' modes such as walking and cycling, particularly for short-medium distance journeys.
- Reduce reliance on the use of private vehicles for all journeys.
- Encourage a healthier, happier and more active & public transport use culture.

2 Site Audit

2.1 Introduction

An audit of the Site is required to determine the existing facilities in the area and review existing transport choices. This section will need to be updated prior to implementation of any site-specific Plan, and at appropriate times as the MRP developed, during period of review. The audit should consider the following:

- Site conditions, once the Estate is complete;
- Public transport services in the area, including proximity to the Site, frequency of services and accessibility;
- Bicycle and pedestrian facilities, including accessibility, connectivity and safety; and
- Mode-split data for the Site and local area.

2.2 Development Site

2.2.1 Location & Description

The Site is comprised of 7 separate Lots (refer to **Table 1**) and is located at 155-251 Aldington Road, Kemps Creek. It is approximately 4km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 12km south-east of the Penrith CBD and 40km west of the Sydney CBD.

It currently provides for a number of rural residential properties, as well as for small scale agricultural industries businesses.

TABLE 1: SITE DESCRIPTION

Address	Title	Area (Ha)
155-167 Aldington Road	33 / DP258949	10.12
169 – 181 Aldington Road	28 / DP255560	10.12
183 – 197 Aldington Road	27 / DP255560	10.12
199 Aldington Road	26 / DP255560	2.54
201 - 217 Aldington Road	25 / DP255560	10.12
219-233 Aldington Road	24 / DP255560	10.16
235-251 Aldington Road	10 / DP253503	10.08

The Site's sub-regional context is shown in **Figure 4** as well as the broader MRP Structure Plan area in which the Site lies.

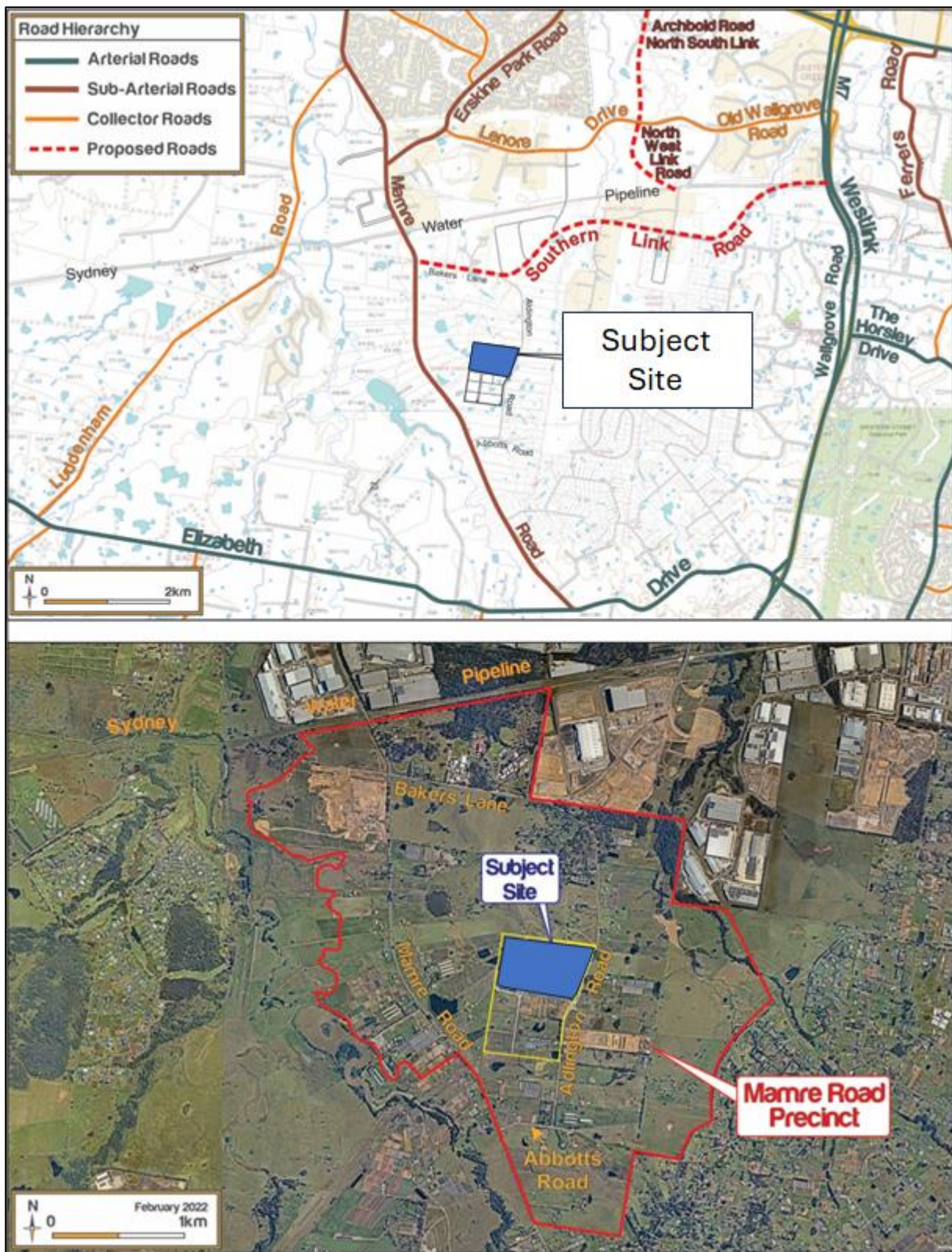


Figure 4: Site Location & Road Hierarchy

2.2.2 Proposed Development

The SSD Proposal seeks approval for:

- Provision of 8 warehouses with a total building area of 153,285m², comprising:
 - 146,480m² warehouse GFA,
 - 6,805m² of ancillary office GFA,
- Internal roads and signalised intersection with Aldington Road, as per the MRP DCP. Turning heads will be provided temporarily until the connection of the roads through to the neighbouring development sites. The signalised intersection will be provided as part of the works being undertaken by LOG-E;
- Provision for 652 car parking spaces; and
- Associated site landscaping.

The SSD Proposal is reproduced at a reduce scale in **Figure 5**.

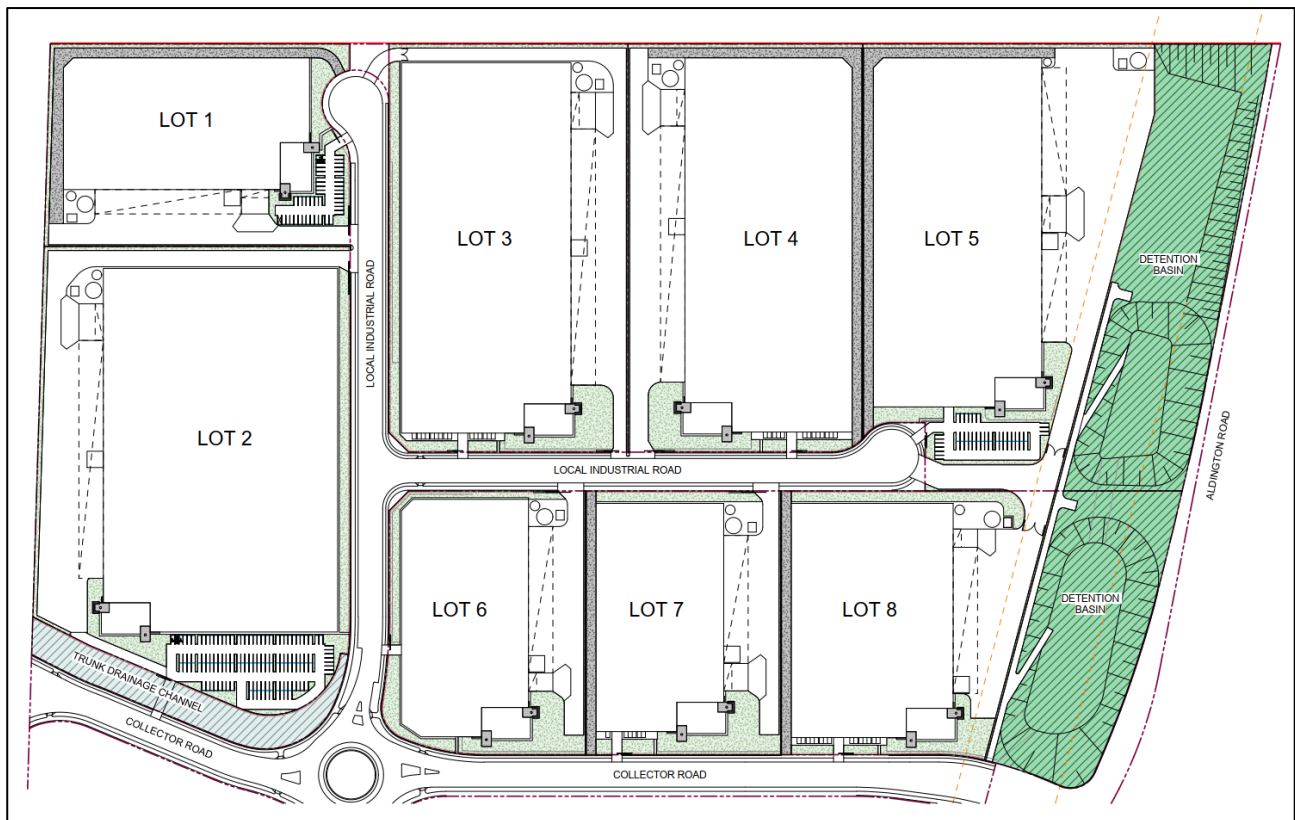


Figure 5: SSD Proposal

2.3 Public & Active Transport Opportunities

2.3.1 Introduction

It is evident that the Site is not directly serviced by public transport at this time (**Figure 6**); notwithstanding, opportunities for future connections have been identified, noting again that the MR Upgrade specifically provides for new bus stops along its entire route.

Establishment of public transport services as early as possible in the development stages of the MRP is important to achieve a culture of public transport use from the outset. To make public transport a viable choice in the study area, the services will ideally:

- Integrate with existing bus services in the area;
- Connect to regional centres of Penrith, Mt Druitt and Blacktown; and
- In the long term, connect to areas such as Leppington in the South West Growth Centre, Prairiewood and the Liverpool to Parramatta T-Way.

However, it should be noted that as this stage there is no immediate priority for the MRP to be serviced by new bus services. Due to the availability of new bus and drivers, additional services are being prioritised in other growth areas within the Aerotropolis.

It is noted that the 779-bus route has recently been extended from a route that terminated at James Erskine Drive to connect with the Amazon Fulfilment Centre on Emporium Avenue. This route provides a key connection to the St Mary's railway station and to the broader transport network. If a connection to Compass Drive is delivered (via the SLR) then this could present an opportunity to extend this service further.

Further to the bus connectivity, it is noted that the closest train station to the Site is currently some 10km away. However, the Metro Western Sydney Airport will provide 23km of new railway to link residential areas with jobs hubs and the rest of Sydney's public transport network.

The alignment of the Metro is shown by Figure 6. While the closest station to the Site will likely be Luddenham Station, located approximately 4km west of the Site, it will undoubtedly improve public transport accessibility to the wider area. This provides an opportunity for bus services to combine with the Metro to improve connectivity to/from the residential areas to the north of the Site.

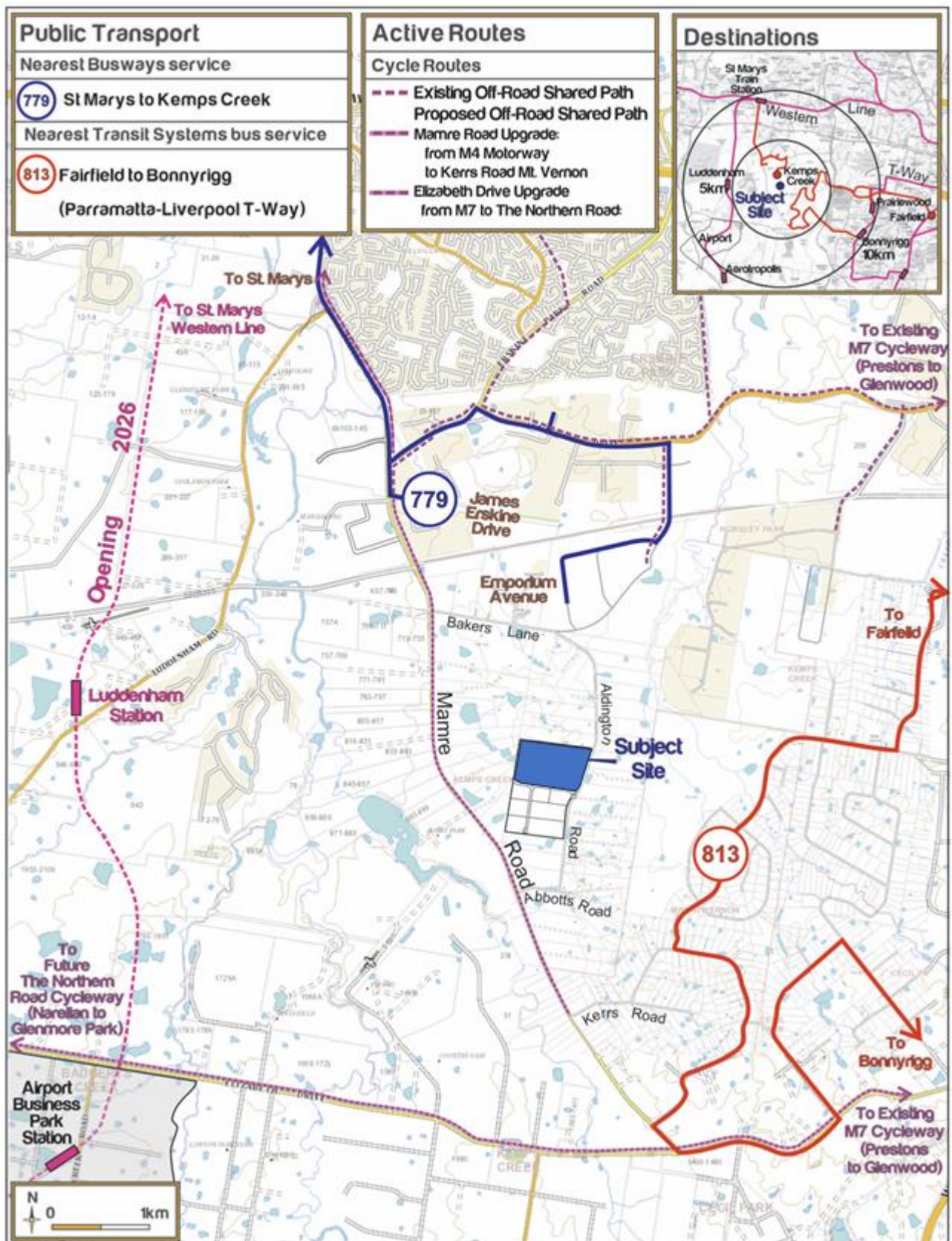


Figure 6: Public & Active Transport Network (Draft Figure to be updated)

2.3.2 Bicycle Network

At present, shared paths (pedestrian and cycle) are provided along Erskine Park Road and sections of Mamre Road to the north of the Site, but there is little cycling (or pedestrian) infrastructure in Mamre Road between Distribution Drive to the north and Elizabeth Drive to the south.

The BWSEA Structure Plan provides a detailed outline of future active transport objectives and strategies, acknowledging that the provision of such will be essential to encourage the use of active transport from the outset. In this regard, the BWSEA provides the following key objectives:

- *Provide quality pedestrian and cycling environments around transit corridors and facilities.*
- *Understand the key walking and cycling needs in the region and the need for the separation of pedestrians and cyclists from motor vehicle traffic.*
- *Recognise that all trips involve walking at either the beginning or end of the journey, resulting in the need for connections between parking and public transport areas and destinations.*
- *Recognise that walking and cycling paths can form key routes between destinations.*
- *Understand that walking and cycling trips perform a variety of functions, not only travel from an origin to a destination, but such trips are also undertaken for recreation and/or health benefits, which can be influenced by the amenity of the route.*

Key active transport routes identified in the BWSEA Structure Plan are shown in **Figure 7**, noting again that the Mamre Road upgrade Project will provide shared paths along at least one side of the road for its entire length.

Further, the MRP DCP requires internal roads to provide a footpath of 1.5m on one side (minimum) and shared path of 2.5m (minimum) on the opposing side of the road. It also requires roads to be provided with shared cycle and footpaths.

2.3.3 Pedestrian Connectivity

Due to the current largely undeveloped nature of the land immediately surrounding the Site, pedestrian infrastructure is currently non-existent. Key pedestrian desire lines in the vicinity of the Site would be triggered by connections to future public transport infrastructure, noting the nature of the area being largely industrial and therefore not representing key destinations and attractions for people to walk to.

In this regard, it is noted that the upgraded Mamre Road will include shared cycle and pedestrian pathways along its length. Further, the MRP DCP requires internal roads to provide a footpath of 1.5m on one side (minimum) and shared path of 2.5m (minimum) on the opposing side of the road. It also requires roads to be provided with shared cycle and footpaths.



Figure 7: BWSEA Cycle Routes

Source: BWSEA Structure Plan

2.4 On Demand Services

2.4.1 Car Share

Car sharing has emerged as a cost effective, flexible alternative to private vehicle ownership. Provision of car share in the area could facilitate intermittent work trips that may need to be made by car such that staff can commute by other modes.

As a future industrial area, it is not anticipated that car shares such as GoGet would be particularly successful, particularly in the early stages of development. Nonetheless, given the benefits to reducing the need for a private vehicle, it will be worth considering its appropriateness as the area develops.

Prior to the commencement of car share providers such as GoGet, it is proposed to consider schemes such as provision of car share priority parking spaces, to actively encourage car sharing amongst staff.

2.5 Existing Travel Patterns

2.5.1 2.6.1 Journey to Work Data Analysis

Journey-to-Work (JTW) data from the Australian Bureau of Statistics (ABS) 2021 Census and specifically aggregated Destination Zones (DZ) has been referenced to understand the baseline travel characteristics of the Site. This data informs the initial targets and should be refined and updated as part of the monitoring process.

A summary of key travel modes for those travelling to the locality for work have been reviewed with regard for the surrounding Destination Zone 115184210, within the Horsley Park – Kemps Creek statistical area.

The travel modes are presented in **Table 2**.

TABLE 2: TRAVEL MODE SUMMARY (JOURNEY TO WORK)

Travel Mode	Mode Share of Employees
Car as driver	91%
Train	1%
Bus	0%
Walked only	1%
Car as passenger	5%
Motorbike/Scooter	0%
Bicycle	0%
Taxi	0%
Other Modes	1%

With reference to Table 2, it is evident that the private vehicle (car) is the overwhelming preferred mode of choice for commuters travelling to work in the area. The data indicates that 96% travel to work by car with 91% as the driver and 5% as passenger i.e. car-pooling.

3 Development, Scope & Implementation

3.1 Introduction

This section sets out in broad terms how the FSTP will be developed into site-specific STPs and the scope of the FSTP.

3.2 Responsibility

The responsibility for the future Travel Plans will lie with site management and should form part of organisational policies. Future STPs should include a statement on company policy in relation to travel, and should be endorsed by senior management.

3.3 FSTP Scope

The future STP address the following types of travel generated by the development:

- Commuter journeys by staff;
- Visitor journeys;
- Business travel; and
- Site related deliveries from contractors etc.

The future STPs are expected to have most effect on commuter journeys by staff. While the operator will aim to encourage sustainable travel by visitors, ultimately staff travel is easier to influence.

The aim is to develop practical measures that are effective in reducing car use for all journeys to the Site.

3.4 Implementation

A Travel Plan Coordinator (TPC) should be appointed to act as the primary point of contact for enquiries relating to the progress of the future Plans. It is recommended that a consistent TPC be appointed for the Estate so as to achieve a coordinated approach across the Site. However, as the individual sites will be responsible for implementing their own STPs, this will be at the discretion of site management. The TPC will manage all aspects of the STP, including the co-ordination and joint working practices between those on-site.

The TPC will promote participation in and commitment to the future STP from site tenants and will work in partnership with all stakeholders to deliver the strategies and actions.

The TPC should be appointed before the Site becomes occupied, or within 1 month of the site becoming occupied. Contact details for the TPC should be provided in the implemented Plan.

The main duties of the TPC are envisaged to be:

- Overseeing final development and implementation of the STP.
- Internal liaison to promote awareness of the STP amongst businesses and staff within the Estate.
- Liaison with outside bodies, such as Penrith City Council (Council) and local bus operators, as required regarding the operation of the STP.
- Providing updated travel information to staff and visitors, as necessary.
- Monitoring, review and (if necessary) updates to the STP.

3.5 Consultation

It is essential that any parties that may play a part in the future of STP's and their actions are aware and have an opportunity to discuss. This would enable equitable input and feedback as well maximising their overall efficacy. For this reason, a coordinated approach to STPs across the Estate should be implemented (subject to individual tenant participation) to assist in the consultation with the relevant parties, which could include the following:

- Council Traffic & Transport Department and Traffic Committee
- Local Bus Operators
- Transport for New South Wales

Other organisations may be added to this list as the Plans evolve.

3.6 Travel Mode Targets

3.6.1 Introduction

Based on the existing travel mode splits identified in Section 2.5, the Site and the surrounding areas are considered to have a low dependency on public and active transport. This is reflective of the current nature of the area, which accommodates rural residential properties and agricultural businesses.

However, noting the future land use of the Site as industrial in nature, it is expected that the JTW data accurately reflects the current trends for travel to places of work at industrial sites. The RMS Guide to Traffic Generating Developments – Updated Traffic Surveys itself provides details in relation to the principal mode of travel used by staff at the Erskine Park and Eastern Creek warehouses surveyed by TfNSW. These surveys indicate that 90% of all workers would travel via private vehicles with 8% travelling as passengers.

This section therefore sets out the targets for the reduction in car journeys associated with the Site, with consideration to the future land use in the area. Targets are the means of measuring the achievement of the objectives. They need to be clear, directly linked to the objectives, monitored and reviewed.

Questionnaire surveys will be conducted in the future that will form the updated travel mode baseline to further develop site-specific targets. The first surveys will be undertaken shortly after occupation. These surveys will be repeated at a suitable time to assess the effectiveness of the implemented Travel Plan; the targets are to be reviewed to align with the most up-to-date information.

The implemented STPs are to be in place for the lifetime of the development. The initial timeframe in which targets need to be monitored and reviewed will be reviewed every 1-2 years, for a minimum of 5 years.

3.6.2 Mode Share Targets

It is essential that Mode Share targets be achievable with consideration for the public transport, walking and cycling opportunities available within proximity to the Site. Targets should also be factoring in what future transport options could reasonably be used to access the Site, and also the nature of the development itself.

As per Section 1.2, the Precinct Plan provides a mode share target for public & active transport of 18% and by car of 82% by 2056 for the Agribusiness Precinct. Sites within the MRP should ideally reflect a similar target.

Further, it should be recognised that during the earlier stages in development of the MRP, it would be anticipated that change in travel behaviour will be slower than in other areas, while the public and active transport networks are still being integrated.

The targets should therefore be revisited and updated after the opening of the relevant development as part of the monitoring process. The preliminary targets are nominated in **Table 3**, which represents a 5-year target to coincide with the minimum 5 years of monitoring and review.

TABLE 3: PRELIMINARY 2026 MODE SHARE TARGETS

Travel Mode	Mode Share of Employees	Proposed Targets	Relative Change
Car as driver	91%	86%	-5%
Car as passenger	1%	5%	+4%
Train	0%	0%	-
Bus	1%	4%	-
Walked only	5%	1%	-
Motorbike/Scooter	0%	1%	-
Bicycle	0%	1%	-
Taxi	0%	1%	+1%
Other Modes	1%	1%	-

4 Measures and Action Strategies

4.1 Measures

The below is a range of measures which could achieve the objectives of this FSTP. It is critical to note that these are suggested measures and are not necessarily likely to be applicable in the early stages of development in the MRP.

This section needs to be reviewed and confirmed prior to implementation of any future Plan.

- An introduction to the STP for all staff, setting out its purpose and objectives.
- Provision of public transport travel information for staff, customers and visitors.
- Encouragement of car sharing, both amongst staff on site and in the wider context.
- Provision of car share spaces (future potential measure) and / or provision of a business “pool car” while public car share operators are limited in the area.
- Assisted cycle purchase schemes.
- Interest free loans to assist with cycle purchase, cycle equipment purchase etc.
- A transport section on the company website with links to local bus operator sites, to ensure that travel information is always up to date.
- The provision of transport information for visitors to the Site.

4.2 Strategies

Six main strategies are identified and the actions required for each are detailed in Table 3. The table details specific actions that could be implemented as part of a future site-specific STP (subject to tenant requirements) and the party responsible for implementing each action.

These actions must be reviewed at regular intervals to ensure that the mode split targets are being met. By that principle, this document is classed as a living document and subject to regular review. It is important to note, that the actions should not be taken as mandatory but rather potential options that should be investigated and implemented by future inhabitants of the development.

TABLE 4: PROPOSED STP ACTION STRATEGIES

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
1 Travel Planning and Demand Management				
1.1 Green / Sustainable Travel Plans	- Develop a STP to provide information for Travel Access Guide (TAG) (See Appendix A) - Management of STPs. - Promotion of STPs.	Building Manager to be responsible for overall implementation of final STP and providing annual reporting on STP outcomes to Council. Tenant to develop Company specific travel plan based on Final STP prior to the commencement of a new lease/sale of property. Company/Staff/Visitors shall be responsible for ongoing implementation of Company assigned actions and participation in annual monitoring and reporting process to Council	Upon completion of the development and ongoing annual STP events	Tenant / Business Owner
1.2 Travel Information Points	- Establish locations such as travel information points where staff and visitors and others can access travel information via interactive platforms. - Promotion of STPs - Provision of travel and transport information options	Tenant / Business Owner	Subject to employer preference.	Tenant / Business Owner
1.3 Flexible Working hours	Allow employees the flexibility to commute outside peak periods to reduce overall congestion and travel time.	Tenant / Business Owner	Subject to employer preference. Action to be considered by employers / Visitors as part of an Employer specific STP to be developed and forwarded to Council prior to building occupation.	Tenant / Business Owner
1.4 Teleworking	Provide the option to work remotely (where possible) to reduce the number of vehicles travelling to the development and encourage teleconferencing rather than travelling to meetings.	Tenant / Business Owner	Subject to employer preference. Action to be considered by employers / visitors	Tenant / Business Owner

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
2 Promoting Public Transport				
2.1 Opal Card Loan Schemes / Subsidising schemes for public transport travel through pre-paid credit cards	Company may consider subsidising staff public transport travel. Alternatively, staff can pay for their own Opal Cards / pre-paid travel card through their salary, spreading the cost over the year to make it more affordable.	Tenant / Business Owner / TPC	Subject to employer. Can be implemented at building occupation	Tenant / Business Owner
2.2 Maximise Bus Service Frequency	- Meet or exceed Transport NSW bus planning guidelines. - Decrease headway where possible, especially during peak periods. - Report back to Transport for NSW on perception of bus service adequacy	TfNSW	Developer to hold on-going discussions with TfNSW after each annual review of STP and report on relevant findings	TfNSW
2.3 Provide bus stops with shelter facilities	Ensuring provision of bus stops suitable for waiting areas for commuters – Developer to recommend improvements to the proposed / implemented bus stops along Aldington Road to TfNSW.	TfNSW	Subject to discretion of TfNSW. Advisable to be prior to the opening of the development	TfNSW
2.4 Public Transport for work travel	The company and the TPC can promote public transport as one of the main preferences for work travel. This should be supported by all users and visitors to development having access to Opal Cards.	TPC	Subject to employer. Can be implemented at building occupation	Tenant / Business Owner
2.5 Lobby for Precinct wide shuttle service	Shuttle service initiative that would transport staff to / from the MRP to the Railway Station.	TPC to lobby Estate Manager / Owner	Ongoing in the workplace. Updates can be made to organisation as appropriate	Estate Owner / Manager
3 Promoting Carpooling				
3.1 Open Car Sharing	Where anyone in a defined geographical area can join a ride sharing scheme. This involves no input from the employer and should be on the onus of staff to schedule.	Staff	Ongoing in the workplace	Fuel costs can be arranged and split equitably by those involved
3.2 Closed Car Sharing	The company / department sets up an in-house car-matching scheme	Company, TPC	Ongoing in the workplace. Updates can be made to organisation as appropriate	Tenant / Business Owner

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
3.3 Third-party Car Sharing Program	Companies such as Liftshare are an online service that facilitates journey sharing between individual users, as well as providing separate services for businesses, organisations and events.	Staff – encouraged by TPC	Ongoing in the workplace	Staff
3.4 Carpool week	Arrange for a dedicated carpool campaign week to promote the benefits of carpooling.	Tenant / Business Owner	One week per calendar year	Tenant / Business Owner
4 Promoting Cycling				
4.1 Create a Bicycle Users Group (BUG)	BUGs are local groups of like-minded bike riders who get together generally for social riding in their area. For the purposes of the workplace, this can be adapted as a way of creating a social and healthy aspect of travelling to work. As a minimum, the establishment of the BUGs should be promoted as Precinct wide initiative.	Tenant / Business Owner, TPC	Ongoing in the workplace	Tenant / Business Owner
4.2 Providing & Maintaining End of Trip Facilities	Providing facilities such as showers, change rooms, lockers. For the initial stages of development it is recommended to provide facilities compliant with the relevant controls, and as the Site develops further, they should be reviewed as part of the STP monitoring process to meet any increase in demand.	Developer / Estate &/or warehouse Owner / Manager	To be provided at completion	Developer / Estate &/or warehouse Owner / Manager
4.3 Promote Bicycle Initiatives	Promotion of bicycle initiatives – NSW bicycle week, Ride to Work etc.	TPC	To be promoted annually	Developer / Estate &/or warehouse Owner / Manager
4.4 Advertise Bicycle Routes	Promotion of bike lanes through the TAG.	TPC	To be promoted and provided at communal areas such as key information kiosks within facility	Tenant / Business Owner
5 Promoting Walking				
5.1 Providing End of Journey Facilities	Provision of sufficient end of trip facilities such as showers, change rooms, lockers etc	Developer	To be provided at completion of development	Tenant / Business Owner

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
	to maximise pedestrian activity throughout the site and the wider precinct.			
5.2 Walking routes	Incentivise travelling by foot by highlighting possible routes particularly those to nearest bus stops	Tenant / Business Owner	To be promoted and provided at communal areas such as key information kiosks within facility	Tenant / Business Owner
5.3 Promote walking initiatives	Promotion of walking initiatives: walk to game / training day, pedometers / step challenge / gamification of walking / reward programs based on steps to elevate pedestrian activity throughout site and to / from public transport points.	Tenant / Business Owner, TPC	To be implemented monthly or as appropriate throughout the calendar year.	Tenant / Business Owner
7 Influencing Travel Behaviour				
7.1 Provision of Sustainable Travel Packs to employees and visitors	Introduces employees and visitors alike to the STP and provides information on walking and cycling routes, and travel by bus & train, timetables, and access routes. This would include a TAG.	Tenant / Business Owner, TPC	Travel Packs to be provided upon occupancy of building to employees.	Tenant / Business Owner

4.3 Communications Strategy

4.3.1 Welcome Packs

New staff shall be provided with a 'welcome pack' as part of the on-site induction process which includes a STP Pamphlet and other information in relation to sustainable transport choices. This pack shall include copy of the STP and a Travel Access guide (TAG) as provided in **Appendix A**, as well as general information regarding the health and social benefits of active transport and advice on where to seek further information. It is recommended that an electric copy of the welcome pack be created and made available to staff.

4.3.2 Accurate Transport Information

In addition to these 'welcome packs', a copy of the TAG (Appendix A) shall be clearly displayed in communal areas of the site including (but not limited to):

- Staff lunch room
- Lift lobby area and entrances to buildings
- Any marketing material associated with the Site, such as websites and newsletters.

5 Monitoring Strategy

5.1 Plan Maintenance

This Plan shall be subject to ongoing reviews and will be updated accordingly. Regular reviews will be undertaken by the TPC. As a minimum, a review of the STP would occur every 1-2 years.

The key considerations when reviewing or monitoring the STP are as follows:

Update baseline conditions to reflect any changes to the transport environment in the vicinity of the Site such as changes to bus services, new cycle routes etc.

- Track progress against target travel mode targets.
- Identify any shortfalls and develop an updated action plan to address issues.
- Ensure travel modes targets are updated (if necessary) to ensure they are realistic and remain ambitious.

5.2 Monitoring

So as to record the overall success, as well as the effectiveness of the individual measures, monitoring and review of the STP is to be conducted at regular intervals. The TPC will act as the primary point of contact for all enquiries relating to the STP's progress.

The STP will be monitored around every 1-2 years, with the first survey being carried out shortly after first occupation of the Development. Travel mode surveys would determine the proportion of persons travelling to/from the Site by each transport mode. This will be in the form of annual travel mode questionnaire surveys to be completed by all persons attending the site, as far as practicable. A sample of a typical travel mode questionnaire form is included in Appendix B.

If targets are not met at the end of the initial period of monitoring, the STP will be reviewed, new measures introduced and would be reassessed at the next monitoring stage.

Appendix A. Travel Access Guide

Travel Access Guide

Aspect Industrial Estate Warehouses 1 to 8

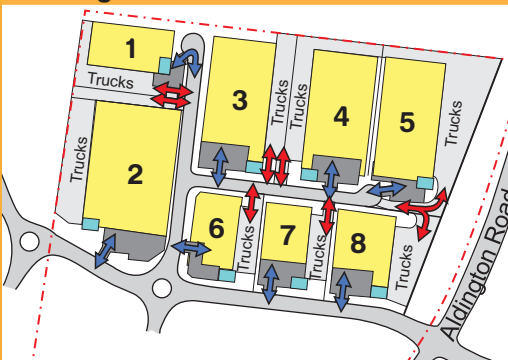
155-251 Aldington Road, Kemps Creek 2178

asongroup

September 2023



The Edge Estate Detail



Parking

Access		
Car		
Trucks		
Parking including Accessible spaces		
Warehouse	P	
Warehouse 1	41	(1)
Warehouse 2	136	(2)
Warehouse 3	107	(1)
Warehouse 4	107	(1)
Warehouse 5	102	(1)
Warehouse 6	53	(1)
Warehouse 7	52	(1)
Warehouse 8	63	(1)

Existing Public Transport Routes

- 779** St Marys to Kemps Creek via Erskine Park Industrial Estate
 - 801** Badgerys Creek to Liverpool
 - 813** Fairfield to Bonnyrigg via Horsley Park and Mt Vernon
 - 835** Prairiewood to University of Western Sydney Penrith via Wetherill Park, Horsley Park, Eastern Creek, Erskine Park, St Clair, Colyton and St Marys
- More details on the bus and train routes are available on the Transport NSW Trip Planner Website: <https://transportnsw.info/>

Appendix B. Sample Questionnaire

Instructions for Surveyor(s)

1. The Survey Form (over page) should be completed by EVERY PERSON attending the site on a particular day.
2. This survey should be completed SEPARATELY for EACH TRIP undertaken

Travel Mode Questionnaire Survey Form

Date:

Approximate Time:

Q1. Are you one of the following?

- | | |
|--|--|
| ☐ Warehouse staff | ☐ Casual contractor |
| ☐ Office staff | ☐ Company driver / sub-contractor |
| ☐ Courier / office delivery | ☐ Other (Please specify)..... |

Q2. How did you travel to / from the site today?

- | | |
|---------------------------------------|--|
| ☐ Walked only | ☐ Car share vehicle |
| ☐ Bicycle only | ☐ Motorcycle / scooter |
| ☐ Train | ☐ Car (as passenger) |
| ☐ Bus | ☐ Car (as driver) |
| ☐ Taxi | ☐ Other (Please specify)..... |

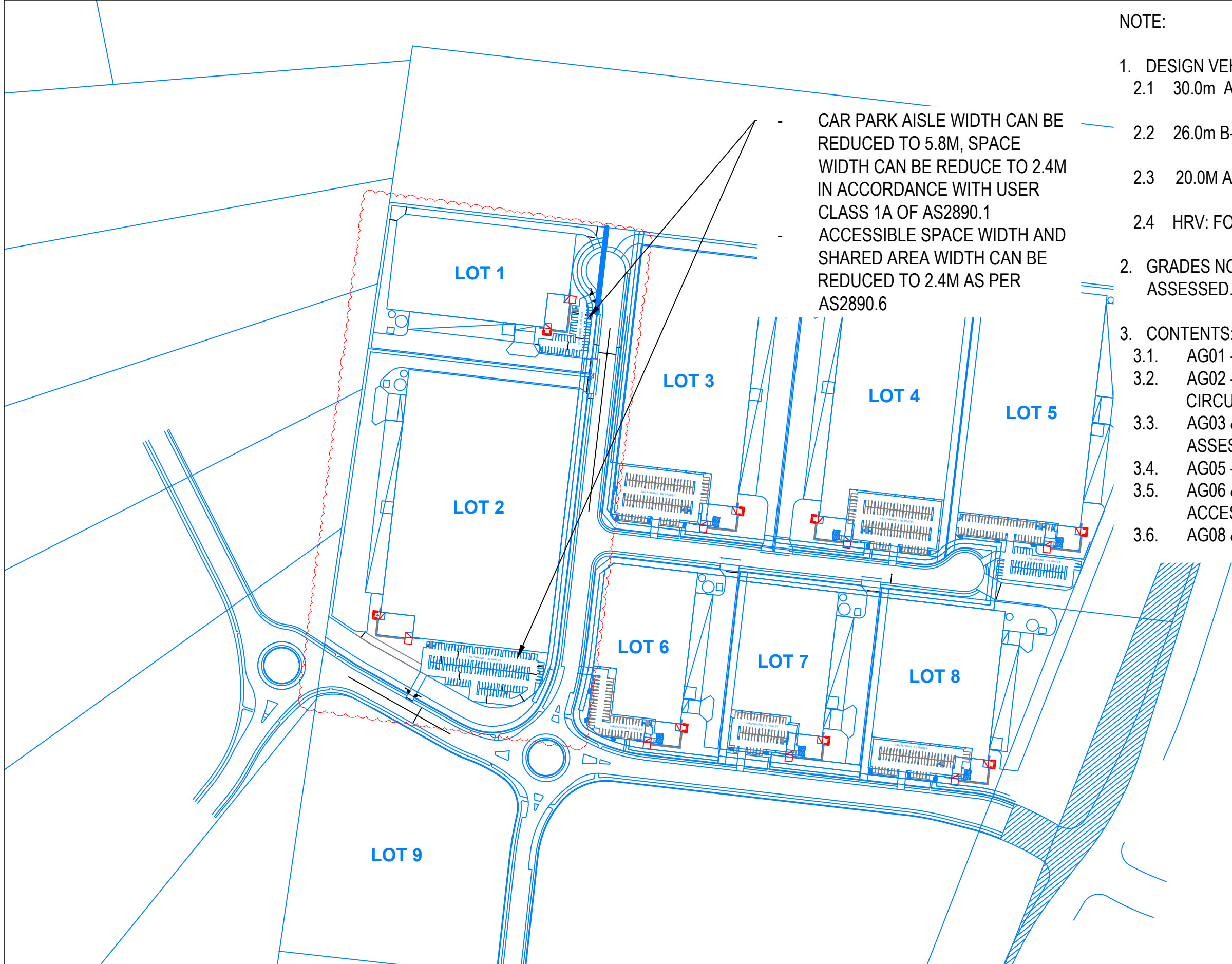
Q3. If you drove to the site, where did you park?

- ☐ Not applicable – did not drive
- ☐ On-site car park
- ☐ On-site within truck hardstand
- ☐ Other (Please specify).....

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Appendix C. Swept Path Analysis

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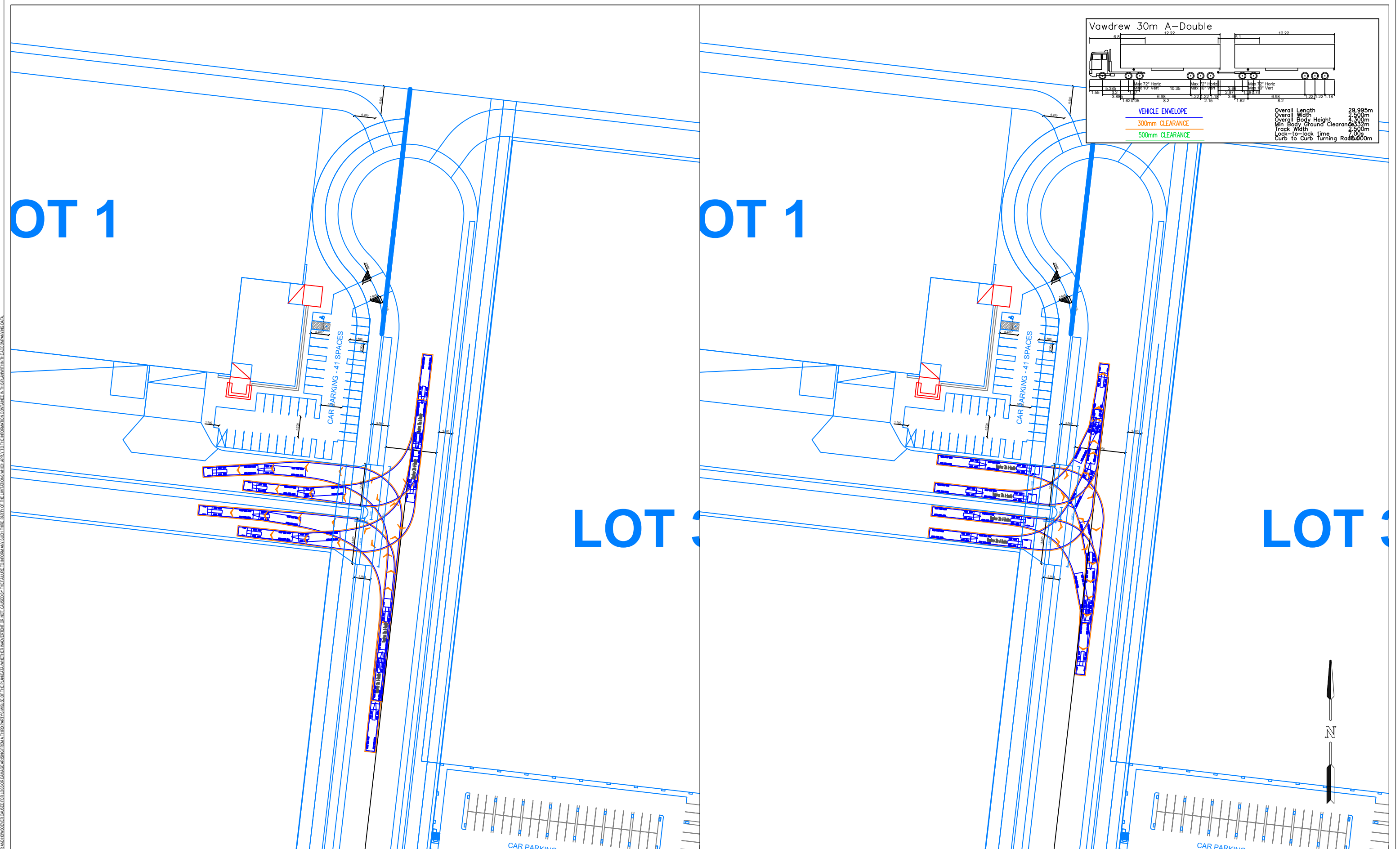


- CAR PARK AISLE WIDTH CAN BE REDUCED TO 5.8M, SPACE WIDTH CAN BE REDUCE TO 2.4M IN ACCORDANCE WITH USER CLASS 1A OF AS2890.1
- ACCESSIBLE SPACE WIDTH AND SHARED AREA WIDTH CAN BE REDUCED TO 2.4M AS PER AS2890.6

NOTE:

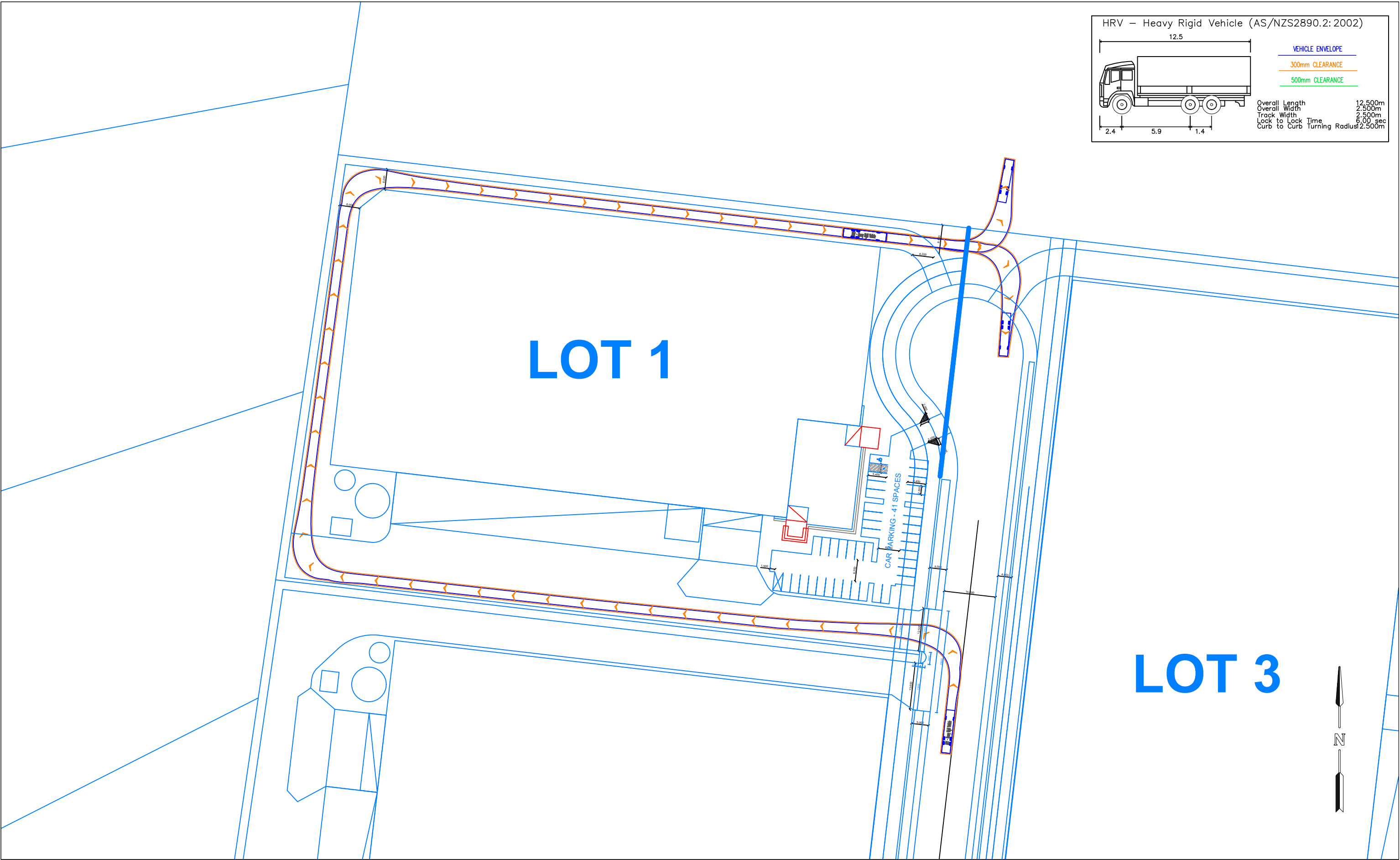
- DESIGN VEHICLES ADOPTED:
 - 30.0m A-DOUBLES: SITE ACCESS
 - 26.0m B-DOUBLES: HEAVY VEHICLE UNCOUPLING.
 - 20.0M AV: RECESS DOCKS AND WAREHOUSE 2 RSD
 - HRV: FOR FIRE CIRCULATION & WAREHOUSE 1 RSD.
- GRADES NOT SHOWN AND THEREFORE WAS NOT ASSESSED.
- CONTENTS:
 - AG01 - ACCESS ASSESSMENT
 - AG02 - WAREHOUSE 1 FIRE TRUCK ACCESS AND CIRCULATION
 - AG03 & AG04 - WAREHOUSE 1 HARDSTAND ASSESSMENT
 - AG05 - WAREHOUSE 1 CAR PARK ASSESSMENT
 - AG06 & AG07 - WAREHOUSE 2 FIRE TRUCK ACCESS AND CIRCULATION
 - AG08 & AG09 - WAREHOUSE 2 HARDSTAND

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	APPROVED BY X.XXXX	DATE 03.11.2023	PROJECT 1043	SWEPT PATH ASSESSMENT		
	SCALE Custom	NTS	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	FILE NAME AG1043-03-v04.dwg	SHEET AG00	



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		APPROVED BY X.XXXX	DATE 03.11.2023	PROJECT 1043	WORK TYPE LOT 1 AND 2 ACCESS	FILE NAME AG1043-03-v04.dwg	
		SCALE 1:1000	0 10 20	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK		SHEET AG01	

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Design vehicle: 12.5m HRV Check Vehicle: 12.5m HRV

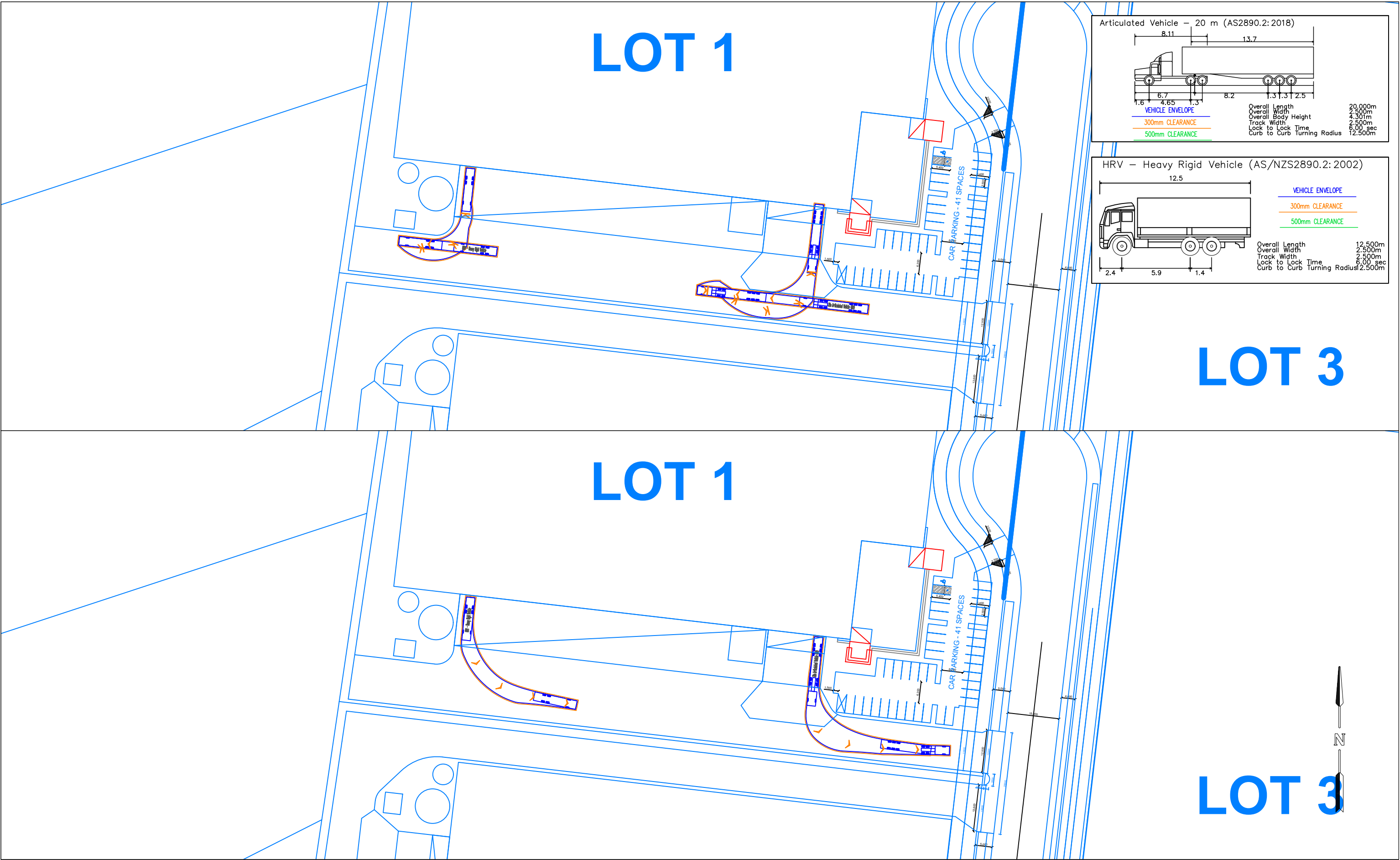
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X.XXXX	03.11.2023	1043
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LOT 1 FIRE ACCESS	
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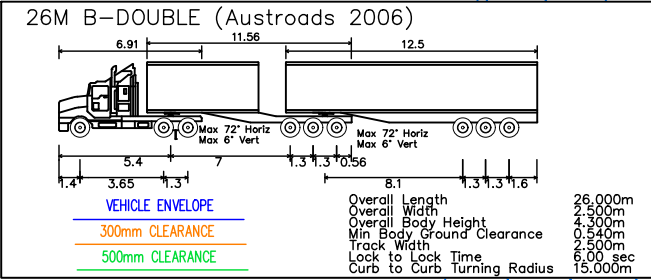
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	APPROVED BY	DATE	PROJECT	LOT 1 HARDSTAND ASSESSMENT		
	X.XXXX	03.11.2023	1043			
	SCALE			FILE NAME	SHEET	
	1:1000	01020		AG1043-03-v04.dwg	AG03	
			THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK			

LOT 1



RSDS TO REMAIN CLEAR
WHILE 26.0M B-DOUBLE
PERFORMS U-TURN

26.0M B-DOUBLE
UNCOUPLING LOCATION

CAR PARKING - 41 SPACES

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Design vehicle: 30.0m A-Double Check Vehicle: 30.0m A-Double

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Sydney NSW 2000
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NOTE:
BASE PLAN DEMONSTRATES INTERIM CAR PARK
ARRANGEMENT AND PARKING SPACE PROVISION OF 41
SPACES.
70 CAR PARKING SPACES ARE PROPOSED FOR THE ULTIMATE
CAR PARK DESIGN (WHERE THE CUL-DE-SAC ON NS ROAD WILL
BE REMOVED) WHICH COMPLIES WITH DCP'S PARKING
REQUIREMENT.

AISLE EXTENSION CAN
BE REDUCED TO 1.0M
AS PER AS2890.1

ENSURE SIGHT LINE
SPLAY FOR
PEDESTRIANS

CAR PARKING - 41 SPACES

LOT 3

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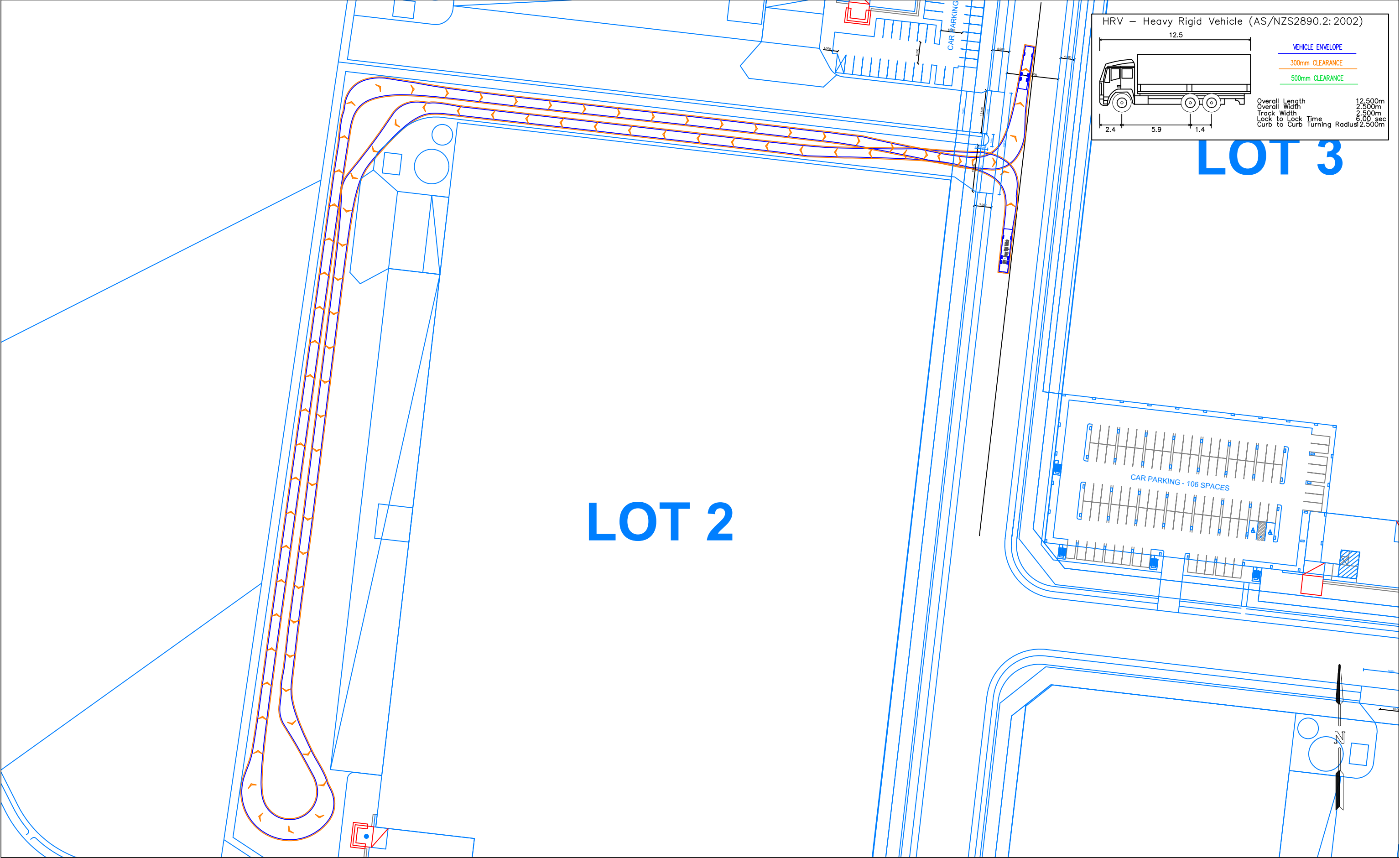
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DOCUMENT INFORMATION	
DESIGN ADVICE	
LOT 1 CAR PARK	
FILE NAME AG1043-03-v04.dwg	SHEET AG05

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HRV – Heavy Rigid Vehicle (AS/NZS2890.2:2002)

12.5

2.4

5.9

1.4

VEHICLE ENVELOPE

300mm CLEARANCE

500mm CLEARANCE

Overall Length

Overall Width

Track Width

Lock to Lock Time

Curb to Curb Turning Radius

12.500m

2.500m

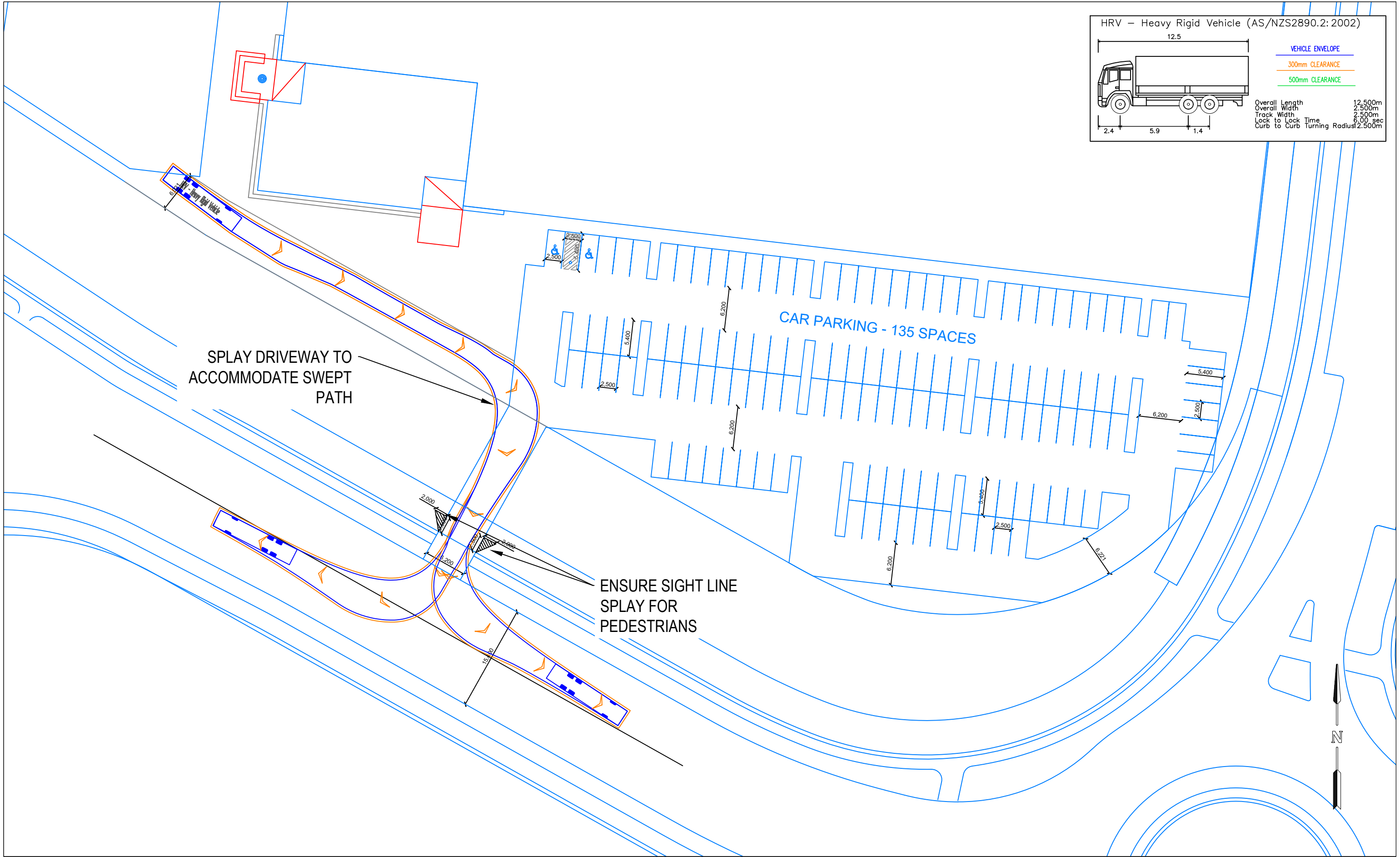
2.500m

6.00 sec

2.500m

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	APPROVED BY	DATE	PROJECT	LOT 2 FIRE ACCESS AND CIRCULATION		
	X.XXXX	03.11.2023	1043	FILE NAME		SHEET
	SCALE	0510	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	AG1043-03-v04.dwg		AG06
	1:1000					

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HRV – Heavy Rigid Vehicle (AS/NZS2890.2: 2002)

VEHICLE ENVELOPE

300mm CLEARANCE

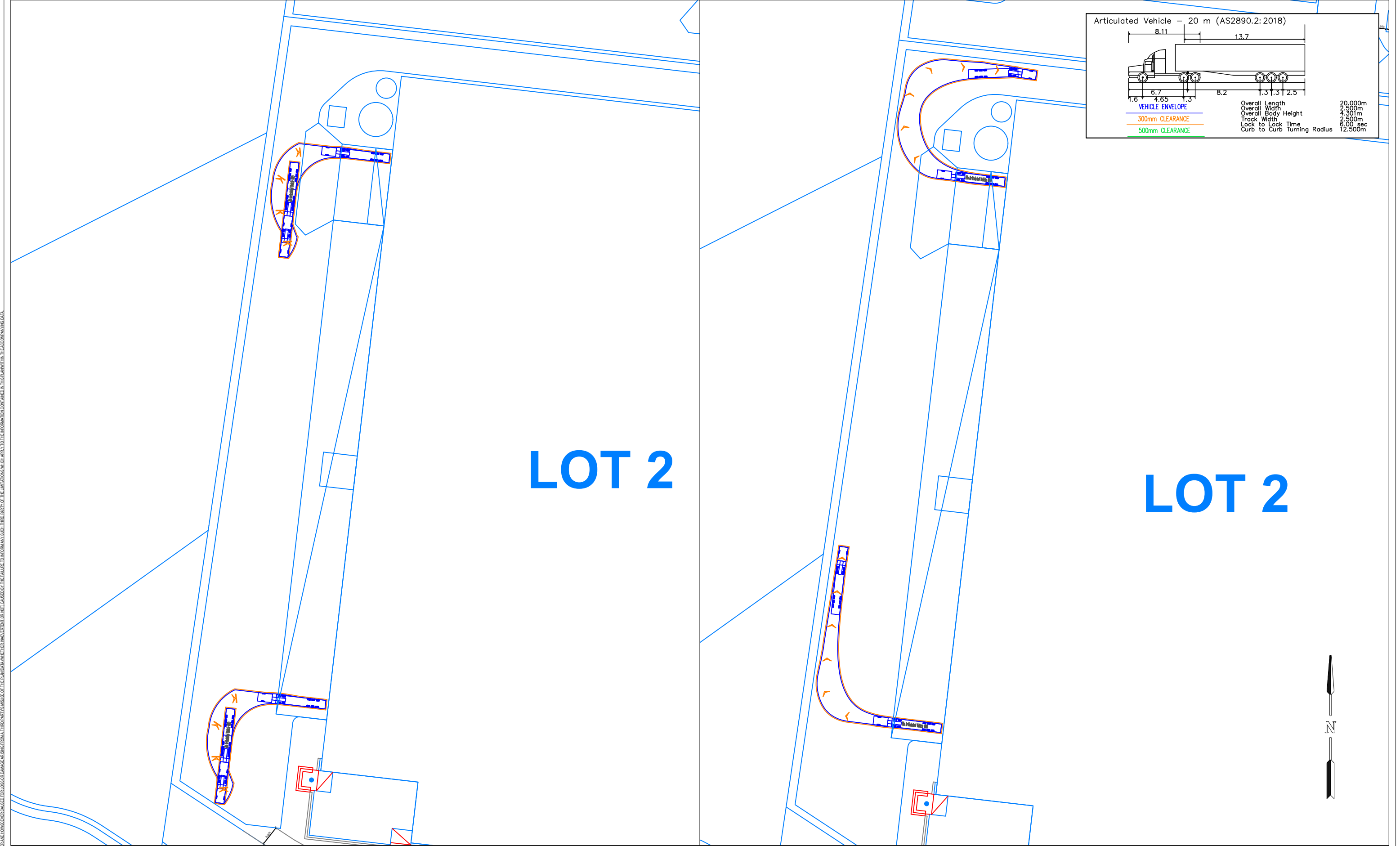
500mm CLEARANCE

Overall Length 12.500m
Overall Width 2.500m
Track Width 2.500m
Lock to Lock Time 6.00 sec
Curb to Curb Turning Radius 2.500m

2.4 5.9 1.4

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	APPROVED BY X.XXXX	DATE 03.11.2023	PROJECT 1043	SWEPT PATH ASSESSMENT		
	SCALE 1:500		THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	FILE NAME AG1043-03-v04.dwg	SHEET AG07	

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	APPROVED BY X.XXXX	DATE 03.11.2023	PROJECT 1043 THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	SWEPT PATH ASSESSMENT LOT 2 HARDSTAND ASSESSMENT		
	SCALE 1:1000	01020		FILE NAME AG1043-03-v04.dwg	SHEET AG08	

LOT 2

— RSDS TO REMAIN CLEAR
WHILE 26.0M B-DOUBLE
PERFORMS U-TURN

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Internal Road will have a posted speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30.0m A-Double Check Vehicle: 30.0m A-Double

CLIENT	FRASERS PROPERTY
PROJECT	1043
	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK

SWEPT PATH ASSESSMENT	
LOT 2 B-DOUBLE U-TURN	
FILE NAME	SHEET
AG1043-03-v04.dwg	AG09

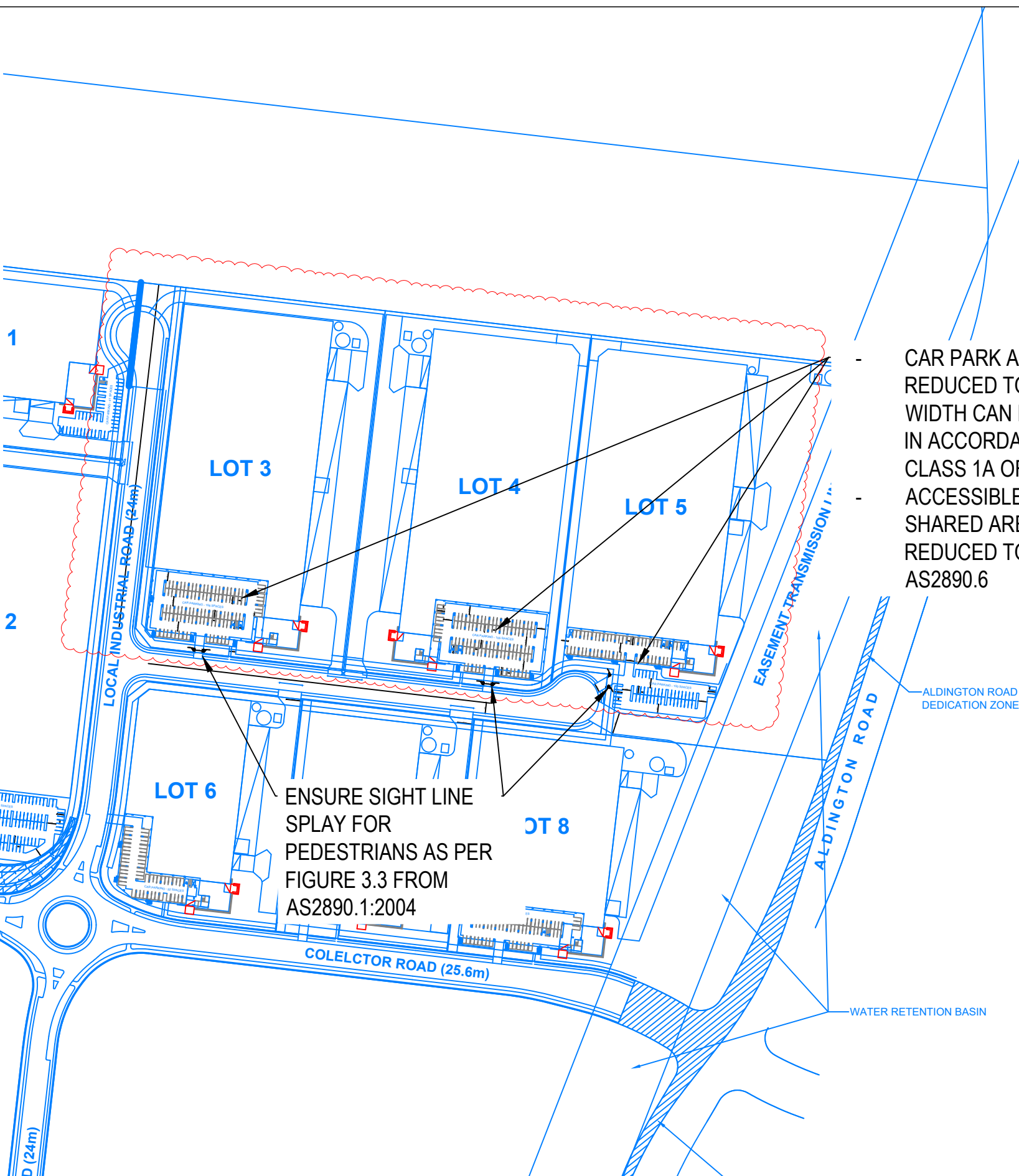
asongroup

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Sydney NSW 2000

info@asongroup.com.au

NOTE:

1. DESIGN VEHICLES ADOPTED:
- 2.1 30.0m A-DOUBLES: SITE ACCESS
- 2.2 26.0m B-DOUBLES: HEAVY VEHICLE UNCOUPLING.
- 2.3 20.0M AV: RECESS DOCKS AND RSD USE
- 2.4 HRV: FOR FIRE CIRCULATION & RSD USE.
2. GRADES NOT SHOWN AND THEREFORE WAS NOT ASSESSED.
3. CONTENTS:
- 3.1. AG01 & AG02 - ACCESS ASSESSMENT
- 3.2. AG03 & AG04 - LOT 3 FIRE TRUCK ACCESS AND CIRCULATION
- 3.3. AG05 & AG06 - WAREHOUSE 3 AND 4 HARDSTAND ASSESSMENT
- 3.4. AG07 & AG08 - WAREHOUSE 5 FIRE TRUCK ACCESS AND CIRCULATION
- 3.5. AG09 & AG10 - WAREHOUSE 5 HARDSTAND ASSESSMENT



GENERAL NOTES

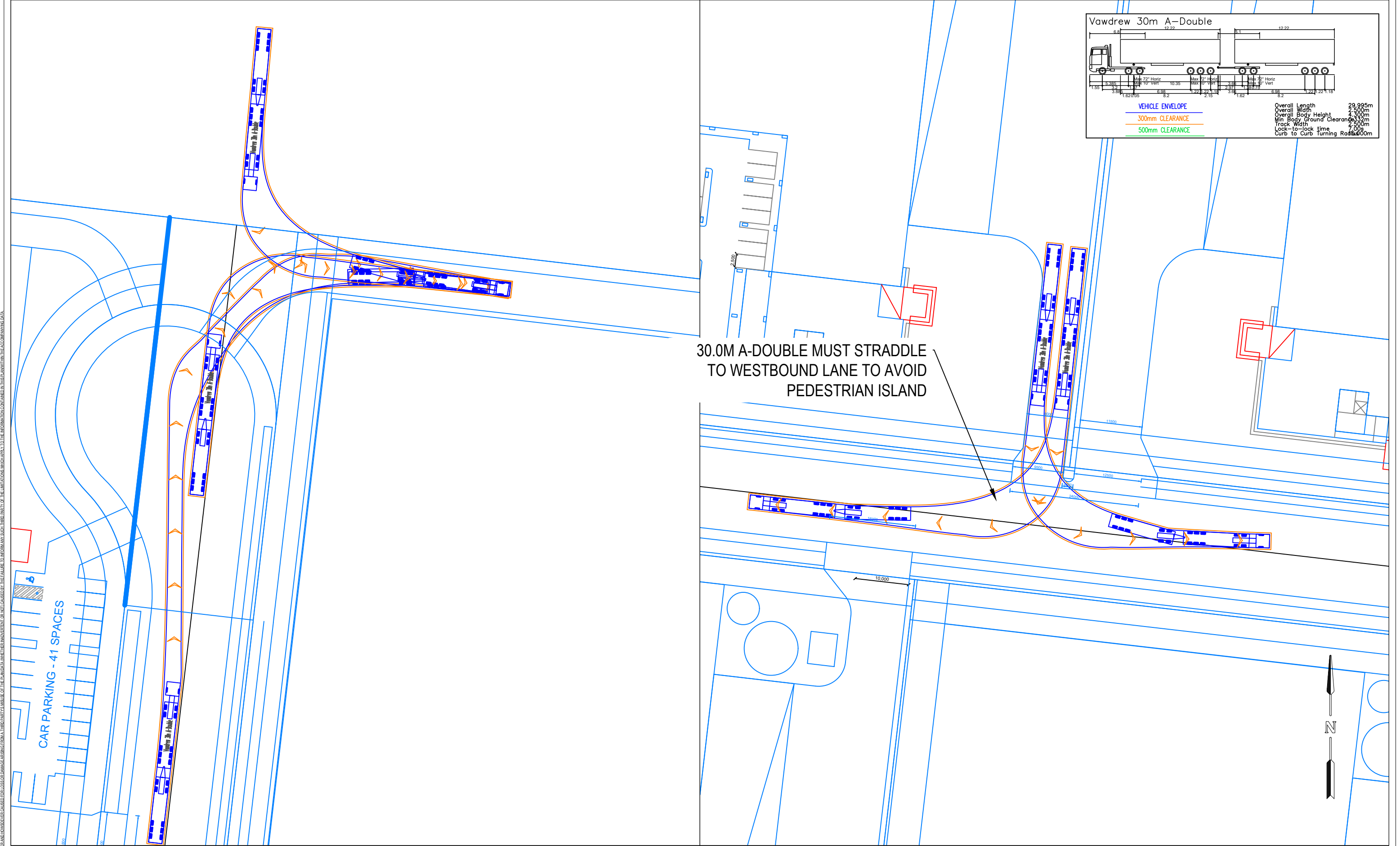
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Base Plan provided by Frasers Property, dated 01.09.2023.
Internal Road will have a posted speed limit of 50km/h.

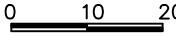
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APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043
SCALE Custom	NTS	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK

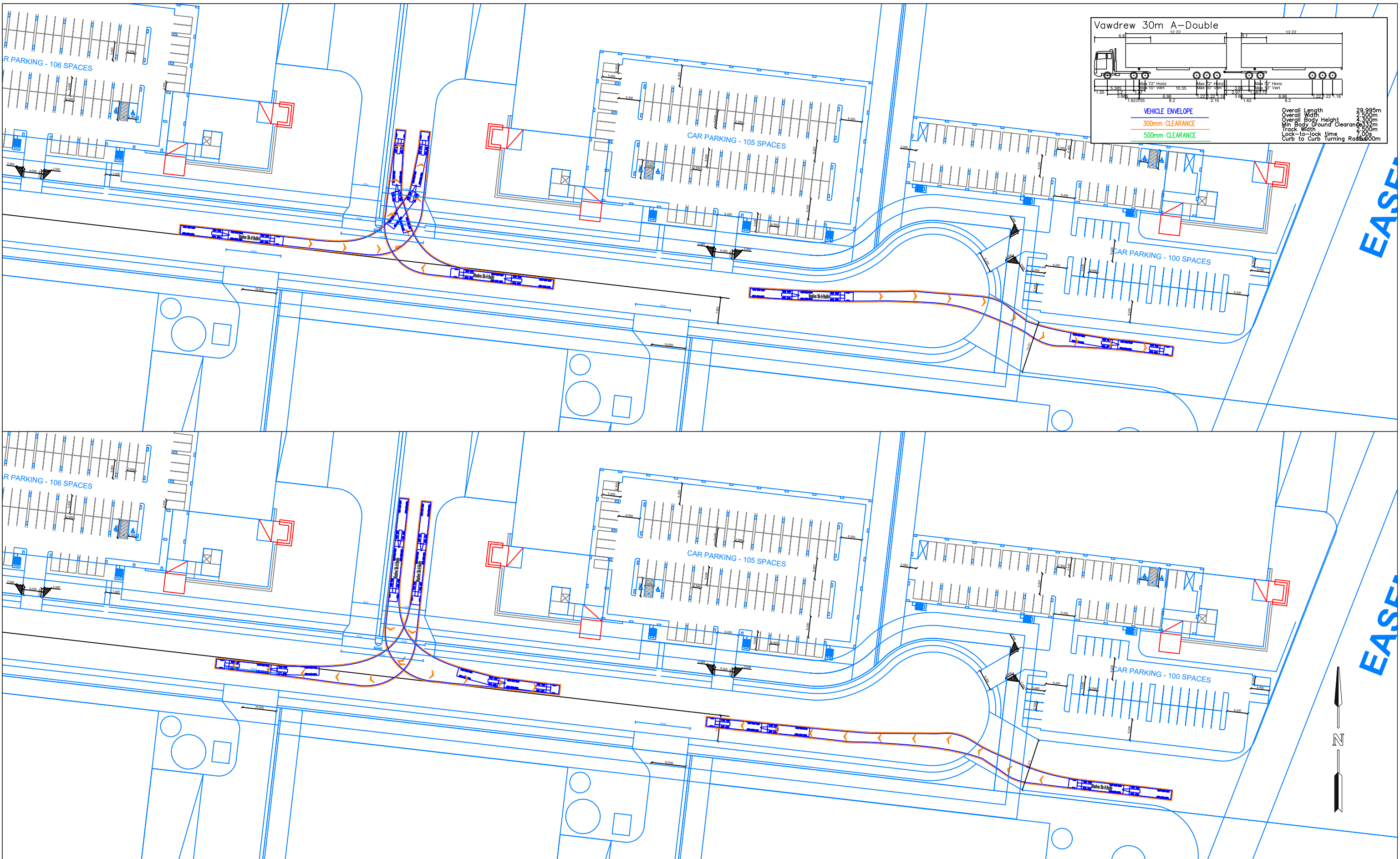
DOCUMENT INFORMATION	
SWEPT PATH ASSESSMENT	
SITE LAYOUT	
FILE NAME AG1043-04-v03.dwg	SHEET AG00

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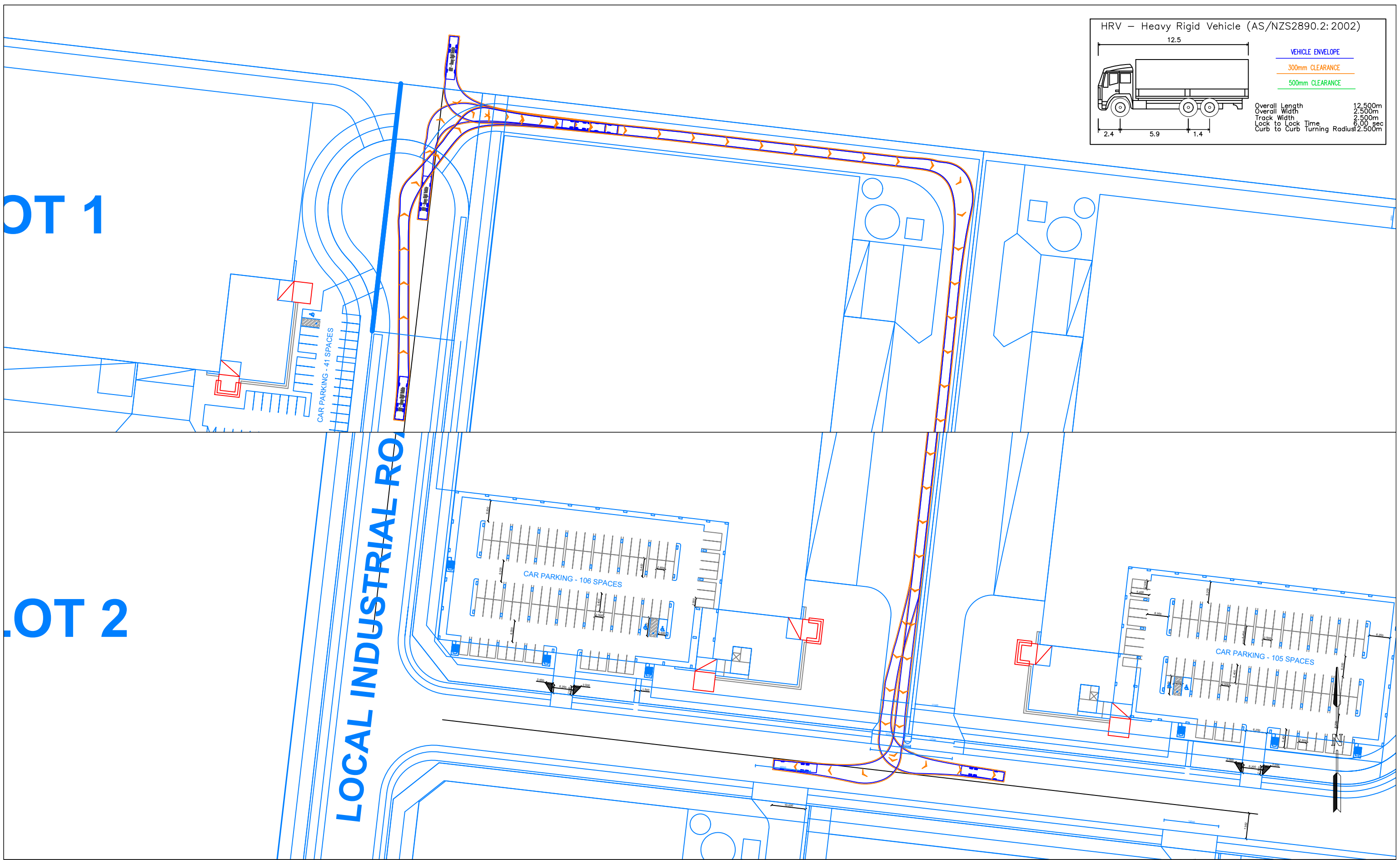


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		APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	WORK TYPE LOT 3 ACCESS	FILE NAME AG1043-04-v03.dwg	
		SCALE Custom		THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK		SHEET AG01	

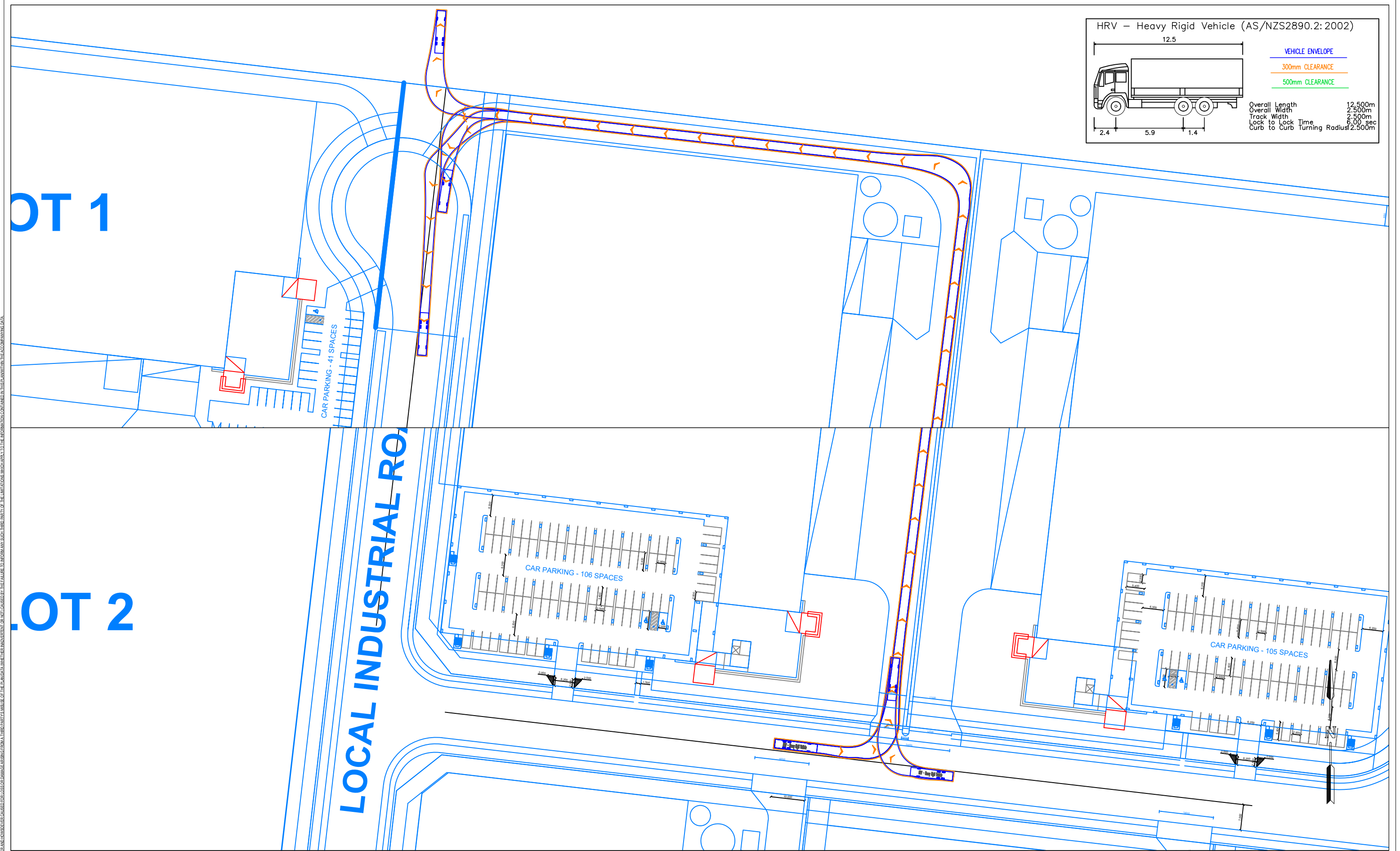


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		APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	WORK TYPE LOT 4 AND 5 ACCESS	FILE NAME AG1043-04-v03.dwg	
		SCALE 1:1000		THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK		SHEET AG02	

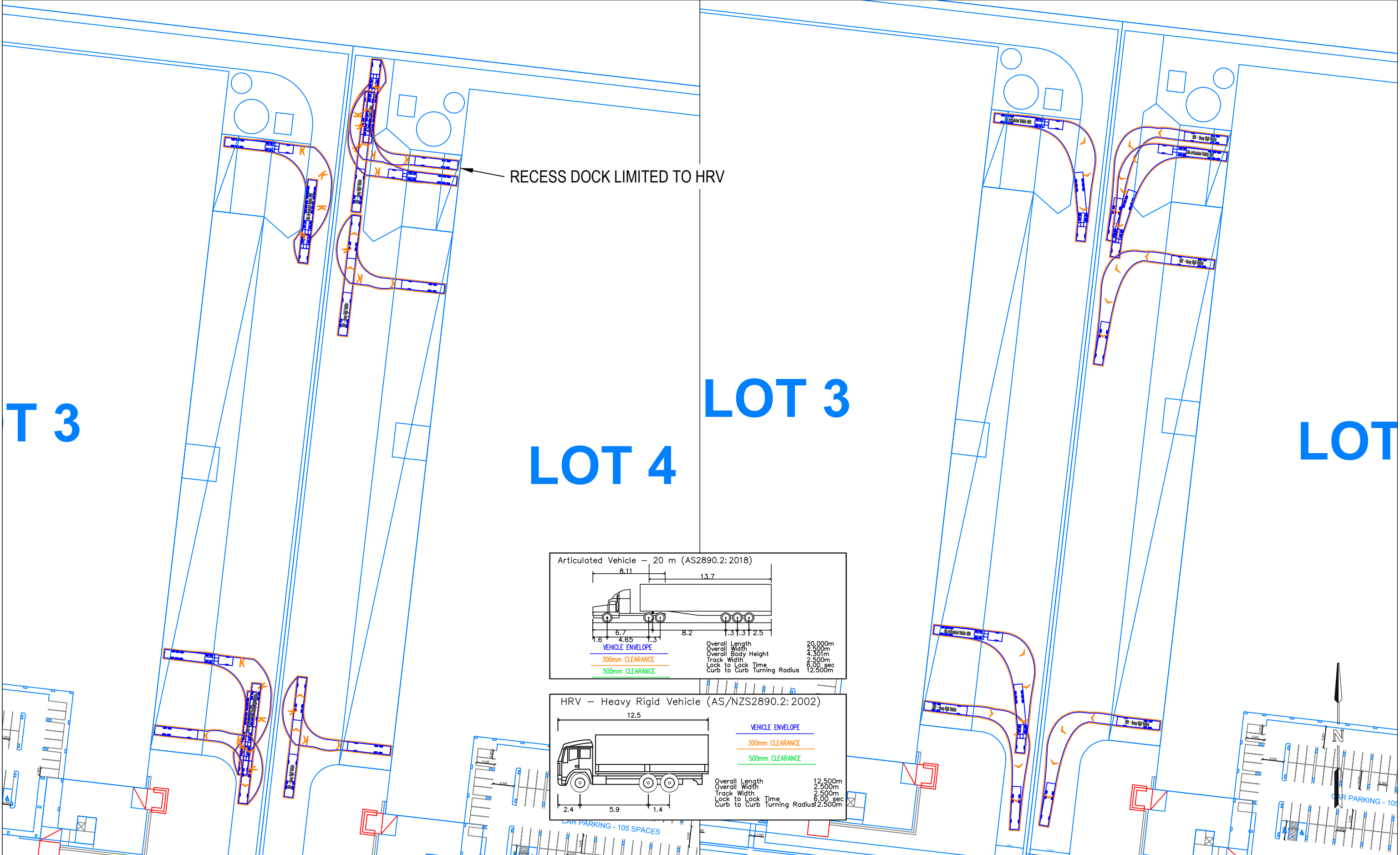
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	Sadeepth	A3	FRASERS PROPERTY	SWEPT PATH ASSESSMENT		
	APPROVED BY	DATE	PROJECT	LOT 3 FIRE ACCESS		
	X.XXXX	18.09.2023	1043			
	SCALE	0510	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	FILE NAME	SHEET	
	1:1000		AG1043-04-v03.dwg	AG03		



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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	LOT 3 FIRE ACCESS		
	SCALE 1:1000			FILE NAME AG1043-04-v03.dwg	SHEET AG04	
	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK					



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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	LOT 3 & 4 HARDSTAND ASSESSMENT		
	SCALE 1:1000			FILE NAME AG1043-04-v03.dwg	SHEET AG05	
			THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK			

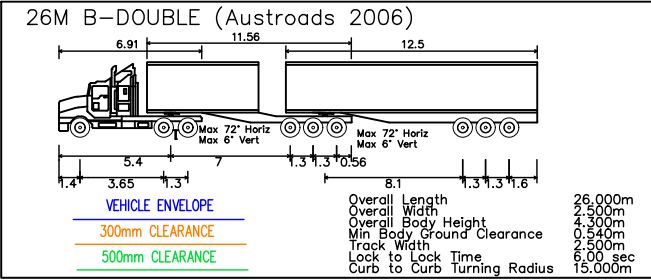
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3

RECOMMENDED B-DOUBLE
UNCOUPLING LOCATION

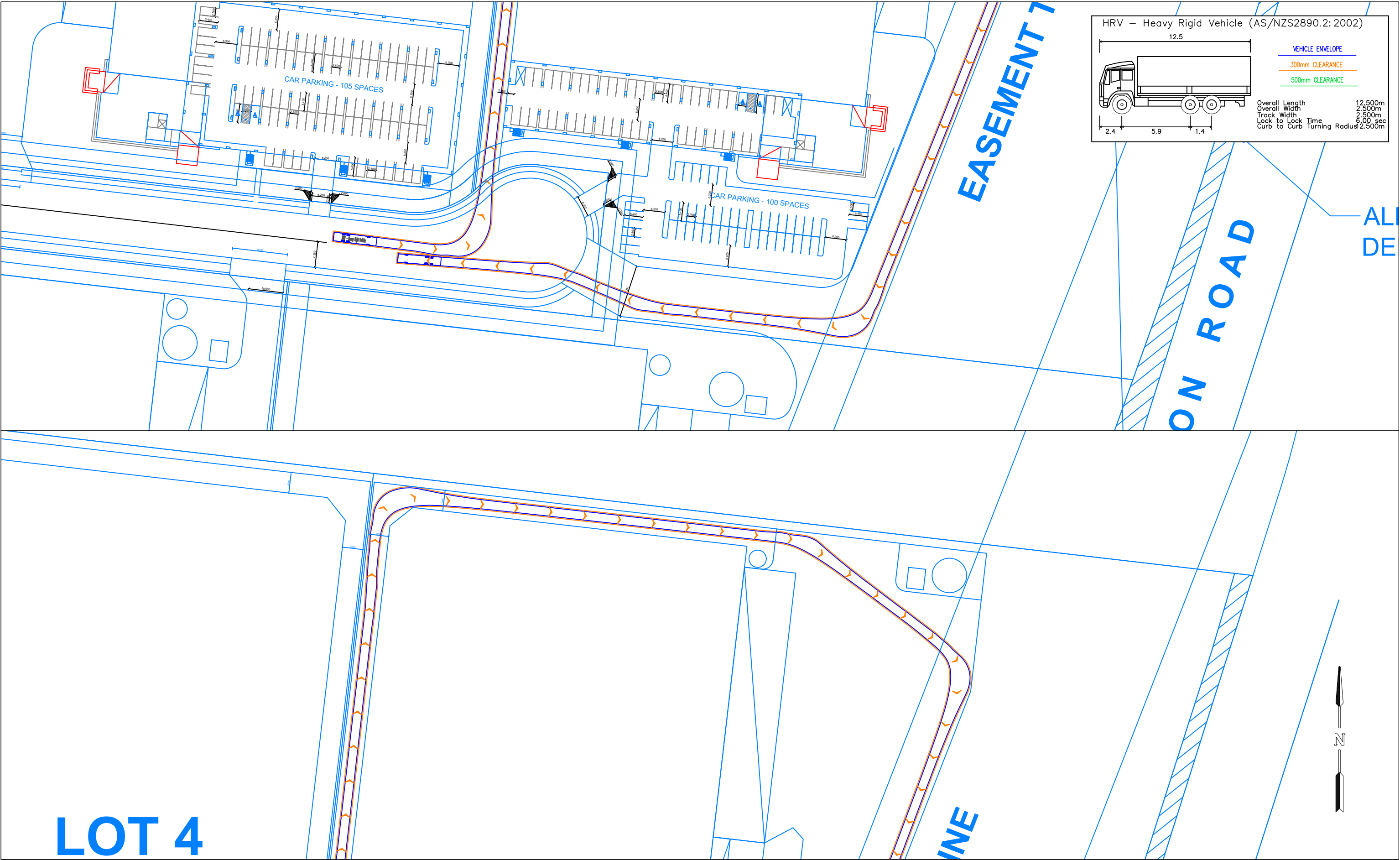
RSDS TO REMAIN CLEAR WHILE
26.0M B-DOUBLE PERFORMS U-TURN
MANOEUVRE

LOT 4

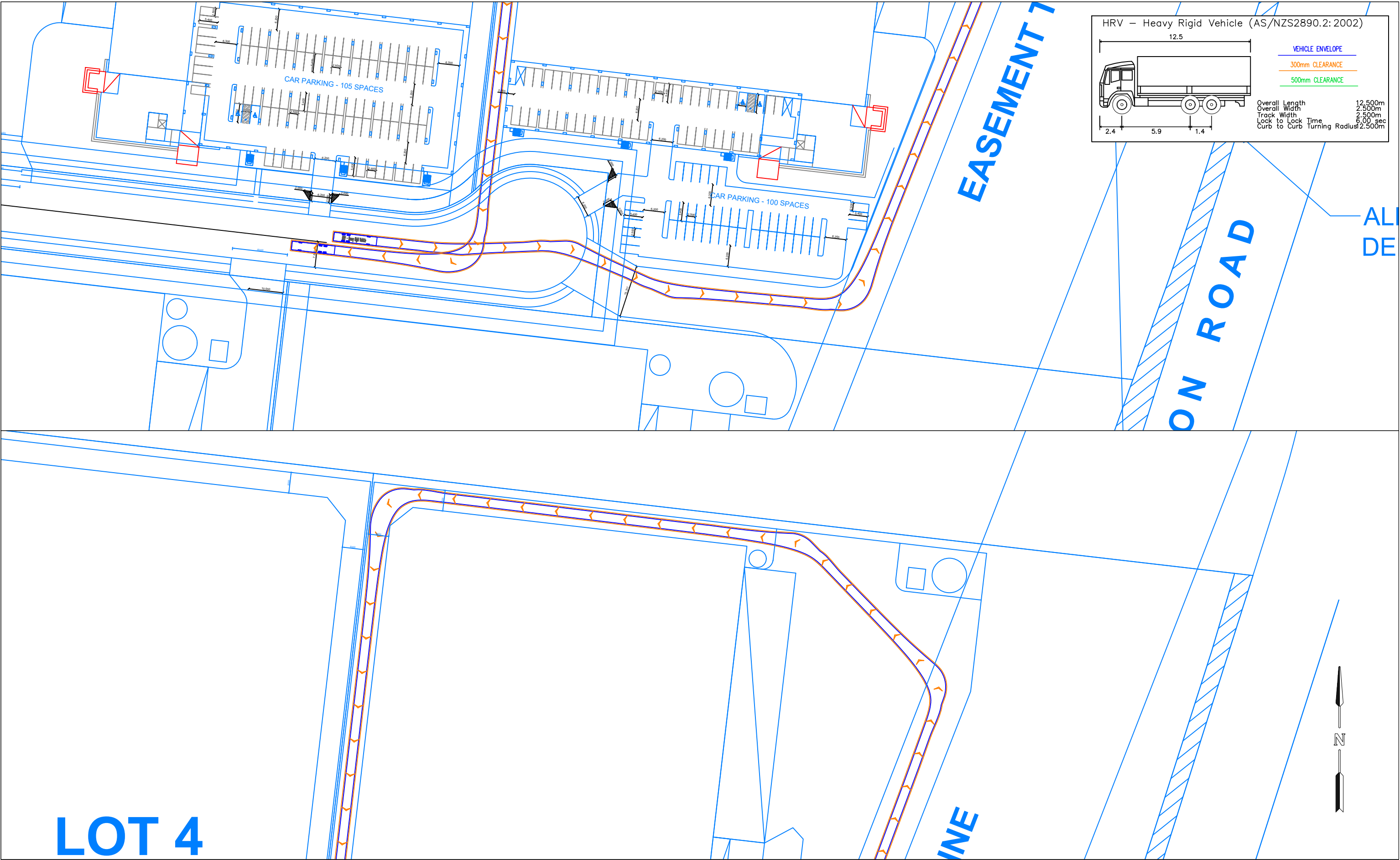


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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043		
	SCALE 1:500	0 5 10	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	FILE NAME AG1043-04-v03.dwg	SHEET AG06

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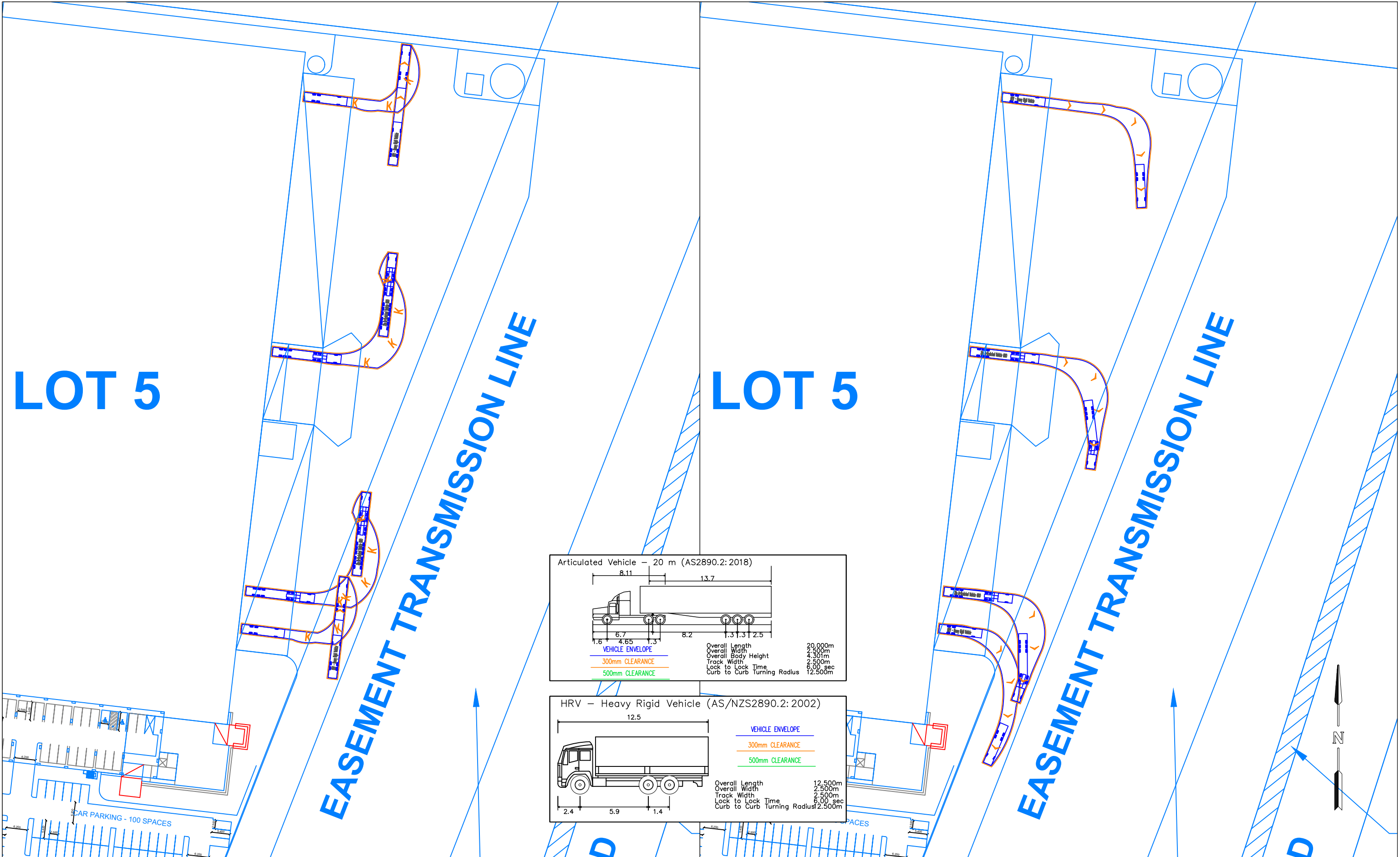


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		APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043		
		SCALE 1:1000	0 10 20	THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	FILE NAME AG1043-04-v03.dwg	SHEET AG07



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		APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	LOT 5 FIRE ACCESS	FILE NAME AG1043-04-v03.dwg	
		SCALE 1:1000		THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK		SHEET AG08	

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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	LOT 5 HARDSTAND ASSESSMENT		
	SCALE 1:1000		THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	FILE NAME AG1043-04-v03.dwg	SHEET AG09	

NOTE:

1. DESIGN VEHICLES ADOPTED:
- 2.1 30.0m A-DOUBLES: SITE ACCESS

2.2 26.0m B-DOUBLES: HEAVY VEHICLE UNCOUPLING.

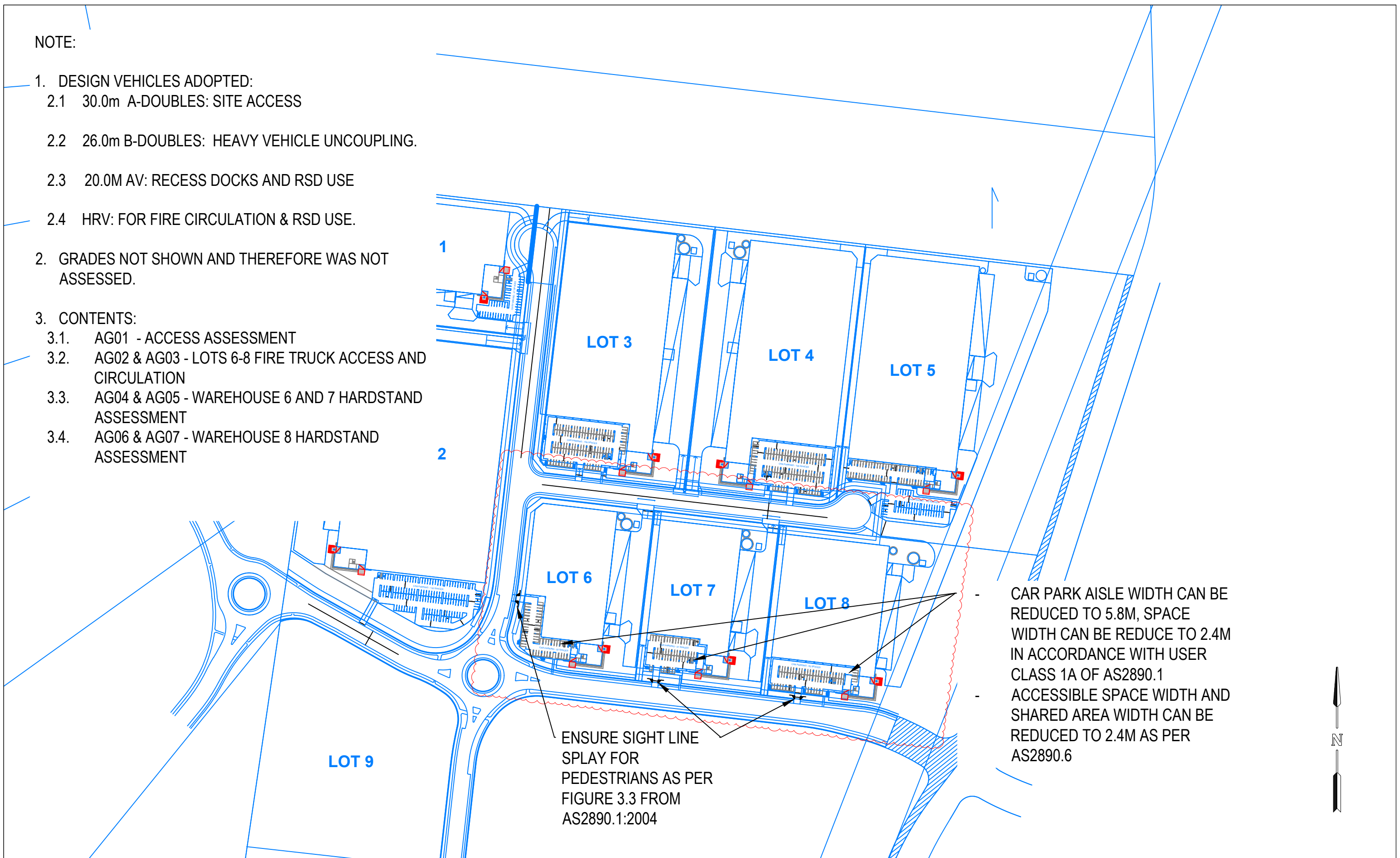
2.3 20.0M AV: RECESS DOCKS AND RSD USE

2.4 HRV: FOR FIRE CIRCULATION & RSD USE.
2. GRADES NOT SHOWN AND THEREFORE WAS NOT ASSESSED.
3. CONTENTS:
- 3.1. AG01 - ACCESS ASSESSMENT

3.2. AG02 & AG03 - LOTS 6-8 FIRE TRUCK ACCESS AND CIRCULATION

3.3. AG04 & AG05 - WAREHOUSE 6 AND 7 HARDSTAND ASSESSMENT

3.4. AG06 & AG07 - WAREHOUSE 8 HARDSTAND ASSESSMENT

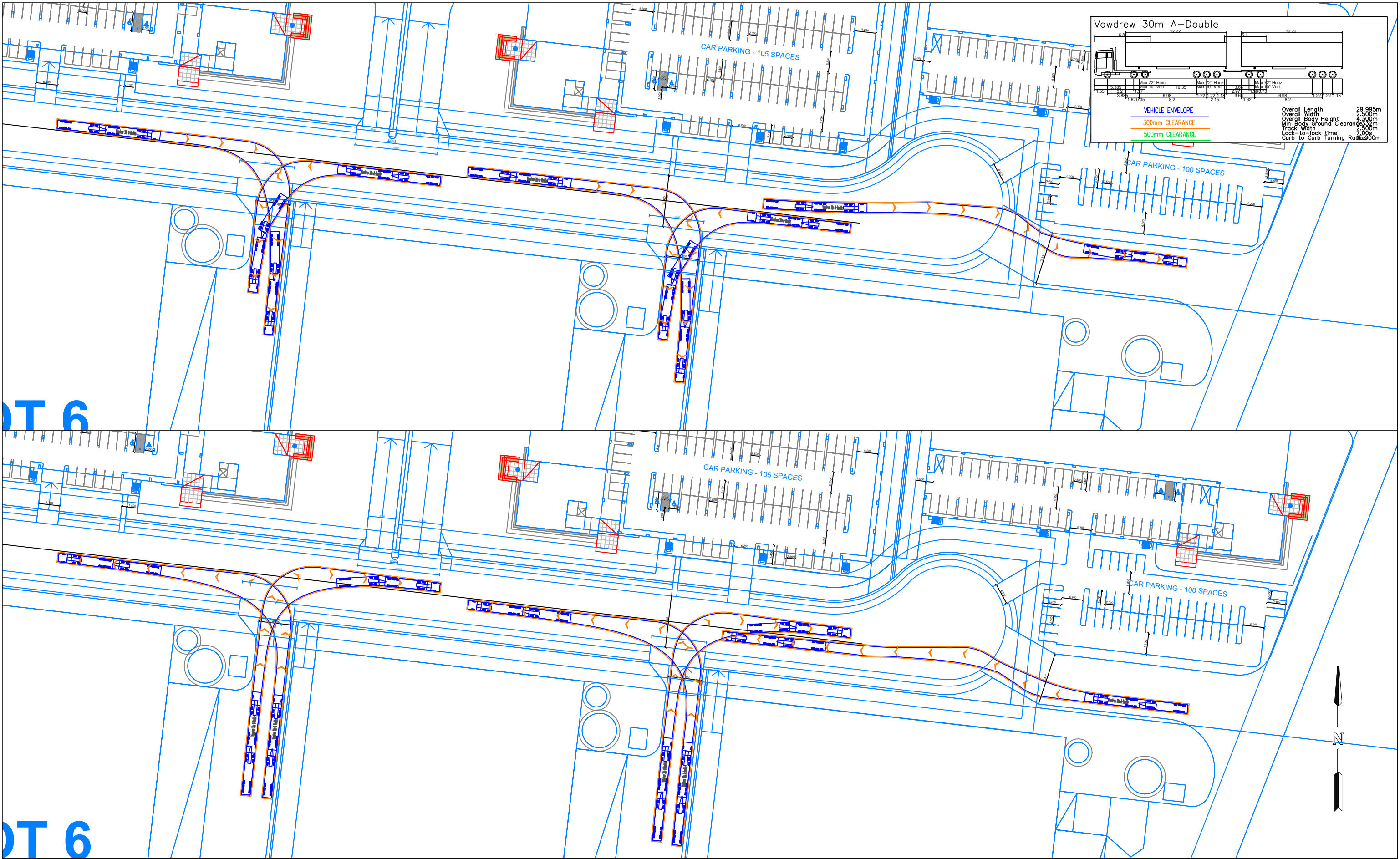


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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	SWEPT PATH ASSESSMENT	
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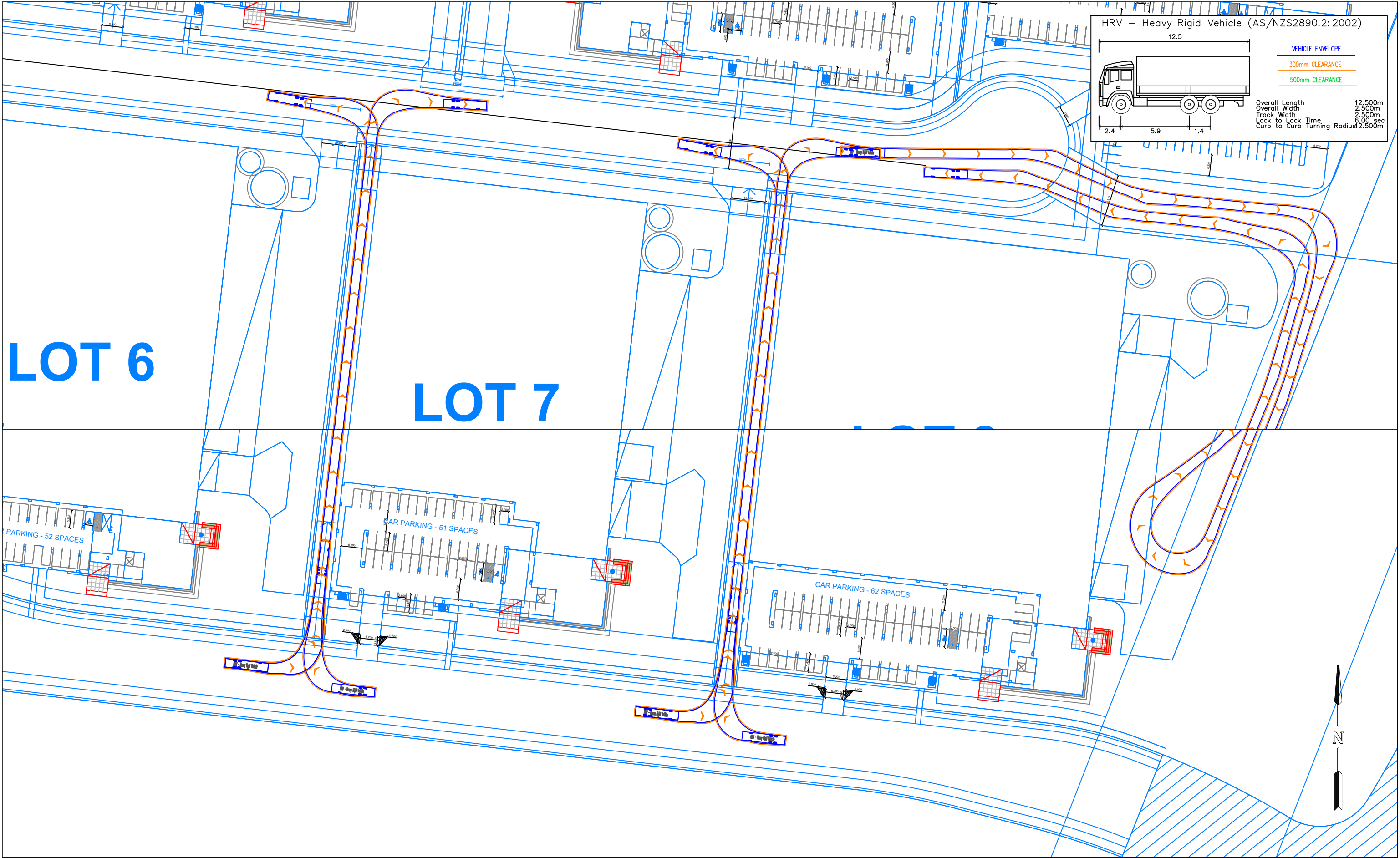
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Sydney NSW 2000
info@asongroup.com.au

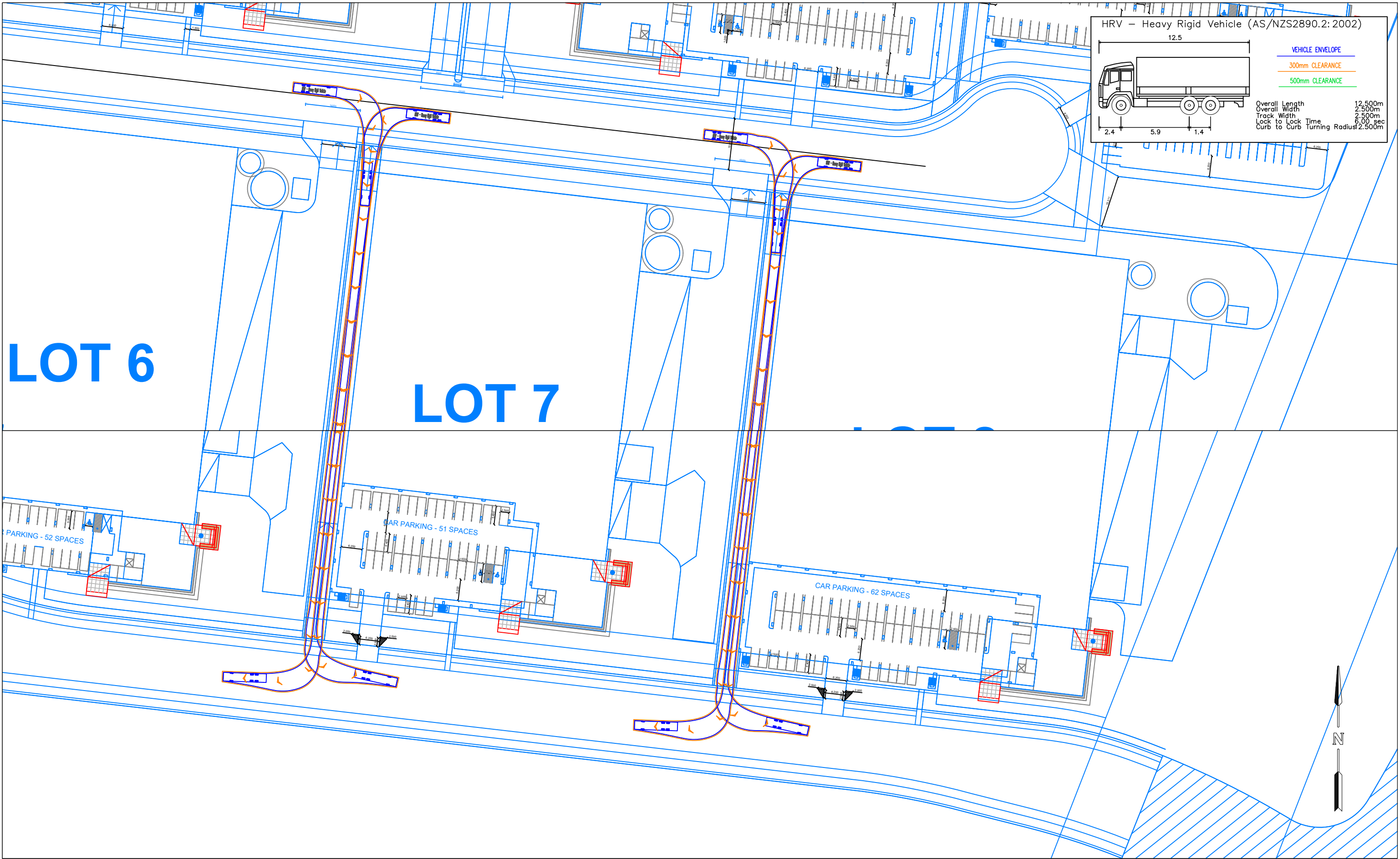
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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	LOTS 6-8 ACCESS		
	SCALE 1:1000			FILE NAME AG1043-05-v03.dwg	SHEET AG01	
			THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK			



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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043	LOTS 6-8 FIRE ACCESS		
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			THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK			



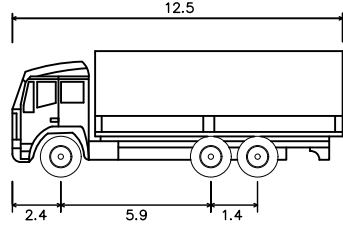
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	APPROVED BY X.XXXX	DATE 18.09.2023	PROJECT 1043			
	SCALE 1:1000			THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK	FILE NAME AG1043-05-v03.dwg	

6

LOT 7

HRV – Heavy Rigid Vehicle (AS/NZS2890.2: 2002)

12.5



Overall Length12.500m

Overall Width2.500m

Track Width2.500m

Lock to Lock Time6.00 sec

Curb to Curb Turning Radius12.500m

VEHICLE ENVELOPE

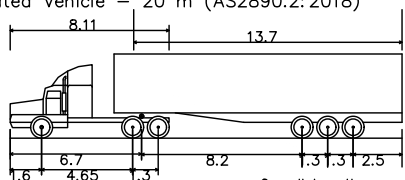
300mm CLEARANCE

500mm CLEARANCE

Articulated Vehicle – 20 m (AS2890.2: 2018)

8.11

13.7



Overall Length20.000m

Overall Width2.500m

Overall Body Height4.301m

Track Width2.500m

Lock to Lock Time6.00 sec

Curb to Curb Turning Radius12.500m

VEHICLE ENVELOPE

300mm CLEARANCE

500mm CLEARANCE

RECESS DOCK LIMITED TO HRV

LOT 7

GENERAL NOTES
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Internal Road will have a posted speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 20.0m AV Check Vehicle: 20.0m AV

DESIGNED Sadeepth	PAPER SIZE A3
APPROVED BY X.XXXX	DATE 18.09.2023
SCALE 1:1000	0 10 20

CLIENT FRASERS PROPERTY
PROJECT 1043 THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK

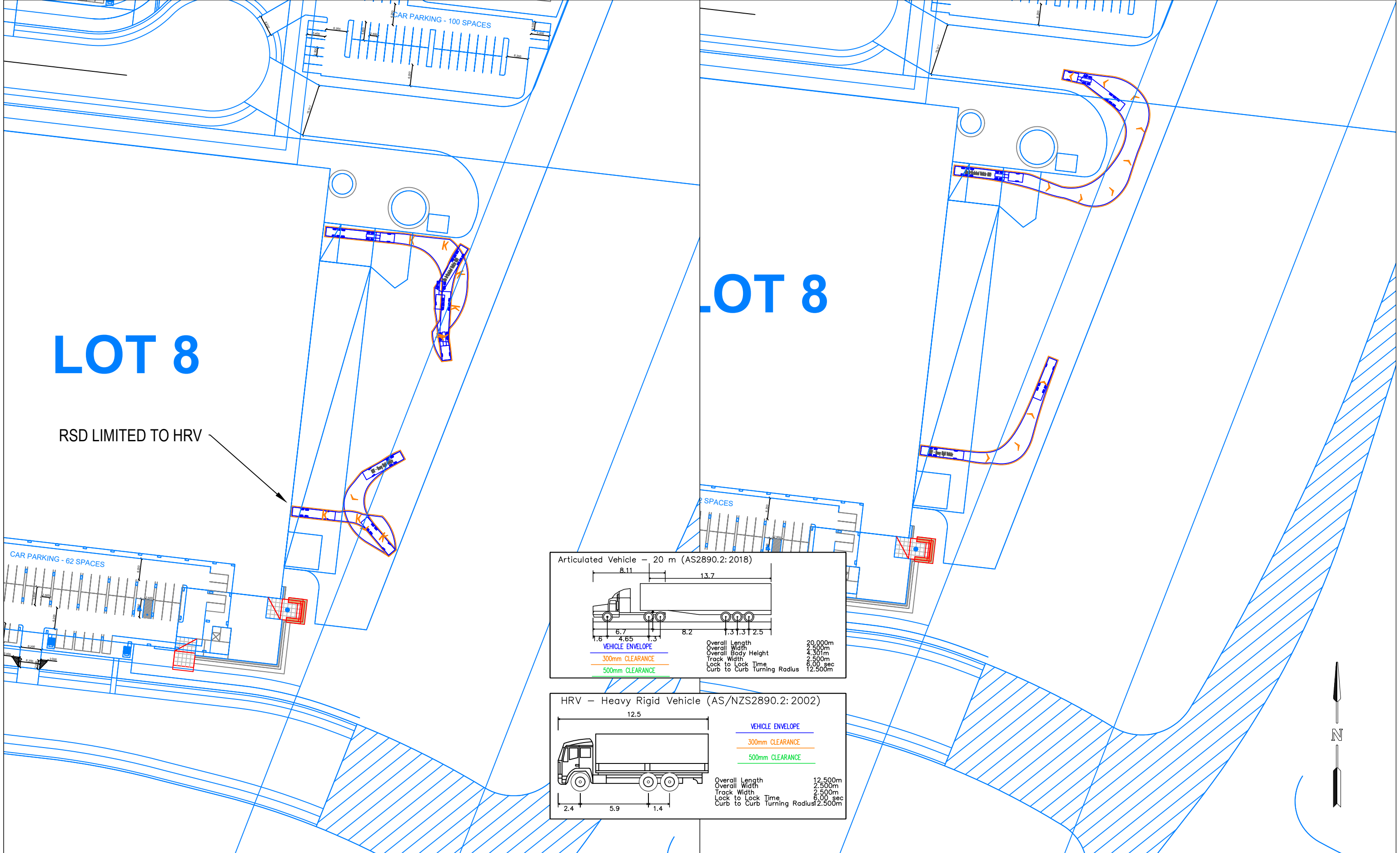
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LOT 6 & 7 HARDSTAND ASSESSMENT	
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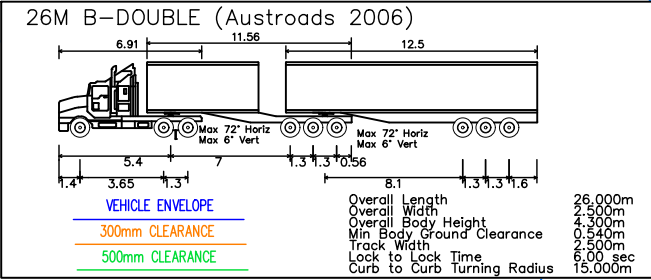
Suite 17.02, Level 17, 1 Castlereagh St
Sydney NSW 2000
info@asongroup.com.au

PLOT DATE: 18/09/2023 2:12:11 PM | CAD REFERENCE: C:\Users\Sadeepth\Ason Group\Team Site - 1043\Projects\Design Advice\Design Advice 08 (WH 6 - 8)\AG1043-05-v03.dwg | Sadeepth |

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LOT 8



RECOMMENDED B-DOUBLE
UNCOUPLING LOCATION

RSDS TO REMAIN CLEAR WHILE
26.0M B-DOUBLE PERFORMS U-TURN
MANOEUVRE

PARKING - 62 SPACES

GENERAL NOTES
This drawing is provided for information purposes only and should not be used for construction.
Base Plan provided by Frasers Property, dated 01.09.2023.
Internal Road will have a posted speed limit of 50km/h.
Swept path assessments completed at 10 km/h and 300mm clearance.
Design vehicle: 30.0m A-Double Check Vehicle: 30.0m A-Double

DESIGNED Sadepth	PAPER SIZE A3
APPROVED BY X.XXXX	DATE 18.09.2023
SCALE 1:500	0 5 10

CLIENT FRASERS PROPERTY
PROJECT 1043 THE EDGE ESTATE, ALDINGTON ROAD, KEMPS CREEK

DOCUMENT INFORMATION	
SWEPT PATH ASSESSMENT	
LOT 8 B-DOUBLE U-TURN	
FILE NAME	SHEET
AG1043-05-v03.dwg	AG07

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Appendix D. Draft Construction Traffic Management Plan



Draft Construction Traffic Management Plan

155-251 & 141-153 Aldington Road Estate, Kemps Creek

18/09/2023

P1043r04

Document Control

Project No	1043
Project	155-251 & 141-153 Aldington Road Estate, Kemps Creek
Client	Frasers Property Industrial
File Reference	P1043r04v6 Prelim CTMP_155-251 & 141-153 Aldington Rd Estate, Kemps Creek

Revision History

Revision No.	Date	Details	Author	Approved by
-	10/06/2021	Issue	R. Butler-Madden	R. Butler-Madden
I	18/06/2021	Issue I	R. Butler-Madden	R. Butler-Madden
II	16/08/2021	Issue II	R. Butler-Madden	R. Butler-Madden
III	30/03/2022	Issue III	J. Wong	R. Butler-Madden
IV	11/08/2022	Issue IV	J. Wong R. Butler-Madden	R. Butler-Madden
V	28/08/2023	Issue V	S. Bandaranayake	R. Butler-Madden
VI	18/09/2023	Issue VI	S. Bandaranayake	R. Butler-Madden

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1 Introduction

1.1 Overview

Ason Group has been engaged by Frasers Property Industrial (FPI) to prepare this Draft Construction Traffic Management Plan (CTMP) to support the application in relation to State Significant Development (SSD) 17552047. The SSD relates to a proposed industrial development at the 155-251 & 141-153 Aldington Road Estate, Kemps Creek (the Site).

This Draft CTMP details the proposed construction management strategies which would provide for the safe and efficient completion of the proposed works while minimising construction traffic impacts on the surrounding road network and public road network users.

From the outset, it is noted that the future CTMP, once implemented, will be designed to be updated over time as additional details in regard to the construction proposal are revised / finalised as is standard in any major construction project. All such updates would be completed in consultation with Penrith City Council (Council) in whose Local Government Area (LGA) the Site lies; and / or with the relevant authorities such as Transport for NSW (TfNSW) where special road occupancy or the like are required.

Importantly, Ason Group has been responsible for the preparation of this Draft CTMP, which has been prepared with reference to all available information in regard to the project, and all relevant CTMP preparation guidelines. The implementation of the recommendations and strategies detailed in this CTMP are the strict responsibility of FPI and / or the designated construction Project Manager once appointed.

1.1.1 Amendment to Prior Submission

This document serves as an amendment to the previous submission (file reference: P1043r04v2 Prelim CTMP_155-217 Aldington Rd Estate, Kemps Creek, Issue) which sought approval for:

- 2 warehouses with a total building area of 65,327m²;
- Creation of 9 individual development lots; with Lot 9 the subject of an industrial development;
- Internal road layouts and road connection to Aldington Road;
- Provision for 477 car parking spaces; and
- Associated landscaping.

Figure 1 provides a site plan of the previous submission.

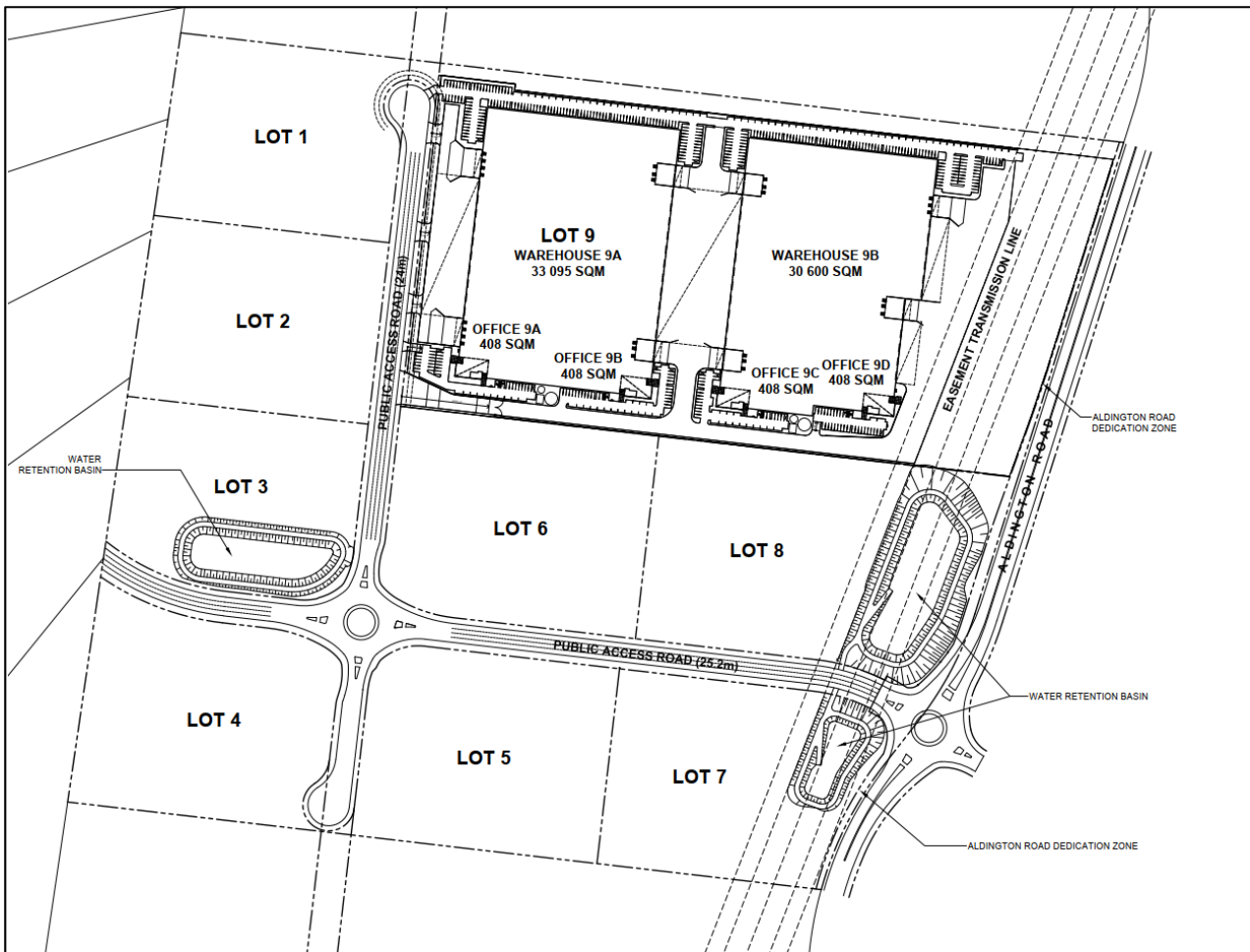


Figure 1: Previous Submission Site Plan

The key difference in this amendment is this application seeks approval for 8 warehouses and provision of 652 car parking spaces, further detailed in **Section 1.3**.

1.2 Response to Submissions

A Request for Further Information was received from the Department of Planning and Environment (DPE) on 11 April 2022 in relation to construction traffic generation. Prior to Conditions of Consent being, a program for construction cannot be finalised. Hence the preliminary nature of the CTMP provided with the submission. However, following discussions with DPE and the relevant land owners (during a meeting held on 11 May 2022), indicative construction traffic numbers have been provided to Ason Group for consideration in this assessment.

The below table therefore provides a response to each the additional matter raised by DPE, with an update Draft Construction Traffic Management Plan (CTMP) provided as **Table 1**.

TABLE 1: DPE CONSTRUCTION TRAFFIC RFI

Item	SEARs Item	Report Section / Response
1	A key consideration in the Mamre Road Precinct is the capacity of the regional and local road network (namely Mamre Road, Aldington Road and Abbotts Road) to safely accommodate the number of concurrent developments in the precinct and to ensure the functionality of the roads and associated intersections are maintained at an acceptable standard and level of performance, including during the construction stages of these developments. Your project needs to adequately assess and demonstrate construction traffic can be accommodated to ensure safety, functionality and performance is maintained to acceptable standards. This includes daily construction traffic generation and movement times.	Daily construction traffic flows for the Site have been provided Section 4.1.1. Based on the information provided, it is anticipated that during the peak construction periods, there would be a total of 370 vehicle movements per day. However, this would not be until late 2024 – when other construction activities (roadworks) are complete (see Table 3).
2	Your Environmental Impact Statement does not include an assessment of cumulative construction traffic impacts on the regional and local road network.	Section 4.2 provides a cumulative assessment of construction traffic impacts, the methodology of which was discussed with DPE.
3	You are requested to provide detailed information on proposed the staging and delivery of the construction of your development for consideration prior to determination of your application. This should include the timing of necessary external road upgrades as well as construction works on your site. Clarification is sought on what temporary road upgrades may be required to accommodate construction traffic.	Staging information is provided within Section 3.1 as well as Section 4. No temporary road upgrades are required to accommodate the construction traffic associated with the Site but rather the relevant traffic control measure would be implemented. It is note that the Mamre Road / Abbotts Road intersection will need to be subject to temporary control during its upgrade to a signalised intersection. This will need to be subject to the relevant Works Authorisation Deed process with TfNSW. However this upgrade would be complete prior to peak construction activities on-site.
4	Details on how construction traffic may impact on the delivery of road infrastructure in the precinct is required, particularly if these road infrastructure works are being undertaken at the same time your project will be generating construction traffic.	The road upgrades are expected to be complete prior to peak construction activities on-site.
5	You are strongly encouraged to consult and coordinate with other landowners in the Mamre Road Precinct on the management of cumulative construction traffic from development sites within the Precinct and coordination with road upgrade works. Details of precinct-wide, coordinated traffic control measures (short and longer term), timeframes for commencing and completing construction works, traffic generation, consideration of other proposed developments and the potential overlap of works is required.	FPI is currently part of the LOG-E working group, who are working on behalf of a number of developers on Aldington to lead the construction of the upgrades to Aldington Road. This would continue throughout the construction period until the road upgrades are delivered. Once the road upgrades are delivered, it is anticipated that there would be a further working group established, as a required by the Conditions of Consent associated with the

		recently approved SSD-10448¹ (located west of the Site). In this regard, Condition C34 states: <i>Within three months of the commencement of construction of the Stage 1 Development and until all components of the Stage 1 development are constructed and operational, the Applicant must establish and participate in a working group with relevant consent holders in the MRP, to the satisfaction of the Planning Secretary. The purpose of the working group is to consult and coordinate construction works within the MRP to assist with managing and mitigating potential cumulative environmental impacts.</i>
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1.3 Proposed Development and Staging

The SSD Proposal seeks approval for:

- Provision of 8 warehouses with a total building area of 153,285m², comprising:
 - 146,480m² warehouse GFA,
 - 6,805m² of ancillary office GFA,
- Internal roads and connection to Aldington Road, as per the MRP DCP. Turning heads will be provided temporarily until the connection of the roads through to the neighbouring development sites;
- Provision for 652 car parking spaces; and
- Associated site landscaping.

The SSD Proposal is reproduced at a reduce scale in **Figure 2**.

¹ <https://www.planningportal.nsw.gov.au/major-projects/projects/aspect-industrial-estate>

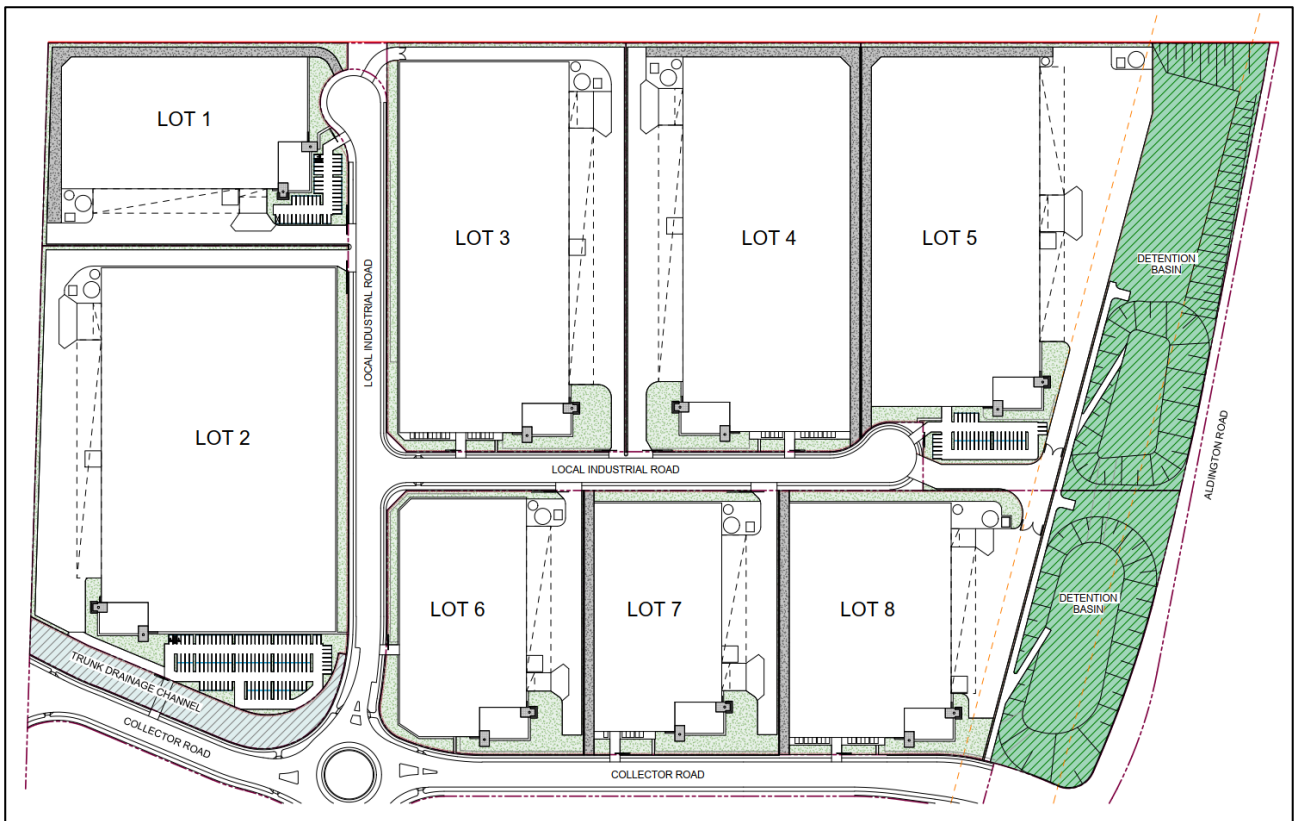


Figure 2: SSD Proposal

2 The Site

2.1 Site Location

The Site is comprised of 7 separate Lots (refer to **Table 2**) and is located at 155-251 & 141-153 Aldington Road, Kemps Creek. It is approximately 4km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 12km south-east of the Penrith CBD and 40km west of the Sydney CBD.

The Site is shown in its sub-regional context in **Figure 3**, as well as the broader MRP area in which it lies.

TABLE 2: SITE DESCRIPTION

Address	Title	Area (Ha)
155 - 167 Aldington Road	33 / DP258949	10.12
169 – 181 Aldington Road	28 / DP255560	10.12
183 – 197 Aldington Road	27 / DP255560	10.12
199 Aldington Road	26 / DP255560	2.54
201 - 217 Aldington Road	25 / DP255560	10.12
219 - 233 Aldington Road	24 / DP255560	10.12
235 – 251 Aldington Road	10 / DP253503	10.14

The Site currently has access points onto Aldington Road through various access driveways into private properties. Aldington Road connects with Mamre Road, by way of Abbots Road, to the west of the Site, and to the north, Bakers Lane. From Mamre Road, access is available north to the M4 Motorway, Great Western Highway, Lenore Drive and M7 Motorway; and south to Elizabeth Drive, the M7 Motorway and the future M12 Motorway.

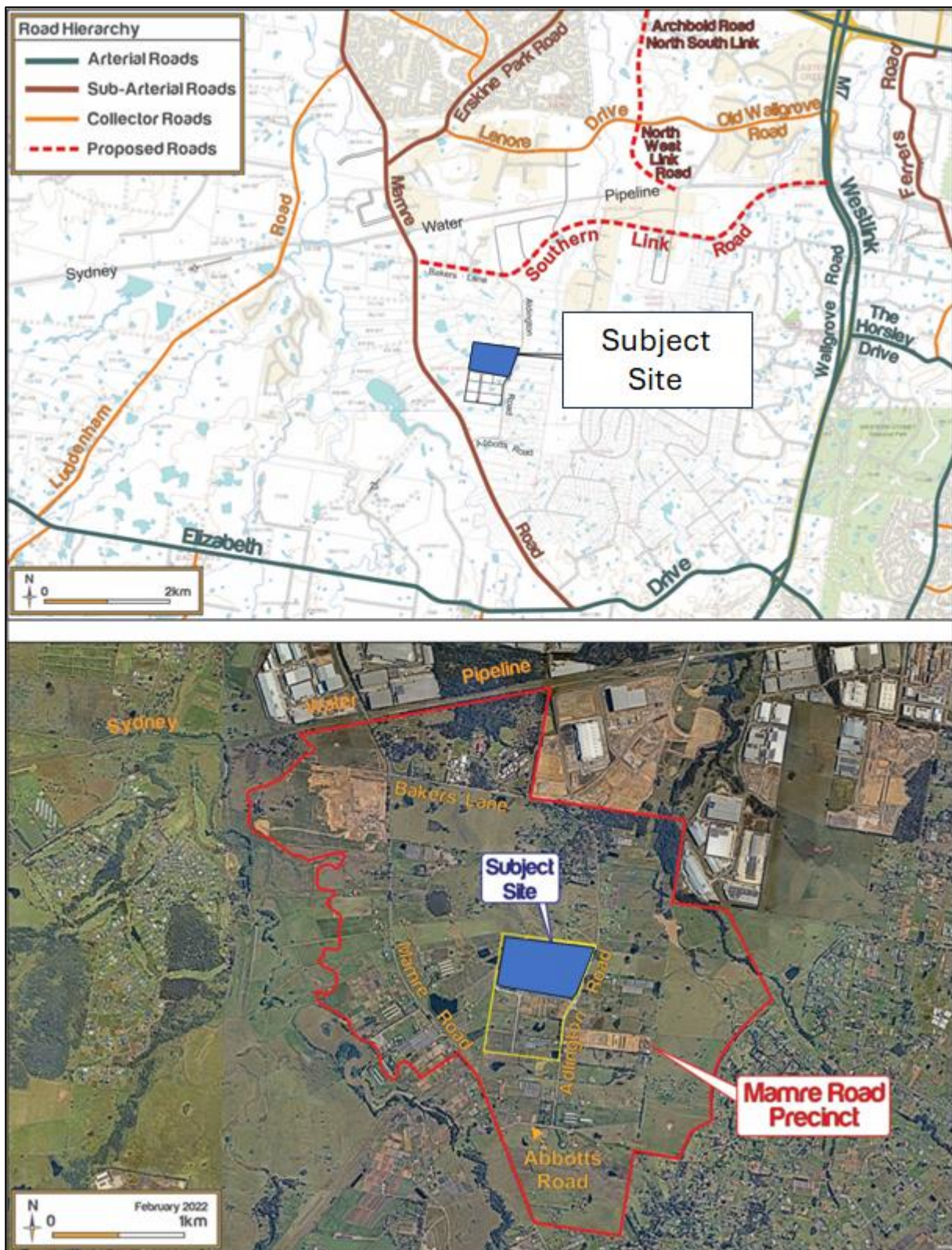


Figure 3: Site Location & Road Hierarchy

2.2 Road Network

Key roads in the vicinity of the Site are shown in **Figure 3**, and include:

- **Westlink M7 Motorway:** M7 Motorway is a high capacity road link of state significance and was built to accommodate future traffic growth in the Western Sydney region. It provides a key north-south link between the M2 Motorway to the north and the M5 Motorway to the south as part of the Sydney orbital road network. A major interchange between the M7 Motorway and M4 Western Motorway is located approximately 3.5 km north of the Site, which connects the Sydney CBD and western Sydney suburbs. The M7 Motorway provides 4 lanes (2 lanes per direction, divided carriageway) and has a posted speed limit of 100 km/h
- **(Future) M12 Motorway:** A proposed 16km motorway generally running in an east-west between the existing M7 motorway and the Northern Road. It is expected to run in parallel with Elizabeth Drive and is to have 2 lanes in each direction separated by a central median. Construction is expected to commence in 2020.
- **Elizabeth Drive:** An TfNSW classified main road (MR 535) that runs in an east-west direction to the south of the site. Elizabeth Drive in the vicinity of the site generally provides 2 lanes (1 lane per direction) and has a posted speed limit of 80km/h. This road forms the Site's southern frontage and provides a vital link between Westlink M7 Motorway and The Northern Road.
- **Mamre Road:** Mamre Road is an arterial road servicing traffic between the Great Western Highway and M4 to the north and Elizabeth Drive to the south. In the vicinity of the Site, Mamre Road generally provides 2 lanes for two-way traffic, with additional through movement and turning infrastructure at key intersections to the north through the Erskine Park and Mamre West industrial precincts, and at Elizabeth Drive to the south. Mamre Road has a posted speed limit of 80km/h in the vicinity of the Site.

Further to the above, it is clear that the Site is well located in regard to immediate access to the local and sub-regional road network. **Figure 4** shows the Site context with specific reference to the current TfNSW Restricted Access Vehicle (RAC) routes, which allow for up to 25m/26m B-Double combinations. It is expected that Aldington Road and Abbots Road will be gazetted as a B-Double route following road upgrades.



Figure 4: TfNSW Approved 25/26m B-Double Routes

3 Overview of Construction Works

3.1 Staging and Duration of Works

In advance of a Development Consent, the construction strategy and staging has not yet been finalised. However, preliminary advice from FPI has been used to inform the potential staging of the development. Based on this, it has been assumed that construction works for the preliminary stages would commence in mid-late 2024 and be completed over a duration of approximately 17 months, subject to authority approvals and inclement weather delays

The following summarises key aspects of the construction phases:

- Earthworks would have a duration for 17 months.
- General Construction works are estimated to continue for 9 months.

3.2 Construction Hours

The type of work being undertaken will remain consistent throughout the duration of construction and associated activities. All works are expected to be undertaken within the following hours:

- Monday to Friday (other than Public Holidays): 7:00am – 6:00pm.
- Saturday: 8:00am – 1:00pm
- Sunday & Public Holidays: No works to be undertaken.

Any work to be undertaken outside of the standard construction hours will be required to obtain an Out of Hours (OOH) approval; any such works would necessarily be undertaken in accordance with the appropriate OOH protocols and approval processes.

3.3 Site Access

3.3.1 Construction Vehicle Access

All construction vehicles will enter and depart the Site from / to Aldington Road and access Mamre Road by way of Abbotts Road to the south of the Site; to avoid conflict with School peak periods. It is anticipated that a temporary access driveway will be provided, along the alignment of the future access road.

It is anticipated that the largest vehicle accessing the Site would be a 19.6m Truck & Dog combination, which the temporary access driveway will be designed for.

The following **Figure 5** shows the indicative Site access location and **Figure 6** details the likely key access strategy into the routes between the Site and the regional road network.

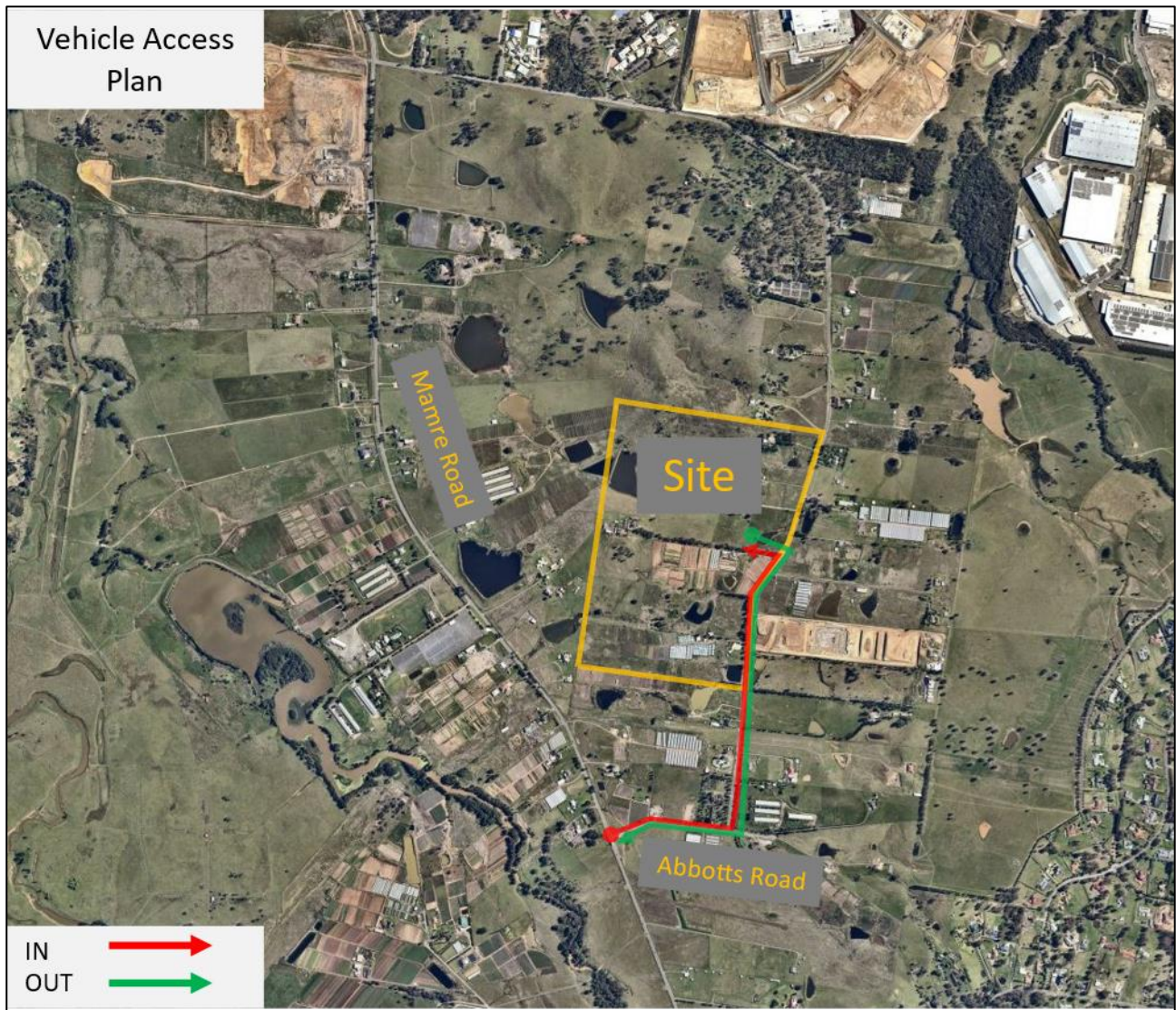


Figure 5: Indicative Vehicle Access Plan

3.3.2 Emergency Vehicle Access

Emergency vehicle access to and from the Site will be available at all times while the Site is occupied by construction workers; emergency protocols during the works will be developed by the Project Manager for inclusion within the final CTMP.

3.3.3 Pedestrian Access

There are currently no pedestrian amenities or footpaths along Aldington Road adjacent to the Site. However, the grassed verge on both sides of the road remains usable for any pedestrian that may wish to walk use it.

Further to the above, while there is no expectation of pedestrians crossing the future construction access road, pedestrian safety will be managed through the provision of appropriate signage and pedestrian barriers. Construction personnel will also be able to access the Site by foot via a secure access gate along the temporary access road, though with all construction staff (and vehicle) parking to be provided within the Site there is again little potential for such pedestrian demand.

3.4 Construction Vehicle Access Routes

As discussed, all construction vehicles will enter and exit the Site via Aldington Road.

It is anticipated that all heavy vehicles will access Site via the following routes:

- Arrival Trips:
 - Route 1: From M4 Western Motorway, southbound along Mamre Road and left into Abbots Road. Continue on to Aldington Road and left into Site.
 - Route 2: From Westlink M7, westbound on Old Wallgrove Road, Lenore Drive and Erskine Park Road, then south along Mamre Road and left into Abbots Road. Continue on to Aldington Road and left into Site.
- Departure Trips:
 - Route 1: From the Site, right onto Aldington Road then south on Mamre Road to Elizabeth Drive and left to the M7 Motorway and sub-regional routes to the east.
 - Route 2: From the Site, right onto Aldington Road then south on Mamre Road to Elizabeth Drive and right to Badgerys Creek and The Northern Road to the west.

These routes are shown in **Figure 6**.

A copy of the approved routes will be distributed by the Project Manager to all drivers as part of their induction process.

In the event that an oversized or over-mass vehicles is required to travel to and / or from the Site, a permit from TfNSW and / or the National Heavy Vehicle Register (NHVR) will be required prior to arrival to the site. Notwithstanding, this CTMP relates to general construction which does not seek the use of oversize vehicles; a separate application would be submitted if such access is required.

3.5 Fencing Requirements

Security fencing will be erected along the entire boundary of the Site and will be maintained for the duration of the construction works to ensure that unauthorised persons are kept out of the Site. The fencing will either be ATF or 2.4m chain wires.

Site access gates would be provided at the temporary driveway which would remain closed at all times outside of the permitted construction hours.

3.6 Materials Handling

All material loading will be undertaken wholly within the Site, and all construction equipment, materials and waste will similarly be strictly kept within the Site.

While not anticipated, should any materials handling (or other constructed related activity) be required from the public roadway (i.e. Aldington Road) then prior approval shall be sought and obtained from the appropriate authorities.

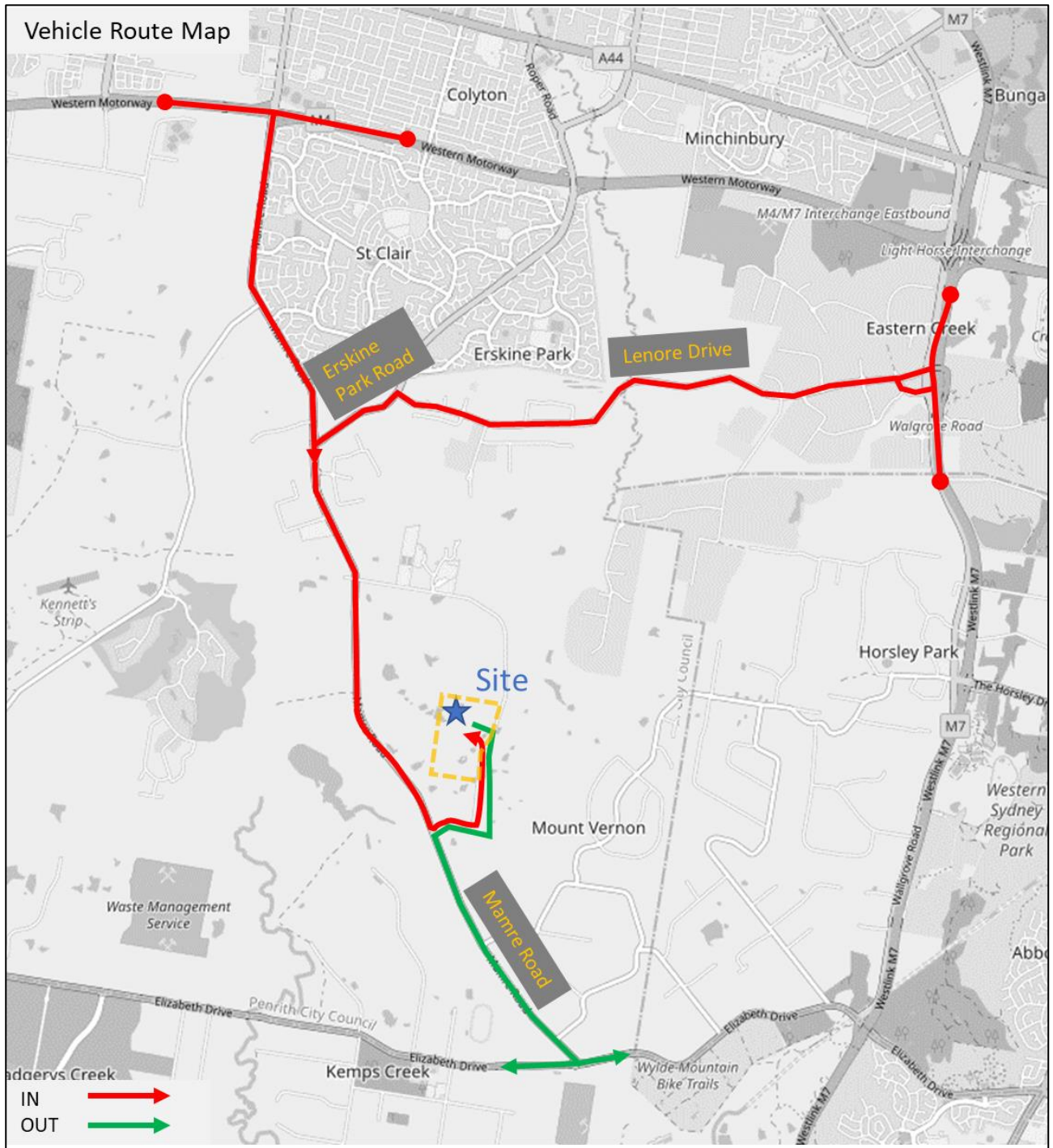


Figure 6: Construction Vehicle Routes

3.7 Additional Site Management

Although it is not expected, in the event that any Site construction traffic management outside of that described in the implemented CTMP is required, the Project Manager will be required to notify adjacent properties of any temporary traffic restrictions (or the like) at least fourteen (14) days in advance.

3.8 Road Occupancy

The potential exists for future road occupancy requirements to facilitate the construction of the temporary driveway, and then any further upgrades to Aldington Road and the intersection of Mamre Road and Abbots Road.

Road occupancy permits will necessarily be procured prior to starting intersection construction works, while a detailed intersection-specific CTMP would be prepared in consultation with Council and TfNSW to ensure traffic along Aldington Road would continue to operate adequately during any such occupancy period.

3.9 CTMP – Monitoring & Review Process

This CTMP has been prepared referencing the existing Site conditions. Consultation with Council, TfNSW and neighbouring developments will continue to be undertaken to ensure that the cumulative traffic impacts of construction within the area do not adversely impact the operations of the neighbouring developments or the local road network.

4 Assessment of Traffic & Transport Impacts

4.1 Construction Vehicle Traffic Generation

4.1.1 Staging

Based on the construction staging, the peak cumulative construction period for the Site would be during late 2024, when the stages construction would overlap. Based on the expected staff shift patterns and delivery requirements, the peak hour traffic generated during this period would be as follows.

- 55 light vehicle movements and 4 heavy vehicle movements per hour in the AM peak;
- 40 light vehicle movements and 4 heavy vehicle movements per hour in the PM peak; and
- 300 light vehicle movements and 70 heavy vehicle movements per day.

As detailed below this peak period would not be until after the roadworks are completed.

4.2 Cumulative Traffic Generation

During the construction of the Site, there would also be other construction activities occurring in the MRP, including those associated with the road upgrades, as well as other development sites.

Preliminary construction staging and traffic generation numbers have been obtained to inform this assessment. The relevant sites are:

- The ESR site at 290-308 Aldington Road, 59-62 Abbots Road And 63 Abbots Road, Kemps Creek (Westlink Estate), SSD- 9138102; and
- The Fife Kemps Creek site at 200 Aldington Road, SSD-10479 (FKC site).

Actual timing and traffic movements will be updated as Conditions of Consent are issued, and construction programs finalised. However, **Table 3** provides an indicative forecast of staging and daily traffic generation for each construction stage of each development site and the associated road upgrade works.

When considering the cumulative impacts of the road / intersection works and the above LOG-E development site construction traffic, the peak period (prior to completion of the upgrade of the Mamre Road/Abbots Road intersection) would be 15-18 months after construction activities commence in the MRP, estimated as December 2023-February 2024, when the intersection is under construction but nearing completion. During this period there would be a peak of 844 vehicle movements per day.

Based on an 11-hour day for construction activities (between 7am to 6pm), this equates to 77 vehicle movements per hour (i.e. 39 inbound vehicles / 38 outbound vehicles).

TABLE 3: DAILY CUMULATIVE TRAFFIC FORECAST (MOVEMENTS)

Timeframe	Movements / Day								Status of Abbots / Mamre Intersection		
	FKC Site		Westlink Estate		Subject Site		External Road Works			Cumulative	
0-3 months Sept-Nov 2023	Light	70						Light	70	Existing Mamre Intersection – 60km/hr restriction	
	Heavy	70						Heavy	70		
3-6 months Dec 2023- Feb 2024	Light	100	Light	224				Light	320	Existing Mamre Intersection – 60km/hr restriction	
	Heavy	100	Heavy	196				Heavy	296		
6-9 months March-May 24	Light	100	Light	130			Light	120	Light	350	Under construction 40km/hr restriction Temp intersection
	Heavy	100	Heavy	164			Heavy	140	Heavy	404	
9-12 months June- August 2024	Light	100	Light	130			Light	120	Light	350	Under construction 40km/hr restriction Temp intersection
	Heavy	100	Heavy	164			Heavy	140	Heavy	404	
12-15 months Sept-Nov 2024	Light	100	Light	130	Light	30	Light	120	Light	380	Under construction 40km/hr restriction Temp intersection
	Heavy	100	Heavy	164	Heavy	10	Heavy	140	Heavy	414	
15-18 months Dec 2024- Feb 2025	Light	150	Light	130	Light	30	Light	120	Light	430	Intersection and Aldington Road/Abbots Road upgrade completed
	Heavy	100	Heavy	164	Heavy	10	Heavy	140	Heavy	414	
18-21 months Mar-May 2025	Light	150	Light	130	Light	80			Light	360	Works complete
	Heavy	100	Heavy	164	Heavy	20			Heavy	284	

Until such a time that the Mamre Road/Abbots Road intersection works commence, speed restriction and traffic controls will be established via an approval pathway with the relevant road authority to control the traffic flow and mitigate the risks.

Further consideration to the operation of the intersection during construction will be determined during the relevant Works Authorisation Deed process required prior to the commencement of works. When this intersection is under construction it is expected the CTMP will identify the speed be reduced to 40km/hr during construction.

4.3 Vehicle Management

4.3.1 Principles

In accordance with TfNSW requirements, all vehicles transporting loose materials would have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the Site.

Further to covering/securing the load to prevent deposits onto the roadway, a Shaker Grid is proposed and installed at the point of vehicle egress to minimise the risk of dirt tracking out onto Aldington Road.

4.3.2 Construction Staff Parking

All construction staff and contractors will be required to park wholly within the Site, noting that there will be significant area available (at all times) to meet the peak parking demand.

5 Traffic Control

5.1 Traffic Guidance Schemes

Any Traffic Guidance Scheme (TGS's), associated risk assessment, consultation schedules, TGS verification checklist, and inspection checklists shall be prepared by an accredited person, in accordance with the TfNSW Traffic Control at Worksites Manual (Issue 6.0) and AS1742.3:2019.

All TGSs involving signage or impacts to public roads shall be approved by the Traffic Management Centre (TMC), prior to the works for which they relate. These TCPs shall be updated to respond to any changes to prevailing traffic conditions throughout the life of the works.

With regard to the proposed temporary access road, a site-specific TGS (as shown in **Appendix A**) would be implemented for the duration of the works. A copy of all approved TGSs shall be kept on-site for reference at all times.

5.2 Authorised Traffic Controller

An authorised Traffic Controller(s) is to be present on-site throughout the proposed works. Responsibilities of the Traffic Controller will include:

- The supervision of all construction vehicle movements into and out of site at all times,
- The supervision of all loading and unloading of construction materials during the deliveries in the construction phase of the project, and
- Pedestrian management, to ensure that adverse conflicts between vehicle movements and pedestrians do not occur, while maintaining radio communication with construction vehicles at all times.

6 Monitoring & Communication Strategies

6.1 Development of Monitoring Program

The development of a program to monitor the effectiveness of this CTMP shall be established by the Project Manager and should consider scheduled reviews as well as additional reviews should construction characteristics be substantially changed (from those outlined in the Final CTMP). All and any reviews of the CTMP should be documented, with key considerations expected to include:

- Tracking heavy vehicle movements against the estimated heavy vehicle flows during the works.
- The identification of any shortfalls in the CTMP, and the development of revised strategies / action plans to address such issues.
- Ensuring that all TCPs are updated (if necessary) by “Prepare a Work Zone Traffic Management Plan” card holders to ensure they remain consistent with the set-up on-site.
- Regular checks to ensure all loads are departing the Site covered as outlined within this CTMP.

6.2 Communications Strategy

A Communications Strategy shall be established by the Project Manager for implementation throughout the construction works; this strategy will outline the most effective communication methods to ensure adequate information within the community and assist the Project Team to ensure the construction works have minimal disruption on the road network. The Communications Strategy will include:

- The erection of appropriate signage providing advanced notice of works and any traffic control measures to be implemented.
- Written notices to surrounding landowners (and tenants) likely to be directly affected by the works, prior to commencement.

Ongoing communication is also required so that all stakeholders are kept up to date of works and potential impacts.

7 Summary

This Draft CTMP has been prepared to ensure appropriate traffic management is undertaken during construction of the industrial development.

Ultimately, this CTMP report has been prepared with regard to the management principles outlined in the RMS Traffic Control at Worksites Manual (2018) and AS1742.3, and per the detailed strategies outlined in the Draft CTMP are recommended for adoption at the Site.

In summary the following measures are recommended:

- Traffic control would be required to manage and regulate construction vehicle traffic movements to and from the Site during construction.
- All vehicles transporting loose materials will have the load covered and/or secured to prevent any items depositing onto the roadway during travel to and from the Site.
- All vehicles are to enter and depart the Site in a forward direction, with reverse movements to occur only within the Site boundary.
- All contractor parking is to be contained wholly within the Site, and.
- Pedestrian and cyclist traffic along the Site frontage will be managed appropriately at all times.

In summary, the Draft CTMP report is proposed in accordance with the RMS TCAW.

Appendix A. Traffic Guidance Scheme

D.4.7 Static: Access to depot, stockpile, quarry, gravel pit etc. all roads (formerly TCP 195)

