Transport Management and Accessibility Plan

Yiribana Logistics Estate

Lots 59-60, DP259135 Mamre Road, Kemps Creek

Ref: 1427r01
28/05/2021

Info@asongroup.com.au | +61 2 9083 6601 | Suite 17.02, Level 17, 1 Castlereagh Street. Sydney, NSW 2000

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II	28/05/2021	Issue	A. Tan	R. Butler-Madden

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1 Introduction

1.1 Overview

Ason Group has been engaged by The GPT Group to prepare a Transport Management and Accessibility Plan (TMAP) in relation to the State Significant Development (SSD) for the proposed Yiribana Industrial Estate (the Proposal) located on Mamre Road, Kemps Creek (the Site).

The Site sits within (what has been termed) the Mamre Road Precinct (MRP / the Precinct), which has recently been rezoned for industrial land uses. The broader Precinct 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 release of the MRP Draft Development Control Plan (DCP), the exhibition period for which has recently been completed.

The Proposal itself relate to a Concept Master Plan providing for 5 industrial warehouse developments, consistent with the recent rezoning, comprising a total of 157,860m^2 of industrial Gross Floor Area (GFA) to be developed in stages.

The SSD generally provides for:

- Master Plan with a total building area of 157,860m^2, comprising:
  - A total of 151,125m^2 warehouse GFA;
  - A total of 6,735m^2 of ancillary office GFA;
  - 5 industrial development lots;
  - Internal road layouts and temporary road connection to Mamre Road;
  - Provision for 717 car parking spaces; and
  - Associated site landscaping.

Full details are provided in the Environmental Impact Statement (EIS) prepared by Urbis, which this TMAP accompanies.

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 accommodate the MRP, and wider background traffic growth associated with the development of Western Sydney, is currently being undertaken. Ason Group is working with the NSW Department of Planning, Industry & Environmental (DPIE) and Transport for New South Wales (TfNSW) collectively to deliver this assessment (herein referred to as the MRP modelling assessment).

Therefore, a key purpose of this report is to ensure that the Proposal remains consistent with the assumptions that have informed the MRP modelling assessment, as has been directed for use by TfNSW.

1.2.2 Interim Intersection Requirements

It should be noted that The GPT Group and other land owners in the area who have significant land holdings (representing approximately 40-50% of the developable land within the Precinct), have formed the Mamre Road Precinct Land Owners Group (LOG).

A collective approach has been taken by the LOG to identify the interim intersection requirements for 2026 required to accommodate the forecast development within the LOG sites. The key aim of this process has been to facilitate the initial stages of development for the relevant Sites; while the MRP modelling assessment is finalised and the ultimate upgrades delivered by TfNSW. Ason Group has worked on behalf of the LOG to identify these requirements, with the key findings of the interim modelling assessment provided within the relevant sections of this report.

Therefore, a further purpose of this report is to confirm the access requirements for the assessment year of 2026 to accommodate traffic generated by the relevant LOG sites.

1.3 TMAP 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 Estate is consistent with the assumptions within the MRP modelling assessment so that it can be appropriately accommodated by the future 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.

1.4 Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements (SEARs) were issued by the NSW Department of Planning, Industry & Environmental (DPIE) in November 2020 regarding the Proposal, and include both general DPIE SEARs and more specific TfNSW SEARs.

The DPIE SEARs relating to transport issues are outlined in **Table 1** 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: DPIE Traffic & Transport SEARs

SEARs	TMAP Summary Response	Section
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	Operational traffic flows have been determined at the key intersections in clear figures. Construction traffic flows cannot be determined at this time; however, anticipated the anticipated construction vehicle mix, Site access provisions and potential haul routes have been clearly identified.	7, Appendix E
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	Refer to Section 7	7
detailing how the proposed development connects to adjoining sites as outlined in the Draft Mamre Road Precinct DCP	The future connections between the Site and adjoining sites will be determined as part of this DCP process, though it is noted that the Proposal specifically provides for future connectivity of the internal road network through to the north and south.	7
details of interim and permanent access points to Mamre Road for the development, including details of agreements with surrounding landowners to achieve access	The short term access will ultimately be dependent on the development of the neighbouring sites. In the long-term, access to the Site can be gained through connections to the north and south, with the key access being via a signalised intersection to the south of the Site, accessed via the neighbour site to the southeast of the Site. Should development of the Site commence prior to a connection to the neighbouring lots being provided (which is subject to the control of others), a temporary access onto Mamre Road is to be utilised. This would facilitate all movements, until such a time that Mamre Road is upgraded.	N/A
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	Please refer to plan set provide by SBA Architects.	N/A10

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	The plans have been assessed with reference to the appropriate Australian Standards to ensure that the design of internal roads, parking and servicing areas are generally compliant. It is anticipated that a future Condition of Consent will necessarily ensure such compliance with the Australian Standards. As such, it is anticipated that the necessary further review and refinement of the detailed design can occur in the future. Notwithstanding, the plans as designed are generally considered capable of compliance.	10
swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site	Swept path plans have been prepared to illustrate heavy vehicle movements along the internal roads, as well as to and from the access driveways and on-site service areas. It is anticipated that a future Condition of Consent will necessarily ensure such compliance with the Australian Standards, and that such compliance would extend to all future road and access infrastructure within the Site.	10
details of road upgrades, infrastructure works or new roads or access points required for the development	As above, the long-term key access into the Site will be way of the neighbouring Lot. The 2026 interim modelling assessment for this intersection is summarised in Section 7.	7
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	The provision of public and access transport services and infrastructure has been specifically developed to provide integration with the public and active transport provisions detailed for the Mamre Road Upgrade. This includes the provision of bus capable roads, with the potential for internal routing further to the development of the broader MRP road network; and shared and pedestrian paths across the Site and connecting to Mamre Road and the future sub-regional active transport network. Further, a Framework Sustainable Travel Plan has been prepared for the Estate.	8 Appendix D
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	Further to the above, there are no adequate public or active transport services or infrastructure in the vicinity of the Site at this time. However, the Proposal provides for full integration with the future public and active provisions detailed for the Mamre Road Upgrade. These include the operation of local and sub-regional bus services providing connectivity to railway stations and other public transport interchanges; and shared paths along Mamre Road connecting to the future sub-regional shared (cycle) path network.	6
measures to integrate the development with the existing/future public transport network	As discussed above, the Proposal provides for full integration with the future public and active provisions detailed for the Mamre Road Upgrade.	6

1.5 Reference Documents

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

- DPIE, Western Sydney Employment Area, Mamre Road precinct, Draft Development Control Plan, November 2020 (Draft DCP).

The draft DCP was on exhibition between 10 November to 17 December 2020. The feedback from the exhibition period, as well as the findings of the background Precinct modelling being undertaken, will be considered in the finalisation of the DCP.

Further to the above, the Site lies within the Penrith City Council Local Government Area (LGA); as such, Ason Group has 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:

- Roads and Maritime Services (Roads and Maritime) Guide to Traffic Generating Developments 2002 (RMS Guide).
- Roads and Maritime Guide to Traffic Generating Developments Updated Traffic Surveys, August 2013 (RMS Guide Update).
- 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 (West 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 2890.6:2009 Parking Facilities – Off Street Parking for People with Disabilities (AS 2890.6:2009).

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).
- Numerous reports prepared by Ason Group and others for similar industrial development within the Mamre West, Kemps Creek and Erskine Park industrial precincts.

2 The Proposal

2.1 Overview

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

- Concept Masterplan with a total building area of 157,860m^2 across 5 development lots, comprising:
  - A total of 151,125m^2 warehouse GFA and a total of 6,735m^2 of ancillary office GFA;
  - Internal road layouts and road connection to Mamre Road;
  - A 10m reservation for the development of a future potential freight network traversing the east of the Site. It is anticipated that this would be developed by others; and
  - Provision for 717 car parking spaces.
- A Stage 1 development including the delivery of the internal roads and Warehouses 1 and 3 of the Master Plan, including:
  - A total of 55,945m^2 warehouse GFA and total 2,235m^2 of ancillary office GFA; and
  - Provision for 254 car parking spaces.

The proposed Master Plan (prepared by SBA Architects) is shown in **Figure 1** with Stage 1 show by **Figure 2**.

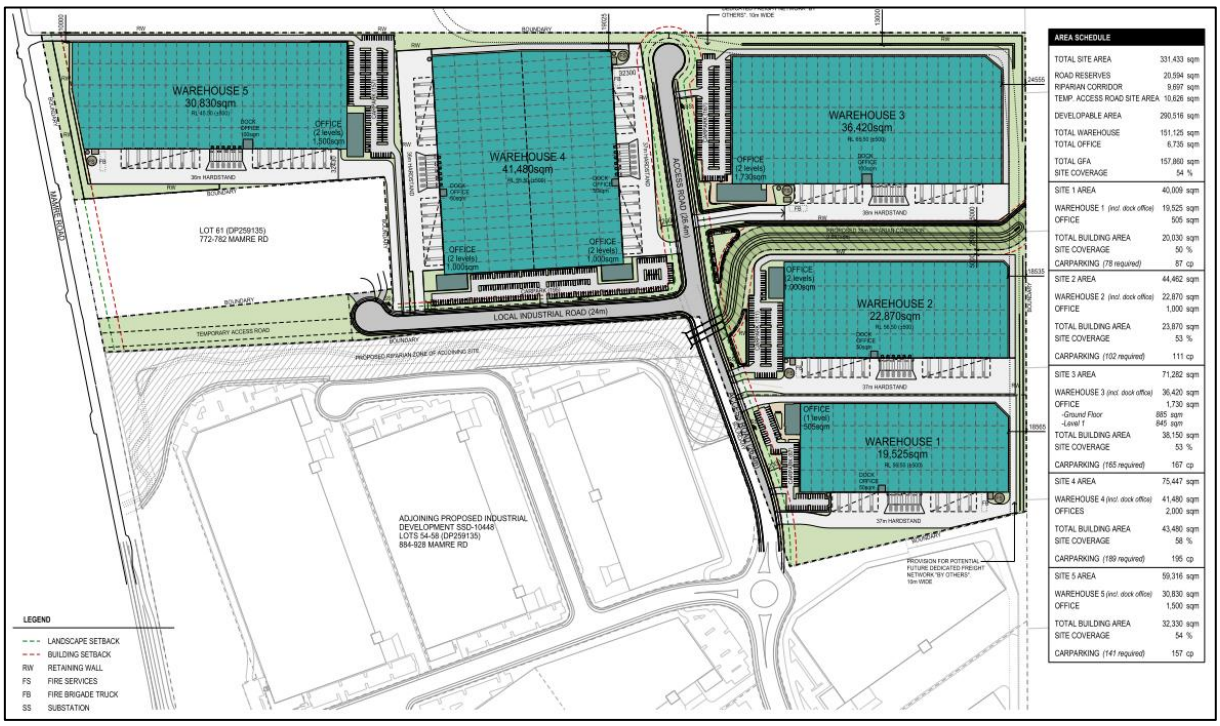


Figure 1: Proposed Masterplan

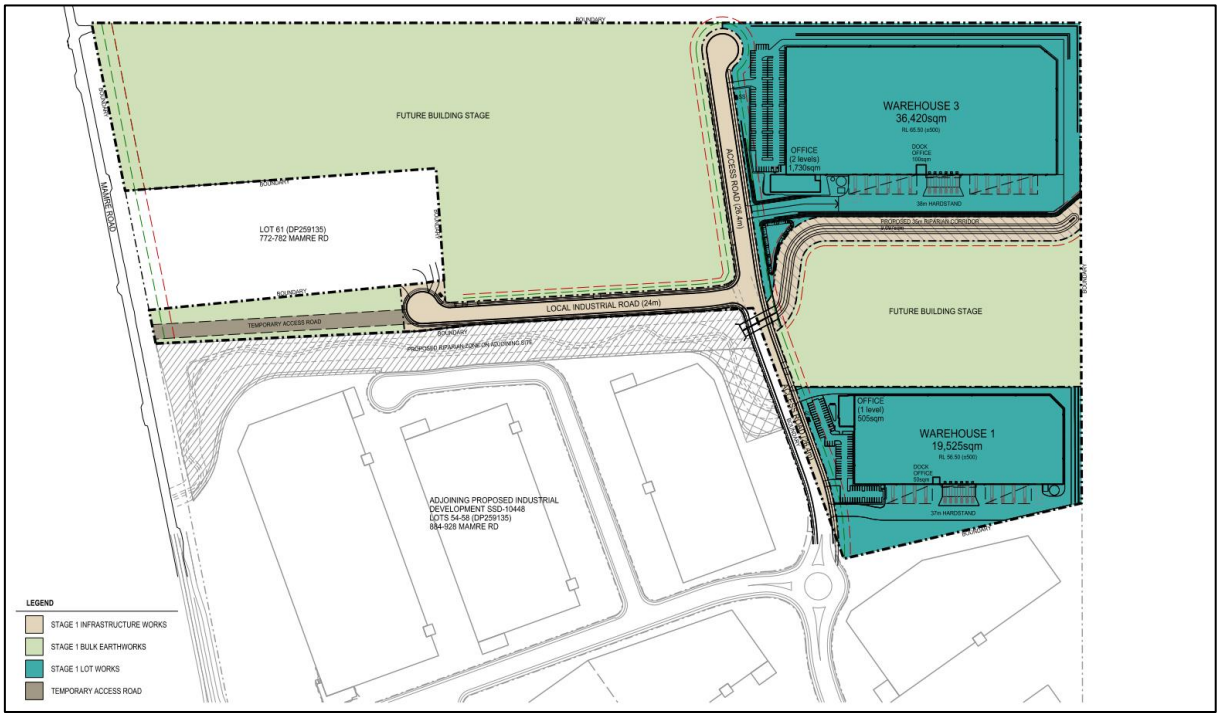


Figure 2: Proposed Stage 1

2.2 Proposed Vehicular access

A two-stage access strategy is required due to the proposed road network to service the MRP (as discussed in Section 5.6), with the long-term access for the Site being via the internal road network, rather than directly from Mamre Road. With the permanent access solution entirely dependent on adjoining sites, which are being developed by others, a temporary access is required. GPT has worked with the neighbouring developer of 772-782 to collectively identify a temporary access solution.

Access will be as follows:

- In the interim period it is proposed to access Mamre Road via a proposed temporary local road as shown in **Figure 3**. The proposed temporary road will be constructed to Council's standards and is planned to provide a consolidated temporary access for the Site and the adjoining land at 772-782 Mamre Road, prior to realisation of the ultimate MRP road network.

  It is anticipated that a deceleration / acceleration lane will be provided form Mamre Road, along the site frontage of 772-782 Mamre Road. This Site is currently subject to DA20/0564 being assessed by Council.

The deceleration lane is currently proposed within the Mamre Road reserve required for the future Mamre Road upgrade (see Section 5.4). This is considered an acceptable solution given that the timing of the Mamre Road upgrade works are not yet determined. Therefore it is anticipated that the local road network connection required will be completed prior to the widening of Mamre Road. It is notable that the key southern connection forms part of the site to the south, which is currently known as the Aspect Industrial Estate. This site is subject to SSD-10448 which is in the advanced stages of assessment by DPIE. As such, it is evident the internal road connection being delivered as part of development of both the Site and the Aspect Industrial Estate would be delivered prior to the Mamre Road upgrade.

- The long-term strategy will see access to Mamre Road via the proposed industrial development to the south / south-west of the Site (which is currently being considered by DPIE under SSD-10448); and access to the future SLR will be provided via internal MRP roads traversing to the north.

  The long-term access strategy is ultimately subject to the development of the neighbouring lots, and therefore the interim access arrangement is ultimately required should the Proposal be developed prior to others.

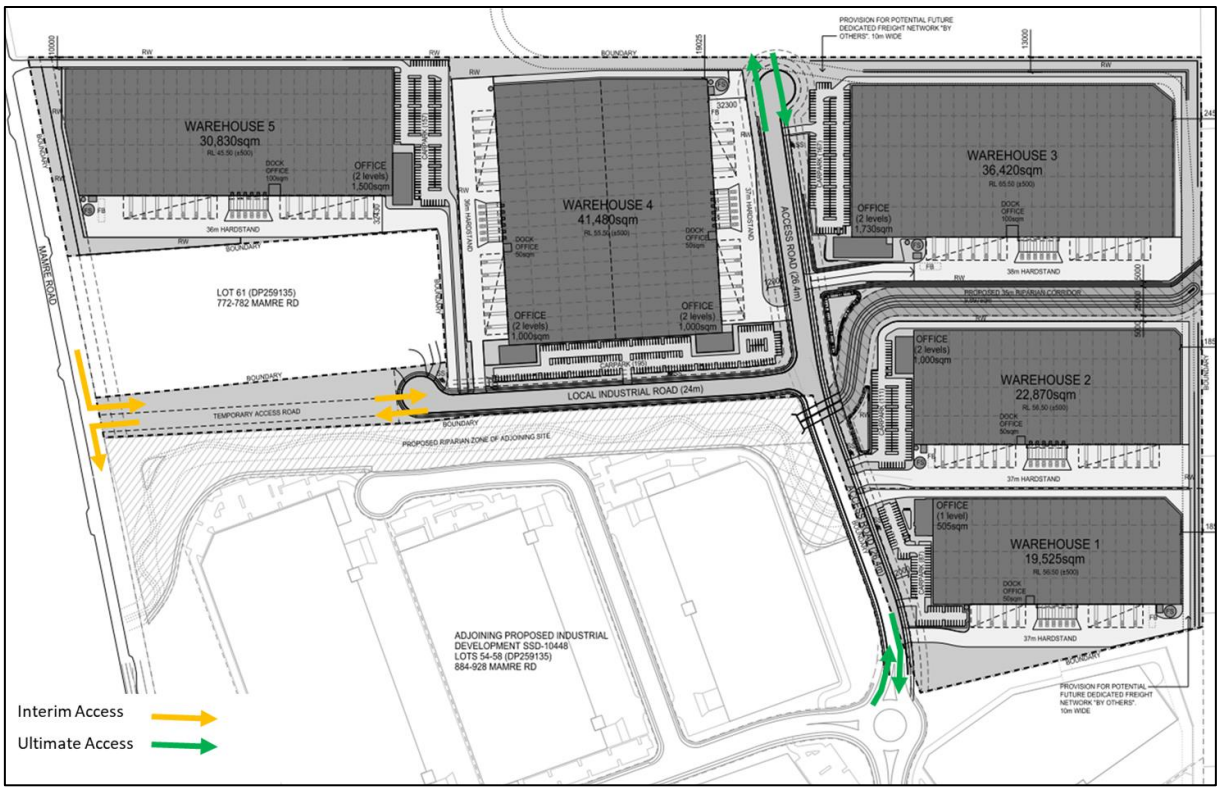


Figure 3: Proposed Access Locations

3 The Existing Site

3.1 Location

The Site is comprised of 2 separate allotments and is legally described as Lots 59 and 60 in DP259135. The Site is located approximately 8km 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 land is 331,432m^2 in area and is irregular in shape.

The Site is shown in its sub-regional context in **Figure 4**.

3.2 Current Site Land Usage

The Site currently provides for several rural residential properties and greenfield land.

3.3 Site Access

The Site currently has access points onto Mamre Road through various access driveways into private properties.

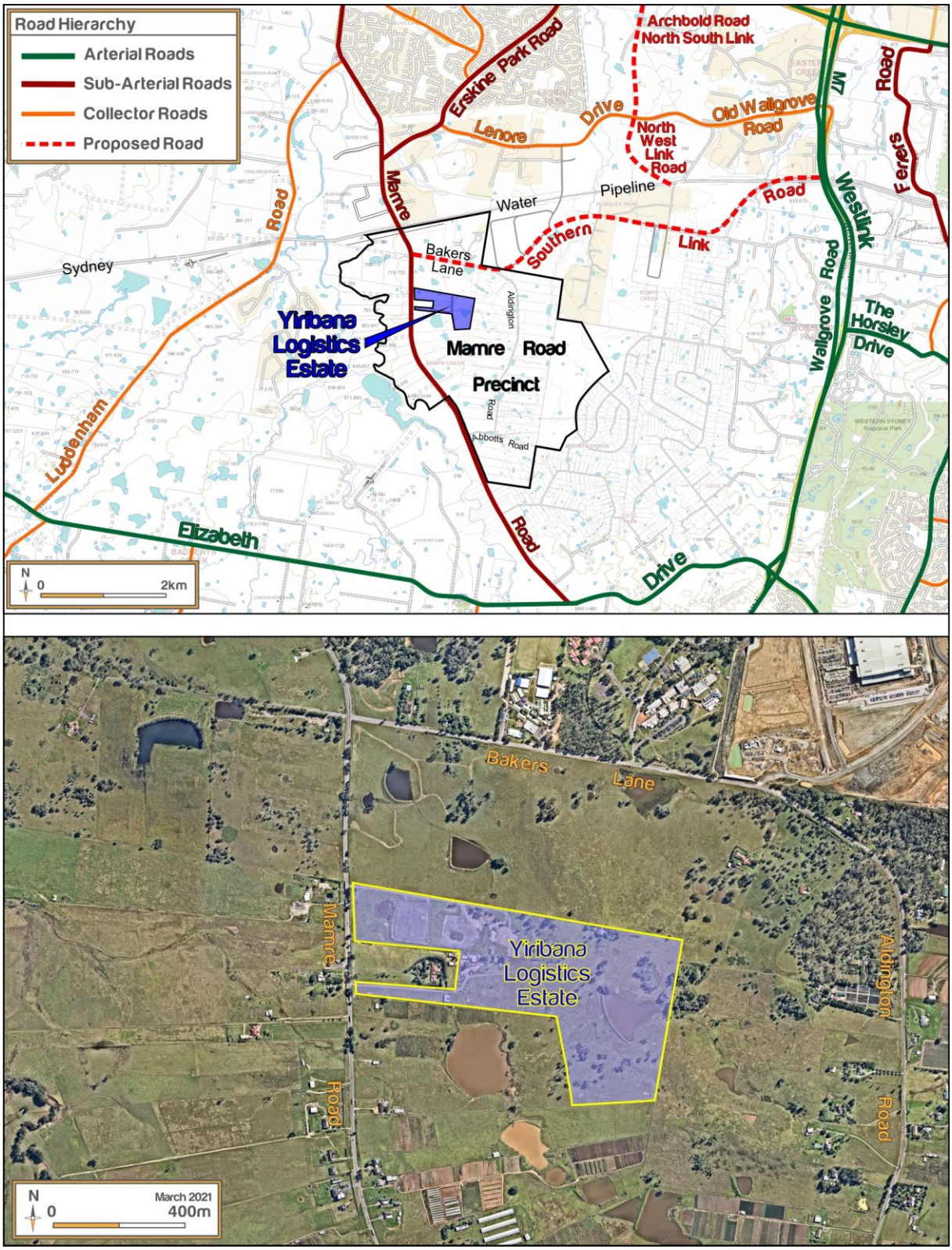


Figure 4: Site Location & Road Hierarchy

4 The Existing Road Network

4.1 Key Roads

The existing road network providing access to the Site is shown in Figure 4, and detailed further below.

4.1.1 Mamre Road

Mamre Road is an arterial road which runs north-south between the Great Western Highway and M4, and Elizabeth Drive respectively. In the vicinity of the Site, Mamre Road provides 1 traffic lane in each direction, and has a posted speed limit of 80km/h.

4.1.2 Erskine Park Road

Erskine Park Road is a sub-arterial road which generally runs north-south between the Great Western Highway and M4, and Mamre Road respectively; it also links east to the M7 via Lenore Drive. Erskine Park Road provides 2 traffic lanes in each direction, and has a posted speed limit of 70km/h.

4.1.3 Bakers Lane

Bakers Lane is 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. Bakers Lane provides 1 traffic lane in each direction and has a posted speed limit of 60km/h, with School Zone restrictions (40km/h during school peaks) adjacent to the Trinity Primary School and Emmaus College.

4.1.4 Elizabeth Drive

Elizabeth Drive is a sub-arterial road that runs east-west between Hume Highway and M7, and Mamre Road and The Northern Road respectively. In the vicinity of Mamre Road, Elizabeth Drive provides 1 - 2 traffic lanes in each direction, and has a posted speed limit of 80km/h.

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 adjacent to the Site.

The results of the surveys, and the corresponding Level of Service (LoS) for the directional flows (based on RMS Level of Service criteria (as detailed in the RMS Guide) are shown in **Table 2**.

Table 2: 2018 Mamre Road Traffic Flows

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

With reference to **Table 2**, Mamre Road is currently operating satisfactorily but with little spare capacity, an issue known to TfNSW and as such one of the key drivers of the proposed Mamre Road Upgrade (see also **Section 5.4**).

5 Mamre Road Precinct Rezoning

5.1 Overview

In June 2020, the NSW Government released the MRP Finalisation Report addressing the rezoning of the MRP, and subsequently the rezoning was fast-tracked in response to current COVID-19 conditions.

As detailed in the MRP Finalisation Report, the rezoning:

- 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.
- Facilities the opportunities provided for a 30-minute city as detailed in the Western City District Plan recognises the opportunity to deliver a 30-minute city. The draft MRP rezoning package was exhibited between 20 November and 18 December 2019. The MRP has been rezoned under the State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP).

The rezoning is anticipated to provide 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 5**.

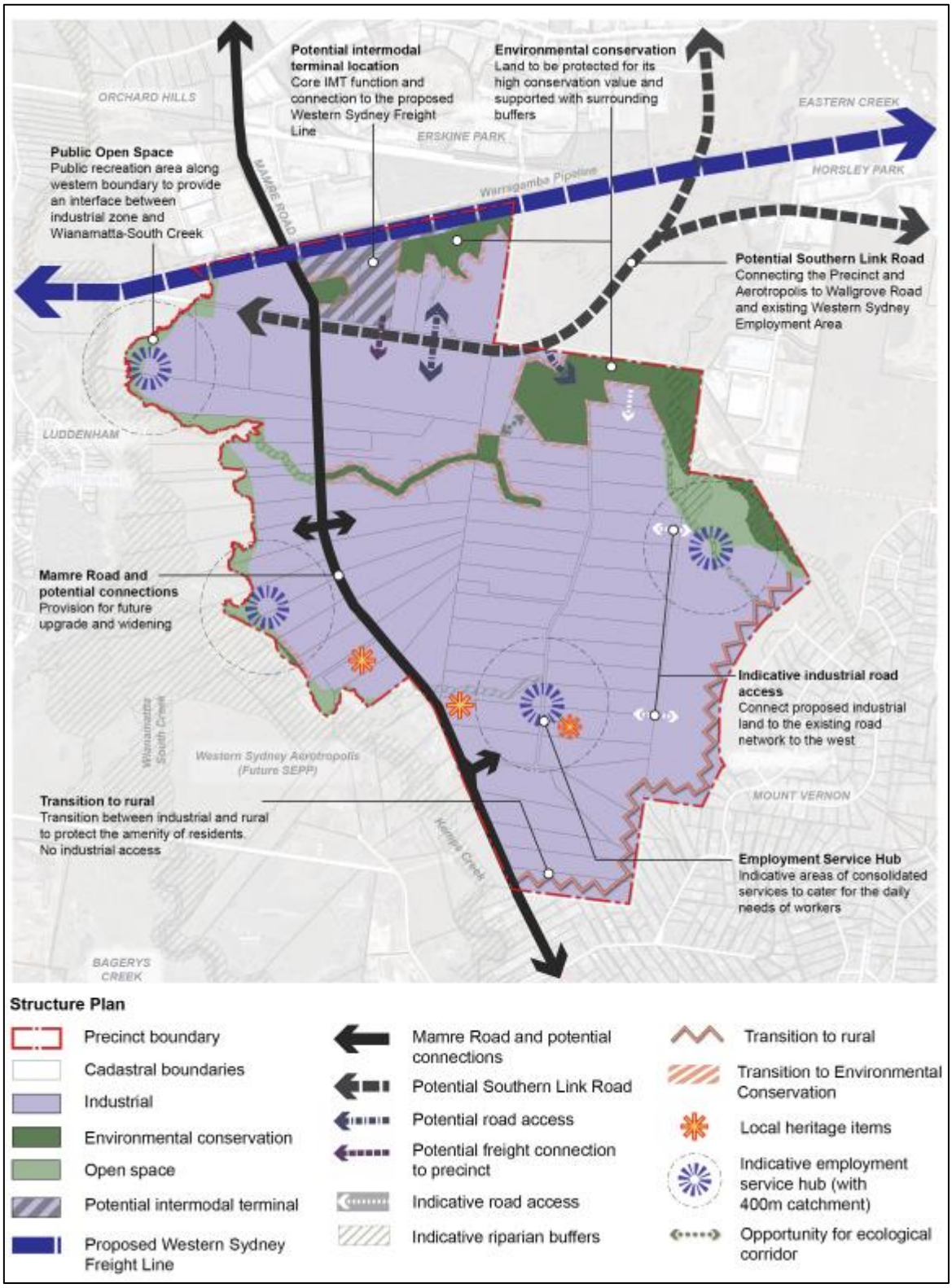


Figure 5: Mamre Road Precinct Structure Plan

Source: NSW Government

5.2 Strategic Context

5.2.1 Strategic Policies

The rezoning the MRP fits within the strategic development of the WSEA and Broader Western Sydney Employment Area (BWSEA); in the context of the MR Proposal, key planning policies and strategies relevant to the MRP rezoning include:

- **A Plan for Growing Sydney** sets out the State Government's strategies for accommodating Sydney's future population growth over the next 20 years; it provides goals, directions and actions that provide a framework for strengthening the global competitiveness of Sydney and delivering strong investment and jobs growth, particularly in Western Sydney.
- The **NSW Long Term Transport Master Plan** provides a framework for delivering an integrated, modern transport system by identifying transport actions and investment priorities across NSW for the next 20 years. Section 5.6 of the Long Term Transport Master Plan specifically identifies Mamre Road (from St Marys to Kemps Creek) as a corridor for future investigation.
- The **NSW Freight and Ports Plan** targets specific challenges associated with the forecast doubling of the NSW freight task by 2031. Providing a road network that minimises congestion will support economic growth and productivity and encourage regional development; in this context, the F&P Strategy identifies the need to develop and maintain capacity for freight on the road network, and of course the provision of additional Intermodal capacity, noting that a new Intermodal is identified in the MRP Rezoning Paper.
- The **NSW Road Safety Strategy 2012 - 2021** establishes the direction of road safety in NSW for 10 years from 2012, and specifically supports a targeted reduction in the annual number of fatalities and serious injuries by at least 30% by the end of 2021. The Safety Strategy places particular importance on the design of safe roads and roadsides and recognises that the ongoing development and upgrade of the NSW road network is essential to improving road safety; these goals will be integral to the development of the MRP road network.

5.2.2 Strategic Constraints & Opportunities

The MRP Rezoning Paper – drawing from the policies outlined above and the broader demands on an ever-growing Western Sydney – identifies the following key constraints within the region, and the opportunities provided by the Rezoning to respond to these constraints.

- **Industrial Land Shortfall:** There is a growing demand for industrial land in Western Sydney, the provision of such which is essential, so supply is maintained despite increasing take-up rates. The

most critical shortage at this time is an increasing warehouse and logistic demands to meet the existing and future e-commerce demand.

- **Freight and Logistics:** The WSEA is strategically located with proximity to key freight and logistic corridors including the M4 and M7 Motorways, and provides land and economies of scale that give Western Sydney's industrial land a comparative advantage over other parts of Sydney.
- **Intermodal Terminal:** As discussed, the NSW Freight and Ports Plan identifies moving an increasing percentage of goods by rail to international gateways, and TfNSW has identified an urgent need to plan for and protect intermodal capacity within the Aerotropolis. The Aerotropolis LUIIP specifically identifies the MRP as a potential Intermodal location from a freight and logistics perspective.
- **Western Sydney Airport:** Further to the above, the need for land focused on freight and logistics will be further increased once the Western Sydney Airport becomes operational. The Aerotropolis LUIIP again identifies the MRP as providing warehousing and logistics uses to support the development of the Western Sydney Airport (and broader Aerotropolis).
- **Western Parkland City:** The Western City District Plan has as a key objective the delivery of a 30-minute city, where people can reach their nearest metropolitan and strategic centres within 30 minutes, seven days a week by public transport, which includes expansive industrial and urban services land. The development of land within the MRP will provide for Greater Sydney's long-term freight and logistics and industrial needs and is an opportunity to deliver jobs closer to people's homes quickly and contribute to the NSW economy.

5.3 Mamre Road Precinct Transport and Movement Outcomes

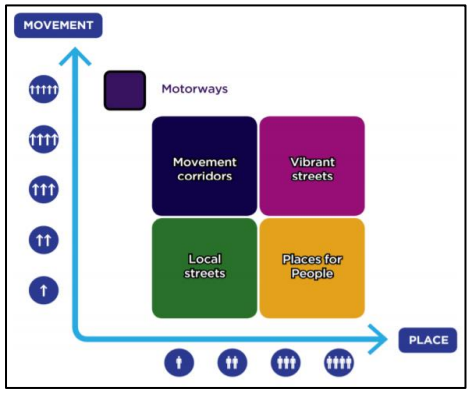
5.3.1 Overview

Achieving the vision and objectives for the MRP will be dependent on the development of a coherent MRP wide transport structure, which will necessarily be underpinned by a road network with appropriate capacity and augmented by strong public and active transport networks.

As discussed, TfNSW is currently in the process of more detailed investigations into the transport network infrastructure required for the rezoning of the MR Precinct, and specifically road network requirements. The TfNSW investigations include detailed traffic modelling of the MRP and its connectivity to the broader regional road network, a task which will also inform the MRP specific Development Control Plan (the Precinct DCP) also being prepared by TfNSW and DPIE.

5.3.2 Objectives

Noting that the development of the MRP will result in significant traffic demands, it is anticipated that the road network will be grounded in the core principles of integrated land use (for example, the opportunities to internalise vehicle movements generated by the future Intermodal) and the Movement and Place framework.



Adherence to these principles is anticipated to provide for the development of a MRP road network that provides:

- An interconnected, legible, urban-scale grid road pattern;
- Capacity to support demand;
- An understanding on the function of different roads, and indeed different parts of the same road, according to movement and place functions;
- Protection for sensitive land uses such as schools located along Bakers Lane;
- Maximum safety and efficiency through design;
- Well defined public transport links;
- A permeable network for pedestrian and cyclists; and
- Ultimately, the integration of all modes of travel across the road network.

5.3.3 Key Infrastructure

- **Mamre Road:** Mamre Road will provide the central north-west access corridor to/through the MR Precinct, with the MRP Rezoning Paper indicating an upgrade of Mamre Road (between the M4 Motorway and Kerrs Road) in line with that outlined in the Mamre Upgrade Report (see also **Section 5.4** below).
- The proposed WSEA SEPP amendments would zone the widened Mamre Road as SP2 Infrastructure (Classified Road).
- **Southern Link Road:** The Southern Link Road is a proposed east-west link from Wallgrove Road to Mamre Road, connecting the MRP to the existing WSEA lands (Oakdale, Eastern Creek etc).
- TfNSW is currently finalising a concept design for the Southern Link Road, which along with an assessment of environmental opportunities and constraints analysis, will also investigate the potential for a further extension to the west (of Mamre Road).

- **Future Internal Roads:** As previously discussed, TfNSW has commenced detailed traffic modelling for the MR Precinct, focusing on its external connections to the regional road network, and the internal road network within the MR Precinct. This process is outlined in the MRP Rezoning Paper, which states:

  Future planning as part WSEA Road Network Strategy and planning for the Western Sydney Aerotropolis will identify additional regional transport connections to the precinct. This planning is to include modelling to estimate the traffic generation and distribution of trips to and from the future Western Sydney intermodal terminal.

  Local roads will need to be designed to accommodate heavy vehicles whilst ensuring that access to regional and sub-arterial roads is achieved in a controlled and efficient manner. The Department will continue work with RMS and Council to determine appropriate road hierarchy and ongoing maintenance of major roads within the precinct.

  Importantly again, the design of Stage 1 and the broader Estate provides for full integration with the future internal MRP road network, noting changes since the previous SSDA proposal to specifically account for future road corridors and Site connections to those corridors.

- **Active & Public Transport:** As discussed further in **Section 6.3** below, there is very little active transport infrastructure within the MRP at this time. The MRP Rezoning Paper cites ongoing discussions with local Councils and TfNSW to deliver a cycle network connecting the Precinct to existing urban areas, the future Aerotropolis and WSEA. In this regard, the primary active transport corridor is expected to be designed around Mamre Road itself, with the MR Upgrade proposing a shared path along its full length, and cycle paths branching along creek lines and into the central portions of the MR Precinct.

  It is noted that the MRP Rezoning Paper does not provide any commentary in regard to public transport; however, the MR Upgrade provides more certainty in this regard, as do broader regional public transport strategies. These public transport proposals and strategies are discussed in more detail in **Section 6**.

5.4 Mamre Road Upgrade

5.4.1 Overview

The MR Upgrade Report details the proposed MR Upgrade (the MR Upgrade) between the M4 Motorway and Kerrs Road (south of the Site, and north of Elizabeth Drive). 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.*

5.4.2 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** including:
  - Signalised U-turn facilities at key intersections in the short term pending full development of the area (noting that one of the identified U-turn sites is the proposed location of the primary Site intersection);
  - A new signalised intersection with turn-around facility at Abbotts Road;
  - A new signalised intersection between Abbotts Road and Bakers Lane;
  - An upgrade of the signalised intersection at Bakers Lane, with provisions for U-turn and local access;
  - An upgrade of the signalised intersection at Erskine Park Road;
  - An upgrade of the signalised intersection at James Erskine Drive, with provisions for future access to development on the western side of Mamre Road (a temporary arrangement is currently in place);
  - Left in / left out access at Mandalong Close;
  - Left in / left out access at McIntyre Avenue;
  - A new signalised intersection at Luddenham Road;
  - A new signalised intersection at Solander Drive; and
  - An upgrade of the signalised intersection at Banks Drive.

The typical future Mamre Road cross-section is shown in **Figure 6** while the broader MR Upgrade proposal (per the MR Upgrade Report) is shown in **Figure 8.**

Figure 6: Mamre Road Upgrade Typical Cross Section

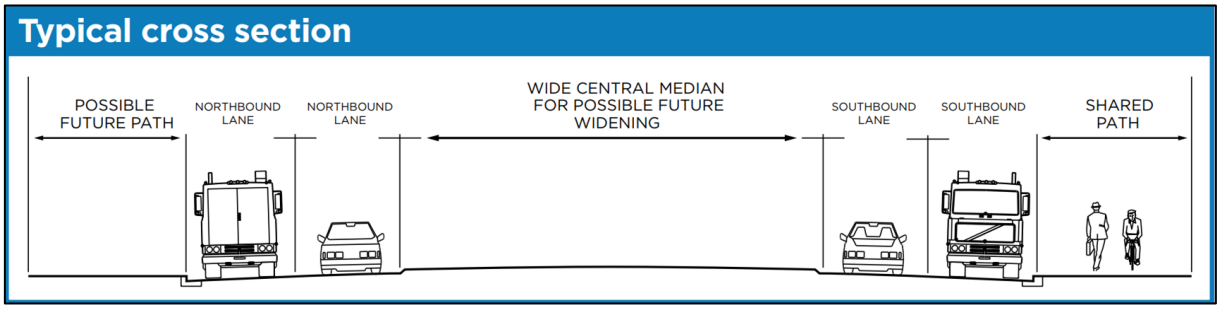


Figure 7: Mamre Road Upgrade Typical Cross Section

Source: Mamre Road Upgrade Report

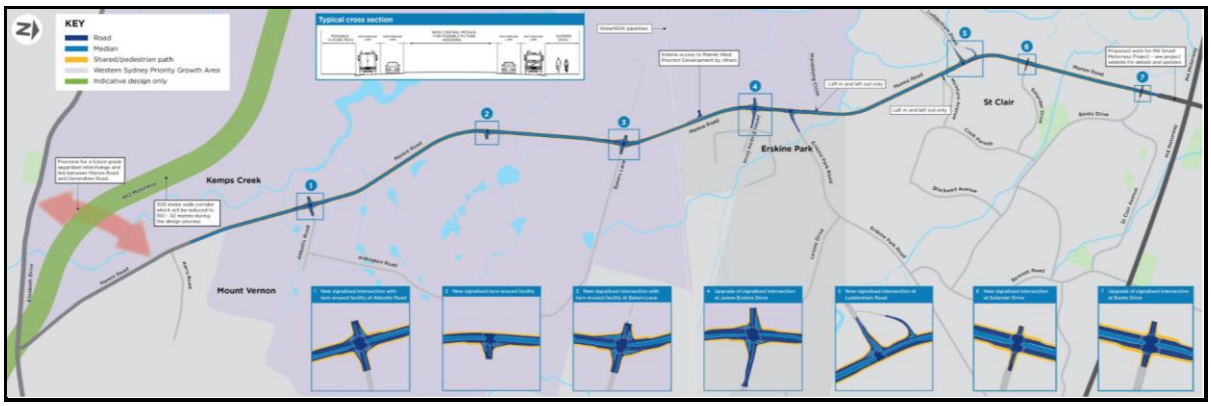


Figure 8: Mamre Road Upgrade

Source: Mamre Road Upgrade Report

5.4.3 Mamre Road Intersection

The MR Upgrade Report indicates a future signalised intersection at the development site adjacent to the southern boundary of the Estate. This site is being considered under SSD-10448 and is currently known as the Aspect Industrial Estate. The intersection forms a key connection with Mamre Road for the sites along its eastern boundary and will be a key long-term connection from Mamre Road to the internal MRP road network, which requires access via the Aspect Industrial Estate. A temporary access to Mamre Road will be required, should the connection to the signalised intersection not be provided in the same timeframe as development of the Estate. The intersection design is reproduced in **Figure 9**.

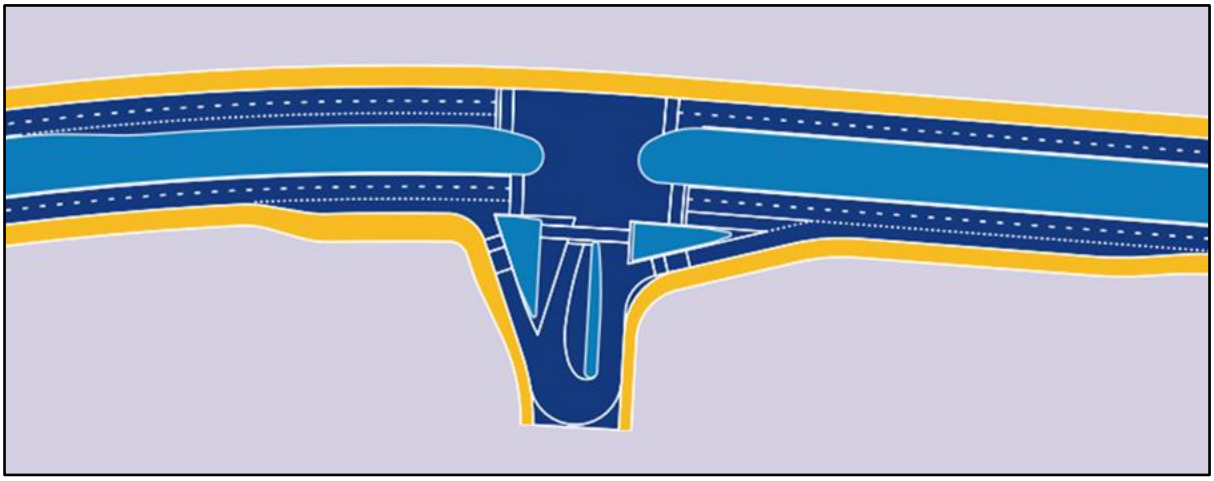


Figure 9: Mamre Road / Aspect Industrial Estate Road 1 Intersection

Source: Mamre Road Upgrade Report

5.5 Mamre Road Precinct Rezoning Status

As discussed, the MRP has been recently rezoned, with the Draft DCP responding to the rezoning and providing governance for the future growth across the MRP. Concurrently, the detailed traffic modelling of the MRP being undertaken by TfNSW will specifically determine:

- Sub-regional connections to the regional road network, with a specific focus on Mamre Road and Southern Link Road;
- The road network within the MRP to ensure efficient and equality of access to these sub-regional connectors;
- Road and intersection upgrade requirements and the timing of such in line with the staged development of the MR Precinct; and
- An appropriate apportionment of infrastructure costs.

5.6 Draft Mamre Road DCP

As discussed, the exhibition period for the Draft DCP has recently been completed. The finalised DCP will provide 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 12**.

It is reiterated that the final road network is subject to the outcomes of the background MRP traffic modelling being undertaken by TfNSW, with the layout shown in Figure 5 representing the preferred options being assessed.

The proposed Access Roads would eventually form a High Order Road under the Draft DCP. The preferred cross-sections within the Draft DCP are shown by the below figures.

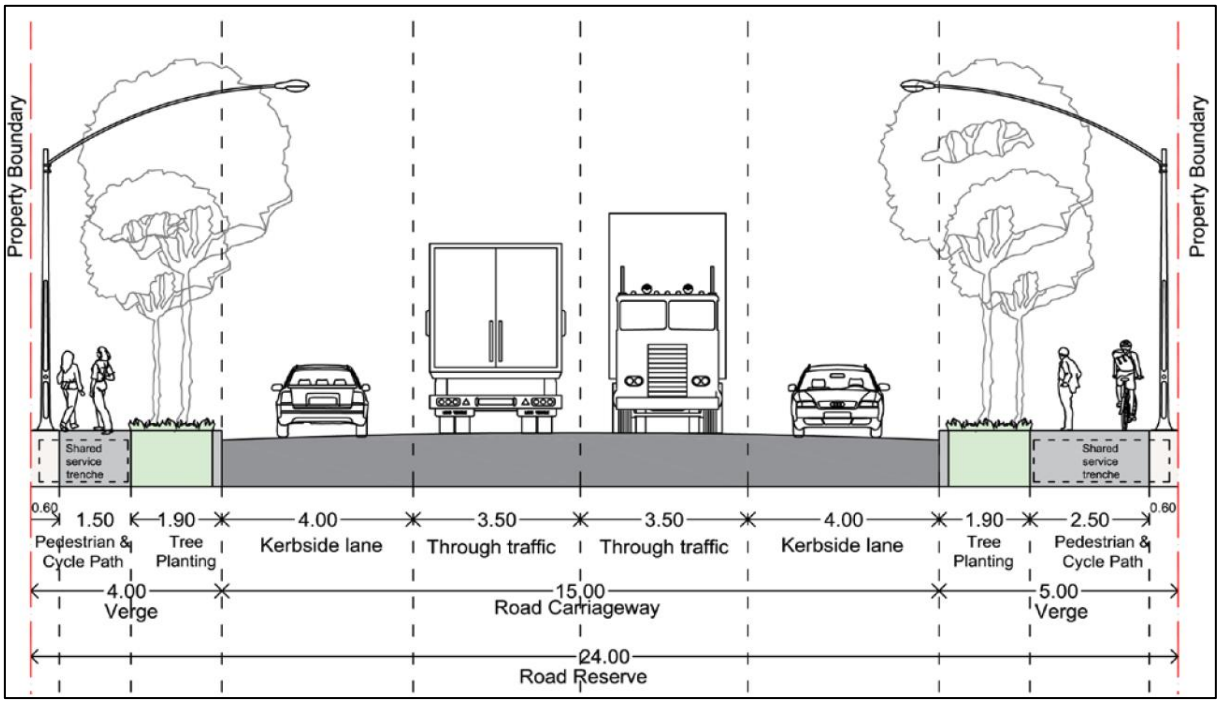


Figure 10: Draft DCP Typical Local Industrial Road

Source: Mamre Road Precinct Draft DCP 2020

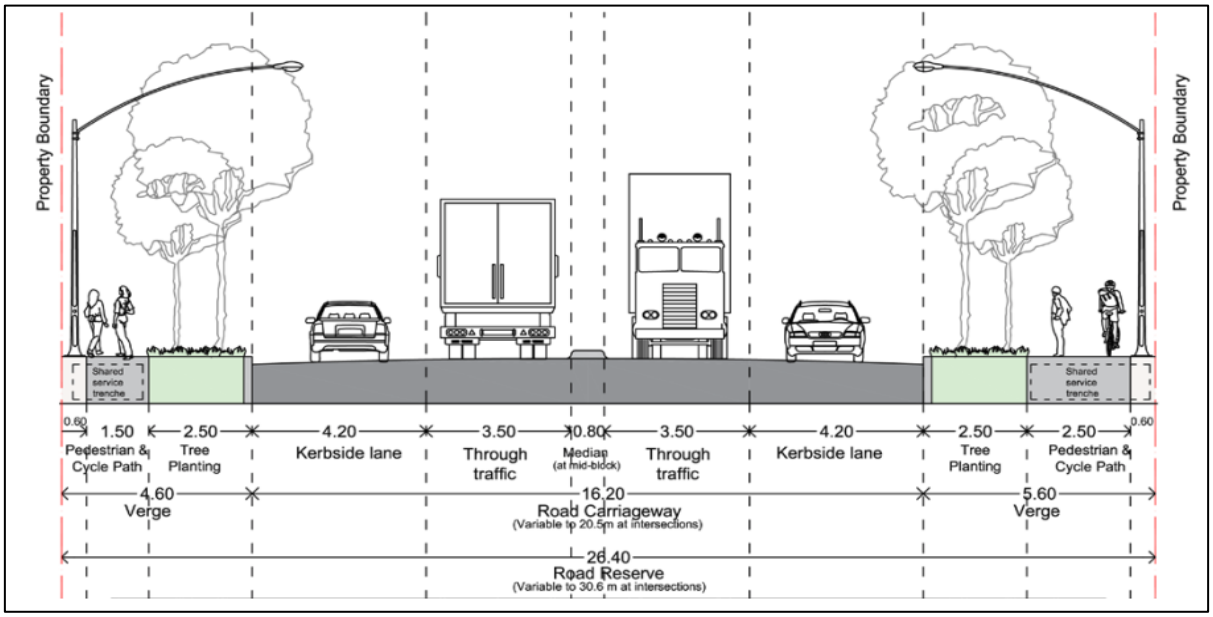


Figure 11: Draft DCP Typical Distributor/Collector Road

Source: Mamre Road Precinct Draft DCP 2020

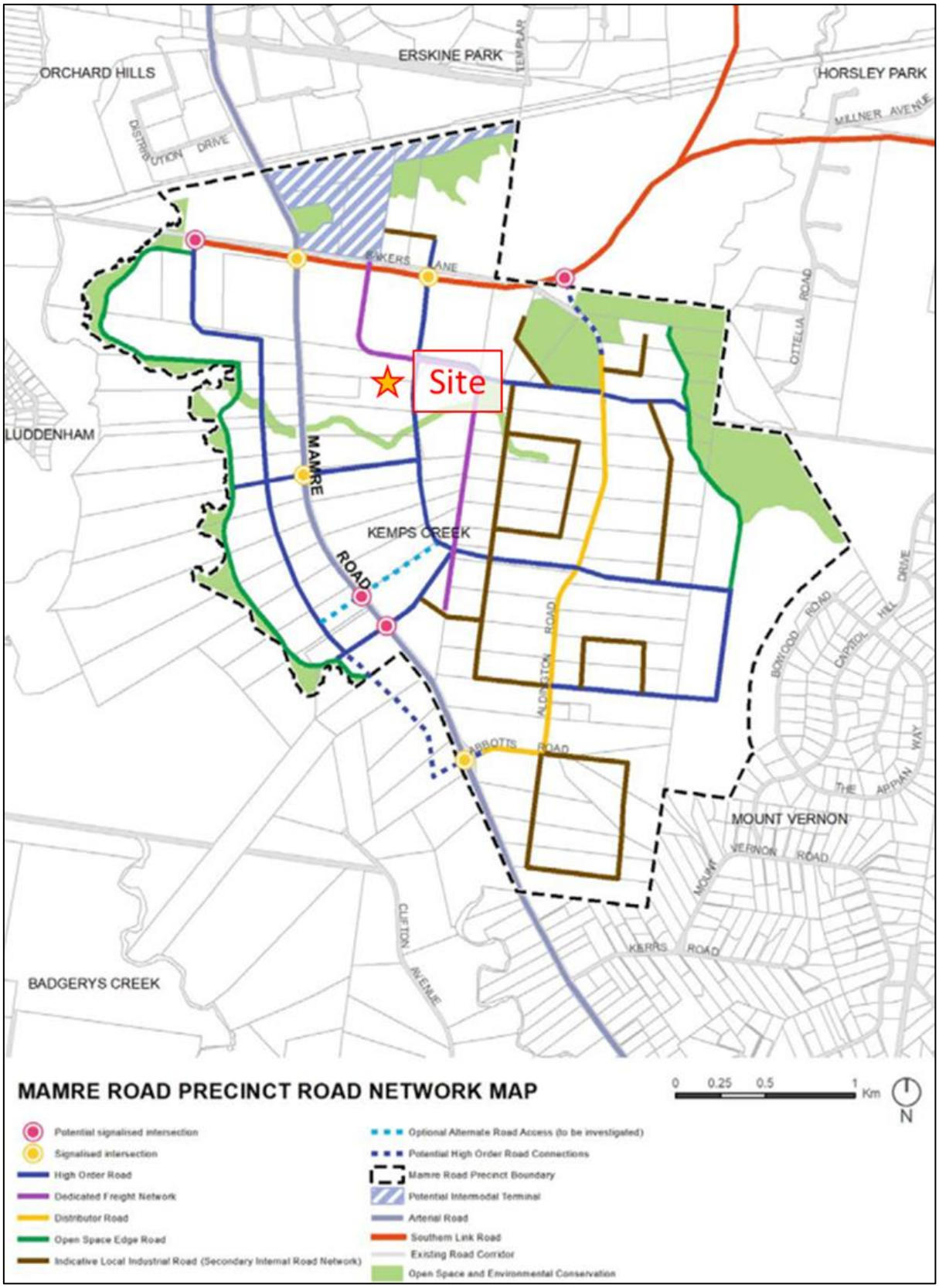


Figure 12: Draft DCP Proposed Precinct Roads

Source: Mamre Road Precinct Draft DCP 2020

6 Public & Active Transport Opportunities

6.1 Public Transport

It is evident that the Site is not directly serviced by public transport at this time (**Figure 13**); notwithstanding, opportunities for future connections have been identified, noting again that the MR Upgrade specifically provides for new bus stops along its entire route.

The planning of bus services in Sydney is governed by the *NSW Service Planning Guidelines,* which aim to establish Strategic Transport Corridors and a hierarchy of bus route types that:

- Link to regional centres (such as Penrith and Mt Druitt);
- Pass through patronage generators such as district centres, TAFE colleges, hospitals and universities;
- Connect with other transport modes (trains, ferries and other buses);
- Are multifunctional (serving journeys to work, education, shopping and recreation);
- Are direct and frequent; and
- Meet the network planning principles.

It is also the case that the 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.

While the internal MRP road network will be finalised further to the outcomes of the TfNSW modelling, it is anticipated that internal roads – which would already provide greater width to accommodate heavy vehicle movements – would also therefore be bus capable. There are significant opportunities therefore to provide sub-regional services along Mamre Road, as well as services within the MRP itself to maximise the number of sites that lie within 400m of a viable bus service.

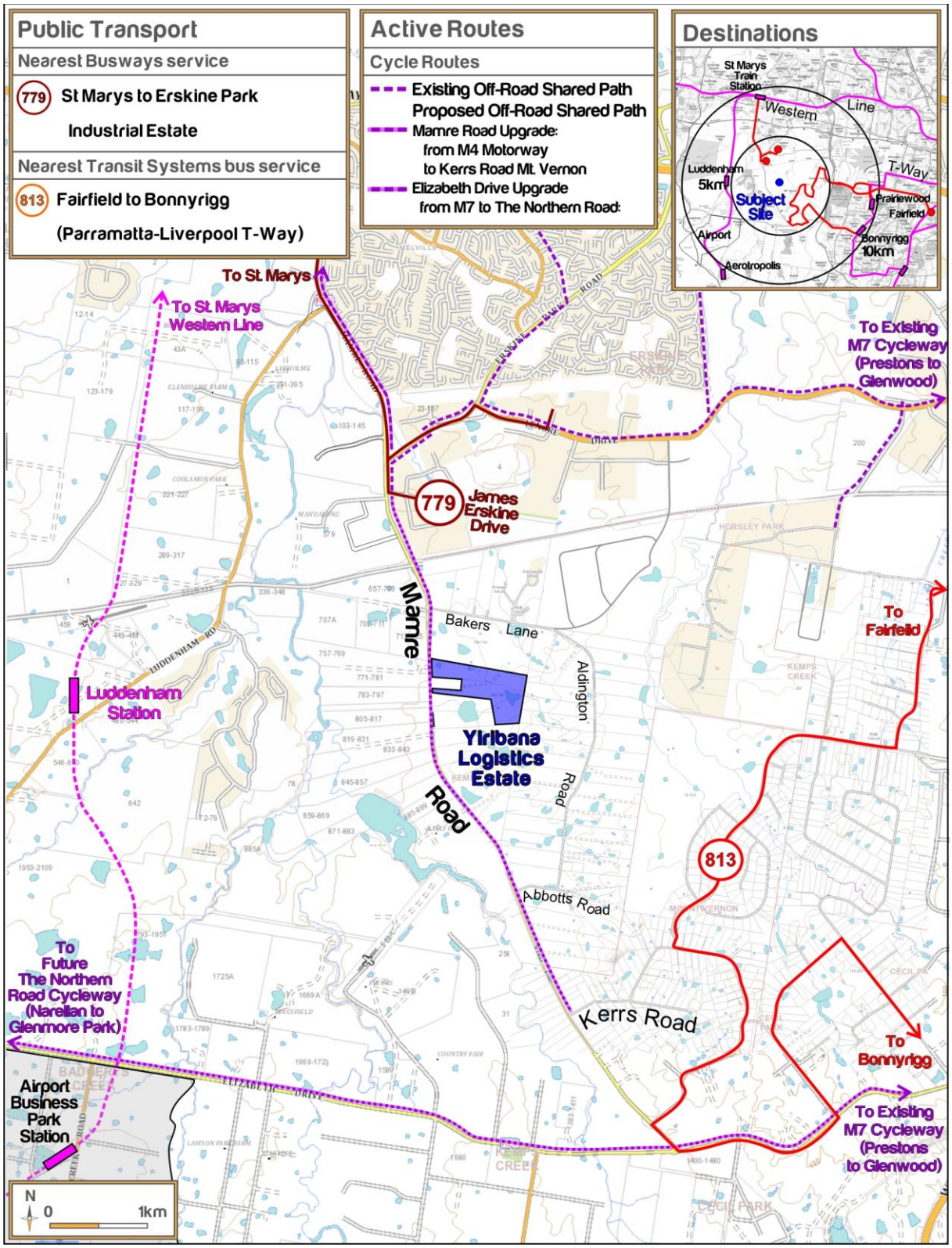


Figure 13: Public Transport Network

Key bus routes identified in the BWSEA Structure Plan are shown in **Figure 14**.

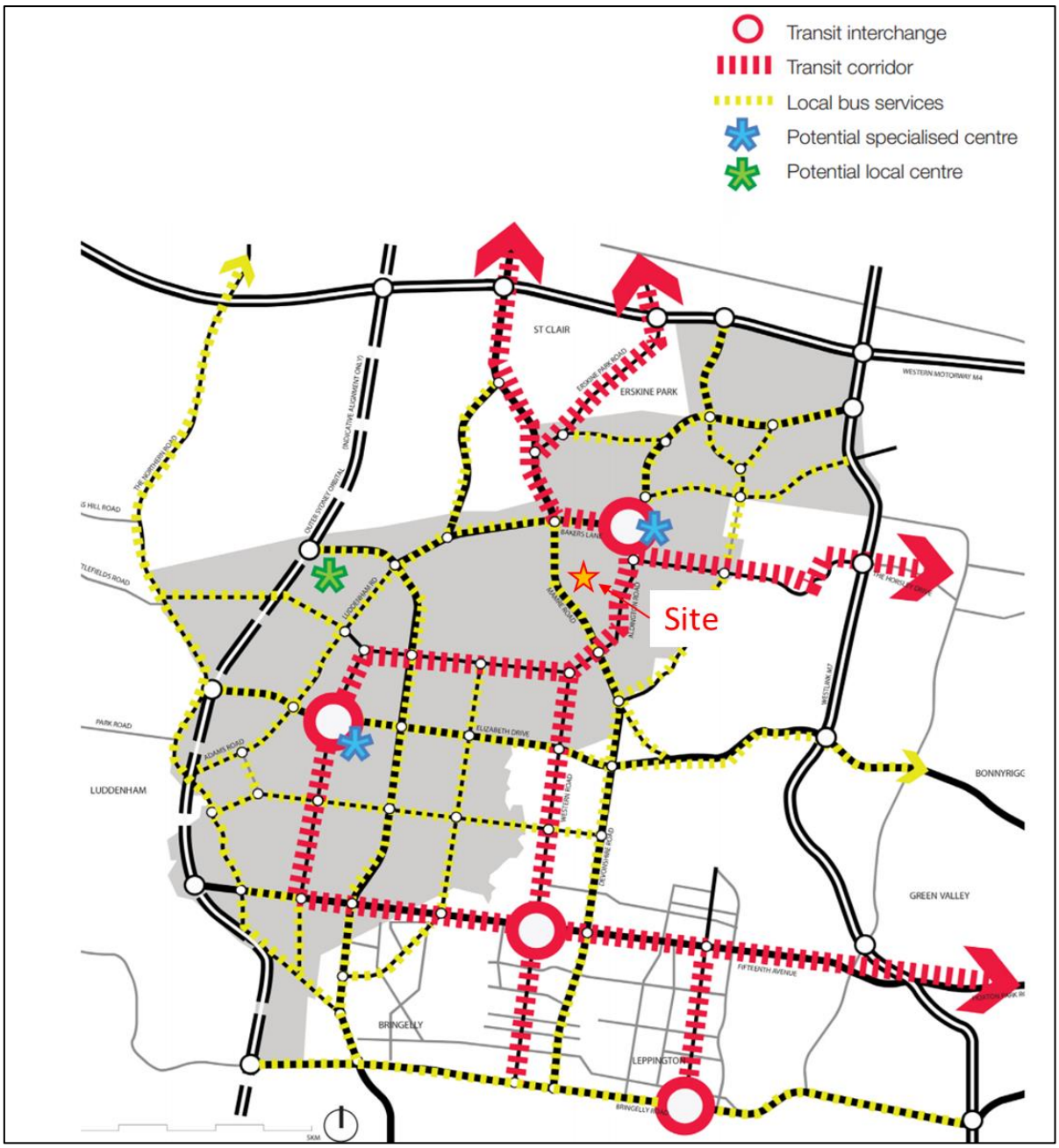


Figure 14: BWSEA Bus Routes

Source: BWSEA Structure Plan

6.2 Train Services – Metro Western Sydney Airport

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 15**. While the closest station to the Site will likely be Luddenham Station, located some 4km (as the crow flies) to the 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.

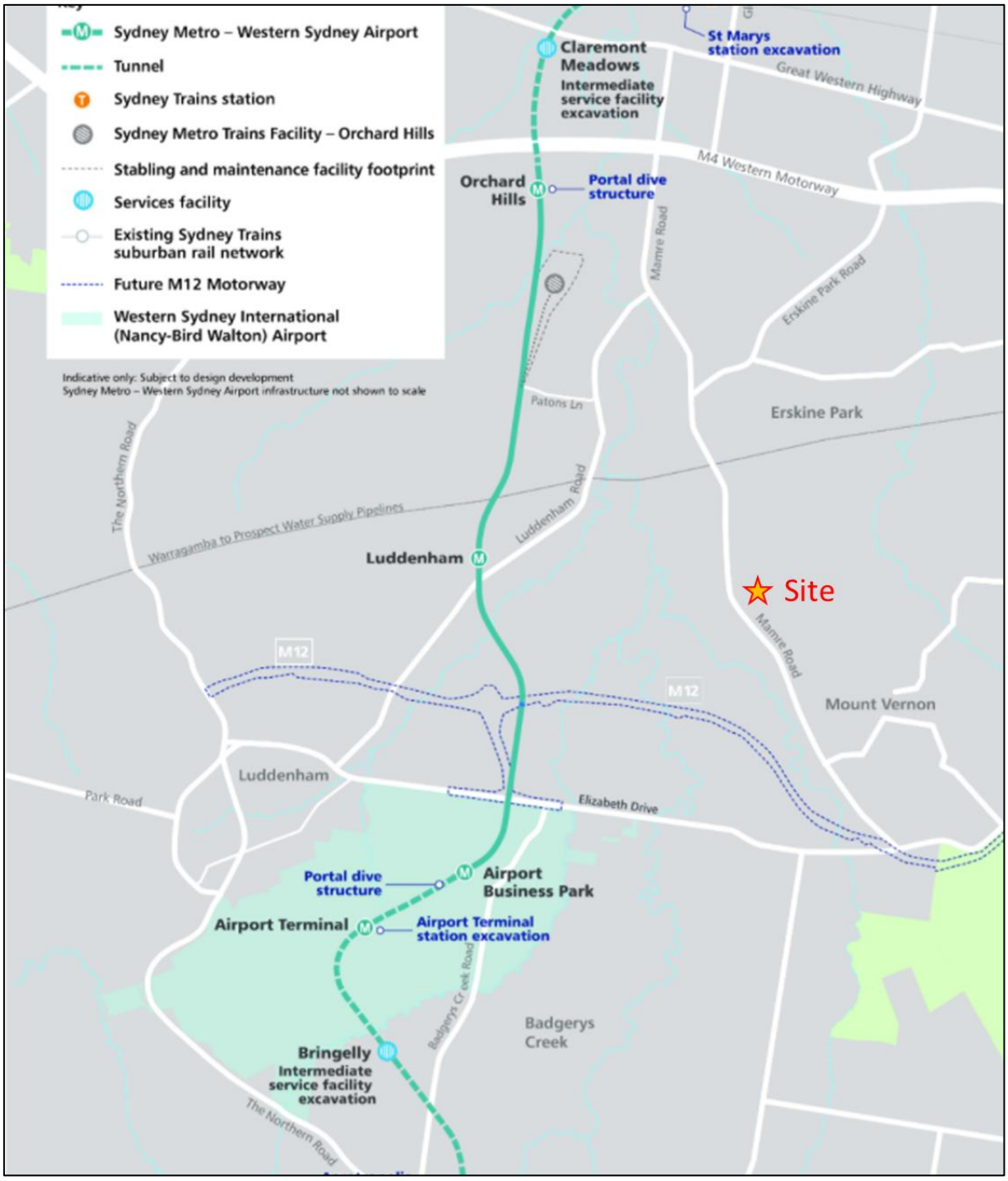


Figure 15: BWSEA Transit Corridors Metro Western Sydney Airport Alignment

6.3 Cycling

At present, shared paths (pedestrian and cycle) are provided along Erskine Park Road and sections of Mamre Road to the north of the Site. There are also some on-street bicycle lanes provided on Mamre Road to the north of the Site.

Notwithstanding the above, there is generally 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 16**, noting again that the MR Upgrade will provide shared paths along at least one side of the road for its entire length.

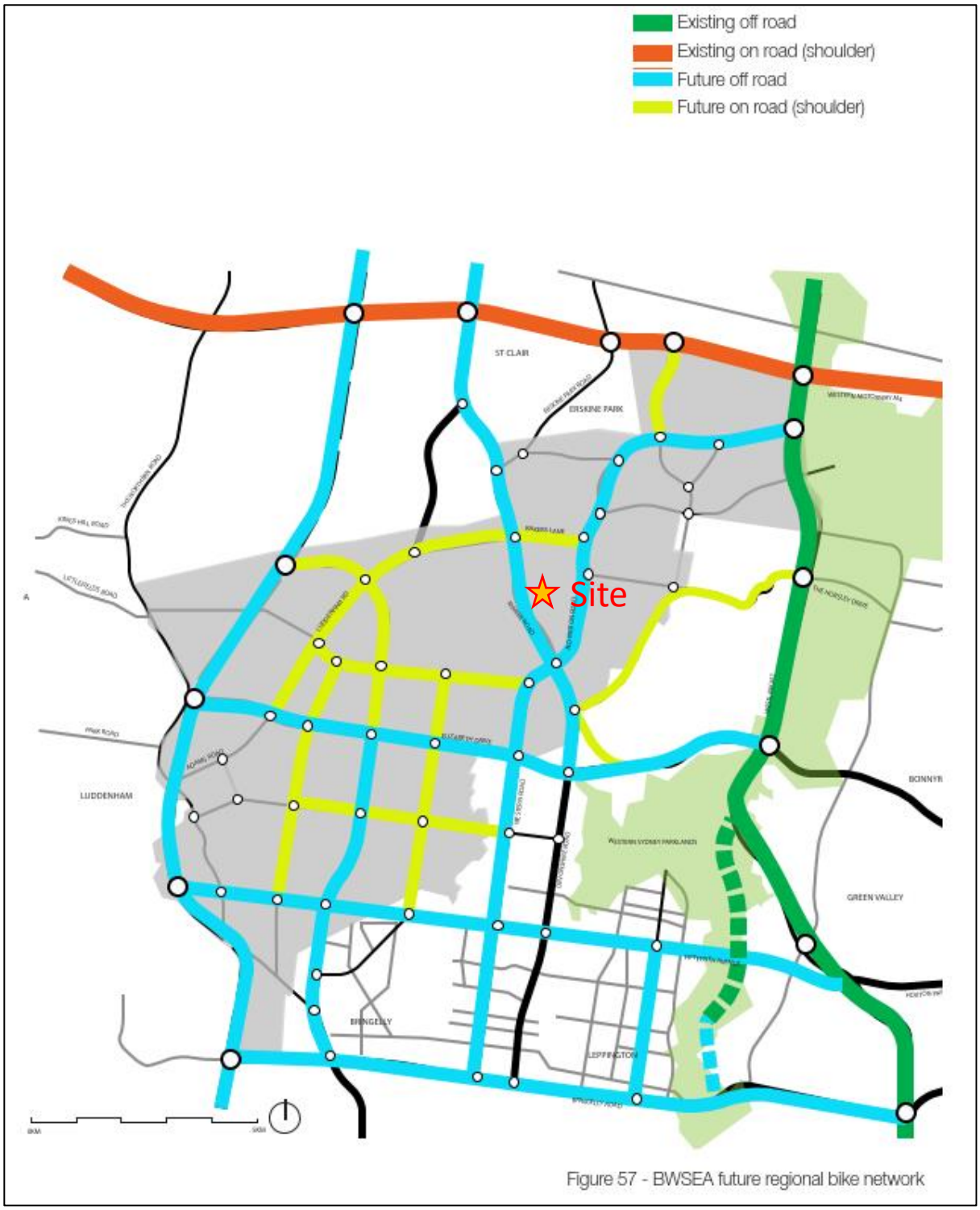


Figure 16: BWSEA Active Transport Network

Source: BWSEA Structure Plan

7 Traffic Imapct Assessment

7.1 Trip Rates

The assessment of industrial development within Western Sydney has generally – in recent years – referenced the trip generation rates provided in the RMS Guide Update, and specifically sites displaying the similar characteristics of (large scale) industrial development, including the Erskine Park Industrial Estate, and the Wonderland Business Park, Eastern Creek Roads & Maritime survey sites (as detailed in the RMS Guide Update).

However, the trip rates that TfNSW have directed by adopted for the MRP modelling assessment process with TfNSW are shown by **Table 3**.

Table 3: TfNSW Agreed 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

To ensure consistency with the background MRP modelling assessment being undertaken separately, these rates have been adopted for the purposes of this assessment.

7.2 Traffic Generation

Further to the adoption of the trip rate as described above, **Table 4** and **Table 5** provide a summary of the Site's traffic generation further to the Stage 1 and Master Plan Proposal. A breakdown of the Site's daily traffic profile, based on the survey data available, is shown in **Appendix A**; it is noted that there are minor differences between the peak hour volumes reported in Table 5 and those reported in Appendix A further to minor rounding changes.

Table 4: Stage 1 Traffic Generation

SSDA Proposal	GFA (m^2)	Rate per 100m^2	Trips
Daily Trips	157,860	2.91	4,594
Local Road AM Peak (7am – 8am)		0.23	363
Local Road PM Peak (4pm – 5pm)		0.24	379
Site Maximum Generation Rate (All Vehicles)		0.26	410
Site Maximum Generation Rate (Heavy Vehicles)		0.07	111

Table 5: Master Plan Traffic Generation

SSDA Proposal	GFA (m^2)	Rate per 100m^2	Trips
Daily Trips	157,860	2.91	4,594
Local Road AM Peak (7am – 8am)		0.23	363
Local Road PM Peak (4pm – 5pm)		0.24	379
Site Maximum Generation Rate (All Vehicles)		0.26	410
Site Maximum Generation Rate (Heavy Vehicles)		0.07	111

7.3 Trip Distribution

7.3.1 Arrival & Departure Distribution

The arrival and departure distribution of trips to and from the Site during the AM and PM peak periods has been based on that agreed with TfNSW as part of the MRP modelling assessment and has been based on surveys of local industrial sites and, the 2019 Land Use Strategic Traffic Forecasting Model (STFM). An Aimsun Subnetwork Assessment was also undertaken to understand the distribution of traffic volumes within the 2026 interim MRP road network, with the turn volumes extracted from the peak hour to undertake a SIDRA Intersection assessment.

With regard to access to and from Mamre Road, the key intersection with regards to the Site is the Mamre Road / Aspect Industrial Estate New Road (New Road) intersection. It is noted that this intersection forms one of the key intersections for the MRP.

While there are so many factors influencing the intersection requirements for the Mamre Road / New Road intersection, it is difficult to assess the specific requirements for the Site itself. As has been discussed, the key purpose of this assessment is to inform the interim requirements for the earlier stages of development, while the wider network upgrades are investigated by DPIE and TfNSW.

Therefore, the following summarises the findings of the 2026 interim modelling assessment undertaken on behalf of the LOG.

7.4 Adjacent Sites – Cumulative Assessment

7.4.1 2026 Interim Assessment

The relevant sites within the MRP that are relevant to this assessment, and the forecast GFA adopted for the purposes of the 2026 interim assessment are provided within **Table 6**. These GFAs represent 75% of each of the relevant sites.

Table 6: Cumulative Sites GFA

Site Address	SSD	GFA (m^2) by 2026
657-769 Mamre Road	SSD-9522	242,488
754-770, 772-782 & 784-786 Mamre Road	Site (SSD-10272349) plus 772-782 Mamre Rd	131,460
788-804, 806-824, 826-842, 844-862, & 864-882 Mamre Road (Aspect Industrial Estate)	SSD-10448	186,684
884-902 & 904-928 Mamre Road	SSD-17647189	61,158
59-63 Abbotts Road & 290-308 Aldington Road, Kemps Creek	SSD-9138102	118,601
99-111 Aldington Rd	-	25,806
155-217 Aldington Rd	SSD-17552047	141,699
200 Aldington Rd	SSD-10479	281,816
Total	-	**1,189,712**

This assumes a total GFA of 1,189,712m^2 to be complete by 2026. On the basis of the trips rates agreed with TfNSW for the purposes of the Precinct modelling assessment this equates to the following:

- 2,736 AM peak hour trips; and
- 2,855 PM peak hour trips.

7.5 Intersection Operations: External Intersections

7.5.1 SIDRA Intersection Model

The future operation of the proposed signalised intersection of Mamre Road and Abbotts Road has been assessed using the Roads & Maritime approved SIDRA intersection model. The SIDRA model provides a number of outputs by which to measure the performance of an intersection, including:

- **Average Vehicle Delay (AVD):** AVD (or average delay per vehicle in seconds) for intersections is used to determine an intersection's Level of Service (see below). For signalised intersections, the AVD reported relates to the average of all vehicle movements through the intersection.
- **Degree of Saturation (DOS):** DOS is defined as the ratio of demand (arrival) flow to capacity.
- **Level of Service (LOS):** LOS is a comparative measure that provides an indication of the operating performance, based on AVD.

Table 7 provides the SIDRA recommended criteria for the assessment of intersections with reference to the RMS Guide.

Table 7: SIDRA Level of Service Criteria

Level of Service	Average Delay per Vehicle (s)	Traffic Signals & Roundabout	Give Way & Stop Signs
A	less than 14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals, incidents will cause excessive delays	At capacity, requires other control mode
		Roundabouts require other control mode	
F	More than 70	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode or major treatment.

7.5.2 2026 Base + Development Intersection Operations

The proposed interim intersection layout that has been assessed for the Mamre Road / New Road intersection is shown by **Figure 17**.

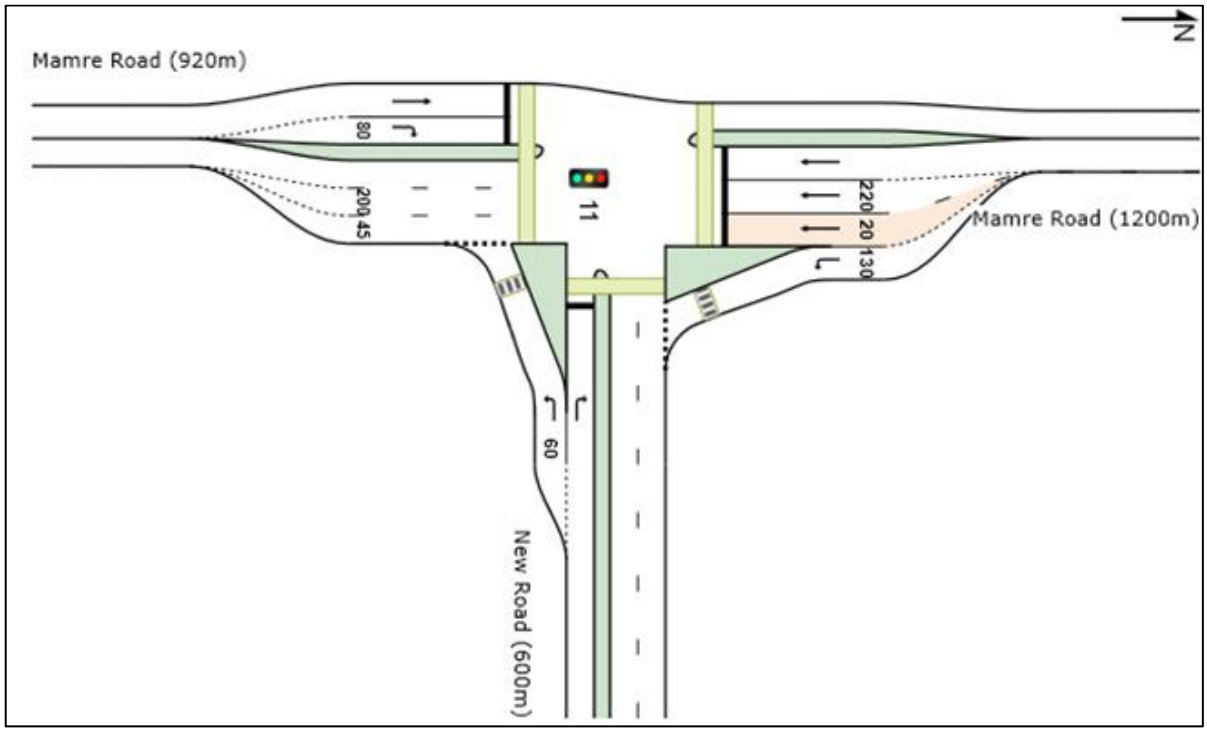


Figure 17: Interim 2026 SIDRA Intersection Layout

The operation of the key Mamre Road / New Road intersection in 2026 is summarised in **Table 8** with the SIDRA outputs provided as **Appendix C**.

Table 8: Scenario 1 Intersection Operations

Intersection	Scenario	Period	Intersection Delay	Level of Service
Mamre Road / New Road	Signals (Interim Upgrade)	AM	10.9	A
		PM	29.1	C

With reference to Table 8, the SIDRA analysis indicates that the proposed intersection can accommodate the traffic generation associated with 75% of the traffic associated with the initial development of the relevant LOG sites.

Until the wider MRP modelling assessment has been completed, further assessment of the network will not provide meaningful results until the background traffic flows and distribution (and the road network required to accommodate them) is understood.

It is assumed that the intersection would require additional capacity over that shown by the interim layout assessed. However, this relates to the background traffic flows, rather than the Site itself. The Site represents just 4% of the total area within the MRP therefore, it is clear that – while the findings of the MRP modelling are still outstanding – the Proposal itself does not warrant the provision of any further network upgrades when considered against the context of the wider MRP.

As such – and notwithstanding the outcomes of MRP modelling currently being undertaken – the assessment has demonstrated that the proposed interim arrangements are sufficient to accommodate the Proposal while the wider upgrades are being finalised and undertaken. It is therefore concluded that the Proposal can be supported on traffic grounds.

8 Transport Assessment

8.1 Existing Travel Patterns

8.1.1 Journey to Work Data Analysis

Journey-to-Work (JTW) data from the Australian Bureau of Statistics (ABS) 2016 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 9**.

Table 9: Travel Mode Summary (Journey to Work)

Travel Mode	Mode Share of Employees
Car as Driver	92%
Train	0%
Bus	2%
Walked only	1%
Car as passenger	3%
Motorbike/Scooter	0%
Bicycle	0%
Taxi	1%
Other Modes	1%

With reference to Table 9, it is evident that the private vehicle (car) is the overwhelming preferred mode of choice for commuters travelling to work in in the area. The data indicates that 95% travel to work by car with 92% as the driver and 3% 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 RMS Guide Update 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, it is clear that the existing census data is reflective of existing travel patterns of industrial development.

8.2 Measures to Reduce Private Vehicle Use

8.2.1 Delivering the Vision of the Aerotropolis

Noting that, from a strategic planning level, the MRP forms of one of the initial precincts of the Aerotropolis (although not included within SEPP WSA), the background studies provide some context with regards to travel demand management.

The AECOM Report is one of the technical reports supporting the delivery of the Draft Aerotropolis Precinct Plan (November 2020) vision, which aims to create *"Sustainable urban connections* including *efficient and accessible public transport links, walking and cycling facilities"*. 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.

8.2.2 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 D**). 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.

8.3 Future Travel Patterns

The FSTP within Appendix D 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 10** 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 DPIE. The developable land within the Estate totals 30 hectares. On this basis therefore, it is assumed that the Site could accommodate approximately 600 employees.

Table 10: Site Travel Mode Targets and Subsequent Person One-way Trips by 2026

Travel Mode	Mode Share %	Daily
Car as driver	88%	528
Car as passenger	3%	18
Train	0%	0
Bus	4%	24
Walked only	1%	6
Bicycle	1%	6
Taxi	1%	6
Motorbike/Scooter	1%	6
Other Modes	1%	6
Total	-	**1,000**

The analysis indicates that 24 persons would use bus to access the Estate 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 would be recommended to try to exceed the level of bus travel to the Estate; 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.

9 Car Parking Requirements

9.1.1 Precinct Parking Rates

The currently applicable rates are outlined in Part C10, Table C10.2 *Car Parking Rates* of the Penrith DCP, which specifies requirements for various industrial and business premises.

However, the Site will ultimately be subject to a finalised version of the Draft DCP, and the Proposal has therefore been assessed its requirements. There is no information to suggest that these parking rates, which have been adopted at similar sites across the WSEA, would not also be adopted in the finalised DCP. The requirements of the Draft DCP are provided within **Table 11**.

Table 11: Draft DCP Parking Rates

Land Use	Minimum Parking Rate
Warehouse	1 space per 300m^2 or 1 space per 4 employees, whichever is the greater
Factory	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

9.1.2 Adopted Parking Rates & Parking Provision

Table 12 details the requirements for Proposal, based on the parking rates detailed in Table 11.

As per Table 12, the Proposal requires 675 parking spaces and 717 parking spaces are provided, exceeding the requirements of the adopted parking rate. Therefore, the Proposal can provide full compliance with the adopted rates.

Table 12: Car Parking Requirements & Proposed Provision

Lot	Land Use	GFA (m^2)	Requirement (spaces)	Currently Proposed
1	Warehouse	19,525	65	87
	Office	505	13	
	Sub Total	**20,030**	**78**	
2	Warehouse	22,870	76	111
	Office	1,000	25	
	Sub Total	**23,870**	**102**	
3	Warehouse	36,420	121	167
	Office	1,730	43	
	Sub Total	**38,150**	**165**	
4	Warehouse	41,480	138	195
	Office	2,000	50	
	Sub Total	**43,480**	**189**	
5	Warehouse	30,830	103	157
	Office	1,500	38	
	Sub Total	**32,330**	**141**	
Total	-	**157,860**	**675**	**717**

9.1.3 Additional Parking Considerations

The Draft 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, 2 accessible parking spaces have been 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.

9.1.4 Bicycle Parking

The Draft DCP refers to the document '*Planning Guidelines for Walking and Cycling*' (NSW Government 2004) for the bicycle parking requirements. This requires bicycle parking for industrial uses to be provided for 3-5% of the staff population.

While there is currently a lack of cycle facilities in the area, it is anticipated that such facilities will be developed as part of the broader WESA, and that as such, consideration should be given to providing appropriate bicycle facilities (such as bicycle parking and end of journey facilities) within the Site. Given the nature of the Site, it is anticipated that if required, cycle parking could be readily accommodated in the future (when appropriate, to avoid any inefficient use of space).

10 Access, Parking and Servicing Design

10.1 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 2890.1:2004).
- 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 2890.6:2009 Parking Facilities - Off Street Parking for People with Disabilities (AS 2890.6:2009).
- Penrith Council Development Control Plan 2014
- NSW Department of Planning, Industry and Environment, Mamre Road Precinct Draft Development Control Plan, November 202
- PCC Engineering Construction Specification for Civil works (Engineering Specifications)
- PCC Design Guidelines for Engineering Works for Subdivisions and Developments (Engineering Guidelines)
- 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)

10.2 Design Vehicles

The check vehicle adopted for the development is a 30m PBS Type 2 vehicle for each of the 5 lots proposed, with a 26m b-double vehicle and 20m Articulated Vehicle (AV) adopted as the design vehicle.

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.

10.3 Access Driveways

All access driveways (to the proposed road network within the MRP) have been, and shall be, designed with reference to AS 2890.1:2004, AS 2890.2:2018, and any other relevant published road design / road engineering guidelines.

Truck access driveways shall be designed to provide for vehicles up to and including a 30m PBS Type 2 vehicle 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 2890.1:2004 and any other relevant Council Engineering Guidelines.

It is anticipated that full access driveway design compliance with AS 2890.1:2004 and AS 2890.2:2018 would form a standard Condition of Consent further to approval.

10.4 Parking Areas

All parking areas, including access aisles and parking modules shall be designed with reference to AS 2890.1:2004 and AS 2890.6:2009. It is anticipated that full parking area design compliance with AS 2890.1:2004 and AS 2890.6:2009 would form a standard Condition of Consent further to approval.

10.5 Service Areas

All service areas shall be designed with reference to AS 2890.2:2018, and again provide for the movement of vehicles up to and including a 30m PBS Type 2 vehicle as check vehicle, and 20m AV as design vehicle.

It is anticipated that service area design compliance with AS 2890.2:2018 would form a standard Condition of Consent further to approval.

.

11 Conclusions

Ason Group has been engaged by The GPT Group to prepare a Transport Management and Accessibility Plan (TMAP) in relation to the State Significant Development for an industrial development located on Lots 59-60, Mamre Road, 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.
- The key long-term access to the Site will be provided via new signalised intersection to Mamre Road, accessed by way of the southern development site (i.e., Mirvac's Aspect Industrial Estate). Therefore, the long-term access to the Site will be dependent on a connection being made available to this neighbouring site.

  In the interim period, a temporary access road is proposed providing a direct connection to the Site.
- The trip generation rate adopted for the assessment are consistent with the rates being adopted for the MRP background modelling, being undertaken by TfNSW.
- A cumulative traffic generation assessment shows that a total of 1,189,712m^2 GFA within the wider MRP could generate some 2,736 AM peak hour trips and 2,855 PM peak hour trips traversing through the intersection of Mamre Road / New Road by an assessment year of 2026.
- SIDRA intersection analysis indicates that the intersection will operate at LOS A in the AM peak and LOS C in the PM peak. As such – and notwithstanding the outcomes of MRP modelling currently being undertaken – the assessment has demonstrated that the proposed interim arrangements are sufficient to accommodate the Proposal while the wider upgrades are being finalised and undertaken.
- All internal Lots circulation, hardstand and parking areas have been designed with reference to the Australian Standards and provide for vehicles up to and including a 30m PBS Type 2 vehicle.
- Parking has been provided in accordance with the rates detailed in the Draft DCP, and includes an appropriate allocation of accessible parking spaces.
- 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.
- 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 design changes if required.

Appendix A

Master Plan Hourly Traffic Generation

Time Period	Vehicle Movements			
Starting	LV	CV	TOTAL	Hourly total
0:00	2	0	2	3
0:15	1	0	1	1
0:30	0	0	0	1
0:45	0	0	0	2
1:00	0	0	0	3
1:15	1	0	1	4
1:30	1	0	1	3
1:45	1	0	1	3
2:00	1	0	1	3
2:15	0	0	0	3
2:30	1	0	1	5
2:45	0	1	1	8
3:00	1	0	1	13
3:15	1	1	2	14
3:30	2	2	4	15
3:45	4	2	6	19
4:00	1	1	2	21
4:15	2	1	3	25
4:30	5	3	8	28
4:45	5	3	8	31
5:00	5	1	6	37
5:15	5	1	6	44
5:30	9	2	11	56
5:45	13	1	14	60
6:00	12	1	13	69
6:15	16	2	18	92
6:30	13	2	15	109
6:45	20	3	23	123
7:00	29	7	36	133
7:15	30	5	35	121
7:30	24	5	29	111
7:45	26	7	33	102
8:00	16	8	24	89
8:15	12	13	25	88
8:30	10	10	20	89
8:45	10	10	20	93
9:00	14	9	23	102
9:15	17	9	26	105
9:30	15	9	24	98
9:45	19	10	29	91
10:00	17	9	26	80
10:15	12	7	19	71
10:30	12	5	17	69
10:45	13	5	18	67
11:00	13	4	17	64
11:15	15	2	17	64
11:30	13	2	15	63
11:45	14	1	15	67
12:00	15	2	17	69
12:15	14	2	16	72
12:30	17	2	19	77
12:45	15	2	17	77
13:00	15	5	20	77

13:15	18	3	21	75
13:30	15	4	19	69
13:45	13	4	17	68
14:00	12	6	18	63
14:15	8	7	15	64
14:30	9	9	18	62
14:45	6	6	12	63
15:00	12	7	19	64
15:15	9	4	13	63
15:30	13	6	19	67
15:45	9	4	13	71
16:00	12	6	18	79
16:15	10	7	17	89
16:30	16	7	23	97
16:45	14	7	21	108
17:00	22	6	28	122
17:15	22	3	25	133
17:30	27	7	34	140
17:45	30	5	35	129
18:00	31	8	39	109
18:15	26	6	32	84
18:30	18	5	23	65
18:45	13	2	15	52
19:00	12	2	14	45
19:15	11	2	13	40
19:30	8	2	10	32
19:45	7	1	8	26
20:00	6	3	9	24
20:15	2	3	5	23
20:30	2	2	4	26
20:45	2	4	6	32
21:00	4	4	8	33
21:15	5	3	8	34
21:30	6	4	10	32
21:45	4	3	7	27
22:00	6	3	9	27
22:15	3	3	6	23
22:30	3	2	5	21
22:45	4	3	7	22
23:00	4	1	5	19
23:15	3	1	4	
23:30	5	1	6	
23:45	3	1	4	
Total	**994**	**354**	**1348**	

*CV = commercial vehicle (trucks)

Appendix B

Development Traffic Flows

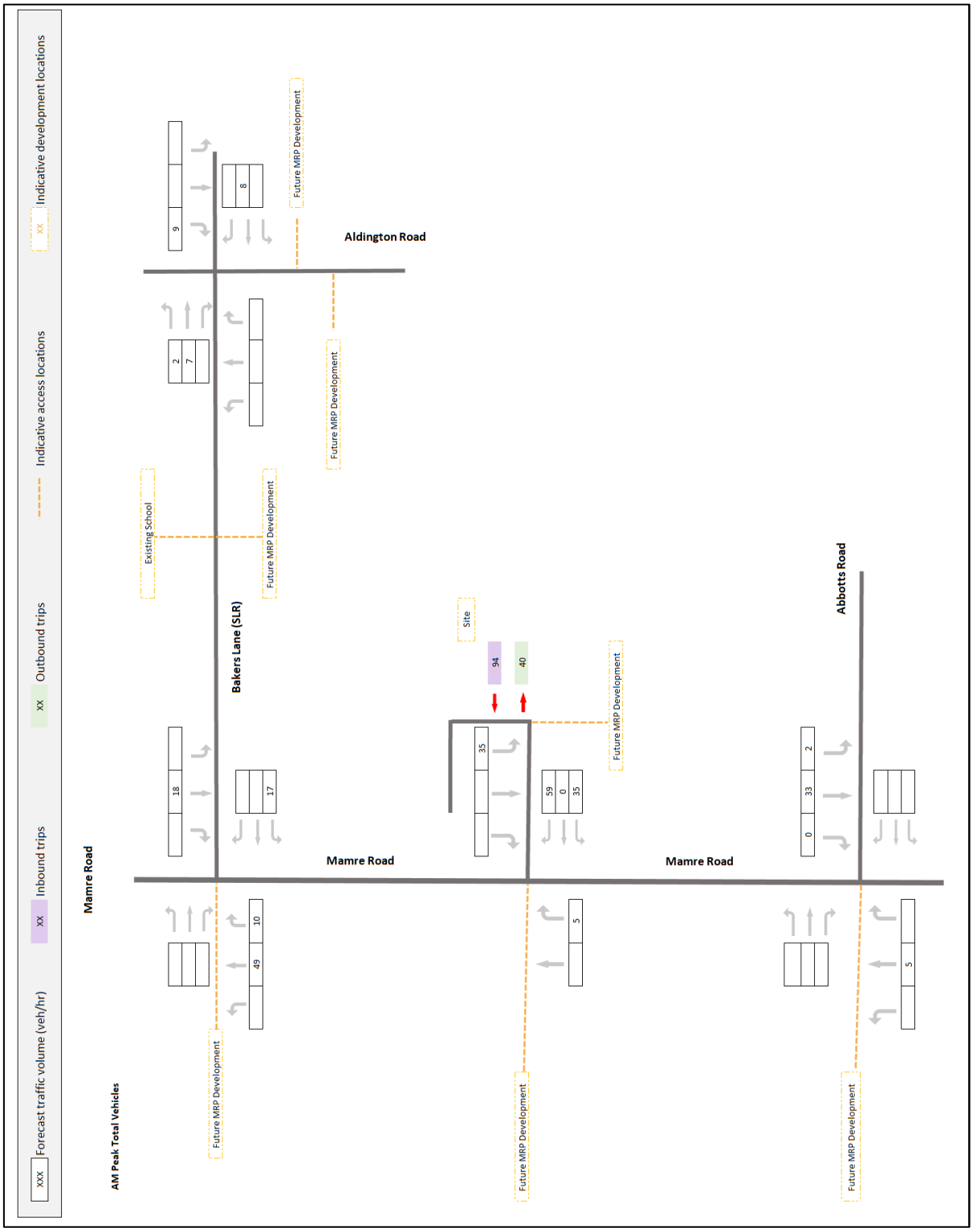


Figure 18: 2026 AM Peak Hour Development Traffic Distribution

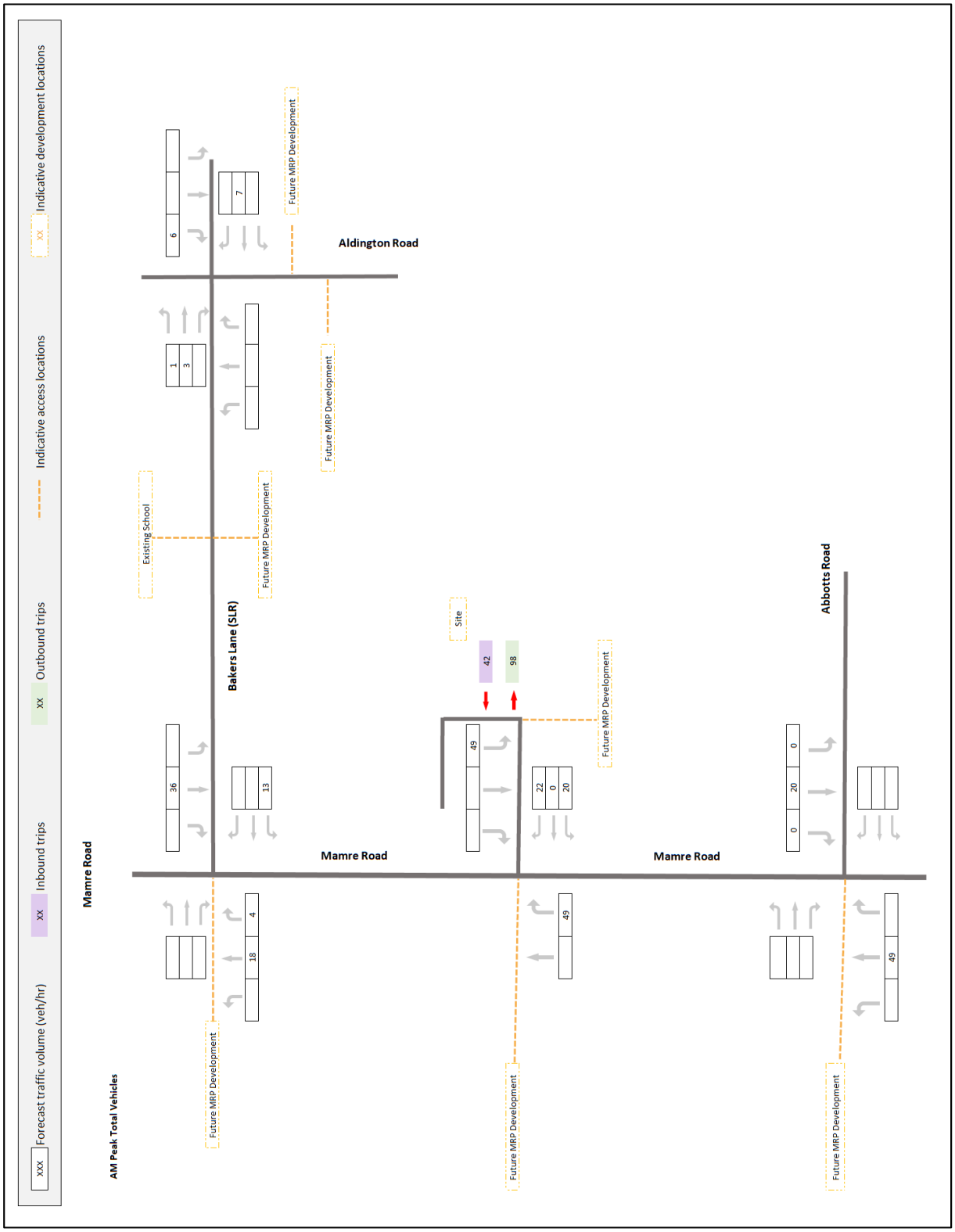


Figure 19: 2026 PM Peak Hour Development Traffic Distribution

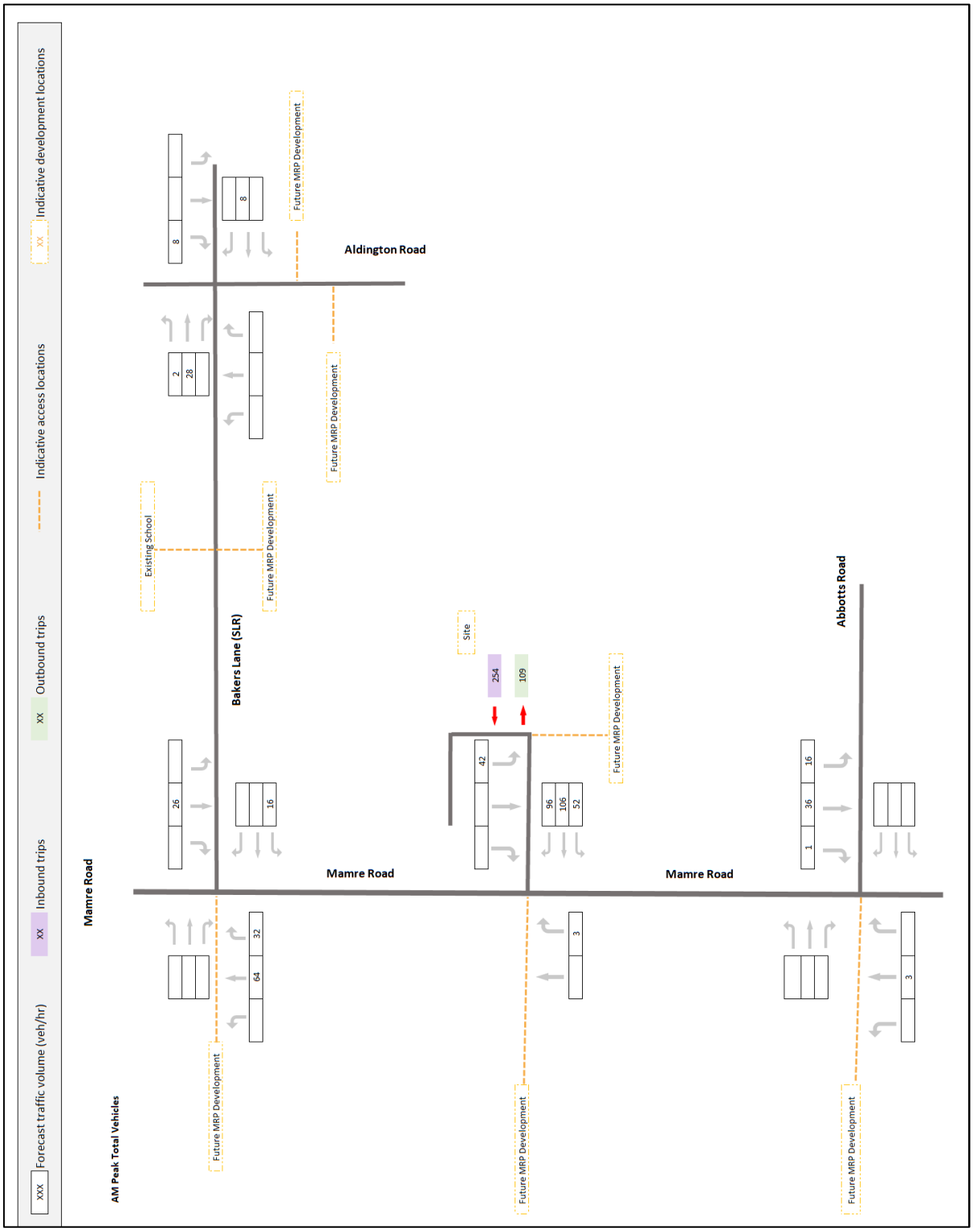


Figure 20: 2036 AM Peak Hour Development Traffic Distribution

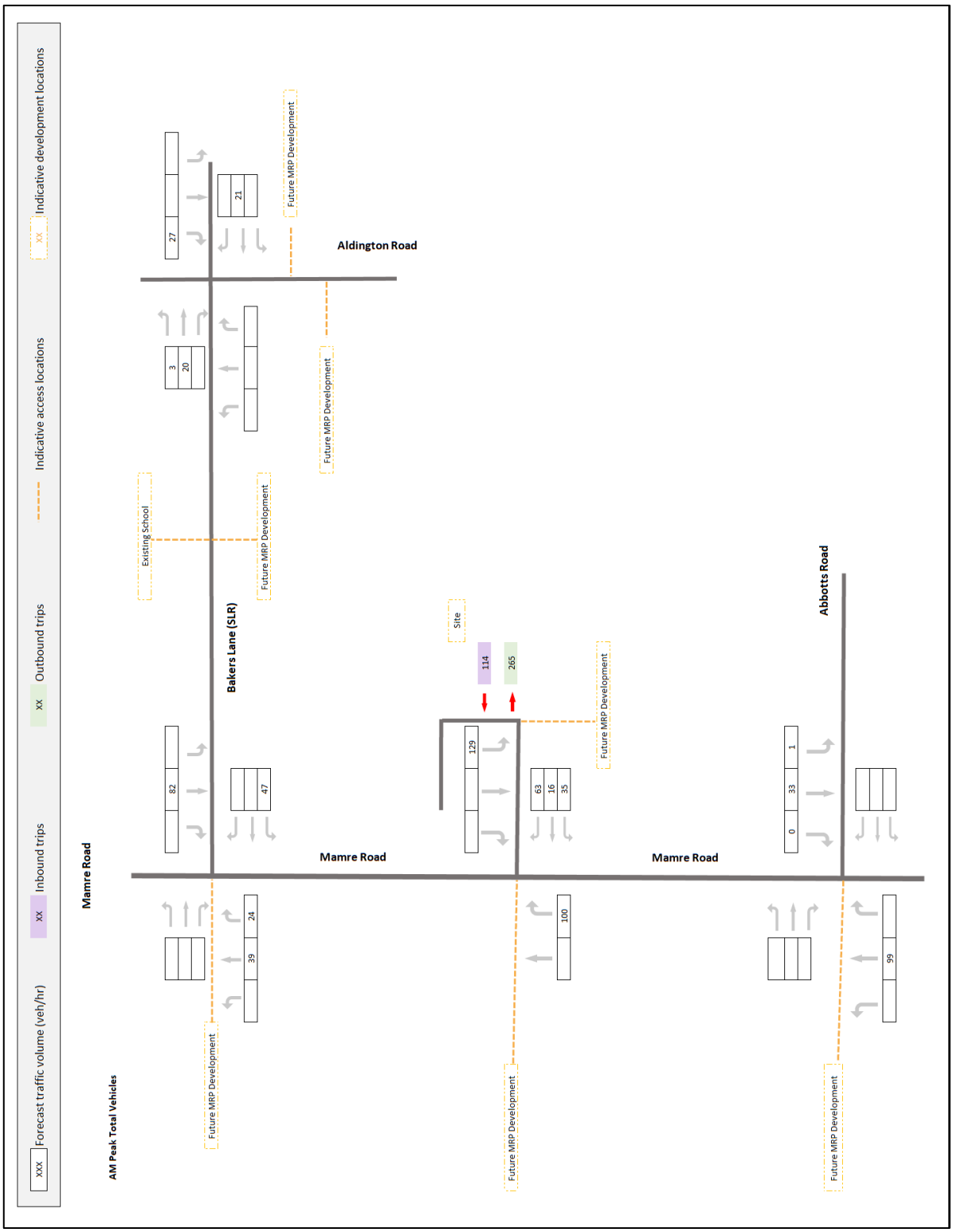


Figure 21: 2036 PM Peak Hour Development Traffic Distribution

Appendix C

SIDRA Output Summaries

MOVEMENT SUMMARY

Site: 11 [(ID: 11) (AM) Mamre Road / New Road - 2026 (Site Folder: 2026 - AM)]

Mamre Road / New Road
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Mamre Road (920m)														
2	T1	980	112	1032	11.4	* 0.772	1.0	LOS A	5.7	46.0	0.09	0.08	0.09	79.2
3	R2	46	28	48	60.9	0.464	75.7	LOS F	3.3	43.9	0.98	0.77	0.98	34.2
Approach		1026	140	1080	13.6	0.772	4.3	LOS A	5.7	46.0	0.13	0.12	0.13	75.9
East: New Road (600m)														
4	L2	77	33	81	42.9	0.152	8.4	LOS A	0.9	9.7	0.22	0.55	0.22	54.8
6	R2	131	45	138	34.4	* 0.773	73.8	LOS F	9.9	102.5	1.00	0.91	1.17	36.5
Approach		208	78	219	37.5	0.773	49.6	LOS D	9.9	102.5	0.71	0.78	0.82	41.1
North: Mamre Road (1200m)														
7	L2	425	88	447	20.7	0.350	9.0	LOS A	4.3	38.5	0.22	0.67	0.22	61.2
8	T1	900	111	947	12.3	0.447	10.3	LOS A	9.9	79.9	0.34	0.30	0.34	72.9
Approach		1325	199	1395	15.0	0.447	9.9	LOS A	9.9	79.9	0.30	0.42	0.30	69.1
All Vehicles		2559	417	2694	16.3	0.773	10.9	LOS A	9.9	102.5	0.27	0.33	0.27	68.5

MOVEMENT SUMMARY

Site: 11 [(ID: 11) (PM) Mamre Road / New Road - 2026 (Site Folder: 2026 - PM)]

Mamre Road / New Road
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Mamre Road (920m)														
2	T1	1144	111	1204	9.7	* 0.968	27.5	LOS B	41.4	326.0	0.28	0.39	0.44	62.2
3	R2	126	19	133	15.1	0.521	66.2	LOS E	8.5	70.9	0.96	0.81	0.96	36.5
Approach		1270	130	1337	10.2	0.968	31.3	LOS C	41.4	326.0	0.34	0.43	0.49	59.2
East: New Road (600m)														
4	L2	180	33	189	18.3	0.270	10.6	LOS A	3.0	26.3	0.31	0.60	0.31	55.9
6	R2	196	40	206	20.4	* 0.948	95.9	LOS F	17.6	157.8	1.00	1.11	1.50	32.8
Approach		376	73	396	19.4	0.948	55.0	LOS D	17.6	157.8	0.67	0.87	0.93	40.1
North: Mamre Road (1200m)														
7	L2	114	66	120	57.9	0.128	9.9	LOS A	1.1	13.4	0.20	0.65	0.20	60.6
8	T1	1048	100	1103	9.5	0.514	19.2	LOS B	15.6	123.4	0.50	0.45	0.50	67.9
Approach		1162	166	1223	14.3	0.514	18.3	LOS B	15.6	123.4	0.47	0.47	0.47	67.2
All Vehicles		2808	369	2956	13.1	0.968	29.1	LOS C	41.4	326.0	0.44	0.50	0.54	59.0

Appendix D

Framework Sustainable Travel Plan

Framework Sustainable Travel Plan

Yiribana Logistics Estate
Lots 59-60, DP259135 Mamre Road, Kemps Creek

Ref: 1427r03
2/06/2021

Info@asongroup.com.au | +61 2 9083 6601 | Suite 17.02, Level 17, 1 Castlereagh Street. Sydney, NSW 2000

Document Control

Project No: 1427

Project: Yiribana Logistics Estate, Mamre Road, Kemps Creek

Client: The GPT Group

File Reference: 1427r03v1 FTP Yiribana Logistics Estate, Mamre Road, Issue

Revision History

Revision	Date	Details	Author	Approved by
-	31/05/2021	Draft	A. Tan R. Butler-Madden	T. Lewis
-	02/06/2021	Issue	A. Tan	R. Butler-Madden

Table of Contents

Appendices

1 Introduction

1.1 Context

This Framework Sustainable Travel Plan (FSTP) has been developed to support the State Significant Development Application (SSDA) in relation to a proposed industrial estate to be known as Yiribana Logistics Estate (the Estate) (SSD-10272349). The Estate is legally known as Lots 59-60, DP259135 Kemps Creek (the Site) and is located east of Mamre Road, within the Penrith Local Government Area (LGA).

The Department of Planning, Industry and Environment (DPIE) rezoned the Mamre Road Precinct (the Precinct / MRP), including the Site, in June 2020 under the *State Environmental Planning Policy (Western Sydney Employment Area)* 2009 (WSEA SEPP). The Site is currently zoned IN1 General Industrial.

Consistent with the land zoning, the Estate to which this FSTP relates to an industrial precinct with 5 development lots and associated infrastructure. Further details with regard to the facilities is provided in Section 2:

A Draft Development Control Plan (DCP) for the Precinct has recently been exhibited and DPIE are currently reviewing the submissions prior to finalisation. 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 Draft 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.

While not specifically required by the Draft DCP, the purpose of this FSTP is therefore to complement the intent the of the future 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.

1.2 Background

The MRP forms one of the initial precincts of the broader Western Sydney Aerotropolis. However, as the land has already been rezoned and incorporated into the controls of the WSEA SEPP, it is not covered by the *State Environmental Planning Policy* (*Western Sydney Aerotropolis) 2020* or the background policy which establishes the strategic direction for the Aerotropolis.

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 is one of the technical reports supporting the delivery of the Draft Aerotropolis Precinct Plan (November 2020), which is currently on exhibition. One of the key "enablers" detailed in the AECOM Report includes *the implementation of transport policies and strategies which foster a mode shift to sustainable transport* and recommends the inclusion of Travel Plans for new development applications within the future Aerotropolis Development Control Plan.

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 Precinct. Of the 5 Aerotropolis Precincts covered, Badgerys Creek has the lowest mode share target (by 2056) to non-car travel of 20% (as shown by **Figure 1**).

This reflects the planned land uses, which are anticipated to support warehousing and logistics, as noted by the AECOM Report. This is a long-term target, which is ambitious but achievable based on the *policy framework, actions, initiatives, infrastructure and services defined through the precinct planning process*. These targets have been given consideration in setting targets for this FSTP.

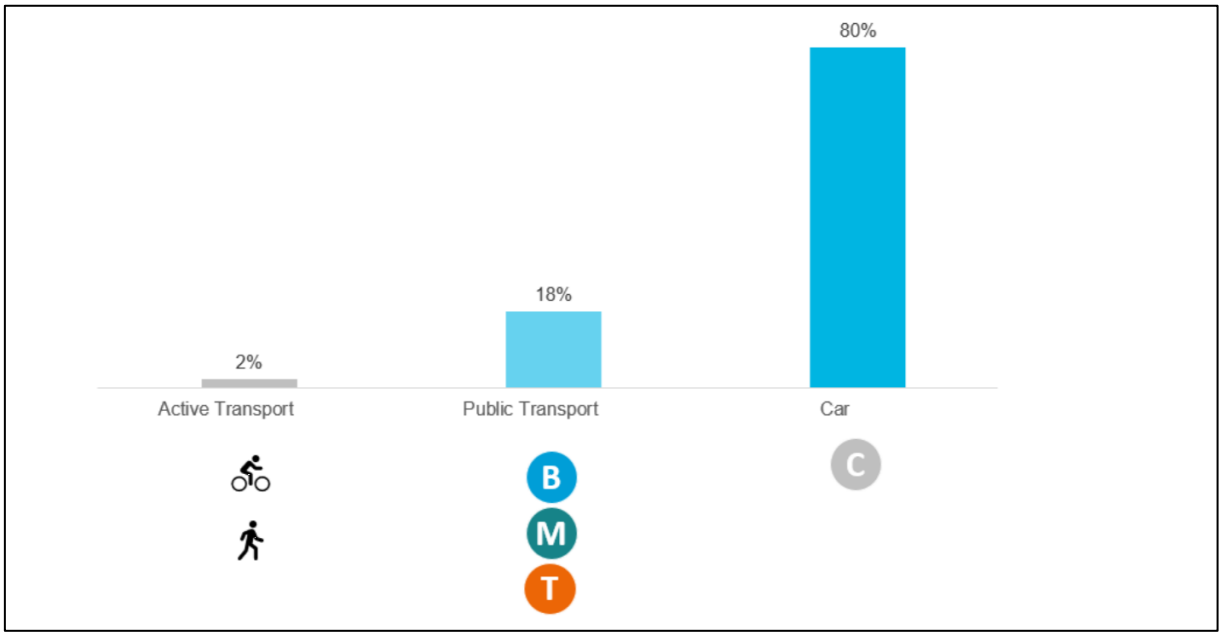


Figure 1: 2056 Badgerys Creek Mode Share Targets

Source: AECOM Report

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 legally described as Lots 59 – 60 in DP 259135, Mamre Road Kemps Creek, and has an area of approximately 33.1 hectares (ha). It has approximately 210m of direct frontage to Mamre Road with a proposed intersection providing vehicular access via Mamre Road to the M4 Motorway and Great Western Highway to the north and Elizabeth Drive to the south.

The Site is located approximately 8km 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. Its sub-regional context is shown in **Figure 2** as well as the broader MR Precinct Structure Plan area in which the Site lies.

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

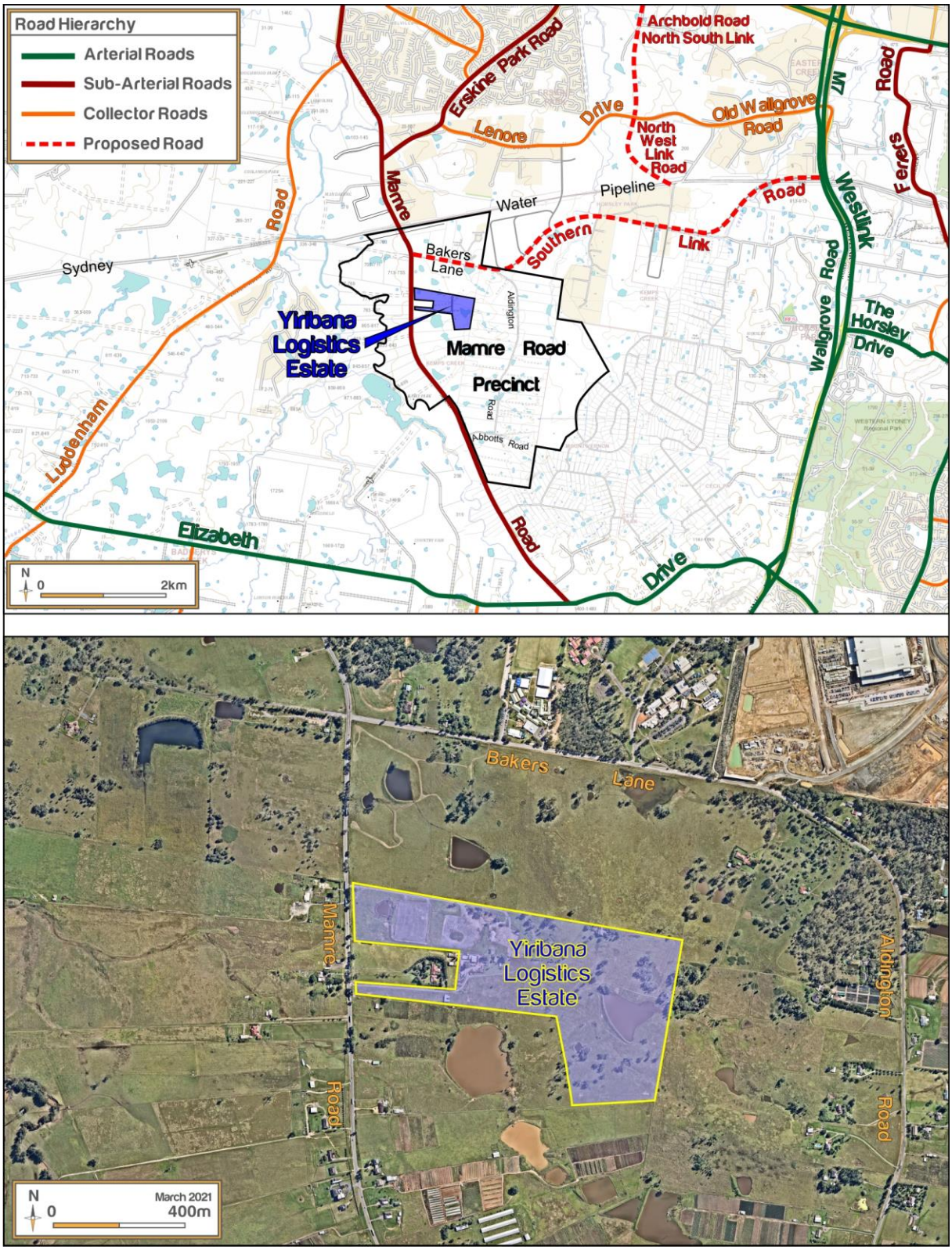


Figure 2: Site Location & Road Hierarchy

2.3 Proposed Development

As stated, the SSDA Proposal seeks approval for:

- Masterplan with a total building area of 157,860m^2, comprising:
  - A total of 151,125m^2 warehouse GFA;
  - A total of 6,735m^2 of ancillary office GFA;
  - 5 industrial development lots;
  - Internal road layouts and road connection to Mamre Road;
  - Provision for 717 car parking spaces; and
  - Associated site landscaping.

A reduced version of the Estate Masterplan is shown in **Figure 3**.

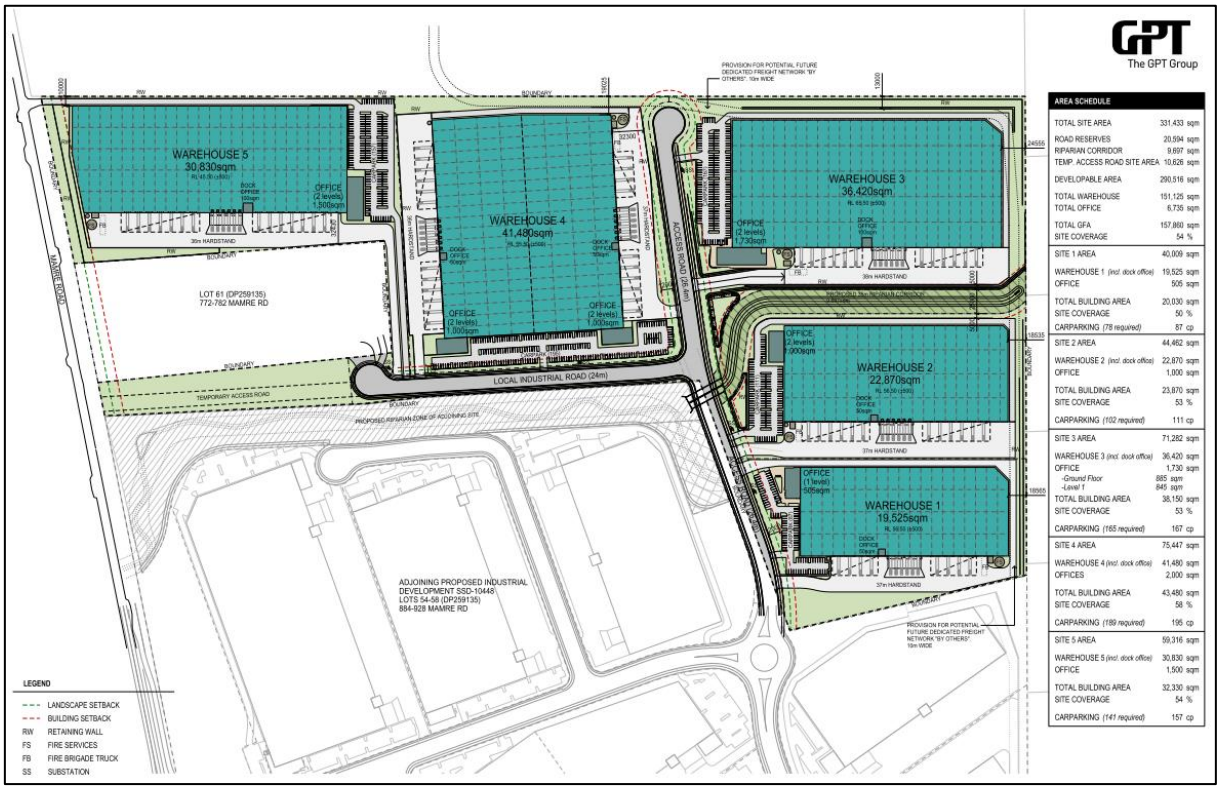


Figure 3: Yiribana Logistics Estate Proposed Masterplan

2.4 Public & Active Transport Opportunities

2.4.1 Introduction

The Site is limited with the current public transport service offering, as shown in **Figure 3**. Therefore, for this Site Audit, the public & active transport opportunities have been identified, noting that there are a number of projects and plans which relate to the strategic development of the MRP and more broadly the Western Sydney Employment Area (WSEA) and Broader Western Sydney Employment Area (BWSEA).

One such project is the Mamre Road Upgrade Project, which will see Mamre Road upgraded between the M4 Motorway and Kerrs Road (south of the Site, and north of Elizabeth Drive). The upgrade specifically provides for new bus stops along its entire route, with bus jump lanes at intersections also included in the strategic design.

This section will need to be updated prior to the finalisation of any future STP, and accordingly as part of the review process, as the wider area develops.

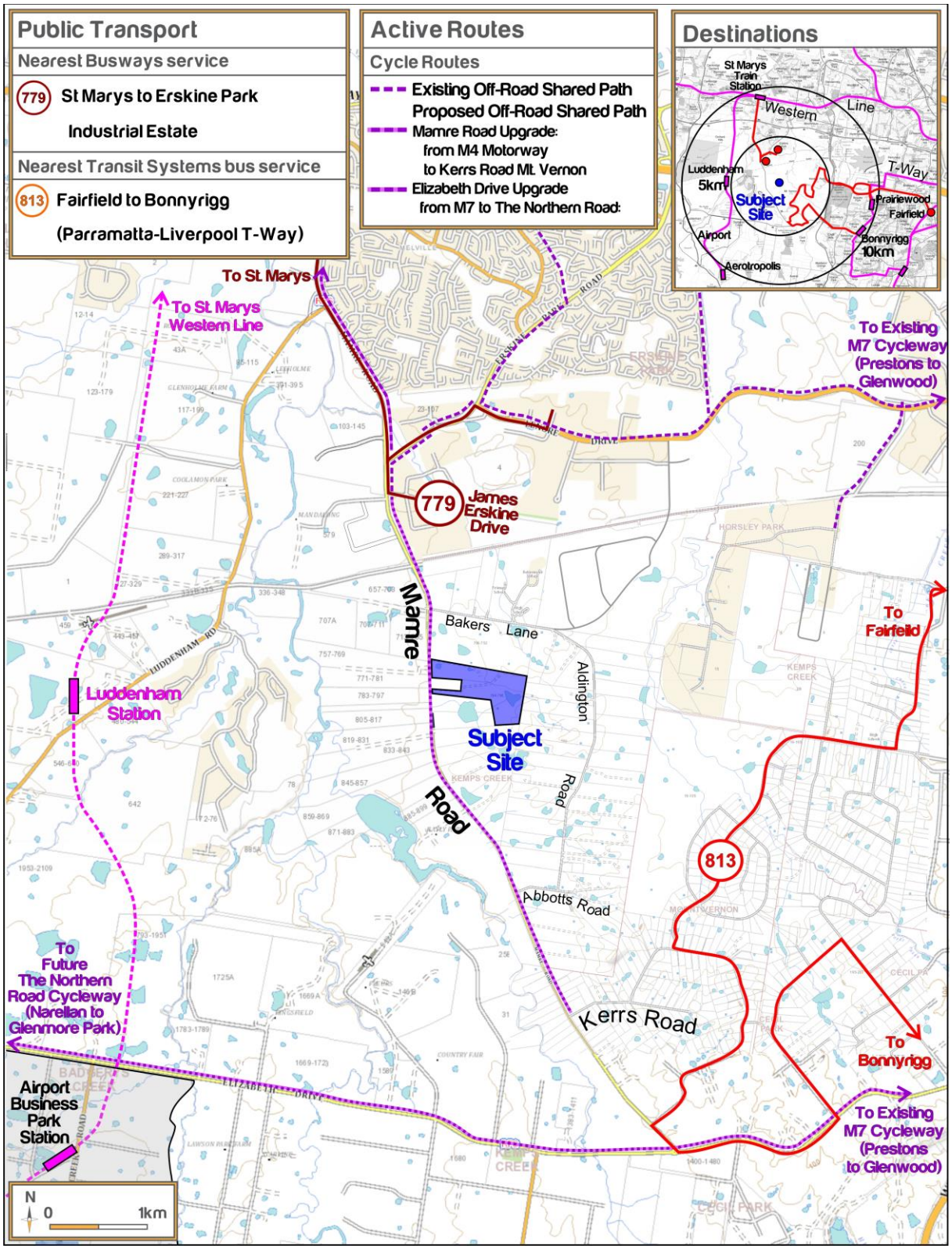


Figure 4: Public & Active Transport Network

2.4.2 Bus Services

The planning of bus services in Sydney is governed by the *NSW Service Planning Guidelines,* which aim to establish Strategic Transport Corridors and a hierarchy of bus route types that:

- Link to regional centres (such as Penrith and Mt Druitt);
- Pass through patronage generators such as district centres, TAFE colleges, hospitals and universities;
- Connect with other transport modes (trains, ferries and other buses);
- Are multifunctional (serving journeys to work, education, shopping and recreation);
- Are direct and frequent; and
- Meet the network planning principles.

It is also the case that the establishment of public transport services as early as possible in the development stages of the MR Precinct 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.

While the internal MR Precinct road network is still be finalised as part of the DCP, it is clear from the intent of the objectives contained within the Draft DCP that a connected bus network will be provided. As per the Draft DCP, as all internal roads will accommodate heavy vehicles, they would also be capable of accommodating bus services. Therefore, there are significant opportunities to provide sub-regional services along Mamre Road, as well as services within the MR Precinct itself to maximise the number of sites that lie within 400m of a viable bus service.

Noting that TfNSW Guidelines state that bus services influence the travel mode choices of sites within 400m (approximately 5 minutes' walk) of a bus stop, access to bus services will be a key factor in influencing travel behaviour.

Key bus routes identified in the BWSEA Structure Plan are shown in **Figure 5**.

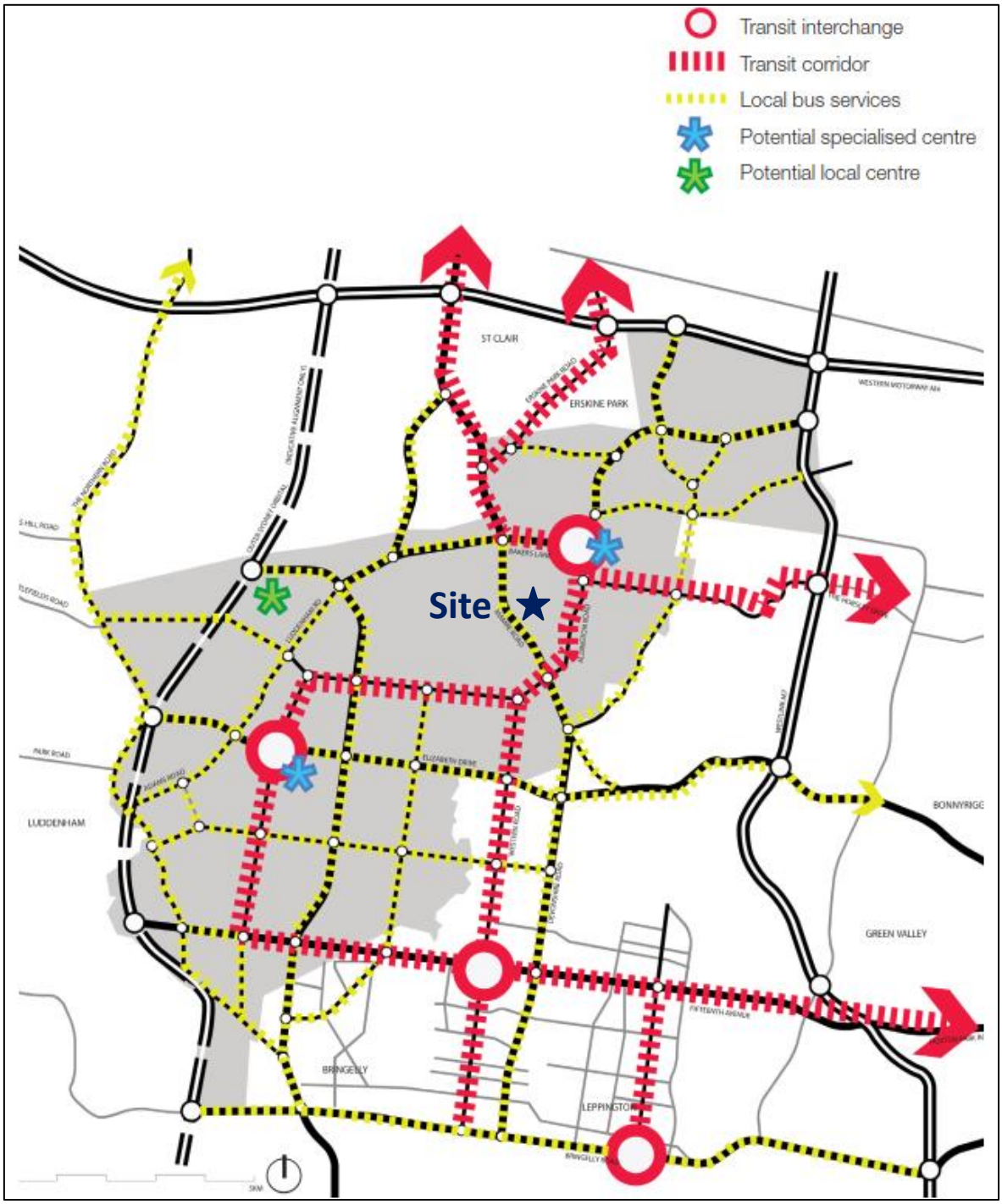


Figure 5: BWSEA Public Transport Structure

Source: BWSEA Structure Plan

2.4.3 Train Services – Metro Western Sydney Airport

The closest train station to the Site is currently some 10km away. However, the Metro Western Sydney Airport will provide 23 kilometres 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 some 4km (as the crow flies) to the 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.

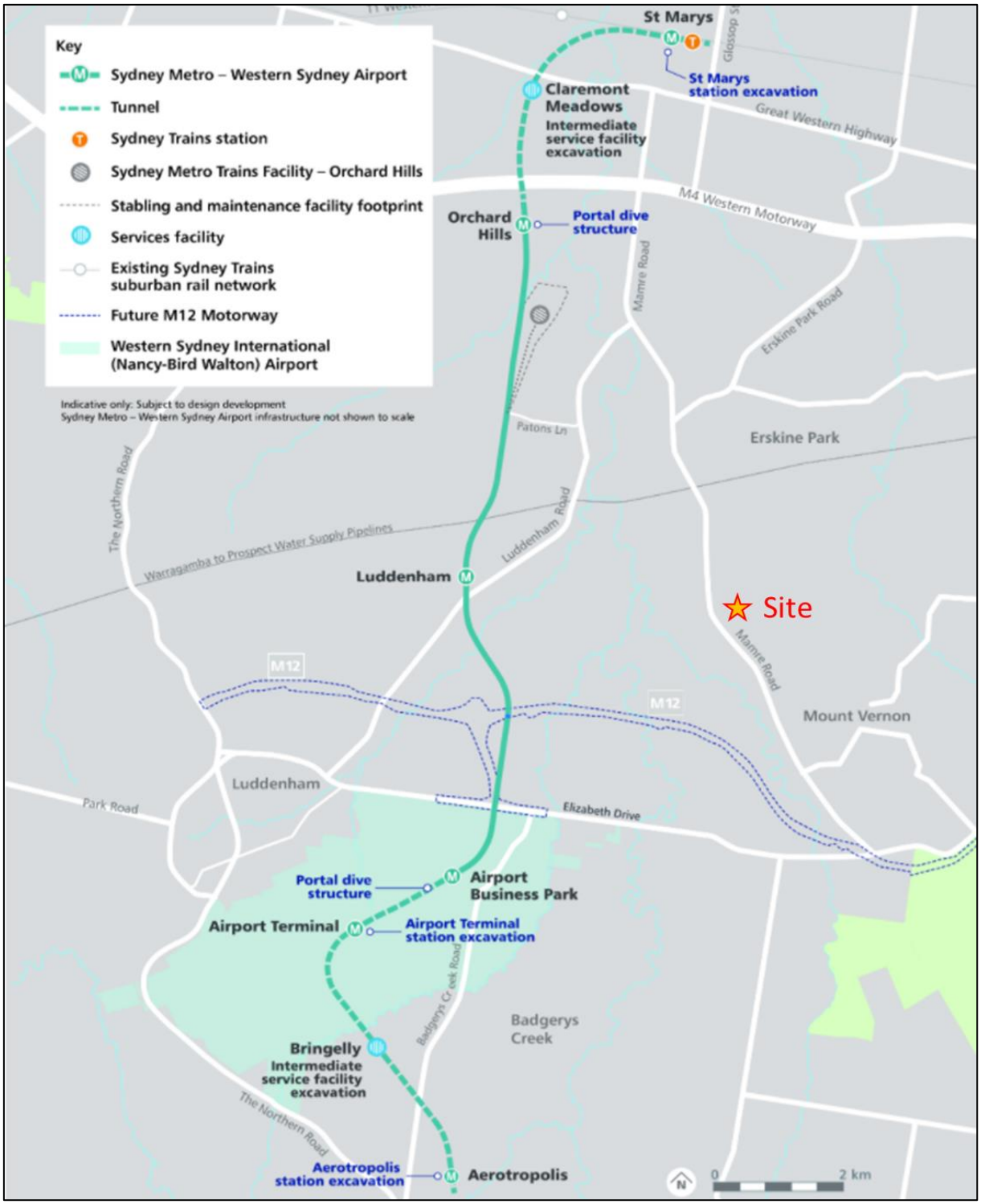


Figure 6: Metro Western Sydney Airport Alignment

2.4.4 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 5**, noting again that the Mamre Road upgrade Project will provide shared paths along at least one side of the road for its entire length.

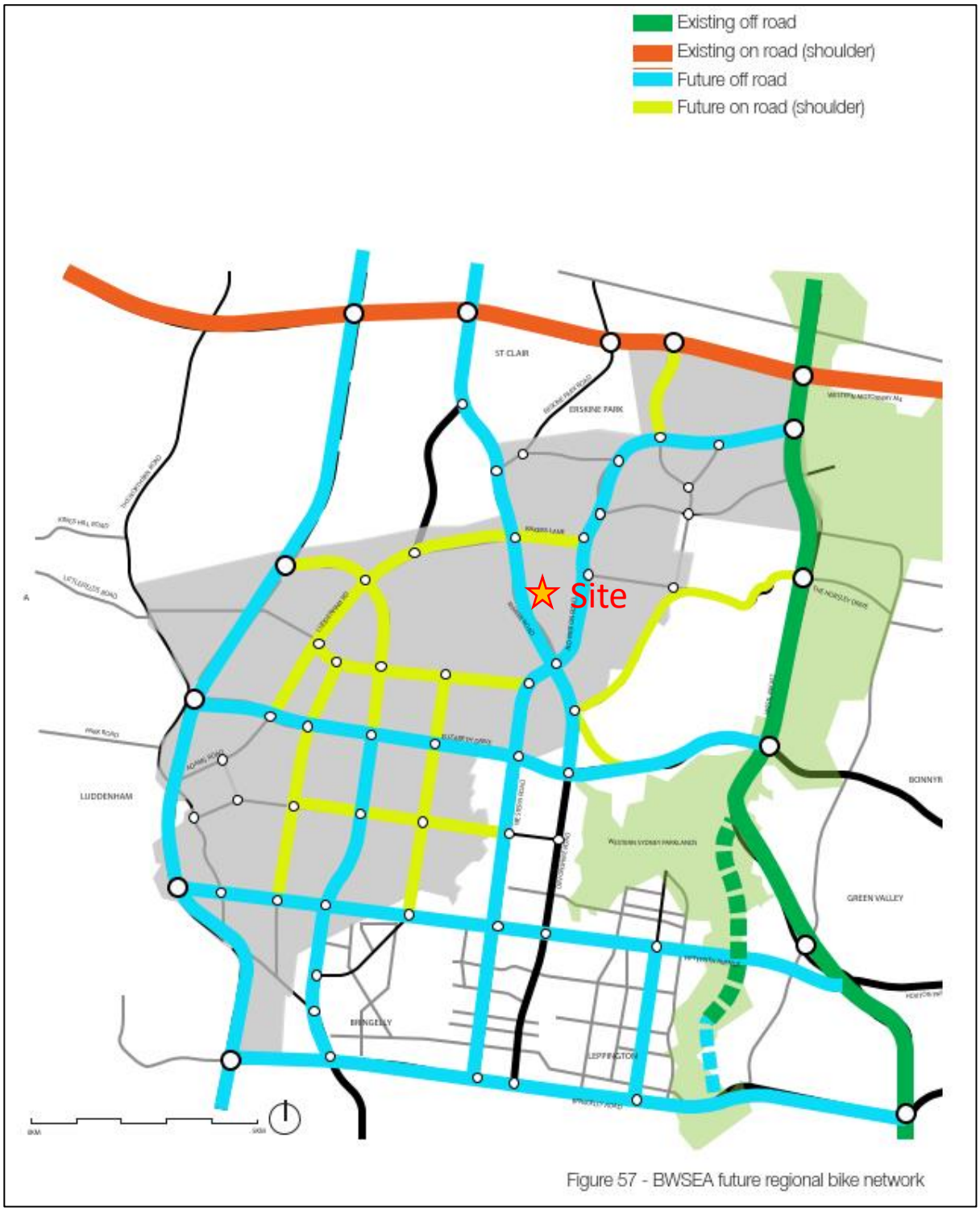


Figure 7: BWSEA Cycle Routes

Source: BWSEA Structure Plan

2.4.5 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 Draft 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.

2.5 On Demand Services

2.5.1 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.

One of the prominent providers of car sharing in NSW is GoGet. GoGet provides a car share service allowing members to book cars for private use. Each vehicle has a home location which is referred to as a 'pod'. These are typically located in a parking lot or on-street and generally in a highly populated urban neighbourhood.

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

2.6 Existing Travel Patterns

2.6.1 Journey to Work Data Analysis

Journey-to-Work (JTW) data from the Australian Bureau of Statistics (ABS) 2016 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 1** below.

Table 1: Travel Mode Summary (Journey to Work)

Travel Mode	Mode Share of Employees
Car as driver	92%
Train	0%
Bus	2%
Walked only	1%
Car as passenger	3%
Motorbike/Scooter	0%
Bicycle	0%
Taxi	1%
Other Modes	1%

With reference to Table 1, it is evident that the private vehicle (car) is the overwhelming preferred mode of choice for commuters travelling to work in in the area. The data indicates that 95% travel to work by car with 92% as the driver and 3% as passenger i.e. car-pooling.

3 Development, Scope, and Implementation of the Plan

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.

4 Travel Mode Targets

4.1 Introduction

Based on the existing travel mode splits identified in Section 2.6, 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.

4.2 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 AECOM Report provides a mode share target for public & active transport of 20% and by car of 80% by 2056 for the nearby Badgerys Creek Precinct. Sites within the MRP should reflect a similar target. While at least maintaining the existing carpooling mode share of 3% (Table 1), this represents a decrease in travel by car (as a driver) by 15% by 2056.

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 2**, which represents a 5-year target to coincide with the minimum 5 years of monitoring and review.

Table 2: Preliminary 2026 Mode Share Targets

Travel Mode	Mode Share of Existing Employees	Proposed Targets	Relative Change
Vehicle driver	92%	88%	-4%
Vehicle passenger	3%	3%	–
Train	0%	0%	–
Bus	2%	4%	+2%
Walked only	1%	1%	–
Cycling	0%	1%	+1%
Taxi	1%	1%	–
Motorbike/Scooter	0%	1%	+1%
Other	1%	1%	–

5 Measures and Action Strategies

5.1 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 GTP 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.

5.2 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 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 3: Proposed STP Action Strategies

STRATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
1 Travel Planning and Demand Management					

1.1 Green Travel Plans	• Develop a STP to provide information for Travel Access Guide (TAG) (See Appendix A)
	• Management of STPs.
	• Promotion of STPs.
		Provide information resources and implement a range of additional initiatives to reward and encourage those who travel actively to help develop a healthy, active culture and meet travel targets.
		
		Continued support of the person/organisation in charge of managing the STP. This would happen with the appointment of a Travel Plan Coordinator.
		• Undertake a STP event annually.
		• Promote the following initiatives via bulletins, web pages, social media:
		  ○ Travel Survey Results; and
		  ○ Progress and update of STP.
		
		Retain a current copy of the TAG to be relevant, useable, and accessible. TAG should be displayed in communal areas.
			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	• Promotion of STPs • Provision of travel and transport information options	Establish locations such as travel information points where staff and visitors and others can access travel information via interactive platforms. These can be similar to wayfinding kiosks provided at public transport stations, shopping centres etc. Information could include walking and cycling routes, bicycle parking, public transport availability, routes, real-time timetables, and shared vehicles.	Company	Subject to employer preference.	Tenant / Business Owner
1.3 Flexible Working hours	Allow employees the flexibility to commute outside peak periods to	Manage staff rosters where possible.	Company	Subject to employer preference. Action to be	Company

STRATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
	reduce overall congestion and travel time.			considered by employers / Visitors as part of an Employer specific STP to be developed and forwarded to Council prior to building occupation.	
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.	Manage staff rosters and develop work-from-home policies and procedures, where possible.	Company	Subject to employer preference. Action to be considered by employers / visitors	Tenant / Business Owner
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.	Subject to owner / User negotiations and incentives.	Company / 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.	Propose or recommend improvements to the proposed / implemented bus stops along Mamre Road to TfNSW.	TfNSW	Subject to discretion of TfNSW. Advisable to be prior to the opening of the development	TfNSW

STRATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
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.	Subject to owner / User negotiations and incentives.	TPC	Subject to employer. Can be implemented at building occupation	Company
2.5 Lobby for Precinct / Estate shuttle service	Shuttle service initiative that would transport staff to / from the MRP to the Railway Station.	Provision of Precinct / Estate wide bus shuttle service running between the development and either nearby homes or Railway Station. Persons signing onto the program or service would be accountable for turning up at the appropriate times so as to not delay the service. This should be promoted as part of the STP and on communal locations such as main website or notice boards.	TPC to lobby Estate Manager	Ongoing in the workplace. Updates can be made to organisation as appropriate	Estate Owner
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 is likely to be on the onus of staff to schedule.	This can usually be accomplished by having notice boards in business premises which are a good place for employees to find colleagues looking to share journeys. Utilise car share spaces provided and actively promote on site to staff and visitors.	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	The company / department sets up an in-house car-matching scheme and gets staff to participate. A points system can be setup to encourage friendly competition between staff and overall reduce carbon footprint from single car usage. Car Pool Vehicle spaces would be provided near building entrances and actively promote on site to staff and visitors. Reward regular car sharers by	Company, TPC	Ongoing in the workplace. Updates can be made to organisation as appropriate	Company

STRATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
		providing gifts such as free car washes.			
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.	They allows users to search for and post details online of journeys; by car, bike, taxi or walking, for which they wish to find someone else with which to share the journey with. Users can search for people who have entered similar journeys and contact them, wait to be contacted by someone searching for a journey of their own.	Staff	Ongoing in the workplace	Staff
3.4 Carpool week	Arrange for a dedicated carpool campaign week to promote the benefits of carpooling.	One week of the year where a carpool theme is emphasised around the workplace including promotion such as a launch event. Intention is to show that carpooling is a real alternative to travel to work. Provide prize incentive as part of competition to promote raise awareness.	Company	One week per calendar year	Company
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 as social and healthy aspect of travelling to work.	The BUGs can set up amongst employees and arranged with the help of TPC. An online group such as an email thread, Teams Chat group would be the main channel where participants can communicate and organise rides, suggest areas for improvement. A designated leader would be appointed and ideally affiliated with Bicycle NSW who would manage queries and support in enabling a comfortable riding experience for all wishing to partake.	Company, TPC	Ongoing in the workplace	Company

STRATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
		As a minimum, the establishment of the BUGs should be promoted as Precinct wide initiative.			
4.2 Providing & Maintaining End of Trip Facilities	Providing facilities such as showers, change rooms, lockers.	Bicycle parking spaces will be provided for staff. Access to other facilities such as showers will also be made. Developer to provide bicycle parking spaces in the parking area together with male and female lockers, male and female showers and an accessible shower as per Building Plans. Provision of shower, lockers and change rooms are to comply with the minimum rates stipulated in Planning Guidelines for Walking and Cycling' (NSW Government 2004).	Developer	To be provided at sports complex completion	Developer
4.3 Promote Bicycle Initiatives	Promotion of bicycle initiatives – NSW bicycle week, Ride to Work etc.	Promote and encourage cycling in the precinct and should actively participate in recognised NSW government bicycle initiatives such as bicycle week and cycle to workday.	TPC	To be promoted annually	Developer
4.4 Advertise Bicycle Routes	Promotion of bike lanes	Prepare and distribute a TAG with site specific maps with guidance on the most optimal way of travelling to/from site by bicycle	TPC	To be promoted and provided at communal areas such as key information kiosks within facility	Company
5 Promoting Walking					
5.1 Providing End of Journey Facilities	Provision of sufficient end of trip facilities such as showers, change rooms, lockers etc to maximise pedestrian activity throughout the site and the wider precinct.	Provide pedestrian facilities and amenities in close proximity in the Site and at the bus stops Developer to provide male and female lockers, male and female showers and an accessible shower as per Building Plans.	Developer	To be provided at completion of development	Company

STRATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
5.2 Walking routes	Incentivise travelling by foot by highlighting possible routes particularly those to nearest bus stops	Prepare site specific maps highlighting pedestrian desire lines and optimal routes to provide guidance to pedestrians to key public transport and car sharing locations.	Company	To be promoted and provided at communal areas such as key information kiosks within facility	Company
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.	Promote and encourage walking in the complex and should actively participate in recognised NSW government initiatives such as walk to workday and pedometer / step challenges. Friendly challenge competitions can be organised to incentivise and encourage increased walking activity amongst users and visitors to the facilities.	Company, TPC	To be implemented monthly or as appropriate throughout the calendar year.	Company
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.	To be distributed to staff, visitors, and neighbouring properties. Contact details as to who is responsible for the STP will also be provided. This would include a TAG.	Company, TPC	Travel Packs to be provided upon occupancy of building to employees.	Company

5.3 Communications Strategy

5.3.1 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 an electronic 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.

5.3.2 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.

6 Monitoring Strategy

6.1 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.

6.2 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

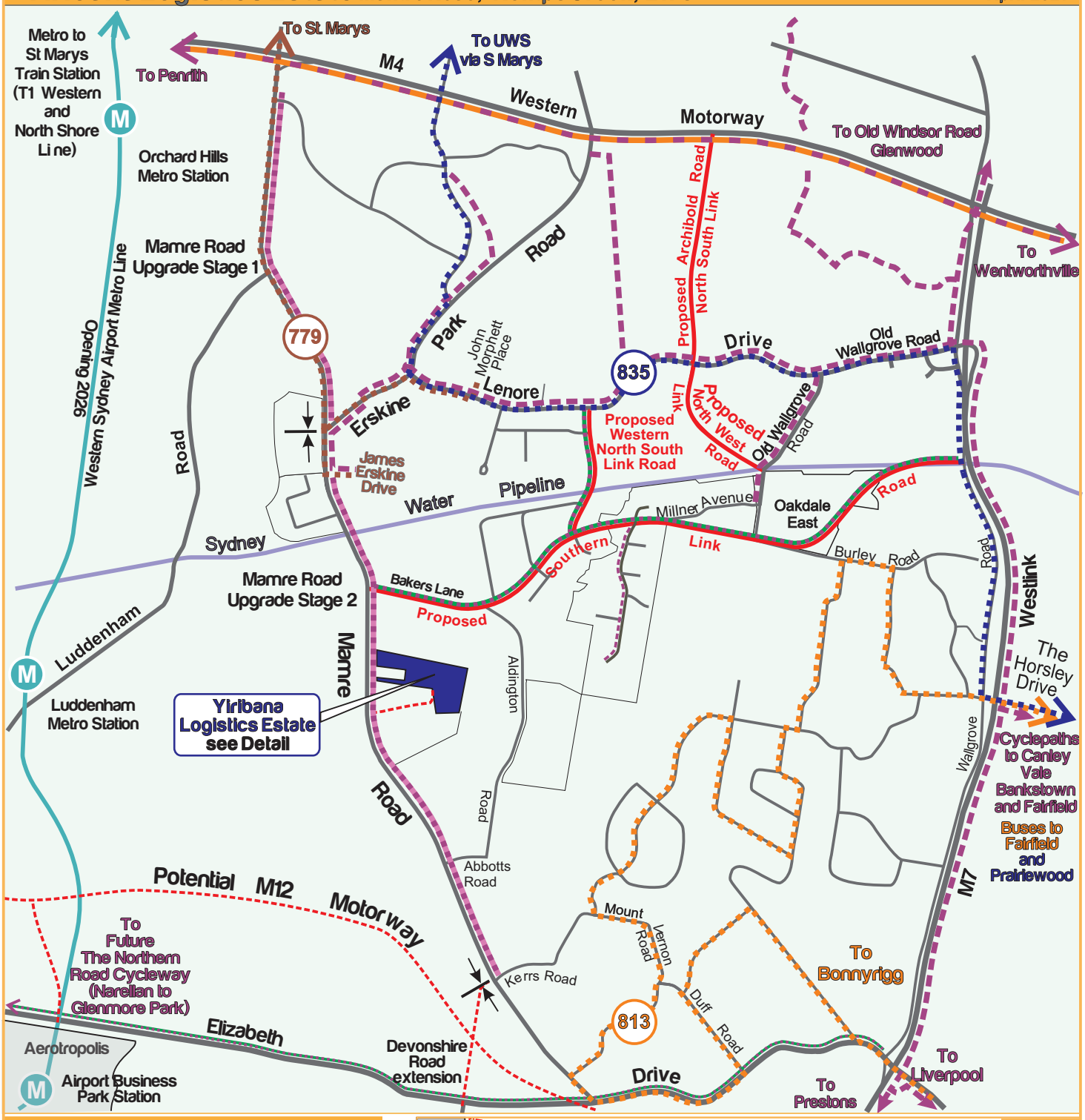
Travel Access Guide

Travel Access Guide

Yiribana Logistics Estate Mamre Road, Kemps Creek, 2178

asongroup
info@asongroup.com.au | +61 2 9083 6601 | Suite 502, Level 5, 1 Castlereagh Street, Sydney NSW 2000

April 2021



Existing Public Transport Routes

Busways

779 St Marys to Erskine Park Ind. Estate

Transit Systems

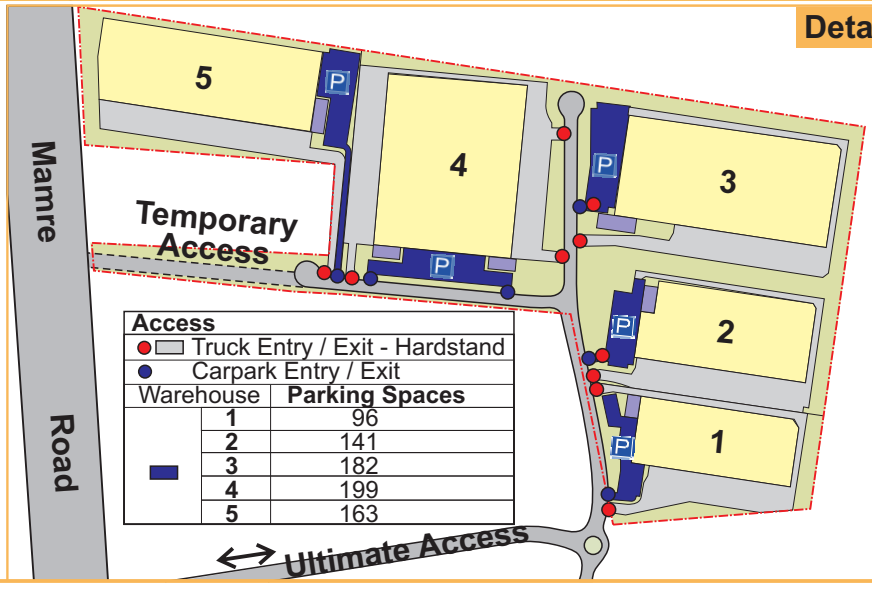
813 Fairfield to Bonnyrigg via Horsley Park, Mt Vernon

835 Prairiewood to University of Western Sydney Penrith via Wetherill Park, Horsley Park, Eastern Creek, Erskine Park,

Existing and Proposed Potential Active Transport Routes

- Existing Shared Paths
- Motorway Cycle Lanes
- Proposed Mamre Road Upgrades -Stages 1 and 2
- Potential Southern Link Road Cycleway
- Potential West NS Link Cycleway
- Elizabeth Drive (M7 to The Northern Road)

Detail



Access		
Truck Entry / Exit - Hardstand		
Carpark Entry / Exit		
Warehouse	Parking Spaces	
1	96	
2	141	
3	182	
4	199	
5	163	

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

☐ Office staff

☐ Courier / office delivery

☐ Casual contractor

☐ Company driver / sub-contractor

☐ Other (Please specify) ……..

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

☐ Walked only

☐ Bicycle only

☐ Train

☐ Bus

☐ Taxi

☐ Car share vehicle

☐ Motorcycle / scooter

☐ Car (as passenger)

☐ Car (as driver)

☐ 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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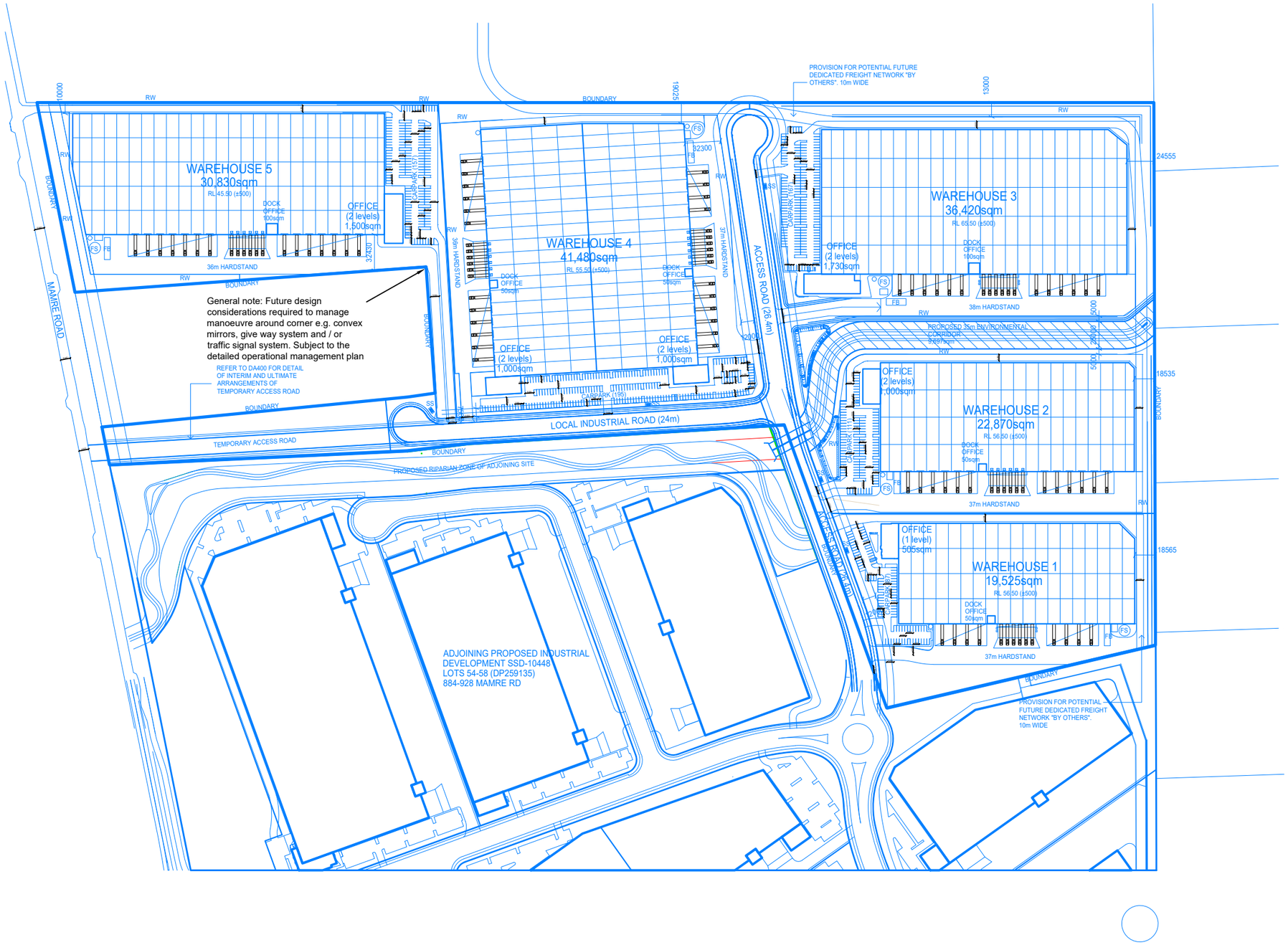
Appendix E

Swept Path Analysis



General Notes:

1. Car parking spaces have been designed to Class 2 as per Figure 2.2 of AS2890.1:2004.
2. Loading docks have been assessed against 26m B-Doubles, which has been adopted as the Design Vehicle as per AS2890.2:2018.
3. Swept path assessment prepared for Loading Docks and general circulation are based on 10km/h speed setting.
4. Fire trail assessment prepared based on 12.5m HRV in accordance with NSW Fire & Rescue Guideline "Access for fire brigade vehicles and firefighters" V05. Location of fire trail and off-set distance from warehouses subject to confirmation by the Project's Fire Services Engineer.
5. The new (unnamed) frontage roads are expected to be a Local Industrial Road, with a design speed limit of 60km/h as stipulated within the draft DCP published for Mamre Road Precinct (Nov 2020). Roads and intersections are assumed to have been designed in accordance with Austroads Guide to Road Design.
6. Proposed vehicle crossovers for individual site access to be designed by the Project Architect and subject to further detailed review. The crossovers should be designed in accordance with Penrith City Council's 'Driveway Standards and Specifications' and / or AS2890.2:2018.
7. Any ramps to / from loading areas and along truck circulation areas shall comply with AS2890.2:2018 upon confirmation of check vehicle for individual tenancies.
8. Accessible parking spaces shall be designed in accordance with AS2890.6:2009. Quantity of accessible parking provision shall be in accordance with D3.5 of the NCC 2019 or the Penrith City Council's DCP and subject to final confirmation by the Project's Accessibility.

Notes:
This drawing is provided for information purposes only and should not be used for construction.
The drawing base (file name: 20194_MP01_A_SSDA Estate Masterplan) was provided by SBA Architects on 28 May 2021.
Swept path analysis was undertaken with 300mm clearance and a speed setting of 10km/h

Drawn By: AT

Client: The GPT Group

Project: 1427 GPT Industrial Estate, Mamre Road, Kemps Creek

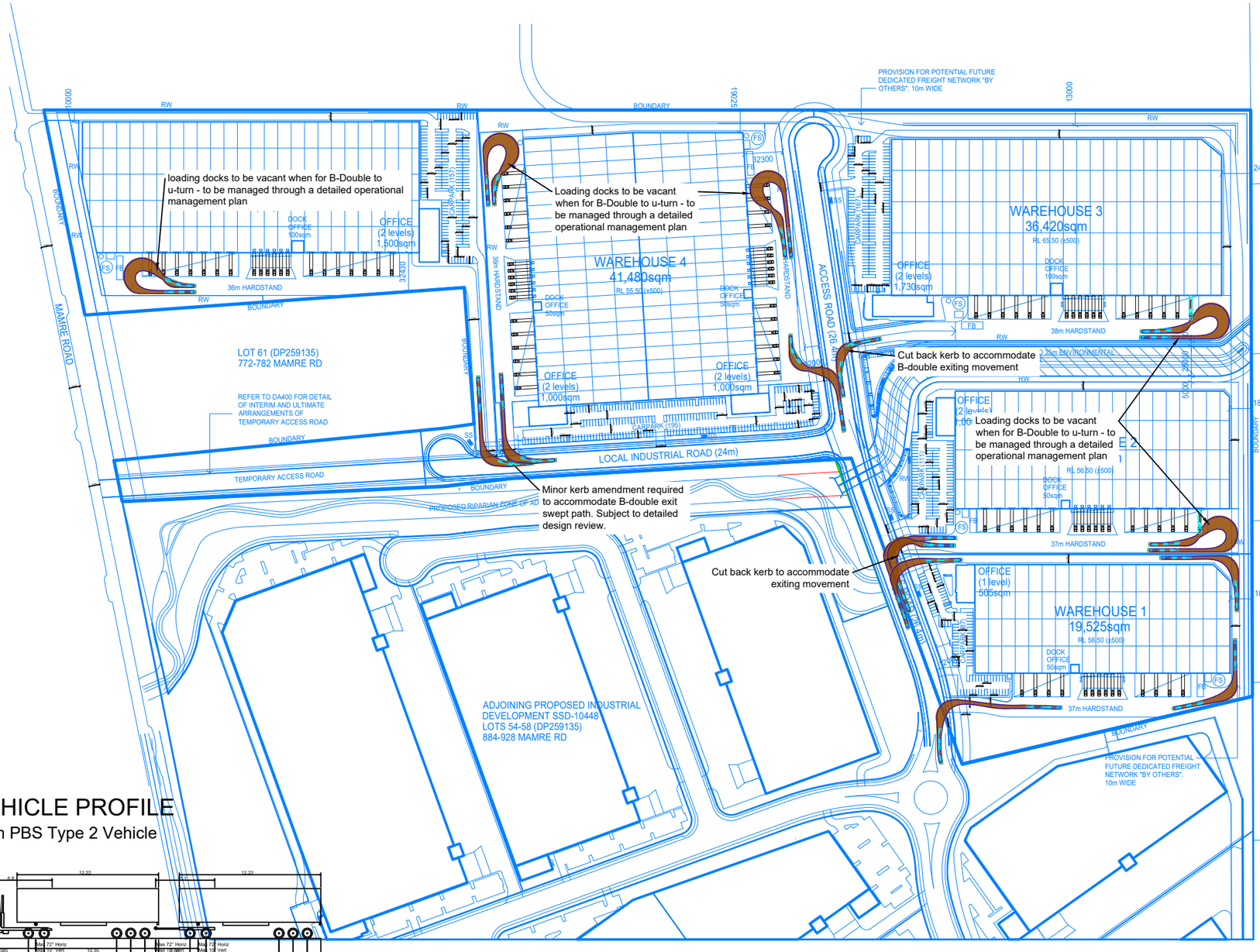
Drawing Title: General Comments

Date: 2-Jun-21

Scale @ A3: 1:4000

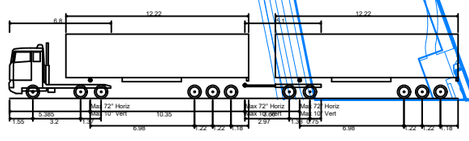
Drawing Number: AG01

asongroup
Suite 17.02, Level 17, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au



VEHICLE PROFILE

30m PBS Type 2 Vehicle

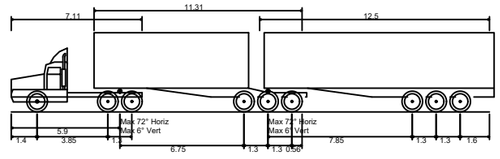


Vawdrew 30m A-Double	
Overall Length	29.995m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.332m
Track Width	2.500m
Lock-to-lock time	7.00s
Curb to Curb Turning Radius	15.000m

General Notes:

1. Car parking spaces have been designed to Class 2 as per Figure 2.2 of AS2890.1:2004.
2. Loading docks have been assessed against 26m B-Doubles, which has been adopted as the Design Vehicle as per AS2890.2:2018.
3. Swept path assessment prepared for Loading Docks and general circulation are based on 10km/h speed setting.
4. Fire trail assessment prepared based on 12.5m HRV in accordance with NSW Fire & Rescue Guideline "Access for fire brigade vehicles and firefighters" V05. Location of fire trail and off-set distance from warehouses subject to confirmation by the Project's Fire Services Engineer.
5. The new (unnamed) frontage roads are expected to be a Local Industrial Road, with a design speed limit of 60km/h as stipulated within the draft DCP published for Mamre Road Precinct (Nov 2020). Roads and intersections are assumed to have been designed in accordance with Austroads Guide to Road Design.
6. Proposed vehicle crossovers for individual site access to be designed by the Project Architect and subject to further detailed review. The crossovers should be designed in accordance with Penrith City Council's 'Driveway Standards and Specifications' and / or AS2890.2:2018.
7. Any ramps to / from loading areas and along truck circulation areas shall comply with AS2890.2:2018 upon confirmation of check vehicle for individual tenancies.
8. Accessible parking spaces shall be designed in accordance with AS2890.6:2009. Quantity of accessible parking provision shall be in accordance with D3.5 of the NCC 2019 or the Penrith City Council's DCP and subject to final confirmation by the Project's Accessibility.

VEHICLE PROFILE



B-Double (26.0m)	
Overall Length	26.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15.000m
Design Speed	10km/hr

N o t e s:

This drawing is provided for information purposes only and should not be used for construction.

The drawing base (file name: 20194_MP01_A_SSDA Estate Masterplan) was provided by SBA Architects on 28 May 2021.
Swept path analysis was undertaken with 300mm clearance and a speed setting of 10km/h

Drawn By: AT

Client: The GPT Group

P r o j e c t: 1427 GPT Industrial Estate, Mamre Road, Kemps Creek

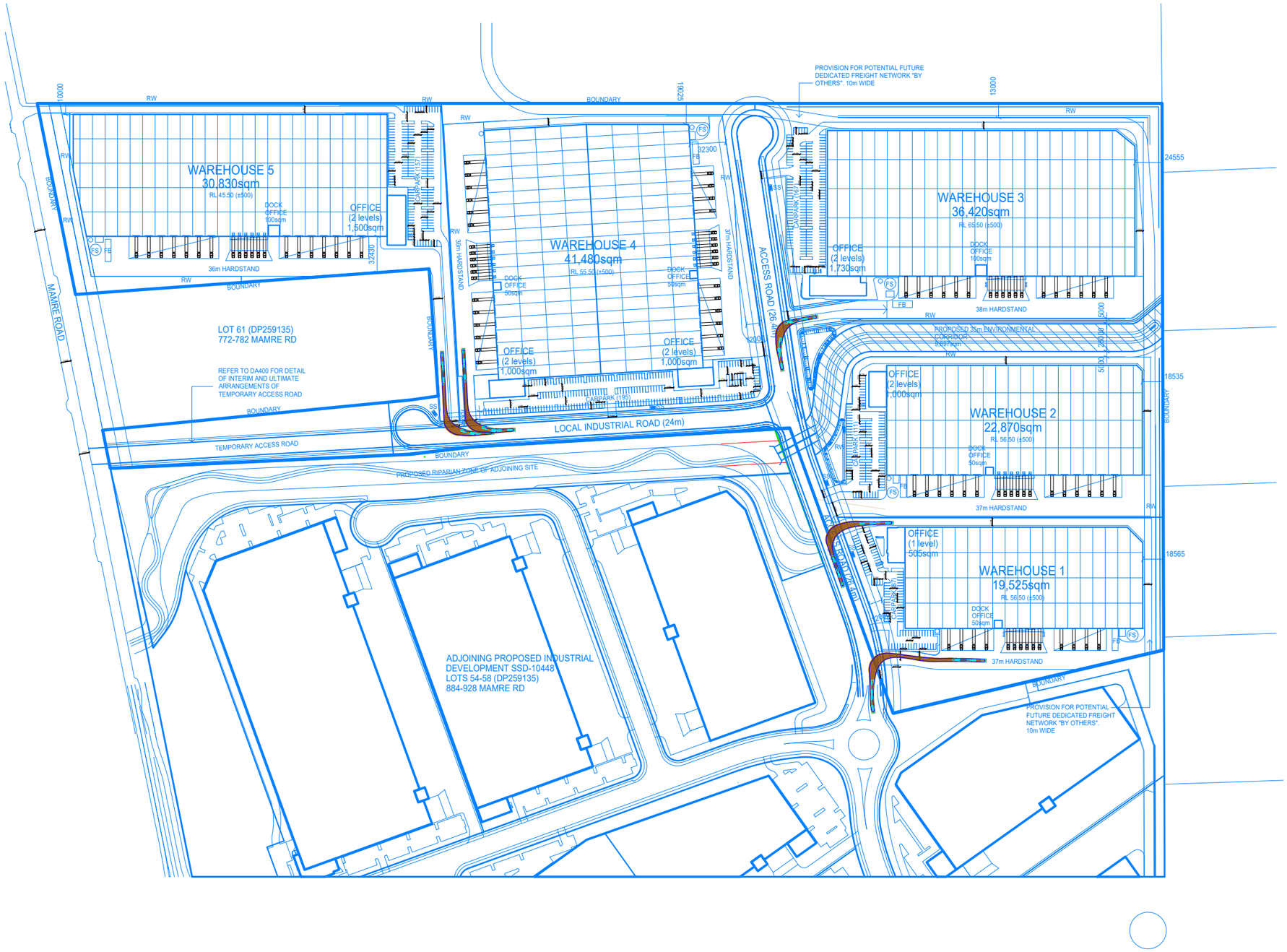
D r a w i n g T i t l e: General Comments

D a t e: 2-Jun-21

S c a l e @ A3: 1:4000

Drawing Number: AG02

asongroup
Suite 17.02, Level 17, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au



General Notes:

1. Car parking spaces have been designed to Class 2 as per Figure 2.2 of AS2890.1:2004.
2. Loading docks have been assessed against 26m B-Doubles, which has been adopted as the Design Vehicle as per AS2890.2:2018.
3. Swept path assessment prepared for Loading Docks and general circulation are based on 10km/h speed setting.
4. Fire trail assessment prepared based on 12.5m HRV in accordance with NSW Fire & Rescue Guideline "Access for fire brigade vehicles and firefighters" V05. Location of fire trail and off-set distance from warehouses subject to confirmation by the Project's Fire Services Engineer.
5. The new (unnamed) frontage roads are expected to be a Local Industrial Road, with a design speed limit of 60km/h as stipulated within the draft DCP published for Mamre Road Precinct (Nov 2020). Roads and intersections are assumed to have been designed in accordance with Austroads Guide to Road Design.
6. Proposed vehicle crossovers for individual site access to be designed by the Project Architect and subject to further detailed review. The crossovers should be designed in accordance with Penrith City Council's 'Driveway Standards and Specifications' and / or AS2890.2:2018.
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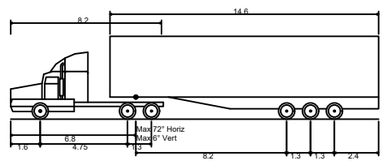
VEHICLE PROFILE



20m Articulated Vehicle (AV)	
Overall Length	20.000m
Overall Width	2.500m
Overall Body Height	4.500m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m
Design Speed	10km/hr

Notes:
This drawing is provided for information purposes only and should not be used for construction.
The drawing base (file name: 20194_MP01_A_SSDA Estate Masterplan) was provided by SBA Architects on 28 May 2021.
Swept path analysis was undertaken with 300mm clearance and a speed setting of 10km/h

Drawn By: AT

Client: The GPT Group

Project: 1427 GPT Industrial Estate, Mamre Road, Kemps Creek

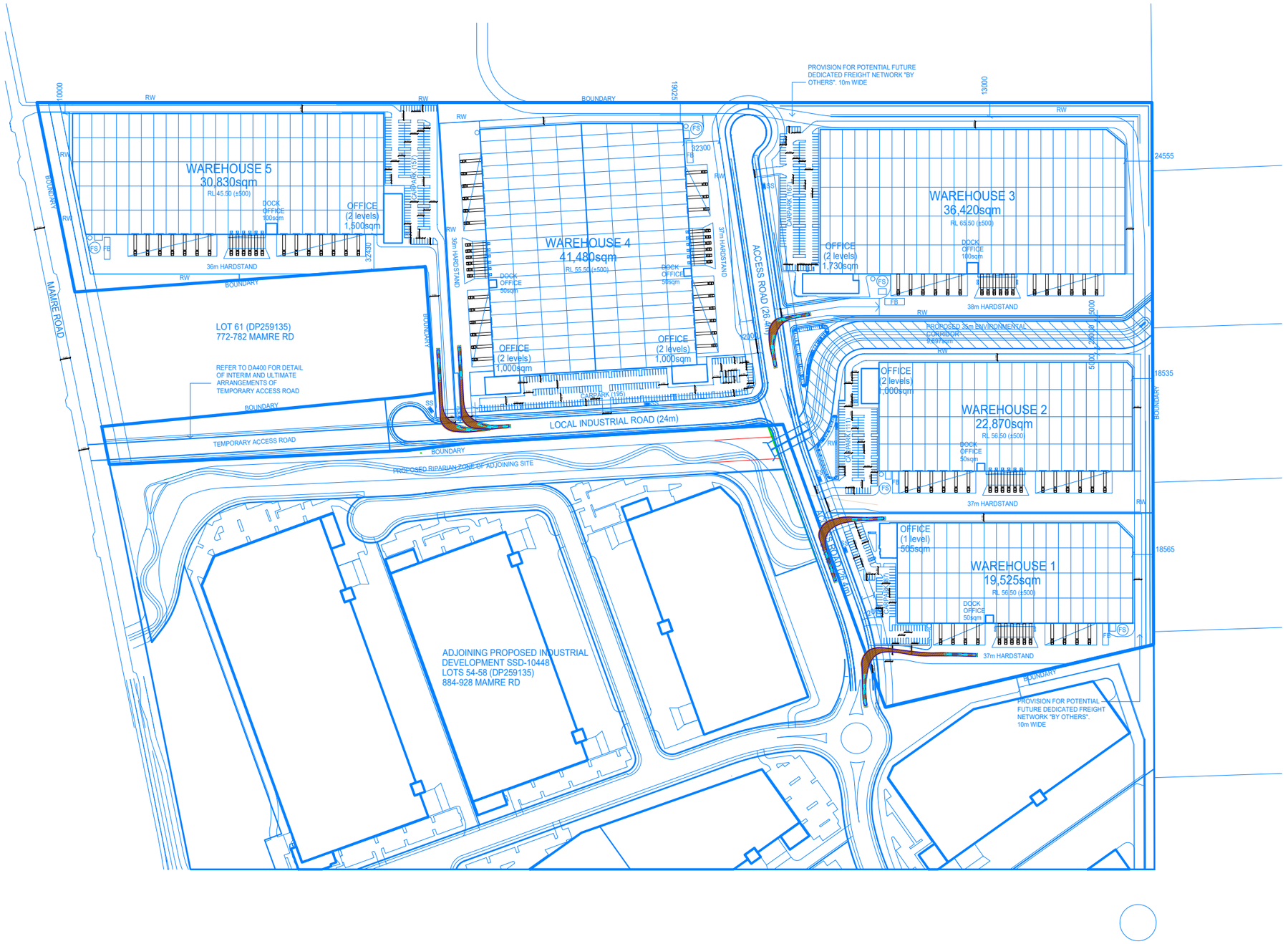
Drawing Title: General Comments

Date: 2-Jun-21

Scale @ A3: 1:4000

Drawing Number: AG03

asongroup
Suite 17.02, Level 17, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au



Notes:
This drawing is provided for information purposes only and should not be used for construction.

Drawn By:
AT

Client:
The GPT Group

Project:
1427
GPT Industrial Estate, Mamre Road, Kemps Creek

Drawing Title:
General Comments

Date:
2-Jun-21

Scale @ A3:
1:4000

Drawing Number:
AG04

asongroup
Suite 17.02, Level 17, 1 Castlereagh Street
Sydney NSW 2000
info@asongroup.com.au

Appendix F

Draft Construction Traffic Management Plan

Prepared for

THE GPT GROUP

Draft Construction Traffic Management Plan

Yiribana Logistics Estate, Mamre Road, Kemps Creek

Ref: 1427r02
2/06/2021

Info@asongroup.com.au | +61 2 9083 6601 | Suite 17.02, Level 17, 1 Castlereagh Street Sydney, NSW 2000

Document Control

Project No: 1427

Project: GPT Industrial Estate, Mamre Road, Kemps Creek

Client: The GPT Group

File Reference: 1427r02 Draft CTMP_Yiribana Logistics Estate, Mamre Road, Draft

Revision History

Revision	Date	Details	Author	Approved by
-	10/05/2021	Draft	A. Tan	R. Butler-Madden
-	02/06/2021	Issue	A. Tan	R. Butler-Madden

Table of Contents

Appendices

1 Introduction

1.1 Overview

Ason Group has been engaged by The GPT Group (GPT) to prepare a Draft Construction Traffic Management Plan (CTMP) in regard to the future construction of Yiribana Industrial Estate at Mamre Road, 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 this CTMP is 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, noting that 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 construction program, and all relevant CTMP preparation guidelines. The implementation of the recommendations and strategies detailed in this CTMP are the strict responsibility of GPT and / or the designated construction Project Manager.

1.2 Proposed Development and Staging

The Proposal relates to the construction of an industrial estate with associated hardstand and parking. The following summarises key aspects of the Proposal:

- Concept Masterplan with a total building area of 157,860m^2, comprising:
  - A total of 151,125m^2 warehouse GFA;
  - A total of 6,735m^2 of ancillary office GFA;
  - 5 industrial development lots;
  - Internal road layouts and road connection to Mamre Road;
  - Provision for 718 car parking spaces; and
  - Associated site landscaping.

The proposed Masterplan (prepared by SBA Architects) is shown in **Figure 1**.

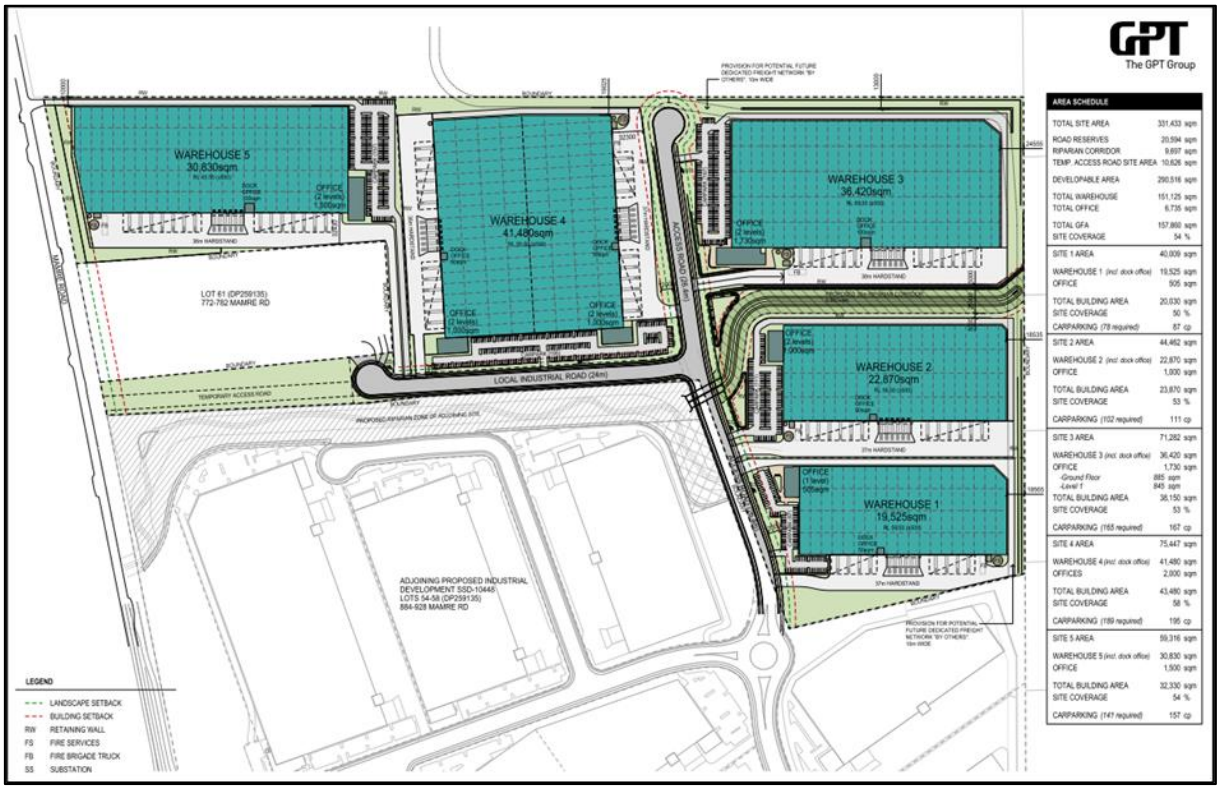


Figure 1: Proposed Masterplan

2 The Site

2.1 Site Location

The Site is comprised of 2 separate allotments and is legally described as Lots 59 and 60 in DP259135. The Site is located approximately 8km 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 land is 331,432m^2 in area and is irregular in shape.

The Site in its sub-regional context is shown in **Figure 2**, as well as the broader Mamre Road Precinct as designated by DPIE.

Figure 2: Site Location

2.2 Road Network

Key roads in the vicinity of the Site are shown in **Figure 1**, 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.
- **Wallgrove Road:** Wallgrove Road is an arterial road that runs in a north-south direction to the east of the Site and parallel (to the west of) the M7, functioning as a service road. The 2-lane, two-way road provides a link between the Great Western Highway to the north and Elizabeth Drive to the south. As with the M7, Wallgrove Road connects to the M4 motorway approximately 2.5 kilometres to the north of the Site.
- **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.

- **The Northern Road:** The Northern Road is TfNSW classified main road (MR 154) that runs in a north-south direction to the west of the site. The Northern Road section near the vicinity of the site generally provides 3 lanes (1 to 2 lanes per direction) and has a posted speed limit of 80km/h. Currently, The Northern Road is undergoing multiple stages of road upgrades by RMS, including a realignment of the road in the south. The road upgrades between The Old Northern Road, Narellan and Peter Brock Drive, Oran Park, has been completed.
- **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. TfNSW has confirmed road upgrades will be undertaken for Mamre Road between Elizabeth Drive and Luddenham Road.

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, as shown in **Figure 3** with specific reference to the current TfNSW Restricted Access Vehicle (RAC) routes, which allow for up to 25m/26m B-Double combinations.

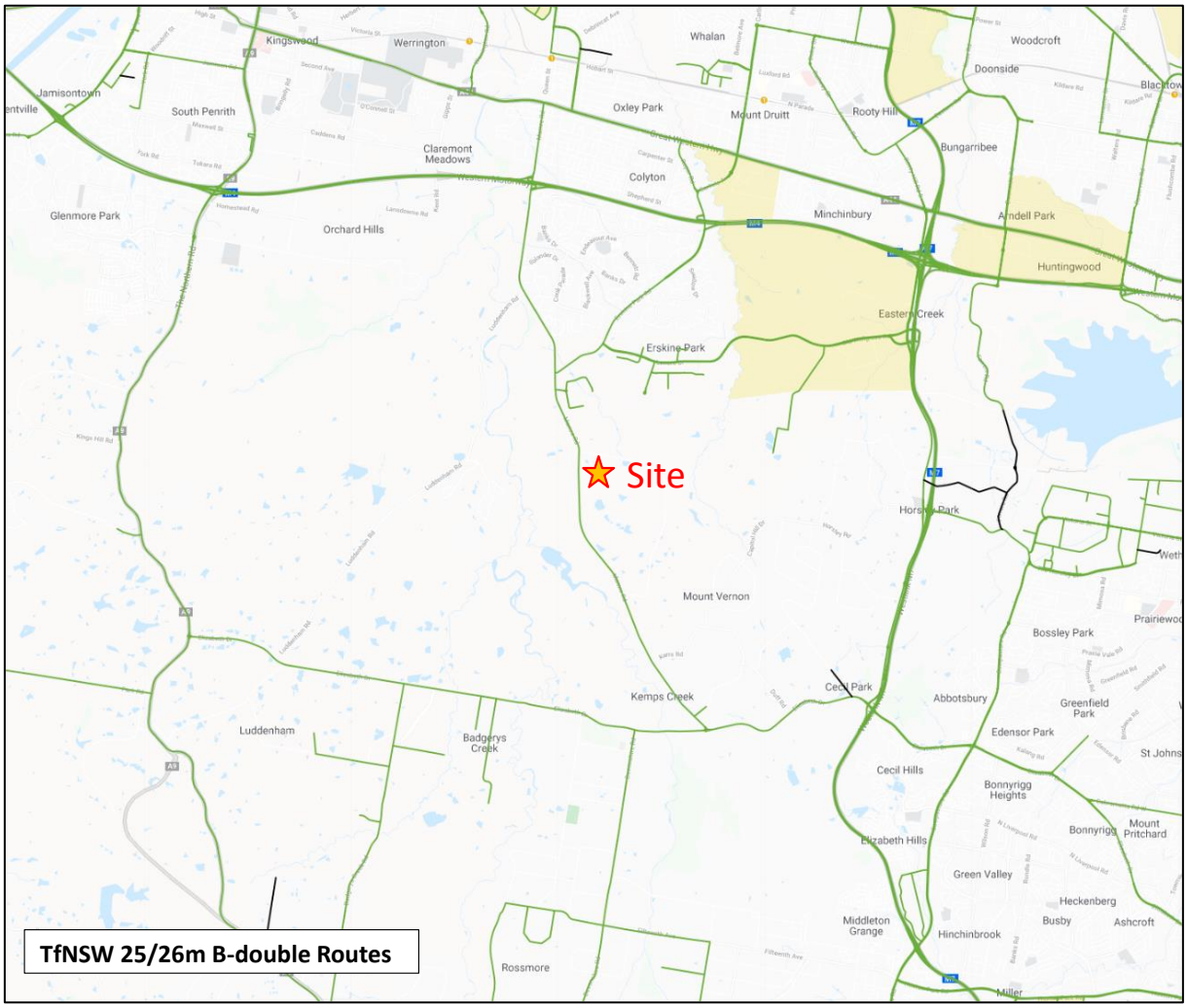


Figure 3: TfNSW Approved 25/26m B-Double Routes

3 Overview of Construction Works

3.1 Staging and Duration of Works

While there is no Contractor engaged for the project, for the purposes of the Draft CTMP, staging and duration of works has been based on similar developments in the area. Based on this, it is anticipated that construction works for the preliminary stages would commence in 2022 and be completed over a duration between 1-2 years, subject to authority approvals and inclement weather delays.

The following summarises key aspects of the construction phases:

- Demolition works are set to have a duration for 6-10 weeks.
- Excavation activities would continue for 6-12 months.
- General Construction works are estimated to continue concurrently to excavation activities for 12 months.

3.2 Construction Hours

The type of work being undertaken will remain consistent throughout the duration of construction and associated activities. All works will 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 Mamre Road. At this stage, a temporary Access Road is intended be used to access the Site during construction. Should neighbouring developments be completed prior to construction of the Site, the strategy will be reviewed.

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

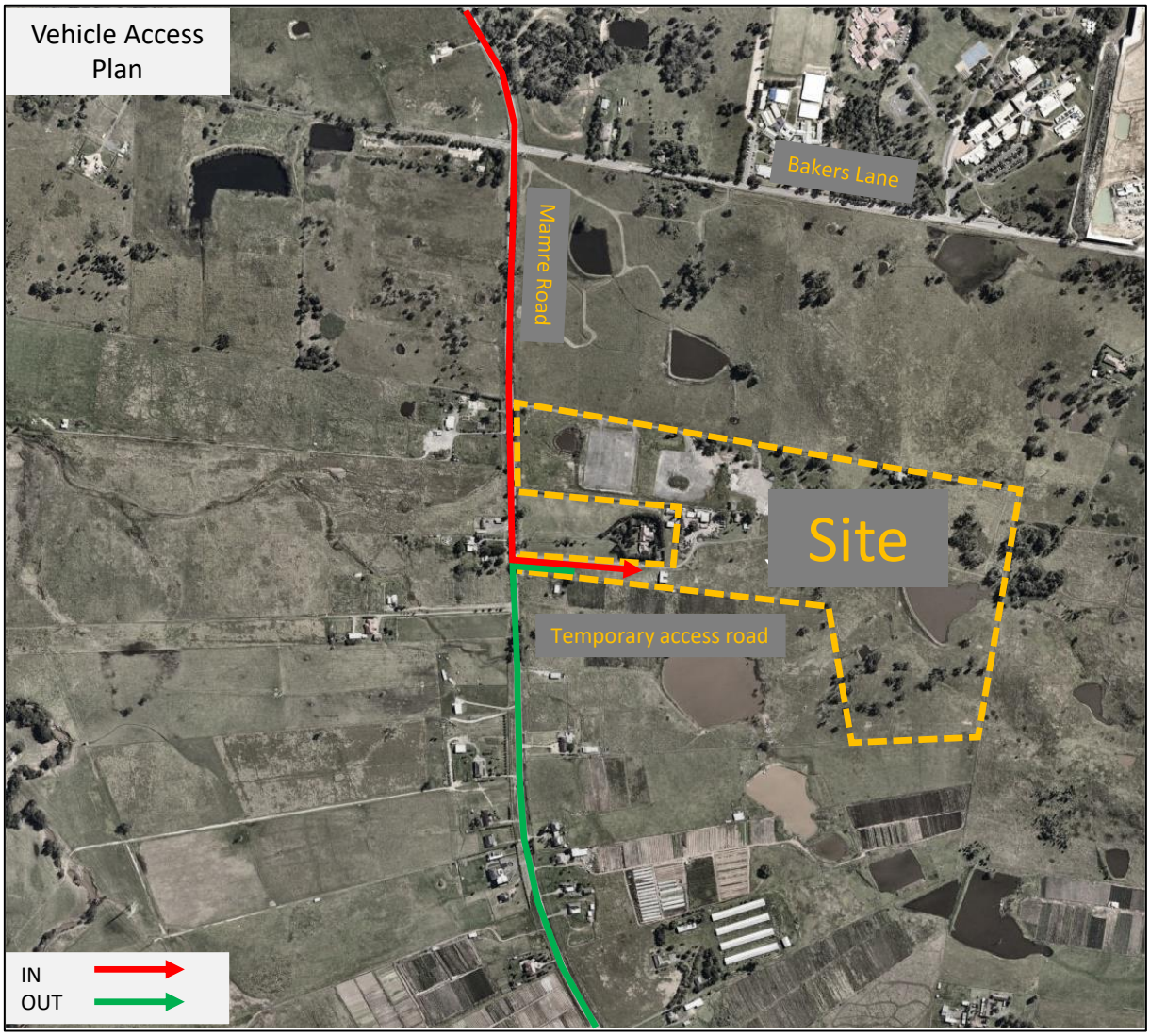


Figure 4: Indicative Vehicle Access Plan

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 Mamre 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 along Mamre Road.

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 Mamre 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 the 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 the Site.
- Departure Trips:
  - Route 1: From the Site, onto Mamre Road then to Elizabeth Drive and left to the M7 Motorway and sub-regional routes to the east.
  - Route 2: From the Site, onto Mamre Road then to Elizabeth Drive and right to Badgerys Creek and The Northern Road to the west.

These routes are shown in **Figure 5**.

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.

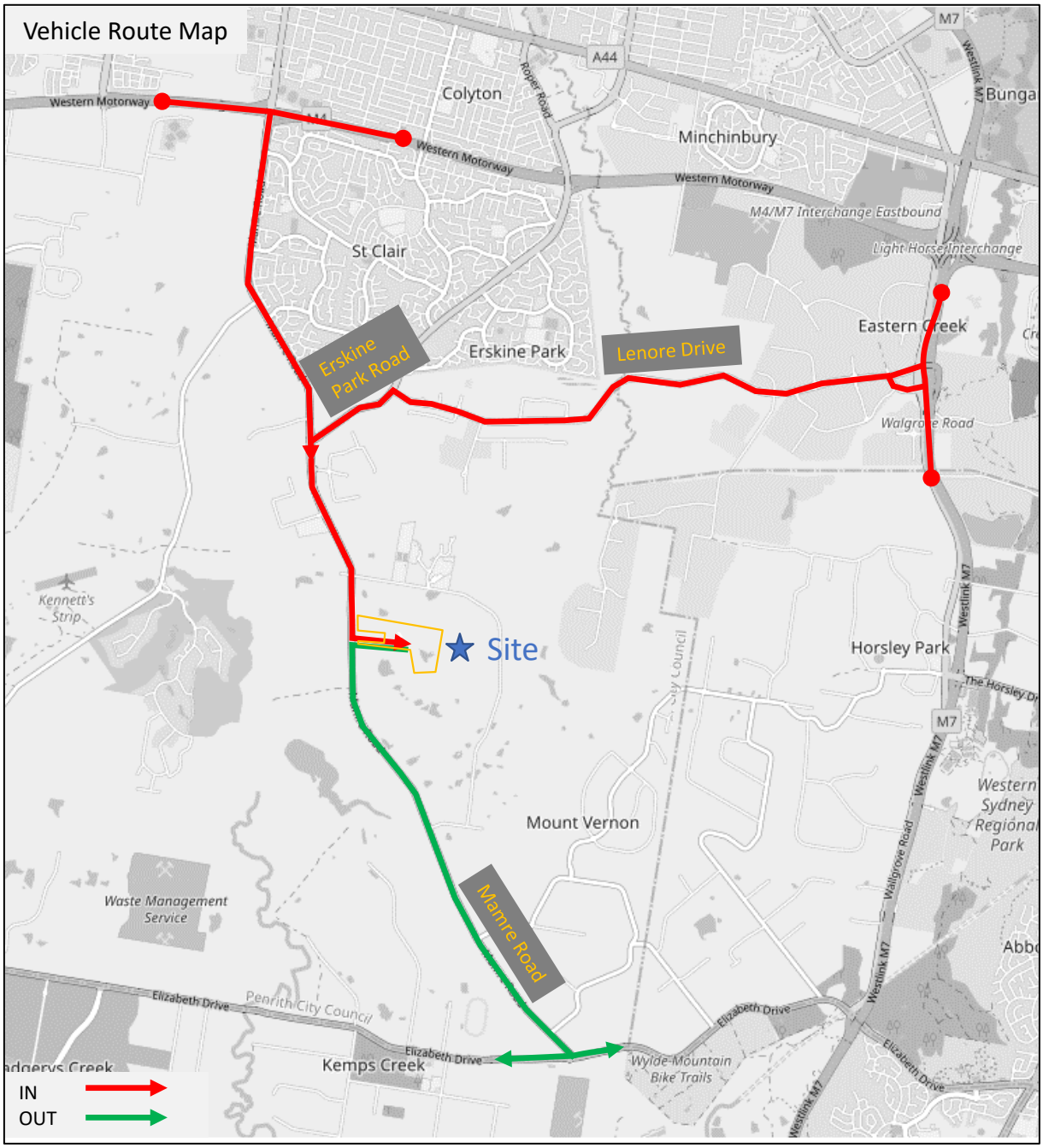


Figure 5: Construction Vehicle Routes

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. Mamre Road) then prior approval shall be sought and obtained from the appropriate authorities.

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 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

Table 1 provides a breakdown of potential vehicle movements throughout the proposed works (to be confirmed by Contractor once appointed, based on similar projects in area):

Table 1: Movement Overview

Stage	Demolition	Excavation	General Construction
Worker Numbers (Maximum on-site at any one time)	50 - 100	50 – 200	50 – 400
Truck Frequency (Maximum movements per day)	100 (50 in / 50 out)	600 (300 in / 300 out)	600 (300 in / 300 out)
Peak Hour Heavy Vehicle Movements	50 (25 in / 25 out)	120 (60 in / 60 out)	120 (60 in / 60 out)
Largest Vehicle Size	Truck & Dog	Truck & Dog	Truck & Dog

4.1.2 Light Vehicle Movements

It is anticipated that a peak construction workforce of up to 400 workers on-site at any one time (based on the specific constructions tasks being undertaken). Light vehicle traffic generation would generally be associated with construction staff movements to and from the Site, including Project Managers, trade and general employees.

With respect to the potential impacts of light vehicle traffic, the overwhelming majority of trips would occur in the short workforce arrival and departure periods, being (based on the proposed construction hours) 6:30am – 7:00am and 6:00pm – 6:30pm respectively; as such, these movements would occur outside of the existing (commuter) peak periods in the local network.

4.1.3 Heavy Vehicle Movements

As indicated in **Table 1**, the construction works are estimated to generate a peak demand for up to 600 truck movements per day (300 vehicles arriving / 300 vehicles departing). To provide a conservative assessment of intersection operations, a peak hour truck generation of up to 120 movements (60 vehicles arriving / 60 vehicles departing) has been assigned; on average, it is expected there would be approximately 60 truck movements per hour (30 vehicles arriving / 30 vehicles departing)

4.1.4 Cumulative Traffic Generation Assessment

There are a number of planned developments in the area therefore, prior to implementation of the final CTMP, a cumulative traffic generation assessment should be undertaken. It is anticipated that this could be included as a Condition of Consent.

4.2 Vehicle Management – 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 Mamre Road. The responsibility of the driver to ensure that the Shaker Grid is driven over would be included as part of the Driver Code of conduct; this requirement, and indeed all driver requirements, will be detailed during an induction process for all drivers prior to commencing work at the Site, and will be further detailed in the Driver Code of Conduct, a copy of which included in **Appendix A**.

4.3 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 Control

The RMS guide “Traffic Control at Worksites” (TCAW) manual contains standard traffic control plans (TCPs) for a range or work activities. The manual’s objective is to maximise safety by ensuring traffic control at worksites complies with best practice.

The RMS TCAW outlines the requirements for a Vehicle Movement Plan (VMP) for construction works such as proposed; a VMP is a diagram showing the preferred travel paths for vehicles associated with a work site entering, leaving or crossing the through traffic stream. A VMP should also show travel paths for trucks at key points on routes remote from the work site such as places to turn around, accesses, ramps and side roads.

Regarding construction work on roads with an average daily total (ADT) in excess of 1,500 vehicles, approach speeds of between 60 km/hr and 80 km/hr, with truck movements > 20 veh/shift, and sight distance is less than 2d, (where d equals the posted speed limit and in this instance the sight distance is required to be up to 120 metres), it would be expected for the following to be required by the RMS TCAW:

- A detailed Traffic Control Plan (TCP) with Traffic controllers
- A VMP.
- Warning Signs required during shifts.

With regard to the proposed temporary access road, a site-specific version of TCP 195 (as shown in **Appendix B**) would be implemented for the duration of the works.

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 and 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 CTMP has been prepared to ensure appropriate traffic management is undertaken during the proposed 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 CTMP is recommended for adoption at the Site.

In summary though – and further to a determination that the proposal's construction traffic will not impact the local road network - the following measures are recommended to minimise the potential traffic impacts associated with the proposal:

- 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 CTMP report is proposed in accordance with the RMS TCAW.

Appendix A

Driver Code of Conduct

- Driver Code of Conduct -

Drivers Code of Conduct

Safe Driving Policy for the GPT Industrial Estate, Mamre Road.

Objectives of the Drivers Code of conduct

- To minimise the impact of earthworks and construction on the local and regional road network;
- Minimise conflict with other road users;
- Minimise road traffic noise; and
- Ensure truck drivers use specified routes

Code of Conduct

All vehicle operators accessing the site must:

- Take reasonable care for his or her own personal health and safety.
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons.
- Notify their employer if they are not fit for duty prior to commencing their shift.
- Obey all applicable road rules and laws at all times.
- In the event an emergency vehicle behind your vehicle, pull over and allow the emergency vehicle to pass immediately.
- Obey the applicable driving hours in accordance with legislation and take all reasonable steps to manage their fatigue and not drive with high levels of drowsiness.
- Obey all on-site signposted speed limits and comply with directions of traffic control supervisors in relation to movements in and around temporary or fixed work areas.
- Ensure all loads are safely restrained, as necessary.
- Drive over cattle grids – located at the Site's access – to vibrate off any loose material attached to construction vehicles.
- Operate their vehicles in a safe and professional manner, with consideration for all other road users.
- Hold a current Australian State or Territory issued driver's licence.
- Notify their employer or operator immediately should the status or conditions of their driver's license change in any way.

- Comply with other applicable workplace policies, including a zero tolerance of driving while under the influence of alcohol and/or illicit drugs.
- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device.
- Advise management of any situations in which you know, or think may, present a threat to workplace health and safety.
- Drive according to prevailing conditions (such as during inclement weather) and reduce speed, if necessary.
- Have necessary identification documentation at hand and ready to present to security staff on entry and departure from the site, as necessary, to avoid unnecessary delays to other vehicles.

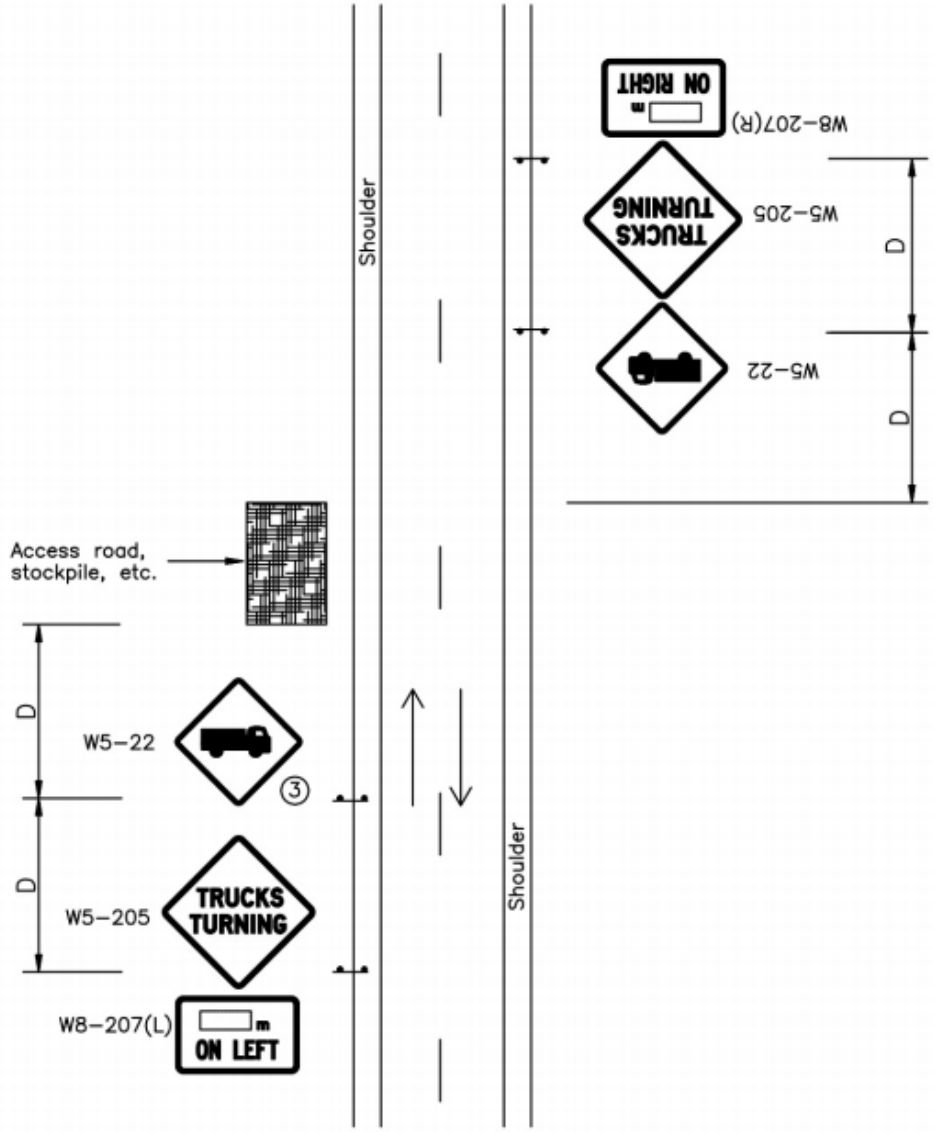
Crash or incident Procedure

- Stop your vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the following information is noted:
  - Details of the other vehicles and registration numbers
  - Names and addresses of the other vehicle drivers
  - Names and addresses of witnesses
  - Insurers details
- Give the following information to the involved parties:
  - Name, address and company details
- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
  - If there is a disagreement over the cause of the crash.
  - If there are injuries.
  - If you damage property other than your own.
- As soon as reasonably practical, report all details gathered to your manager.

Appendix B

Traffic Control Plan(s)

TCP 195



NOTE:

① For use where roadside is generally undeveloped, ADT is more than 1,500 vehicles per day, sight distance is restricted and there are more than 20 truck movements per shift.

② See ***Traffic control at work sites,*** Section 7.7, ***Signs for depots, stockpiles, quarries, gravel pits etc.***

③ For short term works use T2–25.

ACCESS TO DEPOT, STOCKPILE, QUARRY, GRAVEL PIT ETC.
ALL ROADS
LONG TERM USE

T000195