

Transport Management and Accessibility Plan

State Significant Development Application

200 Aldington Road, Industrial Estate 30/06/2022 1292r05



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Glossary

Acronym	Description
AGRD	Austroads Guide to Road Design
AGTM	Austroads Guide to Traffic Management
CC	Construction Certificate
Council	Penrith City Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPE	Department of Planning and Environment
FSR	Floor space ratio
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TDT 2013/04a	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)



1 Introduction

1.1 Overview

Ason Group has been engaged by Fife Capital and Stockland (Fife Kemps Creek Trust, FKC) to prepare a Transport Management & Accessibility Plan (TMAP) in relation to the State Significant Development (SSD-10479) for an industrial development at 106 – 228 Aldington Road, Kemps Creek, to be known as the 200 Aldington Road Industrial Estate (the Site).

The Estate (the Site) is located east of Aldington Road, Kemps Creek within the Penrith City Council (Council) Local Government Area (LGA).

The Site is within the Mamre Road Precinct (MRP), which was rezoned in 2020 for primarily industrial uses under the previous State Environmental Planning Policy (Western Sydney Employment Area) 2009 (now State Environmental Planning Policy (Industry and Employment) 2021, Industry SEPP). The Department of Planning and Environment (DPE) adopted a precinct-wide Development Control Plan on the 19 November 2021 (herein referred to as the MRP DCP).

The proposed development relates to a Concept Masterplan, providing for a total of 342,875m² of industrial Gross Floor Area (GFA) (the Proposal). Detailed approval is also sought for an initial warehouse building (the Stage 1 Proposal). The SSD generally provides for a Concept Masterplan, with a total of 342,875m² of largely industrial GFA and a Stage 1 Proposal, providing for a total of 50,300m² GFA.

It is noted that SSD-10479 was originally submitted to DPE in November 2020 and has since been through the exhibition process, with a number of Requests for Additional Information received (RFI). This report provides an update to previous version (version 5), which was prepared in September 2021, prior to the finalisation of the MRP DCP. Therefore, this report provides an updated version as requested by DPE.

1.2 Mamre Road Precinct Road Network Requirements

1.2.1 Strategic Road Network Requirements

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

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

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

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



1.2.2 Interim Intersection Requirements

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

Therefore, the Land Owners Group East (LOG-E), represented by FKC as well as ESR Australia and Frasers Property Australia, are proposing upgrades to the Aldington Road and Abbotts Road corridor as well as the Mamre Road / Abbotts Road intersection.

Ason Group has worked on behalf of LOG-E to deliver the modelling assessment of the interim road network which forms part of the relevant applications currently under consideration by DPE (see Section 7.4.1). The scope of this modelling was discussed with TfNSW and DPE, and the results have been submitted separately within the following report:

 Ason Group, P1815 – Mamre Road Precinct – LOG East – Revised Modelling, P1815m02_v2 MRP_LOG East 2026 Revised Modelling, 17 June 2022 (P1815m02_v2).

The upgrades are currently proposed as part of the SSD process and will be delivered through a joint Voluntary Planning Agreement (VPA) between LOG-E and Council for Aldington Road and Abbotts Road and DPE for the Mamre Road / Abbotts Road intersection.

1.3 Transport Assessment Objectives

The key objectives of this SSDA TMAP are as follows:

- To establish that the development of the Site further to the Stage 1 Proposal is compliant and consistent with the relevant access, traffic and parking requirements.
- To establish that the trip generation of the Stage 1 Proposal and the Estate can appropriately be accommodated by interim upgrade to the local road network.
- To demonstrate that there is an appropriate and sustainable provision of car parking across the Site.
- To demonstrate that the proposed access driveways, internal roads, car parks and service facilities can provide a design compliant with the relevant Australian Standards.
- To demonstrate that the construction of Stage 1 can be undertaken in an efficient and safe manner, and that construction vehicles can be appropriately accommodated by completed/committed upgrades to the local road network in the short term.



SSD Background and Assessment Requirements

As noted, the application package for SSD-10479 was originally submitted to DPE for assessment in November 2020, which included a Transport Assessment to address the transport related Secretary's Environmental Assessment Requirements (SEARs) (detailed in Section 1.4.1 below), which had also undergone a Test of Adequacy Review.

Subsequently, Section 3.4.1 of the finalised MRP DCP requires the preparation of a TMAP for significant developments. Accordingly, this report provides for the documentation required by the MRP DCP.

1.4.1 Secretary's Environmental Assessment Requirements

SEARSs were issued by the DPE in July 2020 regarding the Stage 1 Proposal and the broader Estate, and include both general DPE SEARs and more specific TfNSW SEARs.

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

TABLE 1 DEPARTMENT OF PLANNING AND ENVIRONMENT SEARS

SEARs	TA Summary Response	Section
details of all traffic types and volumes likely to be generated during construction and operation, including a description of 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 of Mamre Road & Bakers Lane and Mamre Road & Abbotts Road. Construction traffic flows cannot be determined at this time; however, the anticipated construction vehicle mix, Site access provisions and potential haul routes have been clearly identified.	7 Appendix C
an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity. The assessment needs to consider the impact on Aldington Road for the duration of the works because traffic growth in this area is expected to increase more quickly than standard growth rates	The operation of the key Mamre Road & Abbotts Road intersection has been examined in detail utilising the SIDRA model within P1815m02_v2. It is critical to note that the broader operation of the MRP (of which the Site lies) was assessed as part of the MRP DCP, which identifies the ultimate network requirements further to the development of the broader MRP.	7
detailing how the proposed development connects to adjoining sites to facilitate their future development for their intended purposes	The Proposal has been designed to comply with the requirement of MRP DCP, inclusive of road connections.	7
plans demonstrating how all vehicles likely to be generated	The plans have been assessed with reference to the appropriate Australian Standards to ensure that all	10



during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network	loading, servicing and queuing can be accommodated on-site rather than generating on-street parking or queuing. It is anticipated that future Conditions of Consent will compliance with the relevant standards to ensure safe and efficient operation of each of the Lots with the Site.	
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 Council's 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 acre compliant. It is anticipated that a future Condition of Consent will necessarily ensure such compliance with the Australian Standards.	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 Stage 1 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	A response in regard to the design of road upgrades, infrastructure works and new roads and access points has been prepared by AT&L, and is provided within the broader SSDA submission which this TMAP accompanies.	N/A
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	Refer to Section 8 and Appendix B.	8, Appendix B
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	There limited public or active transport services or infrastructure in the vicinity of the Site at this time. However, the Stage 1 development 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 Stage 1 Proposal provides for full integration with the future public and active provisions detailed for the Mamre Road Upgrade.	5 and 8



TABLE 2 TRANSPORT FOR NSW COMMENTS

TfNSW Comment	TA Summary Response	Section
Details of all traffic types and volumes likely to be generated by the proposed development during construction and operation, including a description of haul route origins and destinations, including:	As above.	7
Daily inbound and outbound vehicle traffic profile by time of day and day of week (if travel patterns differ across the week);	Refer to Section 7.	7
Site and traffic management plan on how to manage number of vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the surrounding road network;	A Draft Construction Traffic Management Plan has been provided as Appendix C. It is anticipated that individual lots within the wider Site will be subject to Operational Traffic Management Plans, to be implemented via a suitable Condition of consent as part of Occupation Certificate Works.	Appendix C
Detailed plan of proposed layout of internal road network to demonstrate that the site will be able to accommodate the most productive vehicle types and parking on site in accordance with the relevant Australian Standard and Council's Development Control Plan;	As above, the plans have been assessed with reference to the appropriate Australian Standards to ensure that the design of internal roads, parking and servicing areas acre compliant. It is anticipated that a future Condition of Consent will necessarily ensure such compliance with the Australian Standards.	10
Demonstrate compliance with the Western Sydney Employment Area State Environmental Planning Policy, Part 6; clause 33C; Development within the Mamre Road Precinct; specifically: i. integration with the Mamre Road Precinct dedicated freight network;	The Site layout has been designed with consideration to the future freight network so as not to impede any future dedicated network. FKC are a member of the Working Group, working with TfNSW on the future road network for the MRP and therefore would ensure that the Site would not impact on this Clause.	N/A
Swept path diagrams to demonstrate vehicles entering, exiting and manoeuvring throughout the site;	Appendix D	Appendix D
An assessment of the forecast impacts on traffic volume generated on road safety and capacity of road network including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model as prescribed by TfNSW (former Roads and Maritime). The traffic modelling should consider the scenarios of year 2026, 2031, 2036 and the year until the facility cease operation. These should include, but not be limited to: Mamre Road at Bakers Lane (Aldington Mamre Road at Abbotts Road.	Refer to Section 7	7
An assessment of potential impact on load road pavement lifespan including: i. Aldington Road/ Bakers Lane/ Abbotts Road; and	The load pavement lifespan of the key roads is being considered as part of the broader background work being undertaken for the MRP.	N/A



ii. Mamre Road.		
To ensure that the above requirements are fully addressed, the traffic impact assessment must properly ascertain the cumulative study area traffic impacts associated with the development (and any other approved planning proposals and developments in the precinct and surrounds), including the impact on nearby intersections and the need/associated funding for upgrading or road improvement works (if required); and	Refer to Section 5.3 abd 7.	5.3 and 7

1.5 Consultation

During the preparation of this SSDA TMAP, significant consultation and liaison with TfNSW and DPE has been undertaken.

Ason Group acknowledges the insights and advice provided by TfNSW and DPE officers in this regard.

1.6 Response to Submissions

This TMAP forms a RFI for the Proposal. The Environmental Impact Statement (EIS) for the project was placed on public exhibition between 18 November 2020 and 15 December 2020. During this period, a total of 18 submissions were received. These submissions were addressed and subsequent amendments to the project were made, as outlined in the Response to Submissions Report (dated 23 March 2021) prepared by Ethos Urban.

In written correspondence dated 28 April 2021, it was requested that FKC provide a further response to additional commentary raised by DPE, as well as additional comments raised by public authorities in their review of the first Response to Submissions Report. This was responded to via a second a Response to Submissions Report outlined by Ethos Urban (dated 22 September 2021).

Additional correspondence was received from DPE dated 15 November 2021 which has necessitated updates and additional information.

The most recent Response to Submissions (RtS#3) was submitted on 27 April 2022 by Ethos Urban. Subsequently, DPE have requested this TMAP be updated to reflect the finalised MRP DCP.

1.7 Reference Documents

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

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



1.7.1 Penrith City Council Development Controls

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 SSDA TMAP:

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

1.7.2 General Policies & Guidelines

Ason Group has 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: Parking Facilities Off-Street Car Parking (AS 2890.1).
- Australian Standard 2890.2: Parking Facilities Off-Street Commercial Vehicle Facilities (AS 2890.2).
- Australian Standard 2890.6: Parking Facilities Off-Street Parking for People with a Disability (AS 2890.6).

1.7.3 Reference Reports

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).
- NSW Government Mamre Road Precinct Draft Development Control Plan, November 2020 (Draft DCP).
- Roads & Maritime Mamre Road Upgrades Kerrs Road to M4 Motorway, November 2017 (MR Upgrade Report).
- Roads & Maritime Mamre Road Upgrade Community Consultation Report May 2019 (MR Upgrade CC Report).



- AECOM Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report, October 2020 (AECOM Report).
- Ason Group, P1815 Mamre Road Precinct LOG East Revised Modelling, P1815m02_v2 MRP_LOG East 2026 Revised Modelling, 17 June 2022 (P1815m02_v2).

2 The Proposal

2.1 Project Summary and Chronology

This section provides a summary of the Project description as originally lodged (11 November 2020) and publicly exhibited and subsequent amendments to the project to address issues raised by the DPE and in submissions from agencies, Penrith City Council and the public.

The section concludes with a description of the SSDA for which development consent is now sought.

2.1.1 Summary of project as lodged and publicly exhibited (October 2020)

As lodged and exhibited, the SSDA sought approval for the following development:

- A concept masterplan with an indicative total building area of 375,755 sqm, comprising:
 - 357,355 sqm of warehouse gross floor area (GFA)
 - 18,200 sqm of ancillary office GFA
 - 200 sqm of café GFA
 - 13 individual development lots for warehouse buildings with associated hardstand areas and two lots for drainage infrastructure purposes
 - Internal road layouts and road connections to Aldington Road
 - Provision for 1700 car parking spaces
 - Associated concept site landscaping.
- Detailed consent for progressive delivery of site preparation, earthworks and infrastructure works (i.e., Stage 1 works) on the site, including:
 - Demolition and clearing of all existing built form structures
 - Drainage and infill of existing farm dams and any ground dewatering
 - Clearing of all existing vegetation
 - Subdivision of the site into 15 individual lots
 - Construction of a warehouse building with a total of 50,930 sqm of GFA, including:
 - 48,430 sqm of warehouse GFA
 - 2,500 sqm of ancillary office GFA
 - 231 car parking spaces
- Bulk earthworks including 'cut and fill' to create flat development platforms for the warehouse buildings, and site stabilisation works (if required)
- Roadworks and access infrastructure
- Stormwater and drainage works including stormwater basins, diversion of stormwater lines, gross pollutant traps and associated swale works
- Sewer and potable water reticulation
- Inter-allotment, road and boundary retaining walls.



2.1.2 Response to Submissions (March 2021)

Following the public exhibition of the Project, changes were undertaken in response to the issues raised during the public exhibition. This included a full assessment of the Project against the (then) Draft Mamre Road Precinct Development Control Plan (draft MRP DCP) which was released subsequent to lodgement of the SSDA.

The key changes and additional information on the Project included:

- A revised riparian solution in the north east corner of the site which relocated the existing first order water course and re-established the riparian corridor with a 10-metre buffer on each side in accordance with the Natural Resources Access Regulator (NRAR) guidelines.
- An evidence-based case for the proposed location of the high order road south of the site's northern boundary which was seen to provide a more logical and feasible road network outcome (for both FKC and its northern neighbour) compared to that envisioned under the draft MRP DCP.
- Revised technical inputs for the flood assessment to address the submissions raised, including revised flood modelling which addresses post development conditions in the 2-, 20- and 100-year ARI events, and providing further commentary on the flooding impacts of surrounding and downstream land.
- An integrated water management solution which can effectively allow the progressive redevelopment of the site to occur while still recognising and meeting stormwater runoff targets set out in the draft and eventual final MRP DCP.
- A revised Visual Impact Assessment showing the impact of proposed landscaping mitigation over time.
- Rationale for minor departures from the draft MRP DCP in relation to building design and sitting, pylon signage and retaining walls

2.1.3 Request for Additional Information (April 2021)

Further changes to the Project (which are the subject of this RTS Report) are the result of further correspondence received by DPE (dated 28 April 2021). The changes to the Project further align the proposed development with the relevant provisions of the (then) draft MRP DCP (especially in relation to the proposed road network) and exclude prohibited components of development from the RE2 Private Recreation zone. The Summary of key changes to the project are:

- Concept Master Plan:
 - Reconfiguration of the internal road network and external road connections to be generally consistent with the draft Mamre Road Precinct DCP including:
 - Provision of a land reservation corridor along the northern boundary to facilitate half the required future DCP road and intersection with Aldington Road
 - Inclusion of the open space edge road in the north-east section of the site with connections through to the adjoining properties to the north and east
 - Intersections with Aldington Road; signalised south intersection and roundabout northern intersection
 - Amendments to road corridor widths.
 - Reconfiguration of Lot G to facilitate the open space edge road to the adjoining eastern property and to locate the proposed warehouse footprint wholly within the IN1 zone
 - Relocation of on-site detention basin within Lot D to be outside the RE2 Private Recreation zone in within the IN1 zone:



- Retention of existing farm dams within the RE2 zoned area in the north-east corner of the site;
- Consequential amendments to bulk earthwork pads, retaining walls, lot and future warehouse layout, car parking and landscaping

Stage 1 works:

- Overall revisions to site preparation, earthworks and infrastructure consistent with the revised concept master plan.
- Inclusion of an interim access road and temporary junction connecting to Aldington Road in the northern portion of the site to facilitate site access prior to the implementation of the northern boundary road.
- Revision to the internal road network in line with the concept master plan revisions with the provision
 of temporary turning heads at the site boundary where those roads will connect to properties to the
 east and north in the future. The road levels at the boundary interface of the site will align with
 existing ground level (or as required to contain stormwater).

2.1.4 Description of Project, as amended (September 2021)

The amended SSDA seeks approval for the following development:

- A concept masterplan with an indicative total building area of 347,955 sqm comprising:
 - 330,950 sqm of warehouse gross floor area (GFA)
 - 17,005 sqm of ancillary office GFA
 - 13 individual development lots for warehouse buildings with associated hardstand areas and two lots for drainage infrastructure purposes (each including a bio-retention basin)
 - Roads, including:
 - Internal road layouts
 - Southern road connection to Aldington Road
 - Northern boundary road (half road corridor) connecting to Aldington Road
 - Road connections to adjoining landholdings to the north and east
 - Provision for 1549 car parking spaces and
 - Associated concept site landscaping
- Detailed consent for progressive delivery of site preparation, earthworks and infrastructure works (i.e., Stage 1 works) on the site, including:
 - Demolition and clearing of all existing built form structures
 - Drainage and infill of existing farm dams and any ground dewatering
 - Clearing of all existing vegetation
 - Subdivision of the site into 15 individual lots
 - Construction of a warehouse building with a total of 50,930 sqm of GFA, including:
 - 48,430 sqm of warehouse GFA
 - 2,500 sqm of ancillary office GFA and
 - 219 car parking spaces
 - Bulk earthworks including 'cut and fill' to create flat development platforms for the warehouse buildings, and site stabilisation works (if required)



- Roadworks and access infrastructure, including an interim access road and temporary junction with Aldington Road
- Stormwater and drainage works including stormwater basins, diversion of stormwater lines, gross pollutant traps and associated swale works
- Sewer and potable water reticulation and
- Inter-allotment, road and boundary retaining walls

This report addresses the amended project for which development consent is now sought. It is a standalone report and supersedes the previous reports and supplementary information prepared for the original development application and subsequent response to submissions.

The Concept masterplan (prepared by SBA Architects) is shown in Figure 1, with the Stage 1 works shown by Figure 2.

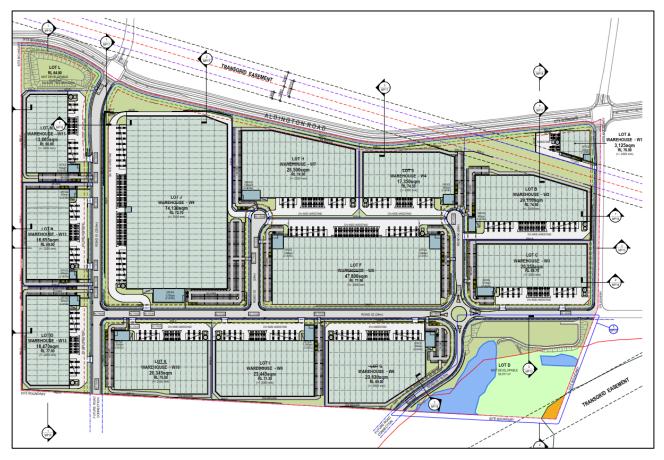


Figure 1: Proposed Concept Masterplan

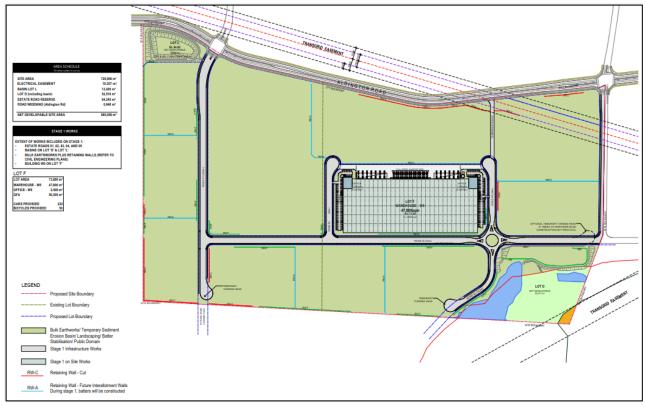


Figure 2: Stage 1 Works

Source: SBA Architects

Proposed Vehicular Access

A two-stage access strategy is proposed, with the long-term access for the Stage 1 development being via the Site's internal road network, rather than directly from Aldington Road.

Access will be as follows:

- In the interim period it is proposed to access Aldington Road via a proposed temporary road as shown in Figure 3. The proposed temporary road is planned to provide a temporary access for Stage 1, while the Site's long-term road network is delivered and the ultimate connections to Adlington Road are completed.
- The long-term strategy will see access to Aldington Road via the Site's internal industrial roads to both the south and north of Stage 1. Once the long-term connection is delivered, the temporary road way will be removed.



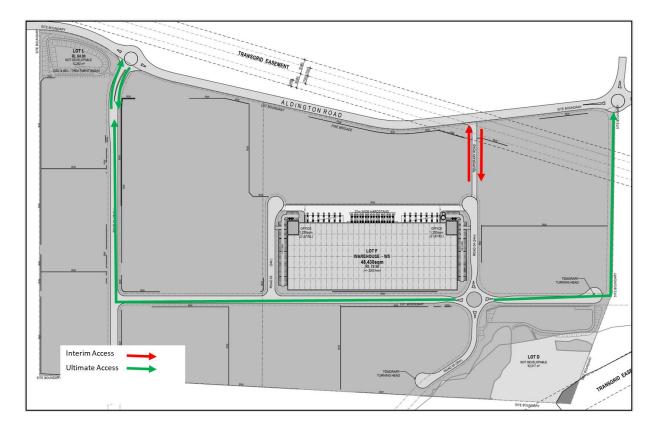


Figure 3: Proposed Access Locations

3 The Existing Site

Location 3.1

The Site is comprised of 15 separate allotments with a total area of approximately 72 Hectares (ha). The Site is located approximately 5km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 13km south-east of the Penrith CBD and 40km west of the Sydney CBD.

The Site is shown in its sub-regional context in Figure 4, as well as the broader MRP area in which it lies.

3.2 Current Site Land Usage

The Site currently provides for a number of rural residential properties, as well as for small scale agricultural industries businesses. The properties along the length of Aldington Road can be categorised on this manner.

Site Access 3.3

The Site has approximately 1.3km of direct frontage to Aldington Road, and at present provides numerous private driveways for access to adjacent sites. Aldington Road connects with Mamre Road by way of Abbots Road (to the South) and Bakers Lane to the North. From Mamre Road, access is available north to the M4 Motorway, Great Western Highway, Lenore Drive and M7 Motorway; and south to Elizabeth Drive, the M7 Motorway and the future M12 Motorway.



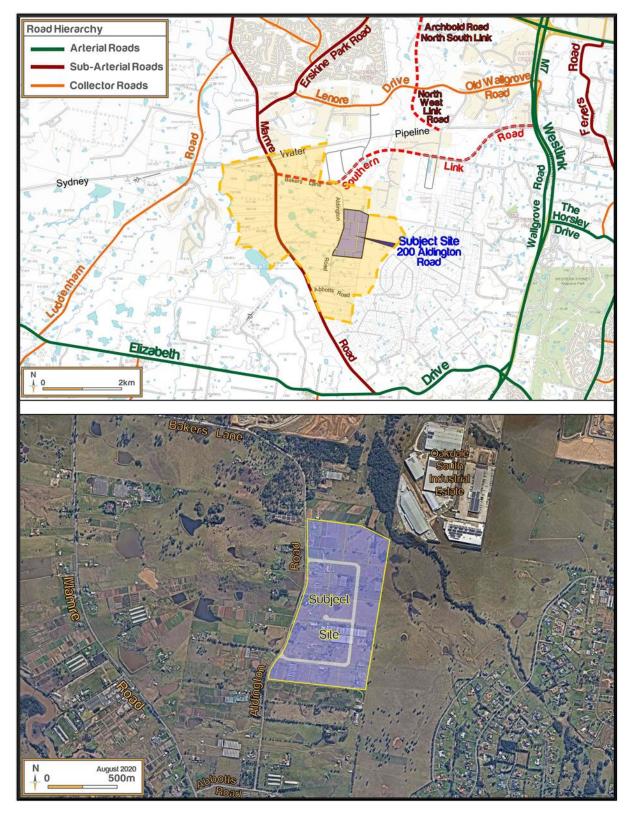


Figure 4: Site Location & Road Hierarchy

4 The Existing Road Network

Key Roads 4.1

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

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.

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.

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.

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.

Existing Traffic Flows 4.2

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 3.

TABLE 3 2018 MAMRE ROAD TRAFFIC FLOWS

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



With reference to Table 3, 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 5.3).

It is notable that the turning movements into and out of Abbotts Road and Bakers Lane from / to Mamre Road, relate largely to the small number of rural residential properties, as well as small scale agricultural industries businesses, along Aldington Road and therefore traffic flows along Aldington Road are currently not significant. The main traffic generation in this area, to the east of Mamre Road, relate largely to the existing School, located on Bakers Lane, north of Aldington Road.



Mamre Road Precinct Rezoning

5.1 Overview

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

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

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.



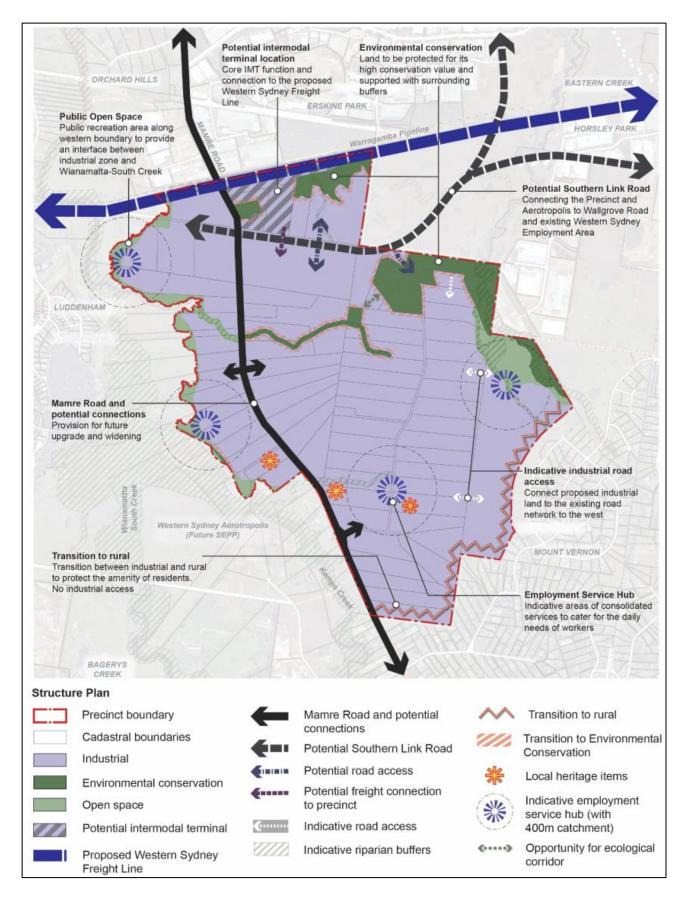


Figure 5: Mamre Road Precinct Structure Plan

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); 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.
- 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.

5.2.2 Strategic Constraints & Opportunities

The MRP Rezoning Paper – drawing from the policies outlined above and the broader demands on an evergrowing 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.
- **Freight and Logistics:** The WSEA is strategically located with proximity to key freight and logistic corridors including the M4 and M7 Motorways,.
- Intermodal Terminal: TfNSW has identified an urgent need to plan for and protect intermodal capacity within the Aerotropolis.
- 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 Upgrade

5.3.1 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 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.

The recent NSW 2022-2023 Budget included funding for Stage 1 of the MR Upgrade between the M4 Motorway and Erskine Park Road as part of the Western Sydney Growth Roads Program (which totals \$1.5 billion over four years, including \$220.1 million in 2022-23).

5.3.2 Mamre Road Upgrade Design Components

The MR Upgrade provides the following key infrastructure proposals:

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

The broader MR Upgrade proposal (per the MR Upgrade Report) is shown in Figure 6.



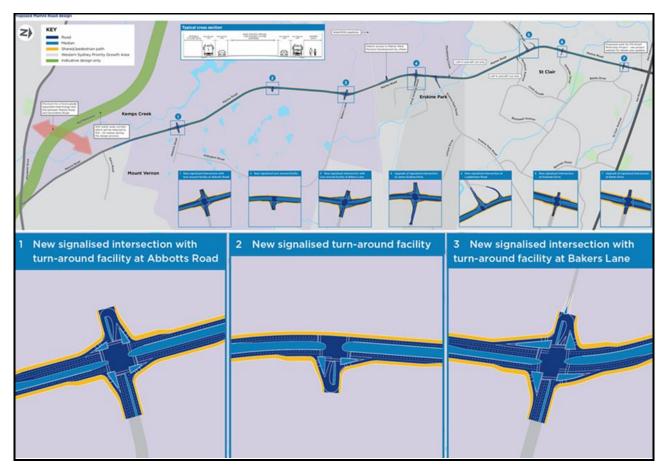


Figure 6: Mamre Road Upgrade

Source: Mamre Road Upgrade Report

5.3.3 Abbotts Road & Bakers Lane Intersection Upgrade

As discussed, the ultimate future signalised intersection capacity requirements at the Abbotts Road and Bakers Lane intersections with Mamre Road have been identified as part of the MRP modelling assessment process.

As such, the LOG-E are proposing a staged upgrade to the intersection, with the relevant VPA currently being agreed. Acquisition of land is currently being facilitated by LOG-E to support the ultimate road upgrade per TfNSW's directive for the ultimate road network to be delivered. The ultimate intersection developed is shown by Figure 7.

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

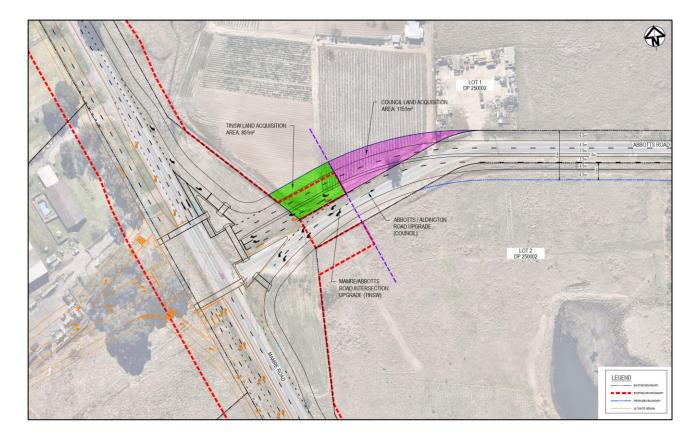


Figure 7: Abbotts Road / Mamre Road Intersection - Currently Proposed Ultimate Intersection

Further to the upgrades planned to Mamre Road / Abbotts Road, the approved development located at 657-769 Mamre Road (SSD 95221) includes a requirement to upgrade the Mamre Road / Bakers Lane intersection by 2025, in advance of the delivery of the ultimate intersection. It is noted that this will form a key intersection for the MRP, with the future SLR planned to be provided along the current alignment of Bakers Lane.

The approved intersection design, to be delivered by 2025, is reproduced in Figure 8.

¹ https://www.planningportal.nsw.gov.au/major-projects/project/10376

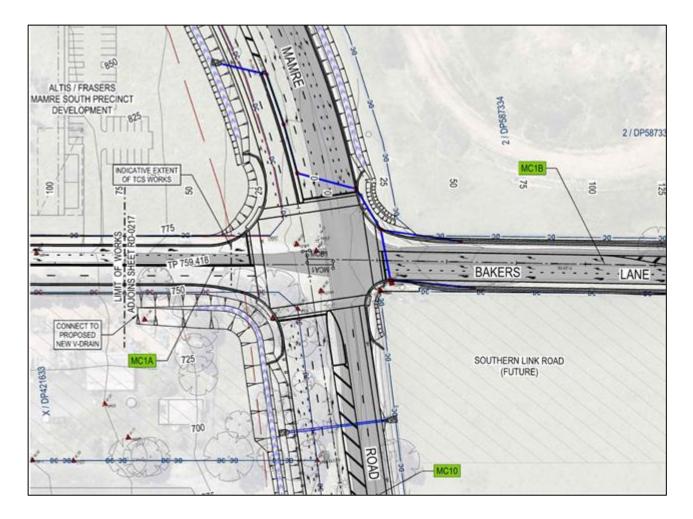


Figure 8: Approved Bakers Lane / Mamre Road Intersection

Mamre Road Precinct DCP

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

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 9 representing the preferred options being assessed.

As is shown, the Site access road would eventually form a high order road. The requirements for the preferred road typologies are shown by Figure 10 and Figure 11.

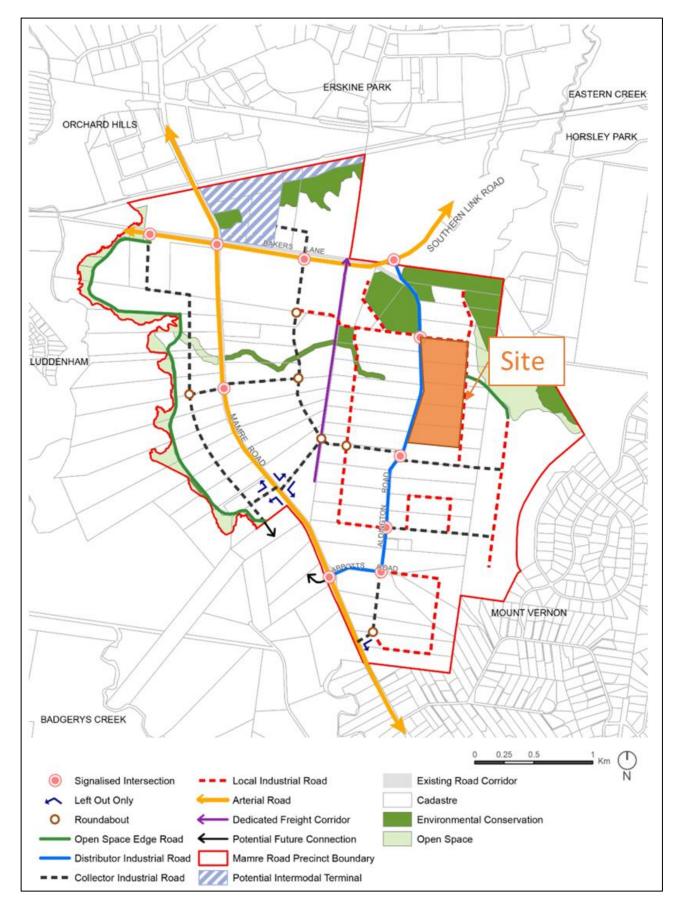


Figure 9: DCP Precinct Road Network

Source: Mamre Road Precinct DCP 2021

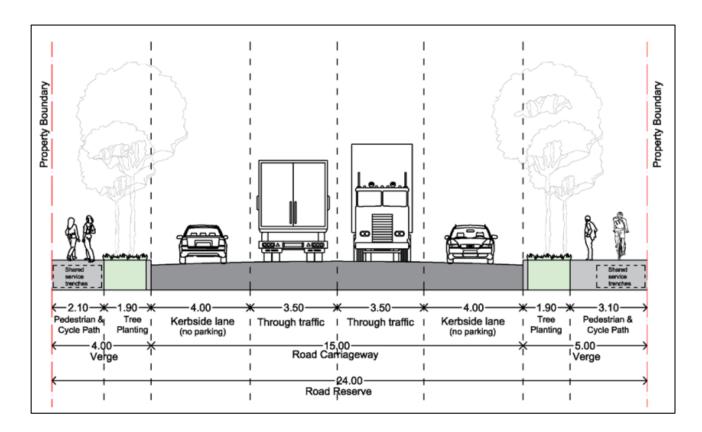


Figure 10: DCP Typical Local Industrial Road

Source: Mamre Road Precinct DCP 2021

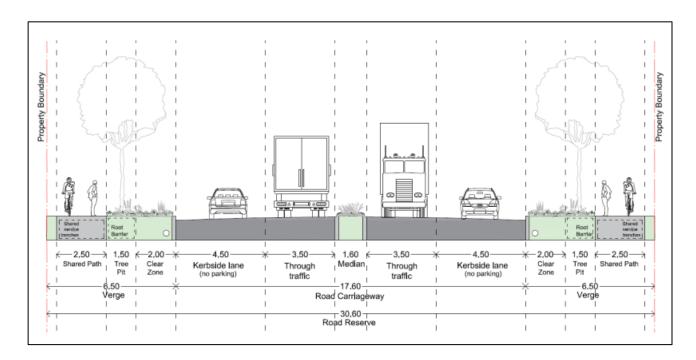


Figure 11: DCP Typical Distributor Road

Source: Mamre Road Precinct DCP 2021



6 Public & Active Transport Opportunities

6.1 Existing Conditions

The Site is limited with the current public transport service offering, as shown in **Figure 12**, with no bus stops currently provided within the vicinity of the Site. Therefore, for this TMAP, 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 WSEA and BWSEA.

6.2 Bus Services

It is evident that the Site is not directly serviced by public transport at this time; 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 lies within 400m of a viable bus service.



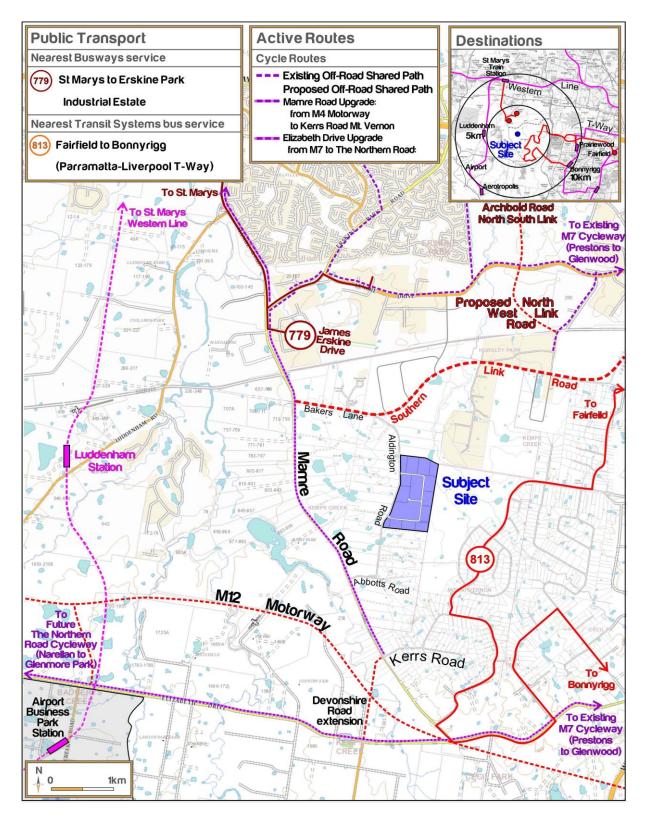


Figure 12: Public Transport Network

Key transit corridors identified in the BWSEA Structure Plan are shown in Figure 13.

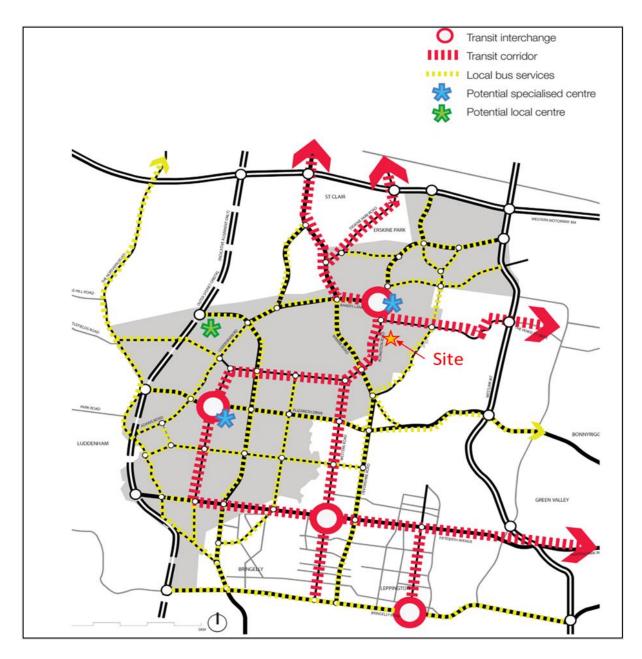


Figure 13: BWSEA Transit Corridors

Source: BWSEA Structure Plan

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 14. 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.

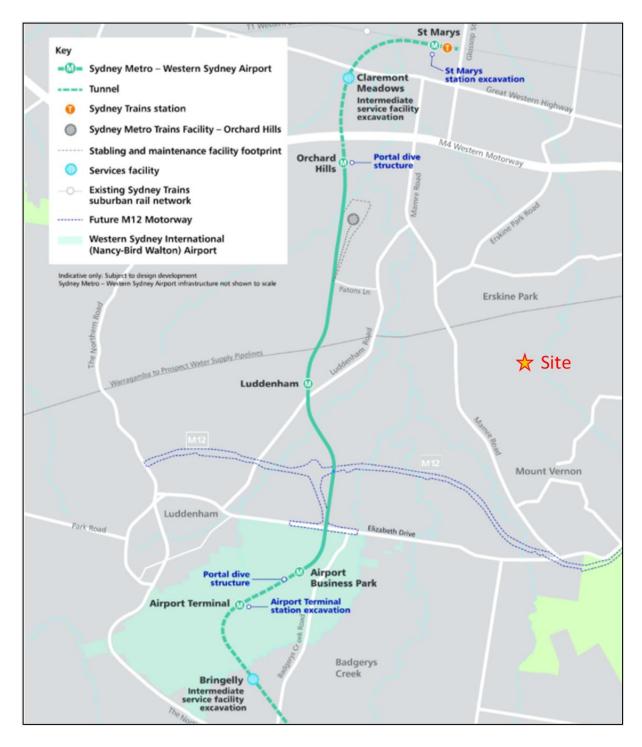


Figure 14: BWSEA Transit Corridors Metro Western Sydney Airport Alignment

Cycling 6.4

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, nor along Aldington Road itself.



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 15, noting again that the MR Upgrade will provide shared paths along at least one side of the road for its entire length.

Finally, Section 3.4.3 of the DCP requires all roads to incorporate a footpath of 1.5m on one side (minimum) and shared path of 2.5m (minimum) on the opposing side of the road. Therefore, it is anticipated that the bicycle network would be significantly improved as the MRP develops.

6.5 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.

In this regard, it is noted that the upgraded Mamre Road will include shared cycle and pedestrian pathways along its length. Further, the 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.



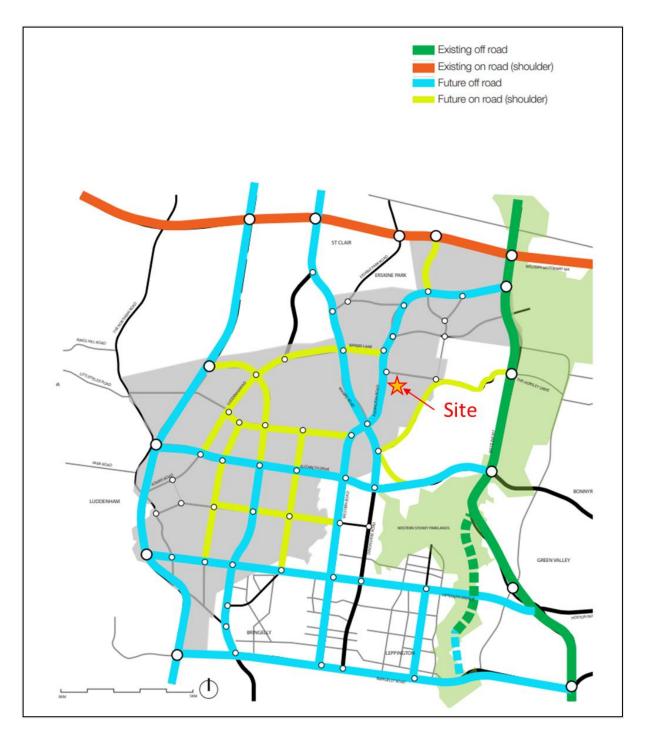


Figure 15: BWSEA Active Transport Network

Source: BWSEA Structure Plan

7 Traffic Assessment

7.1 Introduction

The traffic assessment for the Site has been through an iterative process undertaken through the relevant RFIs and, as such, the modelling assessment has been revised numerous times. Reference to previous revisions of this report should be made for earlier modelling assessments.

As discussed, the results of the most recently undertaken modelling assessment undertaken by Ason Group for LOG-E has been submitted separately to DPE and TfNSW are detailed in the report P1815m02_v2. The key results of this assessment are summarised below. It is worthy of note that the methodology for the modelling assessment was presented to, and agreed, with TfNSW.

7.2 Trip Rates

7.2.1 TfNSW Trip Rates

For the MRP modelling assessment, TfNSW provided Ason Group with trip rates for adoption, as shown by **Table 4**.

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

TABLE 4 TFNSW PROVIDED TRIP RATES

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

7.2.2 Ason Group Trip Rates

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

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



The average trip generation rate for general warehousing developments found by the surveys are summarised in Table 5 below.

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

TABLE 5 SURVEYED TRIP RATES – WAREHOUSE DEVELOPMENT

Time Period	Rate per 100m ²
Daily Trips	2.31
Local Road AM Peak (7am - 8am)	0.17
Local Road PM Peak (4pm - 5pm)	0.15

Proposal Traffic Generation

7.3.1 Concept Masterplan Generation

Further to the adoption of the above trip rates, Table 6 provides a summary of the Site's traffic generation further to the Concept Masterplan Proposal. A breakdown of the Site's daily traffic profile, based on the TfNSW trip rate and significant survey data available, is show in Appendix A. It is noted that there are minor differences between the peak hour volumes reported in Table 6 and those reported in Appendix A further to minor rounding changes.

TABLE 6 CONCEPT MASTERPLAN TRAFFIC GENERATION

SSDA Proposal	GFA (m²)	Rate per 100m ²	Trips	Rate per 100m ²	Trips
Daily		2.91	9,978	2.31	8,038
AM	347,955	0.23	789	0.17	592
PM		0.24	823	0.15	522

7.3.2 Stage 1 Traffic Generation

Table 7 provides a summary of the Site's traffic generation further to the Stage 1 Proposal, while a breakdown of the Site's daily traffic profile, based on the TfNSW provided trip rate is shown in Appendix A.

TABLE 7 ST	AGE 1	1 TRAFFIC	GENERATION
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SSDA Proposal	GFA (m²)	Rate per 100m ²	Trips	Rate per 100m ²	Trips
Daily		2.91	1,464	2.31	1,176
AM	50,930	0.23	116	0.17	87
PM		0.24	121	0.15	76



7.4 Traffic Impact Assessment

7.4.1 2026 Interim Assessment

The road network which was adopted for the LOG-E modelling assessment (reported in P1815m02_v2), forms part of the relevant applications currently under consideration by DPE, as shown in **Figure 16**.

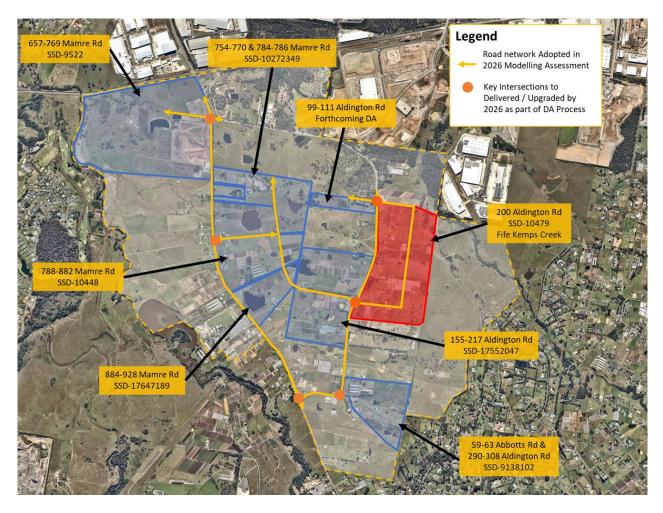


Figure 16: 2026 Interim Modelling Assessment Road Network

With reference to the modelling assessment documented in P1815m02_v2, two scenarios were established for the 2026 network. Of note, it was assumed that the level of development delivered would equate to 50 hectares per annum, or 1,291,584m² of GFA.

Of relevance to the project Site, SIDRA intersection results of the following three key intersections are summarized below for the two scenarios respectively:

- Mamre Road / Bakers Lane
- Mamre Road / Abbotts Road
- Aldington Road / Abbotts Road



7.4.2 Scenario 1

Scenario 1 assessed the road network as currently proposed by the relevant SSDs, shown by Figure 16. This included the upgrade of the Mamre Road intersections with Abbotts Road and Bakers Lane (as discussed in Section 5.3.3). The scenario included:

- Approximately 990,215m² of the total GFA within the MRP;
- The road network as currently proposed. That is, completely consistent with either the current SSDA applications, approved intersection layouts or current VPA offers.
- Internal road network assumed to be delivered by 2026.

A summary of the modelling results for three key intersections, as considered relevant for this assessment, under scenario 1 are provided in Table 8.

TABLE 8 SCENARIO 1 – KEY INTERSECTION SIDRA RESULTS

Interception	Control	Α	M	PM	
Intersection	Control	DOS	LOS	DOS	LOS
Mamre Road / Bakers Lane	Signal	0.86	D	0.87	D
Mamre Road / Abbotts Road	Signal	0.39	А	0.63	А
Aldington Road / Abbotts Road	Signal	0.13	В	0.30	В

The modelling demonstrates that all intersections and movements (as demonstrated in Table 8 above and in the overall network) operate within the thresholds set by TfNSW. As such, it is concluded that network scenario 1 is able to accommodate approximately 990.215m² of development within the MRP whilst maintaining acceptable level of performance.

7.4.3 Scenario 2

A second modelling scenario was also undertaken to identify the additional GFA that could be achieved with additional upgrades to the Mamre Road / Bakers Lane intersection. The scenario included:

- 1,291,584m² of the total GFA within the Precinct;
- The road network as adopted for Scenario 1 with the following additional upgrade:
 - Widening of Mamre Road to four lanes (2 northbound and 2 southbound) between Bakers Lane and the Aspect Industrial Estate access intersection.
 - Additional upgrades to the Mamre Road / Bakers Lane intersection, including:
 - North Approach additional short through lane and dedicated left slip lane
 - East Approach Dedicated left slip lane
 - West approach Dedicated left slip lane
 - South approach additional short through lane, dedicated left slip lane and additional departure lane



A summary of the modelling results for the three key intersections under scenario 2 are provided in Table 9.

TABLE 9 SCENARIO 2 – KEY INTERSECTION SIDRA RESULTS

Intersection	Control	Α	M	PM	
mersection	Control	DOS	LOS	DOS	LOS
Mamre Road / Bakers Lane	Signal	0.90	С	0.87	D
Mamre Road / Abbotts Road	Signal	0.48	А	0.84	В
Aldington Road / Abbotts Road	Signal	0.21	В	0.46	В

The modelling demonstrates that all intersections and movements (as demonstrated in Table 9 above) operate within the thresholds set by TfNSW under Scenario 2. As such, it can be concluded that network scenario 2 is able to accommodate approximately 1,291,584m² of development within the Precinct whilst maintaining acceptable level of performance.

Further to the adoption of the TfNSW agreed trip rates, Table 10 provides a summary of the MRP traffic generation of which the network can accommodate with the GFAs described in Scenario 1 and 2.

TABLE 10 ESTATE WIDE TRIP GENERATION FOR SCENARIO 1 & 2

Scenario	GFA (m²)	Period	TfNSW Agreed Trip Rate (per 100m²)	Trips
Scenario 1	990,215	AM	0.23	2,277
		PM	0.24	2,376
		Daily	2.91	28,815
Scenario 2	1,291,584	AM	0.23	2,971
		PM	0.24	3,100
		Daily	2.91	37,585

7.4.4 Trip Rate Comparison

As noted in Section 7.2.2, it is now considered appropriate to adopt surveyed trip rates on the basis that each of the developments considered have been developed by the Landowners to specifically provide for general warehousing and industrial uses.

Considering the total trips identified as being achievable by the modelling assessment, a comparison of the total GFA achievable has been undertaken. This comparison is on the basis of the conservative trip rate provided by TfNSW alongside the surveyed trip rates for Scenario 1 (i.e., the current network proposed to be delivered as part of the relevant SSDs) and is provided in Table 11.



TABLE 11 TRIP GENERATION COMPARISON

Source	Permissible Trips per Day	Daily Trip Rate (per 100m²)	GFA (m²)
TfNSW Provided	28,815	2.91	990,215
Surveyed		2.31	1,247,403
		Difference	+257,188

It is noted that an increase of the total development GFA of 257,188m² can be achieved by applying the surveyed trip rate, accommodating a total 1,247,403m² GFA in the MRP by 2026. This is level of GFA is generally consistent with the anticipated take up rate of 50 hectares per annum.

Therefore it is evident that the interim road network which is to be delivered as part of the relevant SSDs is appropriate to accommodate the forecast traffic generation associated with the Proposal, as well as neighbouring developments, until such a time that the ultimate road network is delivered.

7.4.5 Summary

The assessment has found that, on the basis of adoption of the surveyed trip rates, the proposed 2026 road network can accommodate up to 1,247,403m² of GFA, or 28,815 daily vehicle movements. This is generally consistent with the anticipated GFA that will be delivered by 2026 (based on a forecast take up of 50 hectares per annum). The modelling assessment detailed in P1815m02 v2 found that on this basis, the 2026 planned road network would operate satisfactorily.

Notably, of the MRP development trips, the traffic generation associated with the Proposal (Table 6 and Table 7) represents:

- 4% of the total acceptable traffic generation for the MRP in the peak hours, for the Stage 1 Proposal; and
- 28% of the total acceptable traffic generation for the MRP in the peak hours, for the Concept Masterplan.

The application of Ason Group surveyed trip rates is considered appropriate on the basis that:

- Ason Group surveyed trip rates are established having regard for completed or approved developments within Western Sydney Employment Area (WSEA) and the approved and operational intermodals at Moorebank and Enfield respectively. These developments are largely General Warehousing which have similar trip generation characteristics as the SSDs currently proposed within the MRP and are all located within the WSEA.
- The adoption of the more conservative trip rates as agreed with TfNSW is more appropriate for precinct planning. However, the current tenant enquiries and agreements already executed, it is evident that the development to be delivered aligns with general warehouse and logistics uses. As such, the application of the surveyed rate is appropriate.
- With reference to the recently approved development located at 788-882 Mamre Road, Kemps Creek (SSD-10448²), item D3 of Condition of Consent requires an Operational Traffic Monitoring Program to

² https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-10448%2120220531T074512.635%20GMT



"verify light and heavy vehicle traffic numbers against the predictions in the ADR prior to commencement of operation of Building 1 or 3 and for a period of 12 months of operation".

It is expected that any approved development within the MRP would be subject to similar Conditions, including the Site. As such, the operation of the road network, and the trip generation associated with the development, will be monitored as a result. Through the monitoring process, changes can be made as necessary to mitigate any potential unacceptable impacts associated with the development.

It is therefore concluded that the development is acceptable from a traffic generation perspective.



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 12**.

TABLE 12 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 12, it is evident that the private vehicle (car) is the overwhelming preferred mode of choice for commuters travelling to work in the area. The data indicates that 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 precinct 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 B). 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 B has identified an initial 5-year target for reducing travel by private vehicle on the Site.

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

With regards to understanding the number of employees on the Site, at this stage in the development it is not clear how many employees the Site would accommodate. However, to inform this assessment, it is understood that the approximate 850 hectares of industrial land within the MRP could accommodate an approximate capacity of 17,000 jobs, based on information provided by DPE.



The developable land within the Site totals 60 hectares. On this basis therefore, it is assumed that the Site could accommodate approximately 1,200 employees.

TABLE 13 SITE TRAVEL MODE TARGETS AND SUBSEQUENT PERSON TRIPS BY 2026

Travel Mode	Mode Share of Employees	Daily
Car as Driver	88%	1056
Car as passenger	3%	36
Train	0%	0
Bus	4%	48
Walked only	1%	12
Bicycle	1%	12
Taxi	1%	12
Motorbike/Scooter	1%	12
Other Modes	1%	12
Total	-	1,200

The analysis indicates that 48 persons would use bus to access the Site during peak hours, or 96 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 for the Site. 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 Precinct Parking Rates

It is proposed that parking for the Site be provided with reference to Section 4.6 of the DCP, as shown by **Table 14**.

TABLE 14 DCP PARKING RATES	
Land Use	Minimum Parking Rate
Warehouse	1 space per 300m ² of gross floor area or 1 space per 4 employees, whichever is the greater.
Industries	1 space per 200m ² or 1 space per 2 employees, whichever is the greater
Ancillary Office Space	1 space per 40m ² of gross floor area
Neighbourhood Shops	1 space per 40m ² of gross leasable area

9.2 Parking Requirements

Table 15 details the requirements for Stage 1 and the overall Concept Masterplan, based on the DCP parking rates detailed in Table 14.

TABLE 15 CAR PARKING REQUIREMENTS & PROPOSED PROVISION						
Stage	Land Use	GFA (m ²)	Requirement (spaces)	Currently Proposed		
	Warehouse	47,800	160			
1	Office	2,500	63	221		
	Sub Total	50,300	223			
Concept Masterplan	Warehouse	325,865	1087			
	Office	17,010	426	1,516		
	Sub Total	342 875	1 513			

As per Table 15, the Stage 1 development requires 223 parking spaces and 221 parking spaces are provided. Similarly, the overall Concept Masterplan requires a total of 1,513 parking spaces, with 1,516 currently provided. Therefore, the Proposal can provide full compliance with the adopted rates.

9.3 Additional Parking Considerations

9.3.1 Accessible Parking

The DCP provides the following in regard to accessible parking:



Accessible parking must be provided in accordance with the provisions of the Building Code of Australia and relevant Australian Standards.

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.

9.3.2 Electric Vehicle Parking

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

Parking areas should incorporate dedicated parking bays for electric vehicle charging

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

Bicycle Parking 9.4

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

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

TABLE 16: MRP DCP CYCLE PARKING RATES			
Land Use	Minimum Parking Rate		
Warehouse	1 space per 1000m ² of gross floor area of industrial activities (over 2000m ² gross floor area)		
Office	1 space per 600m ² of gross floor area of office and retail space (over 1200m ² gross floor area)		

Table 16 details the requirements for Proposal, based on the parking rates detailed in **Table 17**. As shown, the Stage 1 Proposal is required to provide a total of 31 bicycle parking spaces.

It is anticipated that this could be ensured via a suitable Condition of Consent.

TABLE 17: BICYCLE PARKING REQUIREMENTS				
Lot	Land Use	GFA (m²)	Requirement	
	Warehouse	47,800	48	
1	Office	2,500	3	
	Total	50,300	31	

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

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

Having regard for the Stage 1 Proposal, 1 shower cubicle is required. It is anticipated that this could be ensured via a suitable Condition of Consent



10 Access, Parking and Servicing Design

10.1 Precinct Access

Access to the precinct will be provided under the Concept Plan via an intersection on its northern boundary and one approximately 150m north of the site's southern boundary. These intersections have been modelled as part of the broader modelling undertaken by Ason Group to support the DCP and the layout has been detailed by AT&L and forms part of this application.

An interim access is also proposed 270m south of the northern boundary, which will provide access to the precinct prior to the construction of the future Collector Road on the northern boundary. It is expected that this interim arrangement will service the site, prior to the delivery of the Southern Link Road or future connectivity to the north via Bakers Lane. The access will operate, generally as a priority controlled "right in / left out" with minimal if any opposing movements. As such, the proposal is considered acceptable as an interim arrangement and will operate with a satisfactory level of service.

The future access provisions (including the interim and final arrangements) are shown in Figure 17 below.



Figure 17: Future Access Provisions

10.2 Access Driveways

All access driveways (to the internal road network) have been designed with reference to AS 2890.1 and AS 2890.2, with service driveways providing for vehicles up to and including a 30m PBS type 2B vehicle. It is anticipated that full access driveway design compliance with AS 2890.1 and AS 2890.2 would form a standard Condition of Consent further to approval.



10.3 Design Standards

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

- AS2890.1 for car parking areas;
- AS2890.2 for commercial vehicle loading areas; and
- AS2890.6 for accessible (disabled) parking.

10.3.1 Parking Areas

All parking areas, including access aisles and parking modules, have been designed with reference to AS 2890.1 and AS 2890.6. It is anticipated that full parking area design compliance with AS 2890.2 would form a standard Condition of Consent further to approval.

10.3.2 Service Areas

All service areas have been designed with reference to AS 2890.2, and again provide for the movement of vehicles up to and including a 30m PBS type 2B vehicle. It is anticipated that service area design compliance with AS 2890.2 would form a standard Condition of Consent further to approval.

10.4 Design Summary

The concept design for the internal configuration of the Site (including light and heavy vehicular access, servicing areas and car parking) has been designed with regard to the requirements of the relevant Australian Standards. While detailed design is still being developed, it is clear that each of the proposed warehouse lots are capable of being designed in accordance with these standards, and it is expected that a standard Condition of Consent would be implemented that requires it.



11 Conclusions

Ason Group has been engaged by Fife Capital and Stockland (Fife Kemps Creek Trust) to prepare a Transport Assessment in relation to the State Significant Development for an industrial development at 200 Aldington 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.
- Access to the Site will be provided via Aldington Road, with two access points into the Site, with access to the wider road network provided via Mamre Road, which itself will be upgraded in accordance with the TfNSW MR Upgrade project.
- SIDRA analysis has identified the required configuration of the future intersection for Mamre Road & Abbotts Road to facilitate development of the Stage 1 Proposal, alongside a proportion of surrounding development.
- 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 2B vehicle.
- Parking has been provided in accordance with the rates detailed in the MRP 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 minor design changes if required.



Appendix A. Daily Traffic Profile



TABLE 19 CONCEPT MASTER PLAN SITE DAILY TRAFFIC PROFILE

Start Time	Light Vehicle	Rigid	Semi-trailer	B-double	Total
0:00	58	16	2	0	76
1:00	48	16	2	0	67
2:00	54	17	2	0	73
3:00	68	14	1	0	84
4:00	233	32	3	1	269
5:00	431	71	7	2	511
6:00	577	100	10	3	690
7:00	542	119	12	3	676
8:00	461	136	14	3	615
9:00	354	150	15	4	522
10:00	325	144	15	4	488
11:00	346	147	15	4	512
12:00	420	133	14	3	570
13:00	542	135	14	3	694
14:00	632	120	12	3	767
15:00	535	106	11	3	655
16:00	449	85	9	2	545
17:00	369	71	7	2	450
18:00	209	50	5	1	265
19:00	123	31	3	1	158
20:00	89	24	2	1	116
21:00	135	18	2	0	156
22:00	175	22	2	1	199
23:00	118	19	2	0	139
Total	7,294	1,776	182	45	9,297



• Stage 1 Site Daily Traffic Profile

TABLE 20 STAGE 1 SITE DAILY TRAFFIC PROFILE

Start Time	Light Vehicle	Rigid	Semi-trailer	B-double	Total
0:00	8	2	0	0	11
1:00	7	2	0	0	10
2:00	8	3	0	0	11
3:00	10	2	0	0	12
4:00	34	5	0	0	39
5:00	63	10	1	0	75
6:00	85	15	1	0	101
7:00	80	17	2	0	99
8:00	68	20	2	1	90
9:00	52	22	2	1	77
10:00	48	21	2	1	72
11:00	51	22	2	1	75
12:00	62	19	2	0	84
13:00	80	20	2	1	102
14:00	93	18	2	0	113
15:00	78	16	2	0	96
16:00	66	12	1	0	80
17:00	54	10	1	0	66
18:00	31	7	1	0	39
19:00	18	4	0	0	23
20:00	13	4	0	0	17
21:00	20	3	0	0	23
22:00	26	3	0	0	29
23:00	17	3	0	0	20
Total	1,070	261	27	7	1,364

Appendix B. Preliminary Sustainable Travel Plan





Prepared for FIFE STOCKLAND TRUST

Framework Sustainable Travel Plan

200 Aldington Road Industrial Estate

Ref: 1292r05 30/06/2022



Document Control

Project No: 1292

Project: 200 Aldington Road Industrial Estate

Client: Fife Stockland Trust

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Appendices

Appendix A: Travel Access Guide
Appendix B: Sample Questionnaire

1 Introduction

1.1 Context

This Framework Sustainable Travel Plan (FSTP) has been developed to support the State Significant Development Application (SSD-10479) in relation to a proposed industrial development at 106 - 228

Aldington Road, Kemps Creek, to be known as the 200 Aldington Road Industrial Estate (the Site).

The Estate (the Site) is located east of Aldington Road, Kemps Creek within the Penrith City Council

(Council) Local Government Area (LGA).

The Site is within the Mamre Road Precinct (MRP), which was rezoned in 2020 for primarily industrial

uses under the previous State Environmental Planning Policy (Western Sydney Employment Area) 2009

(now State Environmental Planning Policy (Industry and Employment) 2021, Industry SEPP). The

Department of Planning and Environment (DPE) adopted a precinct-wide Development Control Plan on

the 19 November 2021 (herein referred to as the MRP DCP).

The DPE rezoned the MR Precinct, including the Site, in June 2020 under the State Environmental

Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP). The Site is now primarily

zoned IN1 General Industrial with a small portion of land zoned E2 Environmental Conservation.

The proposed development relates to a Concept Masterplan, providing for a total of 342,875m² of

industrial Gross Floor Area (GFA). Detailed approval is also sought for Stage 1 of the Concept

Masterplan. The Proposal generally provides for:

A Concept Masterplan for the Site comprising 13 industrial buildings, internal road network layout,

building locations, 1,516 car parking spaces, and servicing areas, with the following gross floor

areas (GFA):

Warehouse: 325,865m²;

Office: 17,010m2.

With reference to Secretary's Environmental Assessment Requirements (SEARs) issued by DPE in July

2020 and Section 3.4.1 of the MRP DCP, "Development applications shall be accompanied by a Traffic

and Transport Report. The Traffic and Transport Report shall include a Green Travel Plan and Travel

Access Guide, and assess the impact of projected pedestrian and vehicular traffic associated with the

proposal, and outline the extent and nature of traffic facilities necessary to preserve or improve the

safety and efficiency of the road system."

The purpose of this FSTP is therefore to address the requirement of the SEARs and MRP DCP, by

outlining the overarching requirements for a future Sustainable / Green Travel Plan package for the Site.

Page 1



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.

It should be recognised that, due to the nature of the industrial development where existing trends see almost all staff travel by car, the change in travel behaviour will be more difficult to achieve, when considered against a commercial development in a well-connected location. This is reflected in this FSTP, with the key consideration in its preparation being to reduce single occupancy vehicle and encouraging the use of more sustainable means where possible.

1.2 Background

The MRP forms one of the initial precincts of the 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) 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.

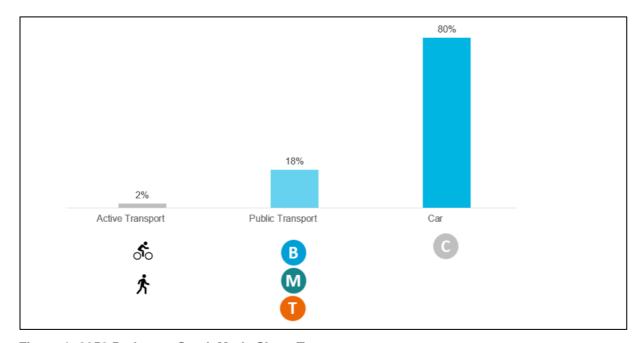


Figure 1: 2056 Badgerys Creek Mode Share Targets

Source: AECOM Report

1.3 Goals & Objectives

1.3.1 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.

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

2.2 Development Site

2.2.1 Location & Description

The Site is comprised of 7 separate allotments with a total area of approximately 72 Hectares (ha). It is located approximately 5km north-west of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 13km south-east of the Penrith CBD and 40km west of the Sydney CBD.

The Site is shown in its sub-regional context 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. The properties along the length of Aldington Road can be categorised on this manner.



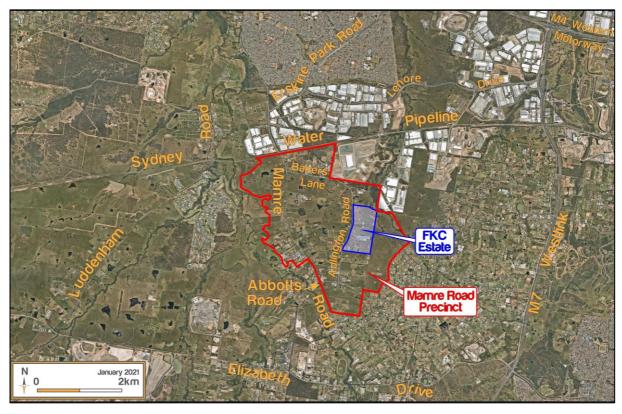


Figure 2: Site Location

2.3 Proposed Development

In summary, the application relates to the construction of an industrial estate containing 13 warehouse buildings with associated hardstand and parking to include the following:

- Masterplan with an indicative total building area of 342,875m², comprising:
 - A total of 325,865m² industrial GFA,
 - A total of 17,010m² of ancillary office GFA,
 - 13 individual development lots for warehouse buildings with associated hardstand areas;
 - Internal road layouts and road connections to Aldington Road;
 - Provision for 1516 car parking spaces; and
 - Associated site landscaping.
- A detailed Consent for site preparation, earthworks and infrastructure works (i.e. Stage 1 works) on the Site, including construction of a warehouse building with a total of 50,300m² of GFA.

A reduced version of the (prepared by SBA Architects) Concept Masterplan is shown in Figure 3.





Figure 3: Proposed Concept 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.



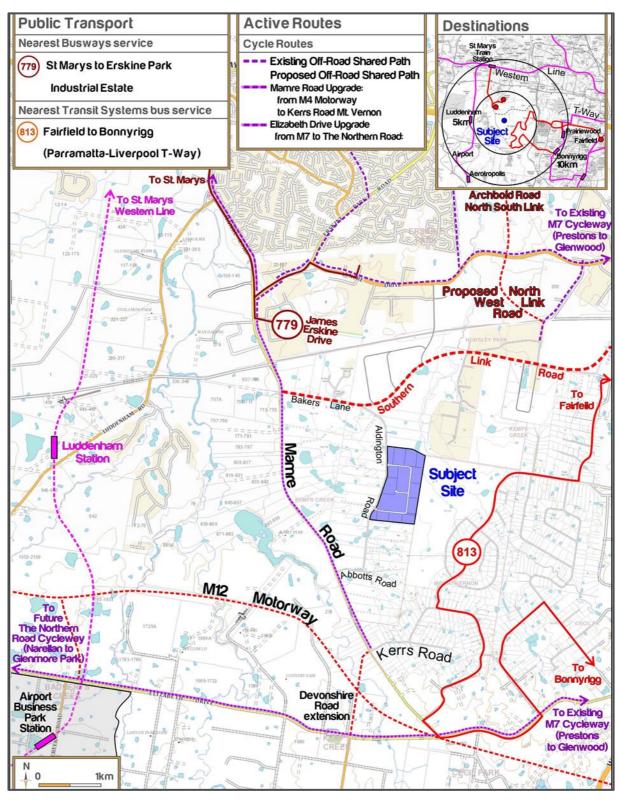


Figure 4: Public & Active Transport Network



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 Draft 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 and Aldington 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**.



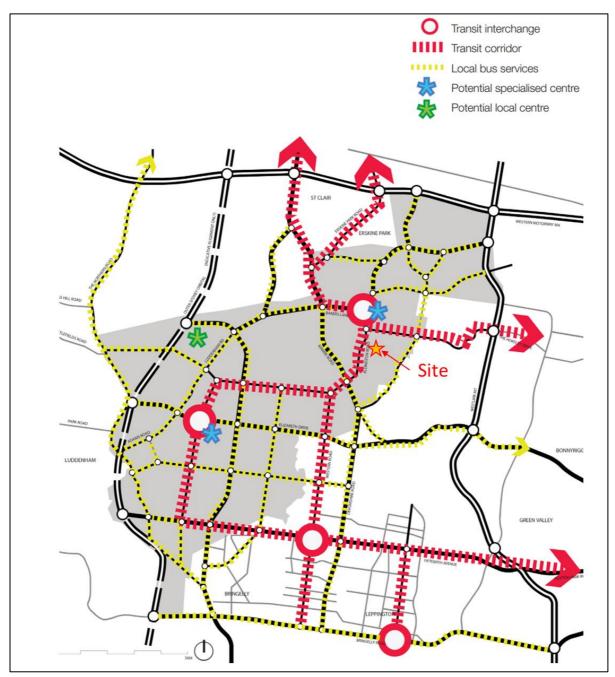


Figure 5: BWSEA Public Transport Structure

Source: BWSEA Structure Plan

2.4.3 Train Services – Metro Western Sydney Airport

The closest train station to the Site is currently some 14km away. However, the Metro Western Sydney Airport will provide 23km of new railway to link residential areas with jobs hubs and the rest of Sydney's public transport network.



The alignment of the Metro is shown by **Figure 6**. While the closest station to the Site will likely be Luddenham Station, located 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.

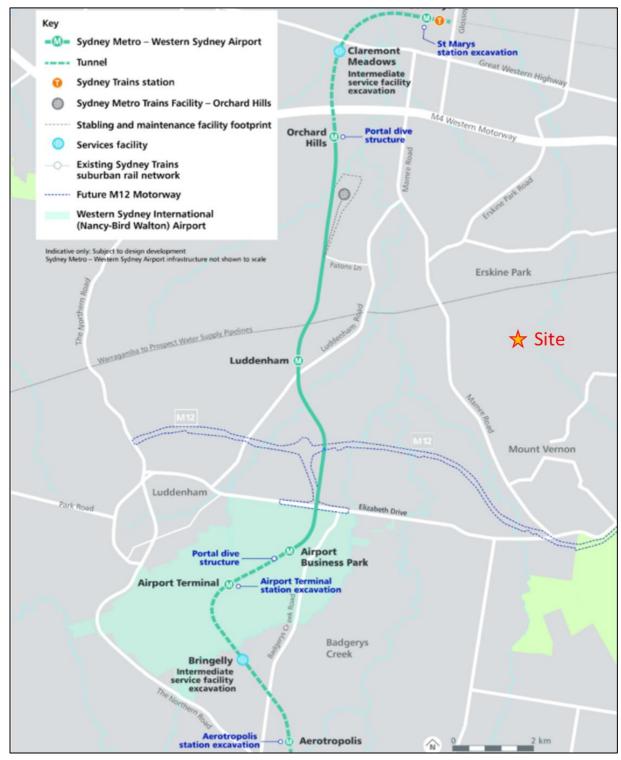


Figure 6: Metro Western Sydney Airport Alignment

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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 (or Aldington 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.

Finally, Section 3.4 of the Draft DCP requires all roads to incorporate a footpath of 1.5m on one side (minimum) and shared path of 2.5m (minimum) on the opposing side of the road. Therefore, it is anticipated that the bicycle network would be significantly improved as the MRP develops.



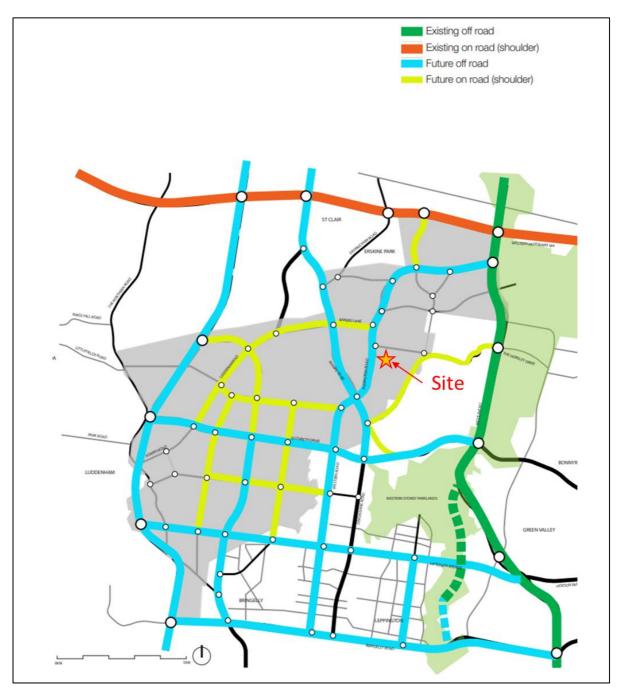


Figure 7: BWSEA Cycle Routes

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.

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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.

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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%	0%
Train	0%	0%	0%
Bus	2%	4%	+2%
Walked only	1%	1%	0%
Cycling	0%	1%	+1%
Taxi	1%	1%	0%
Motorbike/Scooter	0%	1%	+1%
Other	1%	1%	0%



5 Measures and Action Strategies

5.1 Measures

The below is a range of measures which could achieve the objectives of this FSTP, many of which are drawn from guidance provided by City of Sydney. 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).
- 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 Electric Vehicle Charging Stations.
- 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 I	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. Company/Staff/Visitors 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	Company				
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.	Company				
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				



STR	ATEGY	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	Company
2 Pı	romoting Public Trai	nsport				
2.1	Opal Card Loan Schemes	Company may consider subsidising staff Opal Cards to increase public transport usage. Alternatively, staff can pay for their own Opal Cards 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	Company
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	Upgrade bus stops to provide for improved waiting areas for commuters, the majority of which would likely be workers associated with the development.	Propose or recommend improvements to the bus stops along Wallgrove Road to TfNSW as part of wider works noting that the stops would be servicing more commuters following development.	Council	Subject to discretion of TfNSW. Advisable to be prior to the opening of the development	Council



STR	ATEGY	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 Internal shuttle Com service service trans mem		Company could offer a shuttle service initiative that would transport a group of staff members to / from work either to home or Railway Station.	Provision of bus shuttle service running between the development and either nearby homes or Railway Station. Company on the site would arrange for a bus shuttle service that would travel between the development / site and the homes / Station at a dedicated time/interval. 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.	Company	Ongoing in the workplace. Updates can be made to organisation as appropriate	Company
3 Pı	romoting Carpooling	9				
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	Company, TPC	Ongoing in the workplace. Updates can be made to organisation as appropriate	Company



STRATEGY	STRATEGY HOW IT WORKS		IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING	
			friendly competition between staff and overall reduce carbon footprint from single car usage. Utilise car share spaces provided and actively promote on site to staff and visitors. Reward regular car sharers by providing gifts such as free car washes.				
3.3 Third-pa Sharing	irty Car 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	g Cycling						
4.1 Create a Users G	a Bicycle roup (BUG)	BUGs are local groups of likeminded 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	Bicycle NSW	Ongoing in the workplace	Bicycle NSW	



STR	ATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING	
			manage queries and support in enabling a comfortable riding experience for all wishing to partake.				
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.	Developer	To be provided at sports complex completion	Company	
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 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 Pı	romoting 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	
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	



STR	ATEGY	HOW IT WORKS	IMPLEMENTATION	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
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 In	fluencing Travel Be	haviour				
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 a 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 GTP 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 GTP 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.

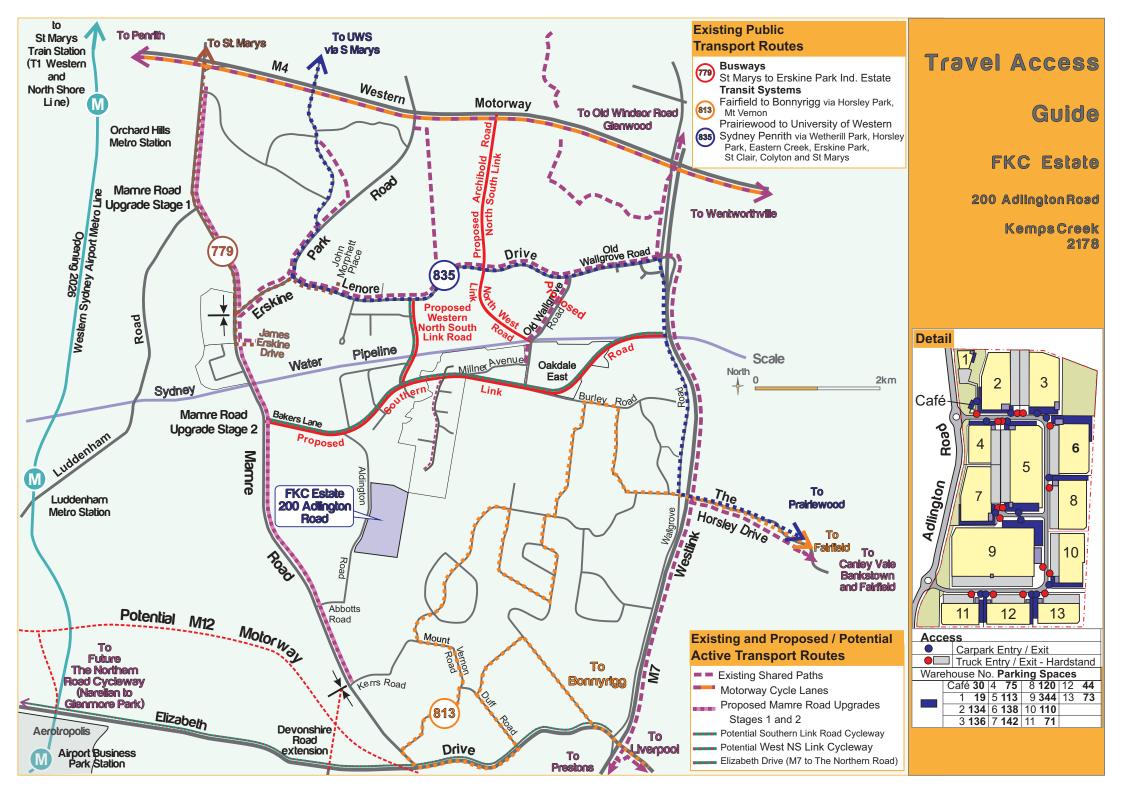
The STP will be monitored around every 1-2 years, with the first survey being carried out shortly after first occupation of the Development. Travel mode surveys would determine the proportion of persons travelling to/from the Site by each transport mode. This will be in the form of annual travel mode 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





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	SEPARATEL\	for EACH	TRIP	undertaken
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Travel Mode Questionnaire Survey Form

Date:	Approximate Time:
Q1. Are you one of the following?	
☐ Warehouse staff	☐ Casual contractor
☐ Office staff	☐ Company driver / sub-contractor
☐ Courier / office delivery	☐ Other (Please specify)
Q2. How did you travel to / from the site to	day?
☐ Walked only	☐ Motorcycle / scooter
☐ Bicycle only	□ Car (as passenger)
□ Train	☐ Car (as driver)
□ Bus	☐ Other (Please specify)
□ Taxi	
☐ Car share vehicle	
Q3. If you drove to the site, where did you	park?
☐ Not applicable – did not drive	
☐ On-site car park	
☐ On-site within truck hardstand	
☐ Other (Please specify)	



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Appendix C. Draft Construction Traffic Management Plan





Prepared for FIFE KEMPS CREEK PTY LTD

Preliminary Construction Traffic Management Plan

200 Aldington Road, Kemps Creek

Ref: 1294r03 30/06/2022

Document Control

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Appendix A: Driver Code of Conduct

Appendix B: Traffic Control Plan



1 Introduction

1.1 Overview

Ason Group has been engaged by Fife Capital and Stockland (Fife Kemps Creek Trust) to prepare a Draft Construction Traffic Management Plan (CTMP) in regard to the future construction of industrial development at 200 Aldington Road, Kemps Creek (the Site).

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

From the outset, it is noted that the 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 Fife Kemps Creek and / or the designated construction Project Manager.



2 The Site

2.1 Site Location

The Site is comprised of 7 separate allotments with a total area of approximately 72 Hectares (ha). The Site is located approximately 5km north-east of the future Western Sydney International (Nancy-Bird Walton) Airport (WSA), 13.5km south-east of the Penrith CBD and 40km west of the Sydney CBD.

The Site in its sub-regional context is shown in **Figure 1**, as well as the broader Mamre Road Precinct as designated by DPIE.

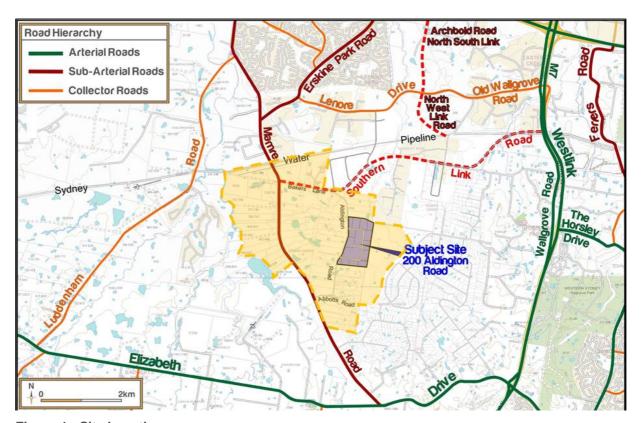


Figure 1: Site Location

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



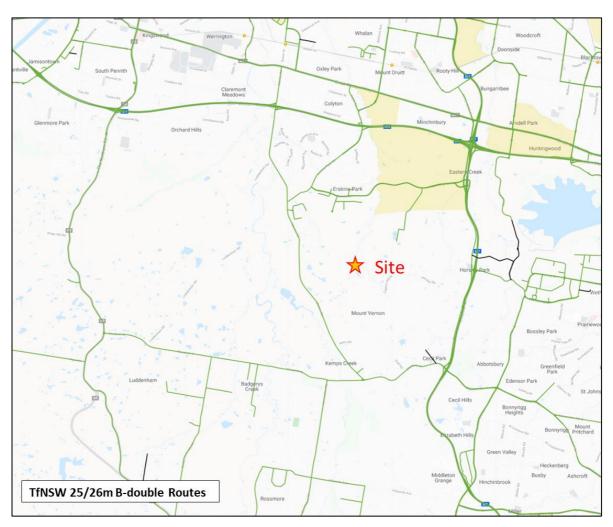


Figure 2: TfNSW Approved 25/26m B-Double Routes



3 Overview of Construction Works

3.1 Staging and Duration of Works

In advance of a Development Consent, the construction strategy and staging has not yet been finalised. However, preliminary advice from FKC and a Contractor has been used to inform the potential staging of the development. Based on this, it has been assumed that construction works for the preliminary stages would commence in August 2022 and be completed over a duration of approximately 15 months, subject to authority approvals and inclement weather delays.

The following summarises key aspects of the construction phases:

- Site establishment works are set to have a duration for 8 weeks.
- On-site infrastructure works would continue for 14 months.
- Lead-in services works would continue for 10 months.

Main building works are anticipated to commence in April 2023. However, these works would be subject to the above phases progressing and being delivered on-time.

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 via Abbotts Road and not Bakers Lane, to avoid conflict with the School peak periods. A temporary access driveway will be provided, which will be constructed on the alignment of the future Southern Site Access Road.

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



The following **Figure 3** shows the indicative Site access location and **Figure 4** details the likely key access strategy into the routes between the Site and the regional road network.

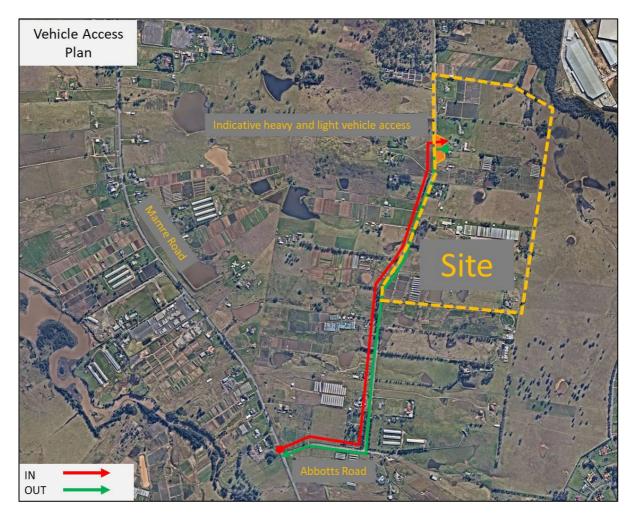


Figure 3: Indicative Vehicle Access Plan

3.3.2 Emergency Vehicle Access

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

3.3.3 Pedestrian Access

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

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

Arrival Trips:

- Route 1: From M4 Western Motorway, southbound along Mamre Road and left into Abbotts Road, right into Site.
- Route 2: From Westlink M7, westbound on Old Wallgrove Road, Lenore Drive and Erskine Park Road, then south along Mamre Road and left into Abbotts Road.

> Departure Trips:

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

These routes are shown in Figure 4.

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 Roads and Maritime Services 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.



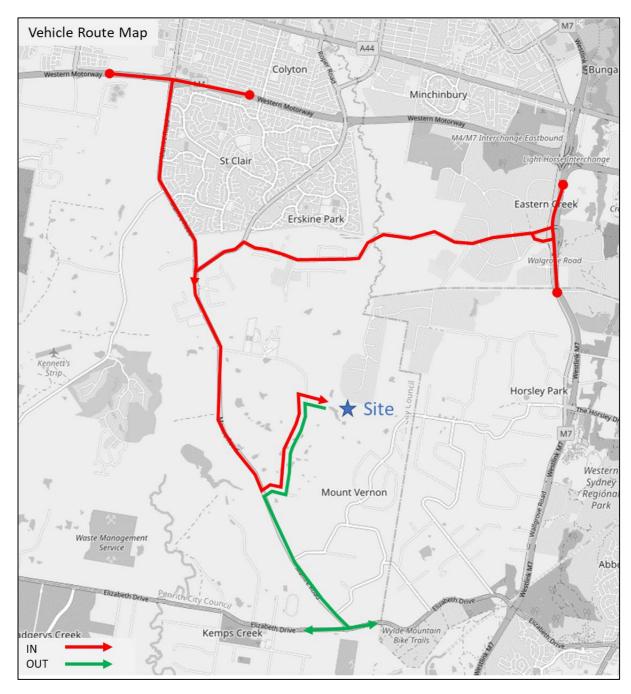


Figure 4: Construction Vehicle Routes

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. Aldington 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 this CTMP is required, the Project Manager will be required to notify adjacent properties of any temporary traffic restrictions (or the like) at least fourteen (14) days in advance.

3.8 Road Occupancy

The potential exists for future road occupancy requirements to facilitate the construction of the temporary driveway, and then any further upgrades to the intersection of Aldington Road. Road occupancy permits will necessarily be procured prior to starting intersection construction works, while a detailed intersection-specific CTMP would be prepared in consultation with Council and Roads & Maritime to ensure traffic along Aldington Road would continue to operate adequately during any such occupancy period.

3.9 CTMP - Monitoring & Review Process

This CTMP has been prepared referencing the existing Site conditions. Consultation with Council, Roads and Maritime 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

Based on the construction staging, the peak cumulative construction period for the Site would be during the month of September 2022, when all 3 stages of the initial construction would overlap. Based on the expected staff shift patterns and delivery requirements, the peak hour traffic generated during this period would be as follows.

- 23 light vehicle movements and 21heavy vehicle movements per hour in the AM peak; and
- 23 light vehicle movements and 21 heavy vehicle movements per hour in the PM peak.

Based on the proposed staging of construction works for the Site, **Table 1** compares the peak construction traffic generation to the operational traffic generation assessed within the traffic report supporting the development (Ason Group reference: 1292r04).

As shown the traffic associated with construction is significantly lower than that assessed for the operational development.

Table 1: Movement Overview

Vehicle	Construction			Operational			Difference		
	АМ	PM	DAILY	АМ	PM	DAILY	АМ	PM	DAILY
Light	23	23	170	576	601	7,284	-553	-578	-7,114
Heavy	21	21	162	213	222	2,694	-192	-201	-2,532
Total	44	44	332	789	823	9,978	-745	-779	-9,646

4.2 Cumulative Traffic

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

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

 The ESR site at 290-308 Aldington Road, 59-62 Abbotts Road And 63 Abbotts Road, Kemps Creek (Westlink Estate), SSD- 9138102;



- The FPI site at 99-111 Aldington Road (FPI North); and
- The FPI site at 155-217 Aldington Rd (FPI South), SSD-17552047).

The construction traffic forecasts for each site provided have been overlaid to establish the peak cumulative construction period. The peak period for construction is anticipated to be during June 2023, when additional traffic control will already be in place at the Mamre Road / Abbotts Road intersection associated with road upgrades.

As part of the relevant approvals process for the road and intersection works, the below volume of traffic will be considered. However, through the relevant traffic control measures which are required under the TfNSW Traffic Control at Work Sites Technical Manual (Issue No. 6.1, Feb 2022) would ensure that the impact to the safety and efficiency of the road network is minimised during this period. The peak traffci flows are forecast as follows:

- 118 vehicle movements per hour in the AM peak;
- 103 vehicle movements per hour in the PM peak
- 830 vehicle movements per day.

4.3 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 Aldington 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**.

4.4 Construction Staff Parking

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



5 Traffic Control

5.1 Traffic Guidance Schemes

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

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

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

5.2 Authorised Traffic Controller

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

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



6 Monitoring 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 Stage 1 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 200 Aldington Road, Kemps Creek.

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.

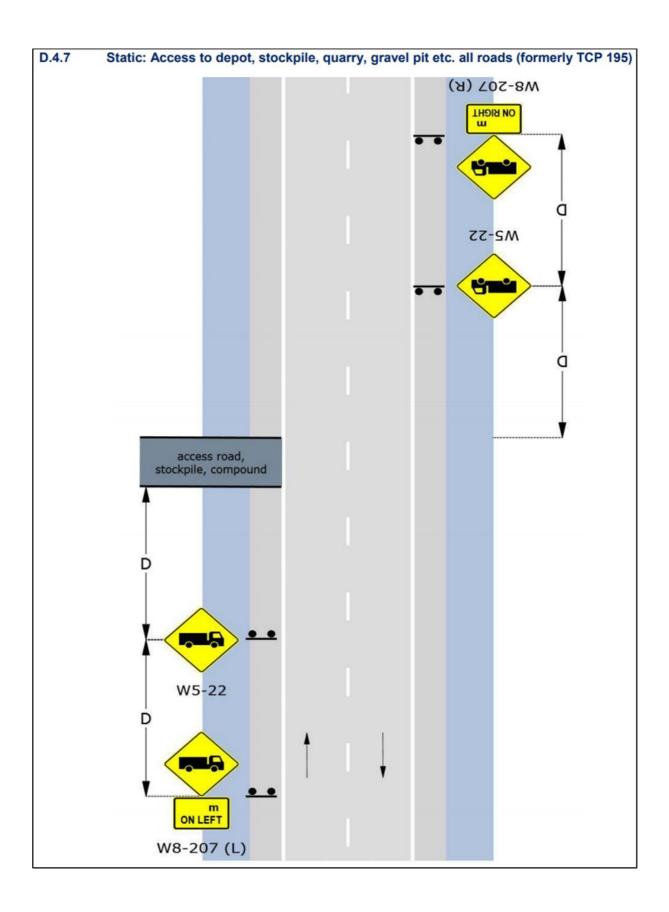
- Comply with other applicable workplace policies, including a zero tolerance of driving while under the influence of alcohol and/or illicit drugs.
- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and 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 Guidance Scheme



Appendix D. Swept Path Analysis – Stage 1



