Transport Assessment

Warehouse & Industrial Development
Lot 2A, Precinct 2 – Oakdale South Estate, Kemps Creek

Ref: 1040r01
30/09/2020

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Document Control

Project No: P1040

Project: Lot 2A Oakdale South Estate, Transport Assessment

Client: Goodman Property Services (Aust) Pty Ltd

File Reference: P1040r01v2 TA_Lot 2A Oakdale South Estate, Kemps Creek

Revision History

Revision	Date	Details	Author	Approved by
-	19/08/2020	Draft	M. Tangonan	A. Rasouli
v1	01/09/2020	Issue I	M. Tangonan	
v2	29/09/2020	Issue II	M. Tangonan	

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Appendices

1 Introduction

1.1 Overview

Ason Group has been engaged by Goodman Property Services (Aust) Pty Ltd to prepare a Transport Statement (TA) to support the warehouse development at Lot 2A within Precinct 2 of the Oakdale South Estate (OSE). The proposal generally relates to 2 separated buildings with a shared hardstand configuration, divided into 3 tenancies.

Located within the Penrith City Council LGA, the development is therefore subject to that Council's controls as well as the site-specific controls implemented for the wider Estate, under the State Significant Development approval for the Concept Plan (SSDA 6917).

This TIA report provides an assessment of the relevant traffic, transport and parking implications of the Proposal.

The latest modification to the Concept Plan of relevance to traffic and parking being MOD 9. Accordingly, a comparative assessment of parking and traffic implications associated with the project forms part of this assessment.

1.2 Key References

In preparing this TIA, Ason Group has referenced key planning documents, these include:

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

This TIA also references general access, traffic and parking guidelines, including:

- Roads and Maritime Services, *Guide to Traffic Generating Developments* (RMS Guide)
- 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)

In addition to the above references, the TA report builds upon the Oakdale South Industrial Estate Masterplan (SSD 6917), with reference to modification application 9 for the project:

- Ason Group, Traffic Impact Statement – *Oakdale South Industrial Estate, Western Sydney Employment Area Concept Plan Modification Application 9*, dated 4 December 2018.

2 Overview of Proposal

2.1 Summary of Proposed Development

A detailed description of the proposed development is included in the Statement of Environmental Effects. In summary, the application relates to the development of a warehouse and industrial facility located in Part Lot 12 of DP 12495992, spanning a site area of 25,685 m^2. The following table summarises the key aspects of the development.

Table 1: Proposed Development Summary

Tenancy	Warehouse/Industrial GFA	Office GFA	Total
1	4,320 m^2	300 m^2	4,620 m^2
2	3,840 m^2	300 m^2	4,140 m^2
3	3,845 m^2	300 m^2	4,145 m^2
Total	**12,005 m^2**	**900 m^2**	**12,905 m^2**

Car Parking	**69**
(Accessible)[1]	3

Notes: 1) Included in total car parking numbers above

Reference should be made to the plans prepared by SBA Architects, which are submitted separately. A reduced copy of the relevant plans is reproduced at a reduced scale for context below, as well as the Site location within the OSE.

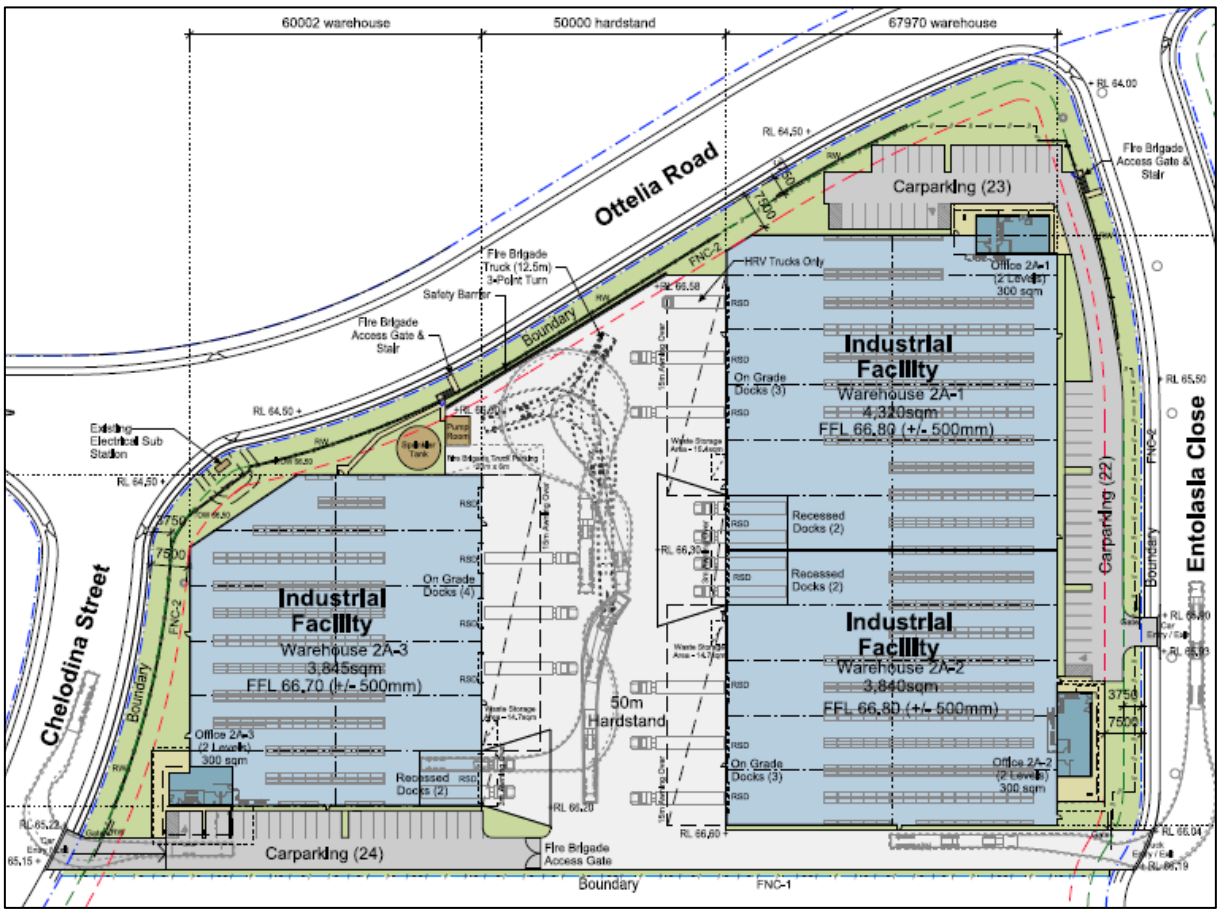


Figure 1: Reduced Site Plan

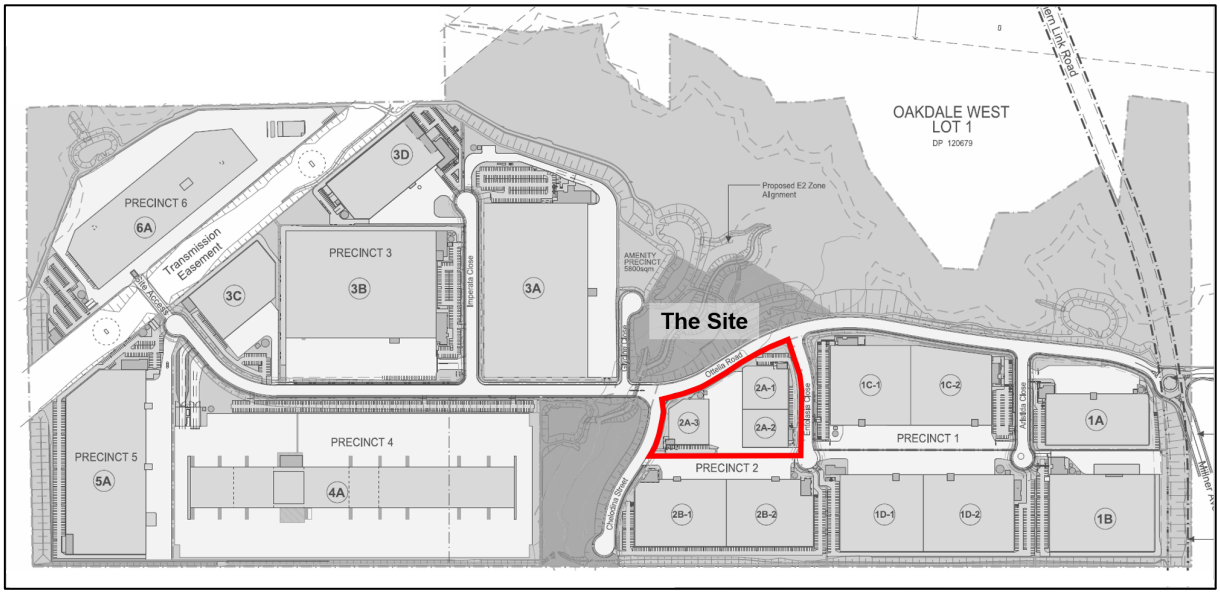


Figure 2: Oakdale South Estate Context

2.2 Planning Context—Oakdale South Estate

As mentioned Previously, the Site forms part of the OSE and builds upon the approved developments associated with the SSDA and subsequent modifications. The original SSDA was approved in October 2016 and (to date) has been subject to 11 individual Modifications. The proposed scheme is largely consistent with the approved masterplan.

2.2.1 Concept Plan Approval

The original SSDA approval was granted on 26 October 2016 and envisaged a total Gross Floor Area of some 395,880m^2 across the entire Estate spanning 6 precincts. Since then, the Estate has gone through several modifications, with MOD 4 relating to an overall building floor area reduction to 336,735 m^2.

2.2.2 MOD 9

MOD 9 was lodged in relation to the consolidation of warehouses within the wider OSE and is the most recent modification with traffic and transport implications. The mod specifically relates to changes to building envelopes for Precinct 6, and a further reduction in overall building floor area for the Estate from MOD 4 of 1,418 m^2 GFA (from a total of 336,735 m^2 to 335,317 m^2). This was subsequently approved in February 2019 and is directly relevant to the Proposal relating to approved yields for Precinct 2.

A comparison of the approved Lot 2A accompanying MOD 9 with the Proposal is provided in the below table.

Table 2: Proposal vs MOD 9 Yield

Tenancy	MOD 9 Yield (GFA m^2)	Proposal Yield (GFA m^2)	Difference
1	4,325	4,620	+ 295
2	4,015	4,140	+ 125
3	3,910	4,145	+ 235
Total	**12,250**	**12,905**	**+ 655**

2.2.3 Southern Link Road

The anticipated Southern Link Road (SLR) is planned to form the northern boundary of the Estate, with improvements to connectivity and capacity for the area. The Department of Planning, Industry & Environment (DPIE) has engaged TfNSW to prepare concept designs for the SLR. It is broadly

understood that the preferred alignment will pass North of the OSE, as indicated by the earlier concept designs by Aecom.

3 Existing Conditions

3.1 Site Overview

The Oakdale Industrial Estate comprises some 421 hectares of industrial/employment-zoned land within the broader Western Sydney Employment Area (WSEA) and sits to the immediate south of the Sydney Water Pipeline (previously referenced as Lands South of Sydney Water Pipeline). The Oakdale Industrial Estate is irregular in its configuration and is bisected by Ropes Creek and some smaller tributaries. OSE is located within the overall Oakdale Industrial Estate and adjoins the other Oakdale Precincts to the west and north (Oakdale West and Oakdale Central, respectively). The OSE and the broader Oakdale Estate in its local and regional context are shown in **Figure 3** and **Figure 4**.

Oakdale South currently neighbours the Mamre Road Precinct, forming the southern boundary of the WSEA and neighbouring the Western Sydney Aerotropolis to the south west. It is anticipated that a future formal Structure Plan for an expanded 'Broader Western Sydney Employment Area' (BWSEA) would provide for changes in the land use zoning and character of these additional lands to an industrial/employment focus consistent with that of the existing WSEA.

Figure 3: Oakdale South Location, Local Context

Figure 4: Oakdale Location, Sub-Regional Context

At a regional level, the Site is located approximately 3 kilometres south of the nearest suburban area, Erskine Park, 18 kilometres west of Parramatta, and 37 kilometres west of the Sydney CBD.

Within the context of the OSE, the Site is located on the eastern side of Ottelia Road (Estate Road 1), between Chelodina Street and Entolasia Close (Estate Roads 3 and 7).

3.1.1 Existing Site Access

Currently, access to the Site is being facilitated by Chelodina Street and Entolasia Close (Estate Roads 3 and 7).

3.2 Existing Site Generation

At present, the Site sits as an empty block with no prior or existing development. Currently, there is no traffic generation for the Site.

3.3 Road Network

3.3.1 Road Hierarchy

The key roads in the vicinity of the site are summarised below, with reference to **Figure 5.**

Table 3: Road Hierarchy

Road Name	Road Classification	AADT[2] (vpd)[1]	Speed Limit[3]
Ottelia Road	Primary Collector	< 5,000 vpd	50 km/h
Chelodina Street (Estate Road 03)	Local Access	< 1,000 vpd	50 km/h
Entolasia Close (Estate Rod 07)	Local Access	< 1,000 vpd	50 km/h

Notes: 1) If no data available, value based on typical environmental thresholds

2) vpd = two-way vehicles per day

3) Signposted speed limit. Actual speeds may vary.

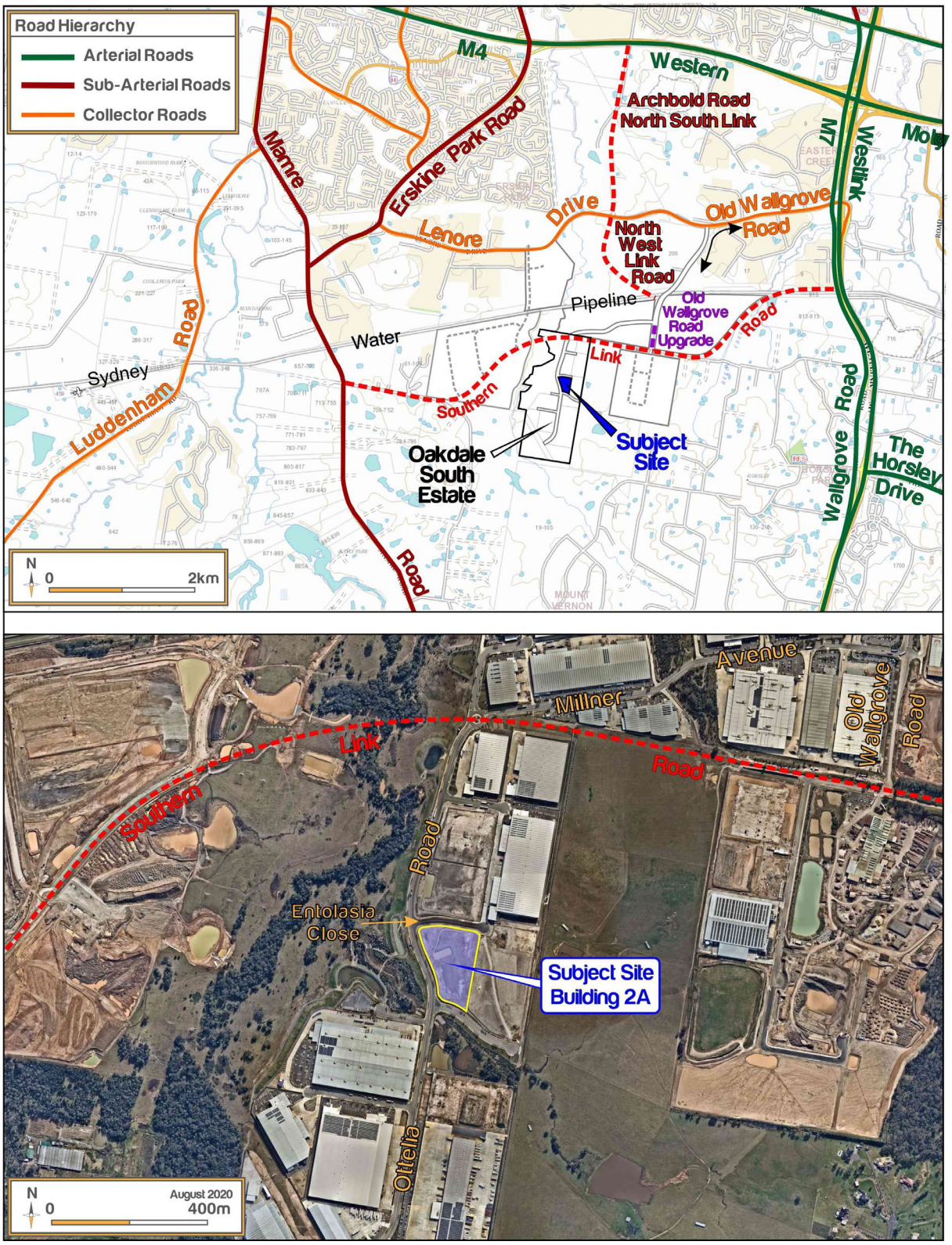


Figure 5: Site and Road Hierarchy

3.4 Public Transport

3.4.1 Rail Services

The *Integrated Public Transport Service Planning Guidelines*, Sydney Metropolitan Area (TfNSW, December 2013), states that train services influence the travel mode choices of areas within 800 metres walking distance (approximately 10 minutes) of a train station. It is therefore noteworthy that the Site is not located within 800m of any rail stations.

St. Marys train station is located approximately 8 kilometres to the north-west of the site. Whilst not located within the nominal walking catchment outlined above, consideration should be made for the potential of future connectivity to the Site following further road network developments in the area.

Table 4: Train Frequencies

Station – Line	To City	To Penrith/Emu Plains	Total
St Marys - via T1 Western Line			
Morning Peak Hour (8AM-9AM)	5	5	10
Off Peak (9AM-5PM)	34	33	67
Afternoon Peak Hour (5PM-6PM)	4	5	9

The above table demonstrates that St Marys railway station is well serviced in peak periods with trains arriving approximately every 12 minutes per direction.

3.4.2 Bus Services

The existing bus services within the vicinity of the Site are shown in **Figure 6**. It is evident that the Site is not directly serviced by frequent public transport operations at this time.

Notwithstanding, the opportunities for future connections have been identified and are discussed further below.

3.4.3 Future Bus Service Opportunities

While it is apparent that the Site will be well served by a future road network, it is nonetheless important that people have the opportunity to use public transport, which requires significant improved connectivity to the broader area in the first instance. This could be possible through an extension of the 779 bus route that provides a key connection to the St Mary's railway station and to the broader transport network.

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.
- 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 area is important to achieve a culture of public transport use from the outset. To make public transport a viable choice in the area, the services should ideally:

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

3.5 Existing Active Transport

Currently, pedestrian pathways are provided on both sides of Ottelia Road with direct connectivity to the Sites' frontage. The pedestrian pathway exists through the Millner Avenue to the north.

It is anticipated that the development of the future road network – inclusive of Southern Link Road – will additionally facilitate for wider connectivity for cycling routes to the locale.

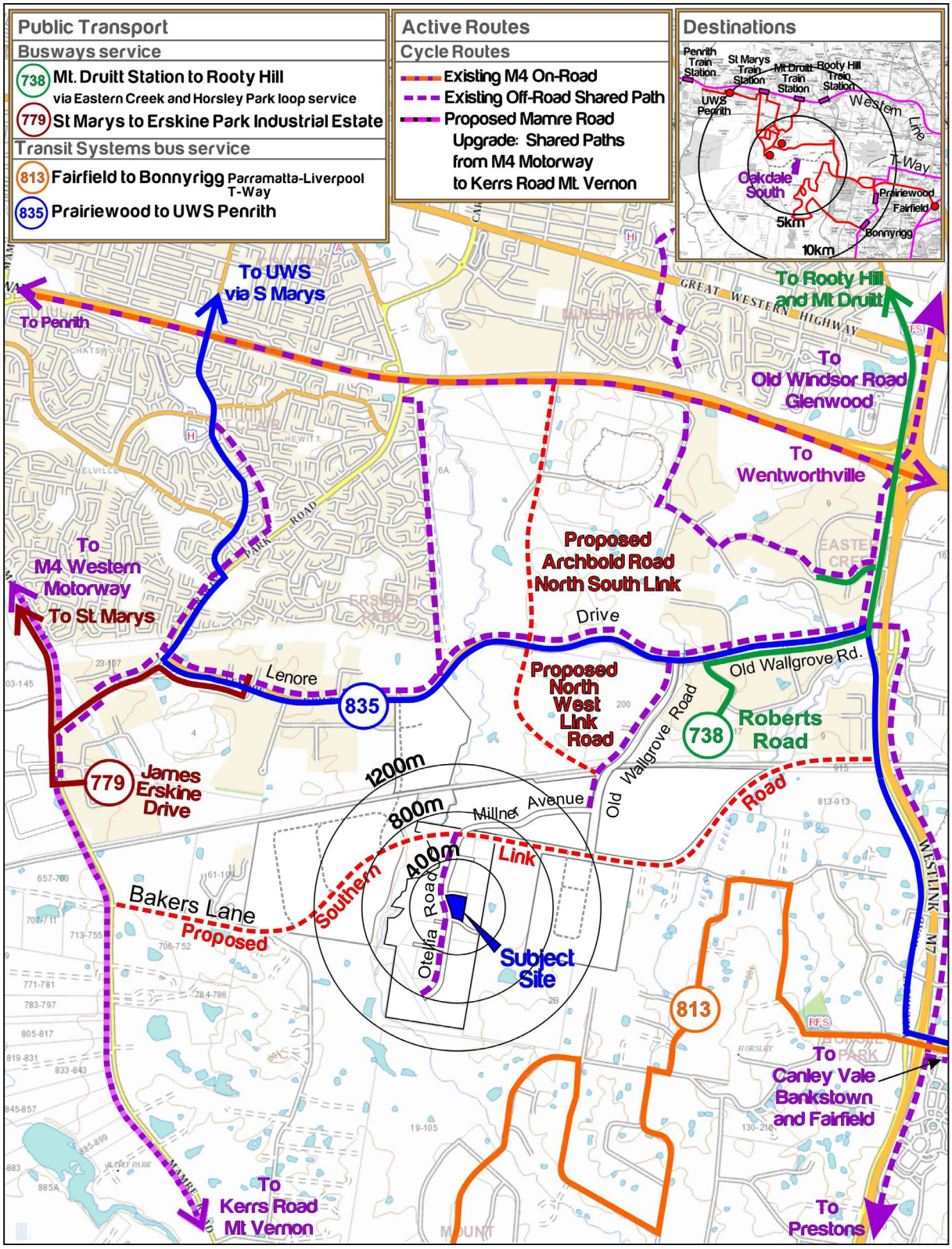


Figure 6: Public Transport Network

4 Parking Provisions

4.1 Car Parking

4.1.1 General Provisions

The Council DCP makes direct reference to Precinct-specific rates for the OSE, having regard for the original OSE SSD approval and subsequent developments. The RMS Guide forms the basis of these rates and are provided below -

Table 5: Approved Car Parking Rates

Source	Land Use	Minimum Car Parking Rate
RMS Guide (OSE Masterplan)	Warehousing / Distribution	1 space per 300 m^2 GFA
	Office (Ancillary)	1 space per 40 m^2 GFA

Application of the above rates to the development results in the requirement of 63 parking spaces across the Site which are readily provided for as shown below.

Table 6: Parking Requirement & Provision

Building	Tenancy	Warehouse GFA	Office GFA	Parking Required	Parking Provided
Building 1	1	4,320	300	23	23
	2	3,840	300	20	22
Building 2	3	3,845	300	20	24
Total		**12,005**	**900**	**63**	**69**

As demonstrated above, the proposed car parking readily exceeds the minimum parking rates required, with sufficient provision for the individual tenancies on-site. Accordingly, the proposed car parking allocation is consistent with Council's DCP and supportable.

4.1.2 Accessible Parking

In line with the site-specific controls outlined in the Council DCP, the requirement for accessible parking is defined as follows:

- 2 disabled spaces for every 100 parking spaces.

This would require a minimum of 2 accessible spaces for the Site. In response, a total of 3 spaces are provided, with one dedicated for each tenancy on-site. This provision readily satisfies Council and Building Code of Australia (BCA) requirements.

4.2 Bicycle Parking

Although it is anticipated that the majority of staff to the Site would arrive by private transport, end-of-trip cycling facilities (i.e. lockers, showers and change rooms) should be provided on-site to accommodate and encourage cycling to work as an alternative to private vehicle travel. Council's DCP refers to the *Planning guidelines for walking and cycling*, which requires bicycle parking to be provided at a rate of 3-5% of staff.

In response, the architectural plans indicate for a total of 18 bicycle parking spaces, with each tenancy having sufficient space for 6 bicycles each. It is considered that provision of bicycle parking is readily facilitated for on-site and in line with the rates referred above.

5 Traffic Assessment

5.1 Traffic Generation

Having regard for the traffic generation rates established and approved in the approved OSE masterplan, the applicable trip generation rates relevant to the land use are as follows -

- 1.892 daily vehicle trips per 100m^2 of industrial GFA including ancillary office floor space.
- 0.163 peak hour vehicle trips per 100m^2 of industrial GFA including ancillary office floor space.

It is worth noting that the above rates are based on the *RMS Technical Direction 2013/04a* and are consistent with neighbouring developments in the OSE. Application of the above rates to the proposed Lot 2A development would generate operational traffic in the order of –

Table 7: Traffic Generation

	Proposal
Total GFA	12,905 m^2
Peak Hourly Vehicle Trips	21
Total Daily Trips	244

5.2 Traffic Comparison

A comparative assessment of the traffic generation of the Lot 2A Site compared to the that inherent of the approved in the MOD 9 submission is provided below.

Table 8: Traffic Generation Comparison

	MOD 9	Proposal	Difference
Total GFA	12,250 m^2	12,905 m^2	+ 655 m^2
Peak Hourly Vehicle Trips	20	21	+ 1
Total Daily Trips	232	244	+ 12

The above table demonstrates that the minor uplift in GFA relative to the MOD 9 yield will result in 21 vehicle trips during peak hour periods, and 246 vehicle trips throughout the day. This is noted to exceed the approved MOD 9 traffic generation by 1 vehicle trip during peaks, and 15 vehicle trips in daily total.

An increase in traffic of the magnitude outlined above is deemed negligible and will not have any material impacts to the surrounding road network.

6 Design Commentary

6.1 Relevant Design Standards

The site access, car park and loading has generally been designed to comply with the following relevant Australian Standards:

- AS2890.1 for car parking areas;
- AS2890.2 for commercial vehicle loading areas;

It is expected that any detailed construction drawings in relation to the car park or site access would comply with these Standards. Furthermore, compliance with the above Standards would be expected to form a standard condition of consent to the development approval.

6.2 Design Vehicle

In line with advice provided by the client, the design of the warehouse facility can readily accommodate up to **26m B-Doubles** limited to side loading, and up to **19m Articulated Vehicles** for recessed dock access and rear loading at roller shutter door (RSD) positions.

6.3 Commercial Hardstand Area

The design review indicates that access and egress to recessed docks and roller shutter doors can generally occur without impacts to adjacent bays, noting that hardstand operational management would effectively facilitate the movements of trucks within the hardstand area. Vehicles larger than a 19m AV are recommended to contact tenancy and Site Operators prior to arrival to allow for effective dock management practices, primarily relating to U-turning at the western end of the hardstand.

All commercial vehicles can enter and exit the site in a forward direction. In this regard, consideration shall be given to the design commentary and dock limitations included in **Appendix A**.

6.4 Car Parking Design

Staff and visitor parking – situated in proximity to tenancies – is demonstrated to generally comply with AS2890.1 in line with User Class 2 which is superior to the minimum User Class 1/1A required for staff parking.

6.5 Fire Service Appliance Circulation

In line with Fire and Rescue NSW (FRNSW) Guidelines, circulation around the Site and through the fire path perimeter has been tested for both 8.8m MRV's and 12.5m HRV's, demonstrating sufficient access for 'General and 'Specialist' fire appliances, as demonstrated in Appendix A.

7 Summary and Conclusions

7.1 Key Findings

The key findings of this Traffic Impact Assessment are:

- The Development Application relates to the proposed development of Lot 2A within the broader Oakdale South Estate (OSE). It is subject to site-specific controls and conditions as outlined in the OSE Masterplan Approval (SSD 6917) in addition to the Penrith City Council DCP and LEP.

  MOD 9 – the most recent approval relevant for traffic and transport assessment – featured a further reduction in overall building floor area of the OSE over the previous MOD 4. The table below demonstrates the reductions throughout the Estates' development history. A comparative assessment between this DA and the approved MOD 9 masterplan forms part of this TA.

Concept Masterplan (2016)	MOD 4 (2017)	MOD 9 (2019)
395,880m^2	336,735 m^2	335,317 m^2

- With reference to previously conducted journey-to-work assessments, the locality generally demonstrates high reliance on private vehicle usage for travel to/from the site. Notwithstanding, it is understood that improved public transport accessibility is anticipated to accompany several major transport developments in the area, including the Southern Link Road. It is also noted that the site is favourably situated in proximity of pedestrian amenity, with footpaths running the span of Ottelia Road and Millner Avenue on both sides.
- Council's DCP specifies site-specific rates for the OSE, requiring a minimum provision of 63 car parking spaces. In response, the proposal provides 69 spaces readily satisfying (and exceeding) this requirement, with sufficient provision for the individual tenancies on-site.
- The traffic generation of the development has been assessed having regard for the MOD 9 yields and inherent traffic generation approval for Lot 2A. Relative to earlier concept plan modification approvals, the current proposal seeks a minor uplift in floor area by 655m^2; resulting in an increase of:
  - 1 vehicle trip during peak periods, and
  - 12 vehicle trips throughout the day.
- The above change to traffic volumes is minimal and will not have a material impact on the performance of the surrounding road network.
- Furthermore, the cumulative GFA for the overall Estate—and associated traffic generation thereof—is still less than that contemplated under the original SSD approval.

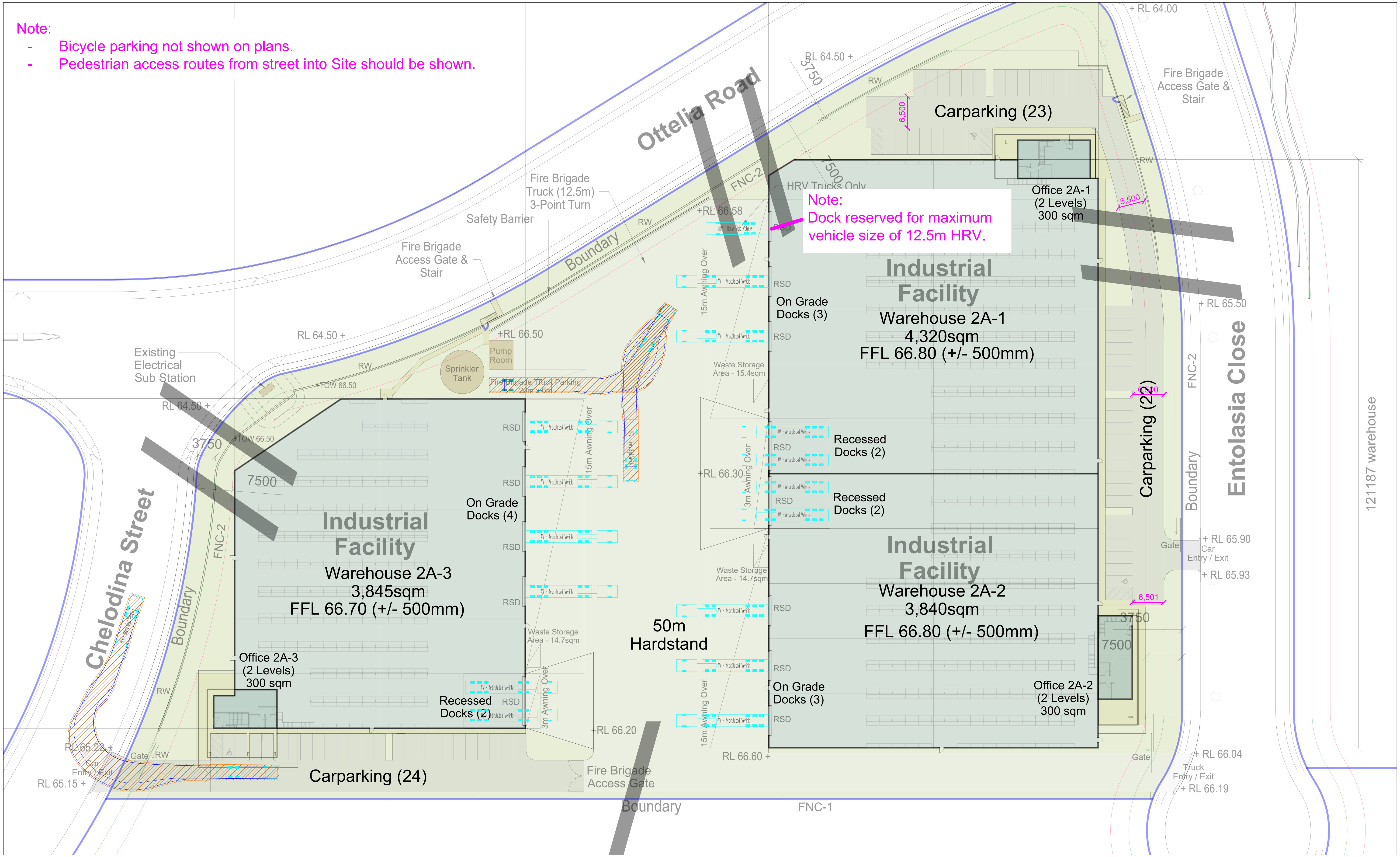
- Site access, car parking and commercial vehicle service areas have generally been designed having regard for relevant Australian Standards (AS2890 series). A standard condition of consent requiring compliance with AS2890 would be considered sufficient to ensure that any minor changes to the plans required, if any, could be undertaken as part of detailed Construction Certificate documentation.

7.2 Conclusions

In summary, the proposed development is deemed supportable on traffic and transport planning grounds.

Appendix A

Swept Paths



Note:
- Bicycle parking not shown on plans.
- Pedestrian access routes from street into Site should be shown.
Ottelia Road
Boundary
Carparking (23)
Fire Brigade Access Gate & Stair
Fire Brigade Truck (12.5m) 3-Point Turn
Safety Barrier
HRV Trucks Only
Note:
Dock reserved for maximum vehicle size of 12.5m HRV.
Office 2A-1 (2 Levels) 300 sqm
Industrial Facility
Warehouse 2A-1
4,320sqm
FFL 66.80 (+/- 500mm)
On Grade Docks (3)
Recessed Docks (2)
Recessed Docks (2)
Waste Storage Area - 15.4sqm
Existing Electrical Sub Station
Sprinkler Tank
Pump Room
Fire Brigade Truck Parking
Industrial Facility
Warehouse 2A-3
3,845sqm
FFL 66.70 (+/- 500mm)
On Grade Docks (4)
Office 2A-3 (2 Levels) 300 sqm
Recessed Docks (2)
Waste Storage Area - 14.7sqm
50m Hardstand
Waste Storage Area - 14.7sqm
Industrial Facility
Warehouse 2A-2
3,840sqm
FFL 66.80 (+/- 500mm)
On Grade Docks (3)
Office 2A-2 (2 Levels) 300 sqm
Carparking (22)
Carparking (24)
Fire Brigade Access Gate
Chelodina Street
Entolasia Close
Boundary
FNC-1
FNC-2
15m Awning Over
3m Awning Over
Car Entry / Exit
Truck Entry / Exit
Gate
RL 64.00
RL 64.50
RL 65.50
RL 65.90
RL 65.93
RL 66.04
RL 66.19
RL 66.58
RL 66.50
RL 66.30
RL 66.20
RL 66.60
RL 65.22
RL 65.15
TOW 66.50
3750
7500
121187 warehouse

Revision notes:		
Rev:	Date:	Notes:

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Drawn By: M TANGONAN

Client: Goodman

Project: P1040 Lot 2A OSE

Drawing Title: Lot 2A Site Overview & Fire Access 12.5m HRV

Date: 14-Sep-20

Scale @ A3: [scale]

Drawing Number: AG00

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Document Set ID: 9351245
Version: 1, Version Date: 27/10/2020

Site Access

Site Egress

rial
ty
e 2A-2
qm
-/- 500mm)

Office 2A-2
(2 Levels)
300 sqm

Carpa

Boundary

Ente

Gate

+ RL 65.90
Car
Entry / Exit

+ RL 65.93

6,501

3750

7500

Gate

+ RL 66.04
Truck
Entry / Exit
+ RL 66.19

Note:
Swept path assumes no on-street parking adjacent the driveway.

Revision notes:

Rev:	Date:	Notes:

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Drawn By:
M TANGONAN

Client:
Goodman

Project:
P1040
Lot 2A OSE

Drawing Title:
Lot 2A Crossover
26m B-Double

Date:
14-Sep-20

Scale @ A3:
[scale]

Drawing Number:
AG01

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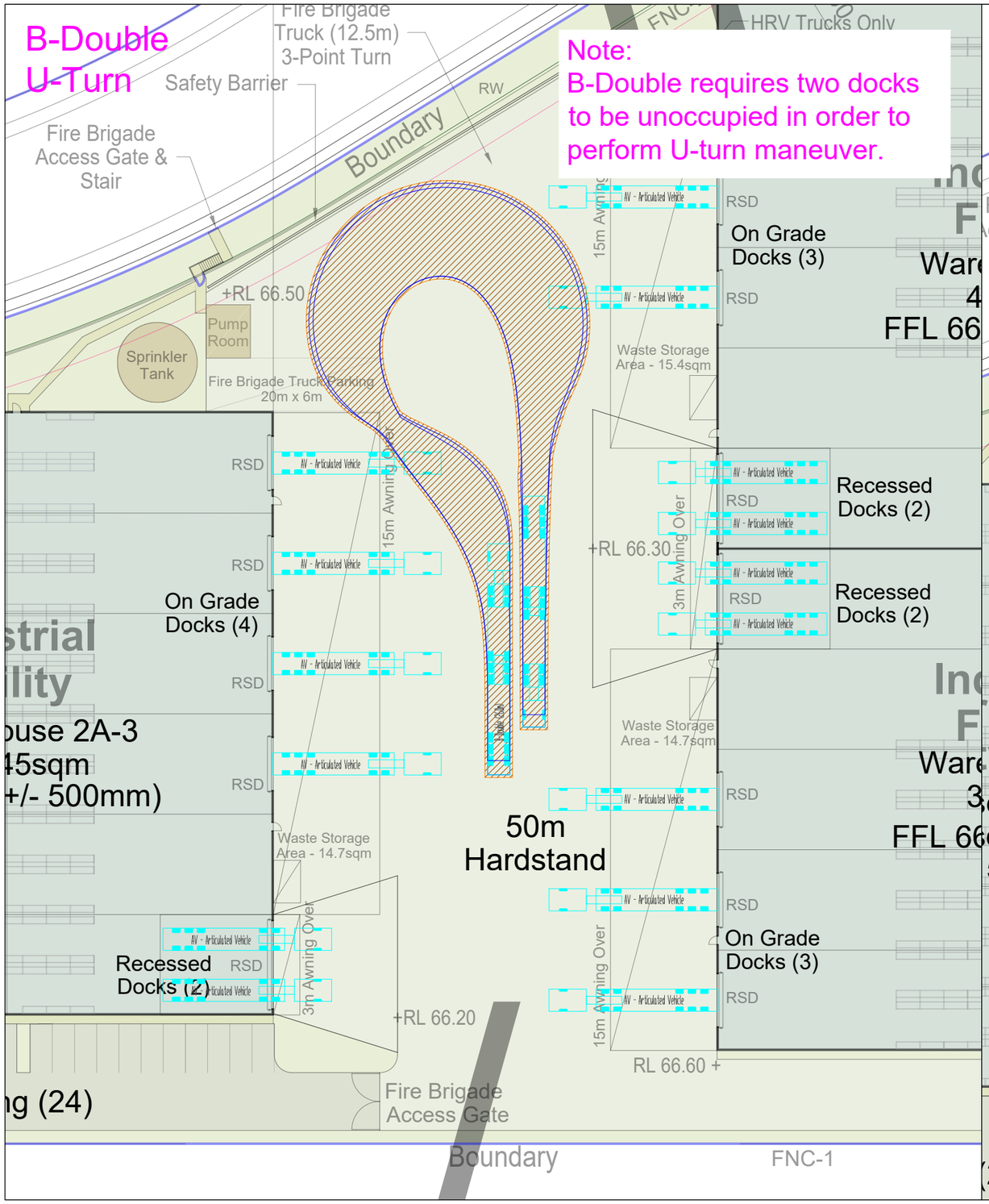
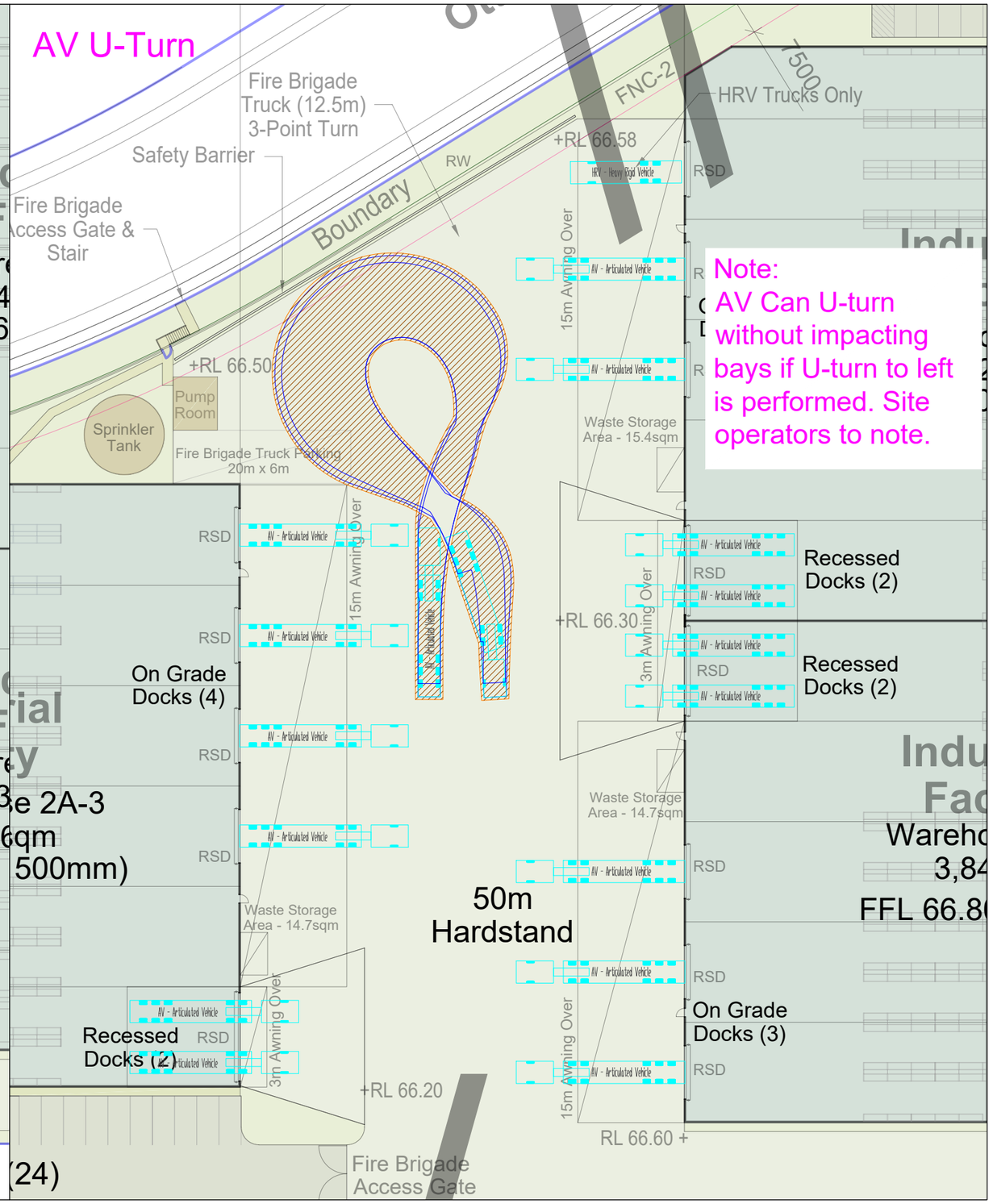
B-Double U-Turn

Note:
B-Double requires two docks to be unoccupied in order to perform U-turn maneuver.

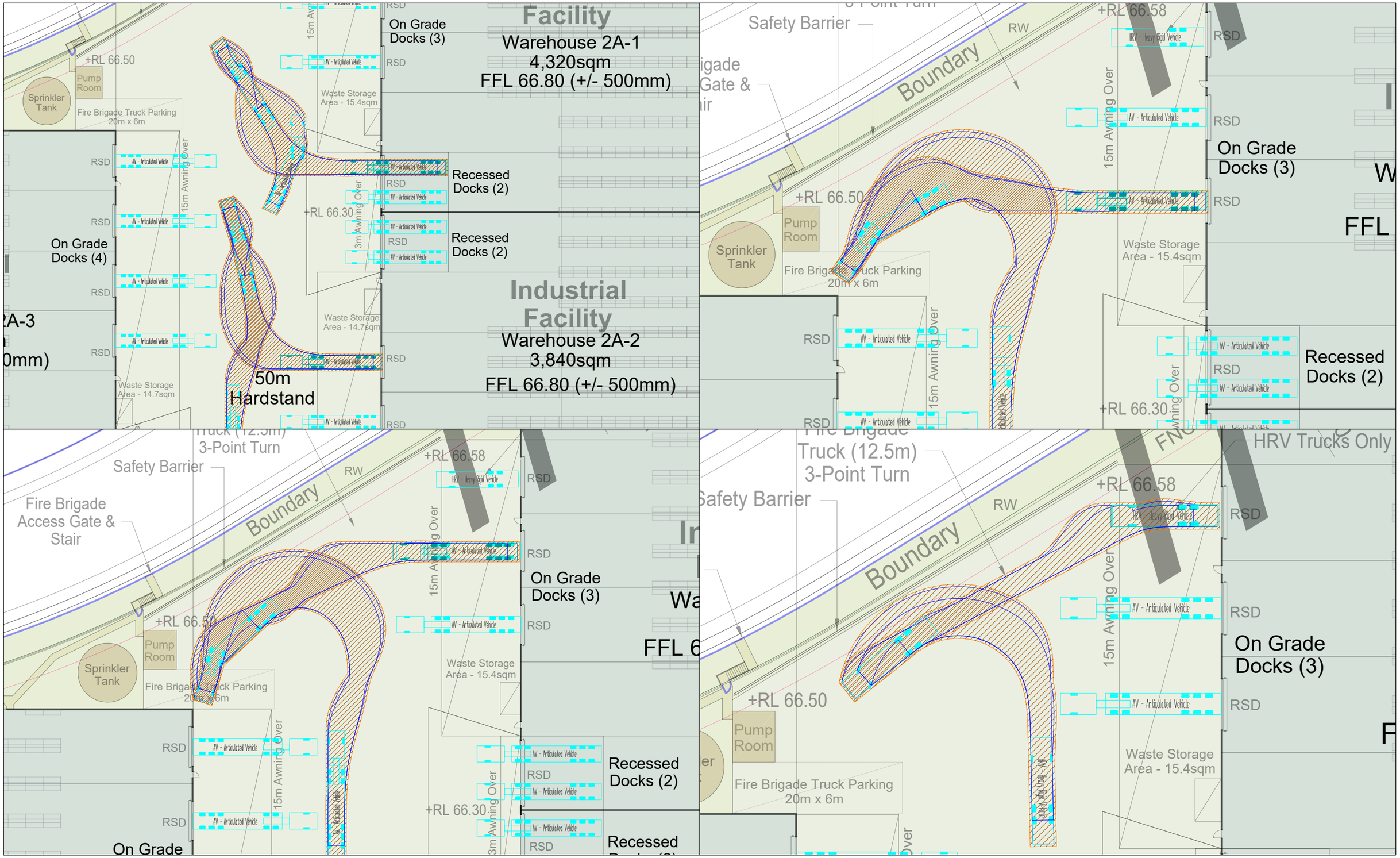


AV U-Turn

Note:
AV Can U-turn without impacting bays if U-turn to left is performed. Site operators to note.



Revision notes: Rev: Date: Notes: *For information purposes only - not for construction*	Drawn By: M TANGONAN Client: Goodman	Project: P1040 Lot 2A OSE Drawing Title: Lot 2A Circulation 26m B-Double, 19m AV	Date: 14-Sep-20 Scale @ A3: [scale] Drawing Number: AG02	asongroup Suite 5.02, Level 5, 1 Castlereagh Street Sydney NSW 2000 info@asongroup.com.au



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Rev:	Date:	Notes:

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Drawn By: M TANGONAN

Client: Goodman

Project: P1040 Lot 2A OSE

Drawing Title: Lot 2A-1 / 2A-2 Dock Access 19m AV

Date: 14-Sep-20

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Drawing Number: AG03

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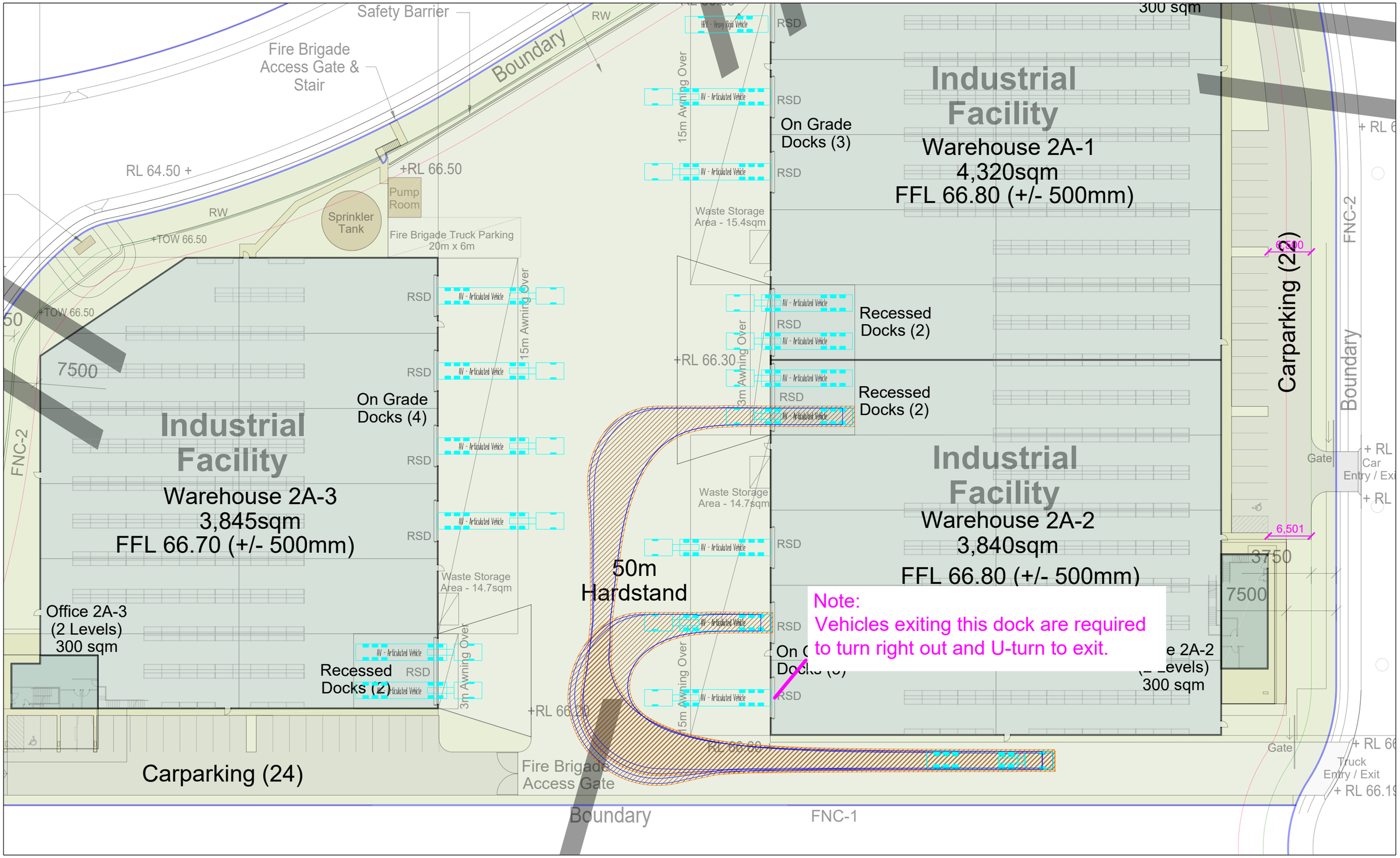

Revision notes:

Rev:	Date:	Notes:

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Drawn By: M TANGONAN

Client: Goodman

Project: P1040 Lot 2A OSE

Drawing Title: Lot 2A-1 / 2A-2 Dock Egress 19m AV

Date: 14-Sep-20

Scale @ A3: [scale]

Drawing Number: AG04

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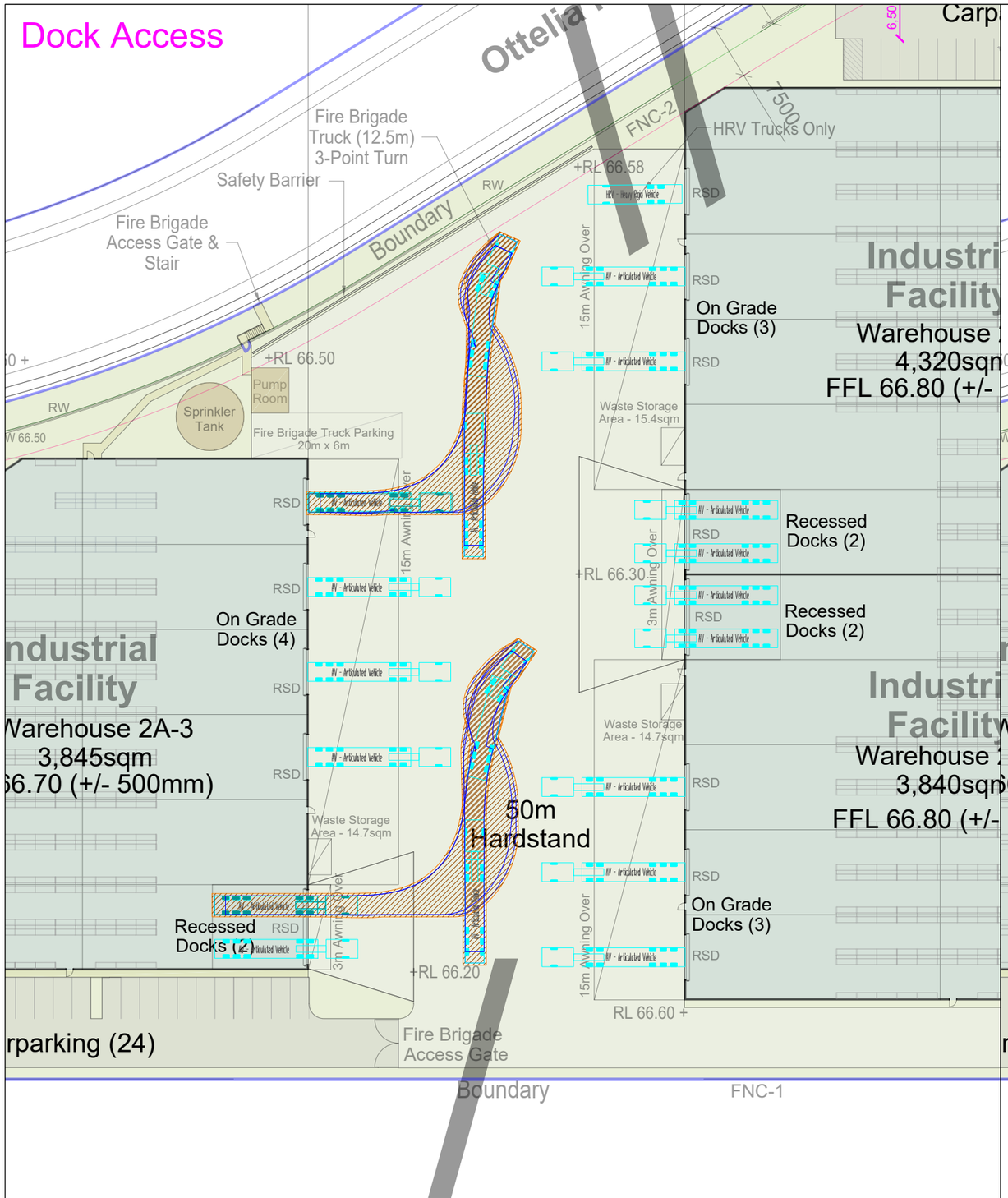
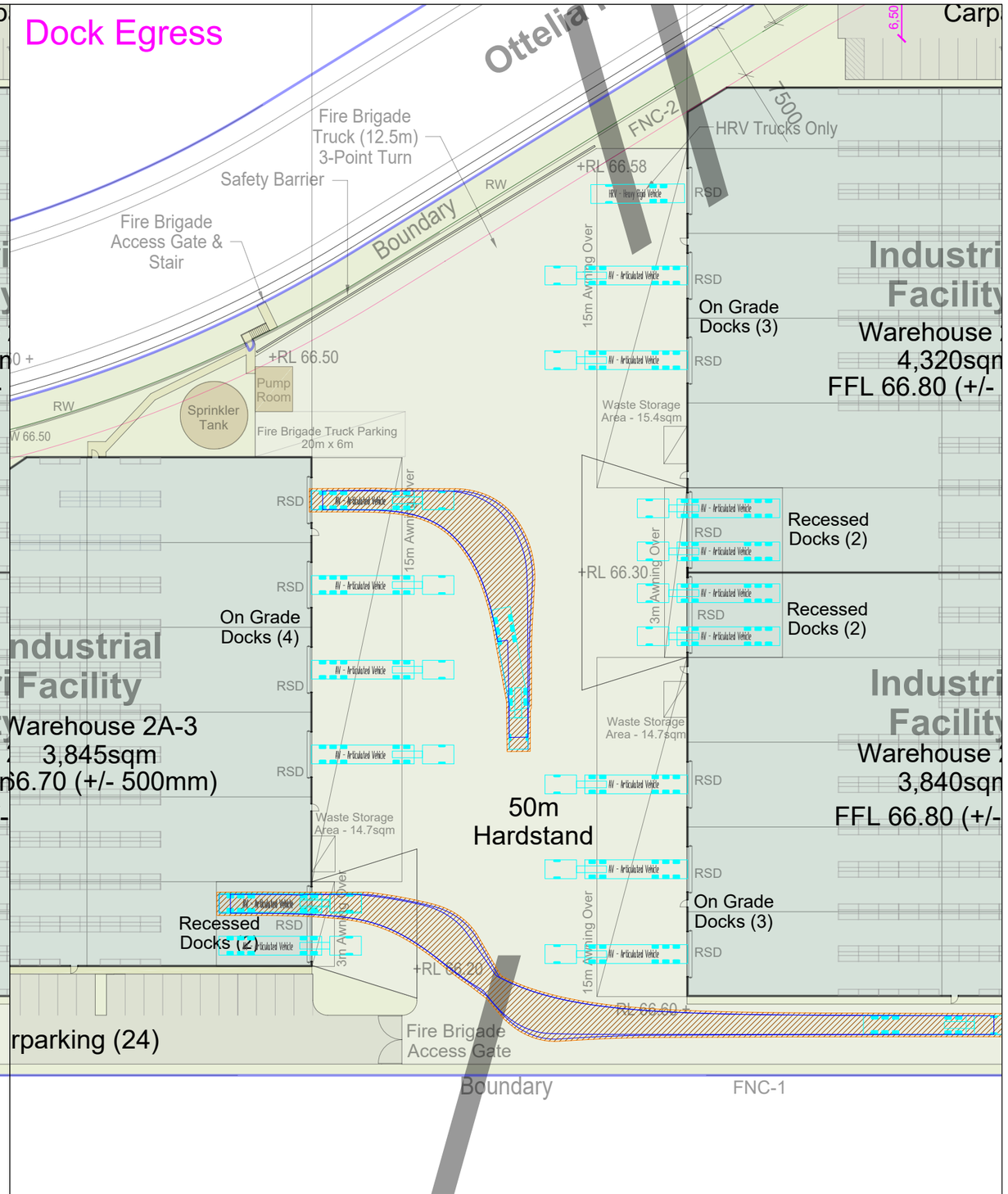
Dock Access



Dock Egress



Revision notes:

Rev:	Date:	Notes:

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Drawn By: M TANGONAN

Client: Goodman

Project: P1040 Lot 2A OSE

Drawing Title: Lot 2A-3 Access and Egress 19m AV

Date: 14-Sep-20

Scale @ A3: [scale]

Drawing Number: AG05

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Appendix B

Preliminary Sustainable Travel Plan

Preliminary Sustainable Travel Plan

Warehouse & Industrial Development
Lot 2A, Precinct 2 – Oakdale South Estate, Kemps Creek

Ref: 1040r01
30/09/2020

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Document Control

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Project: Lot 2A Oakdale South Estate—Sustainable Travel Plan

Client: Goodman Property Services (Aust) Pty Ltd

File Reference: P1040r02 Preliminary STP_Lot 2A Oakdale South Estate, Kemps Creek

Revision History

Revision	Date	Details	Author	Approved by
-	30/09/2020	Draft	M. Tangonan	T. Lewis

Table of Contents

1 Introduction

1.1 Overview

A preliminary Sustainable Travel Plan (STP) has been prepared in relation to Lot 2A of the Oakdale South Estate with the aim to address condition B7 and B8 of the Concept Plan approval for SSD 7719, dated 28 July, 2017 –

B7: The Applicant must prepare a Workplace Travel Plan to the satisfaction of the Certifying Authority prior to the issue of any Occupational Certificate.

B8: The Applicant must ensure that the Workplace Travel Plan (as revised from time to time) is implemented for the life of the development"

The STP is intended to develop a package of site-specific measures to promote and maximise the use of sustainable travel modes, including walking, cycling, public transport and car sharing. In this regard, this plan sets out objectives and strategies to assist the Department of Planning, Industry & Environment (DPIE) in achieving its goal to improve sustainability. It includes a review of existing transport choices and sets targets so that the effective implementation of the STP can be assessed. The Plan shall be reviewed regularly as part of an ongoing review to ensure it remains relevant and reflective of current conditions.

In accordance with best practice, this STP is intended to be evolving plan of the development and will require amendments, as necessary. For the purposes of this report, the preliminary STP provides a speculative indicator for what future industrial warehouse tenancy for Lot 2A.

1.2 References

In preparing the preliminary STP, Ason Group has referenced the following key planning documents relevant to the development:

- Penrith City Council Development Control Plan (DCP 2014)
- Penrith City Council Local Environmental Plan (LEP 2010)
- NSW Government Planning Guidelines for Walking and Cycling (2004)
- Austroads, Cycling Aspects of Austroads Guides (2017)

2 Strategic Planning Context

2.1 A Plan for Growing Sydney

A Plan for Growing Sydney's aim is to develop a competitive economy with world-class services and transport; to deliver greater housing choice to meet our changing needs and lifestyles, to create communities that have a strong sense of wellbeing, and to safeguard our natural environment. Specific priorities for the OSE are as follows:

- Identify and protect strategically important industrial zoned land in and near the Central and Western Subregions.
- transforming the productivity of Western Sydney through growth and investment.

2.2 Towards our Greater Sydney 2056

Towards our Greater Sydney is a report that provides amendments to A Plan for Growing Sydney. The amendments align with the vision established in the draft District Plans and aims to develop the Central and Western subregions.

2.3 NSW Long Term Transport Master Plan

The NSW Long Term Transport Master Plan has been prepared as a NSW Government document which seeks to guide transport decision making for the next 20 years. The report also supports the Government's Plan for Growing Sydney. It integrates land use planning, infrastructure provision and transport planning across all modes of transport. The master plan includes a range of actions for road, rail, ferries, light rail, cycling and walking.

2.4 Sydney's Bus Future (2013)

Sydney's Bus Future (prepared in December 2013) has been developed to deliver simpler, faster and better bus services for customers, and attract more customers to use bus services throughout Sydney. A 3-tiered network will operate with each level delivering a defined level of service, consistency and reliability throughout Sydney. Within Western Sydney, new and upgraded routes will strengthen connections between key town centres, which will ultimately improve travel times to the OSE.

2.5 Sydney's Walking Future (2013)

Getting people in Sydney to walk more through actions that makes it a more convenient, better connected and safer mode of transport. The basis of Sydney's walking future is to promote the benefits of walking and connect with the residents of Western Sydney though additional infrastructure and

technologies and engage through good policy and strong partnerships (including businesses within the OSE).

2.6 Sydney's Cycling Future (2013)

Getting people in Sydney's west to cycle more via actions through providing a more convenient, better connected and safer mode of transport. The basis of Sydney's cycling future is to promote the benefits of cycling, connect with the residents of Western Sydney though additional infrastructure and technologies, and engage through good policy and strong partnerships (including businesses within the Oakdale South Industrial Estate).

3 Site Audit & Data Collection

3.1 Travel Mode

The existing travel patterns of employees within the surrounding locality was surveyed as part of the 2011 Census and presented in the Journey to Work (JTW) data provided by the Bureau of Transport Statistics. The relevant data is presented in **Figure 1** for Travel Zones 3477 and 3479. The modal share data shows that a majority of the commuter trips are undertaken as a vehicle driver (91%) with approximately 5% of commuter trips undertaken by as a vehicle passenger.

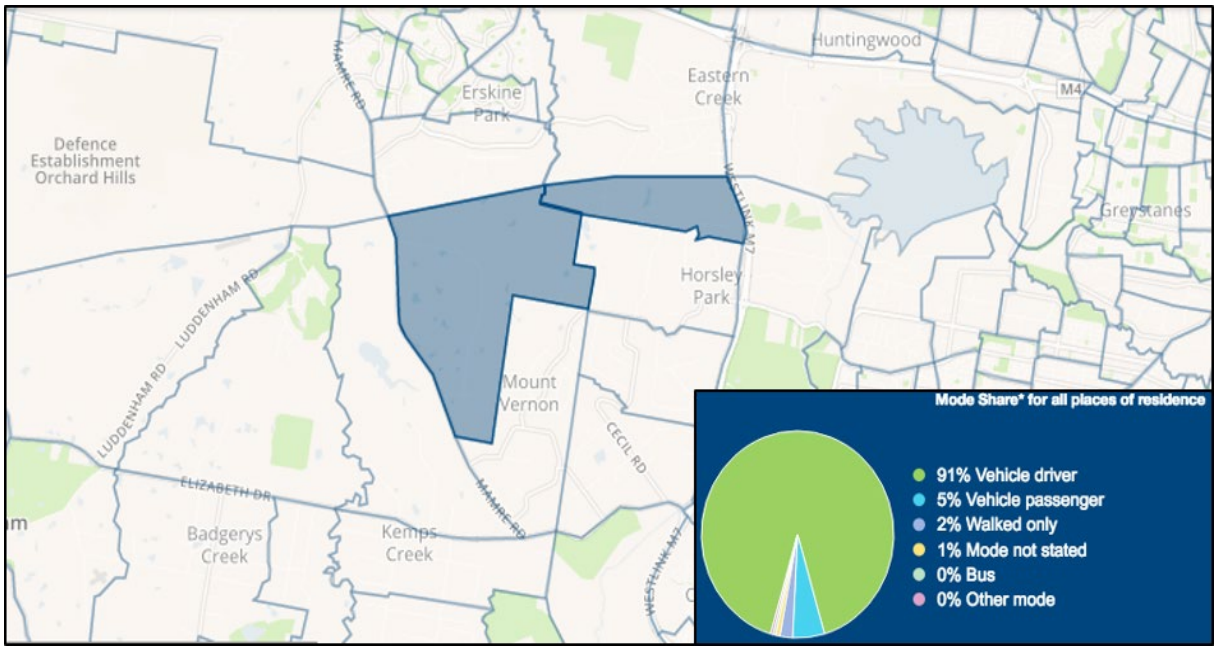

Figure 1: Journey-to-Work Mode Share

The mode share for the top 5 origin locations for persons employed within the selected Travel Zones are summarised in **Table 1** below. It is evident that the origin for persons employed within the locality is evenly distributed throughout the Western Sydney region.

Table 1: Mode of Travel by Origin for Employees within Travel Zone

Origin	% Trips	Walking	Train	Bus	Car Passenger	Car Driver
Fairfield	33%	7%	0%	1%	5%	83%
Penrith	15%	0%	0%	0%	7%	93%
St Marys	12%	0%	0%	0%	7%	93%
Blue Mountains	6%	0%	0%	0%	10%	90%
Bringelly – Green Valley	5%	0%	0%	0%	13%	87%

It is evident that there are a low proportion of public transport users within the Travel Zone, however the lack of public transport facilities is offset by commuters utilising the opportunity to car share, most notably Bringelly-Green Valley (13%), Blue Mountains (10%), St. Marys (7%) and Penrith (7%).

3.2 Site Details

Key details of the development are summarised in Table 2.

Table 2: Proposed Sigma – Key Details

Component	Proposed Yield
Warehouse	12,005 m^2
Office	900 m^2
Car Spaces	69 spaces (including 3 accessible spaces)
Bicycle Parking	18 spaces
Shower Facilities	3

A reduced copy of the site plan prepared by SBA Architects is shown in the figure below for context.

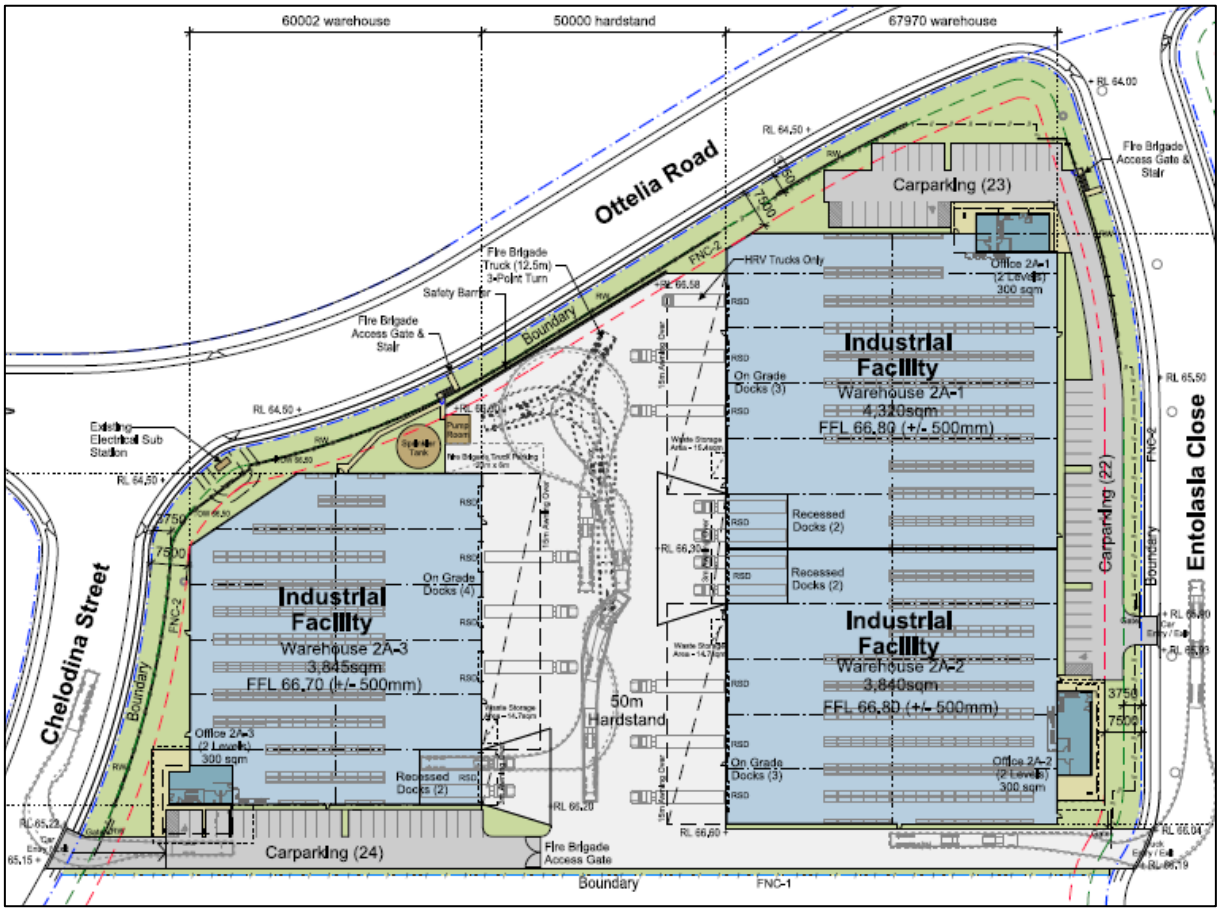

Figure 2: Reduced Site Plan

4 Sustainable Travel Plan Objectives & Targets

4.1 Objectives

The primary objectives of the STP are as follows:

- Reduce the environmental footprint of the development,
- Promote the use of 'active transport' modes such walking and cycling, particularly for short-medium distance journeys,
- Reduce reliance on the use of private vehicles for all journeys, and
- Encourage a healthier, happier and more active social culture.

Having regard for the above, this Plan adopts the following movement hierarchy with priority given to 'active transport' followed by mass public transport and lastly the use of cars and other private vehicles.

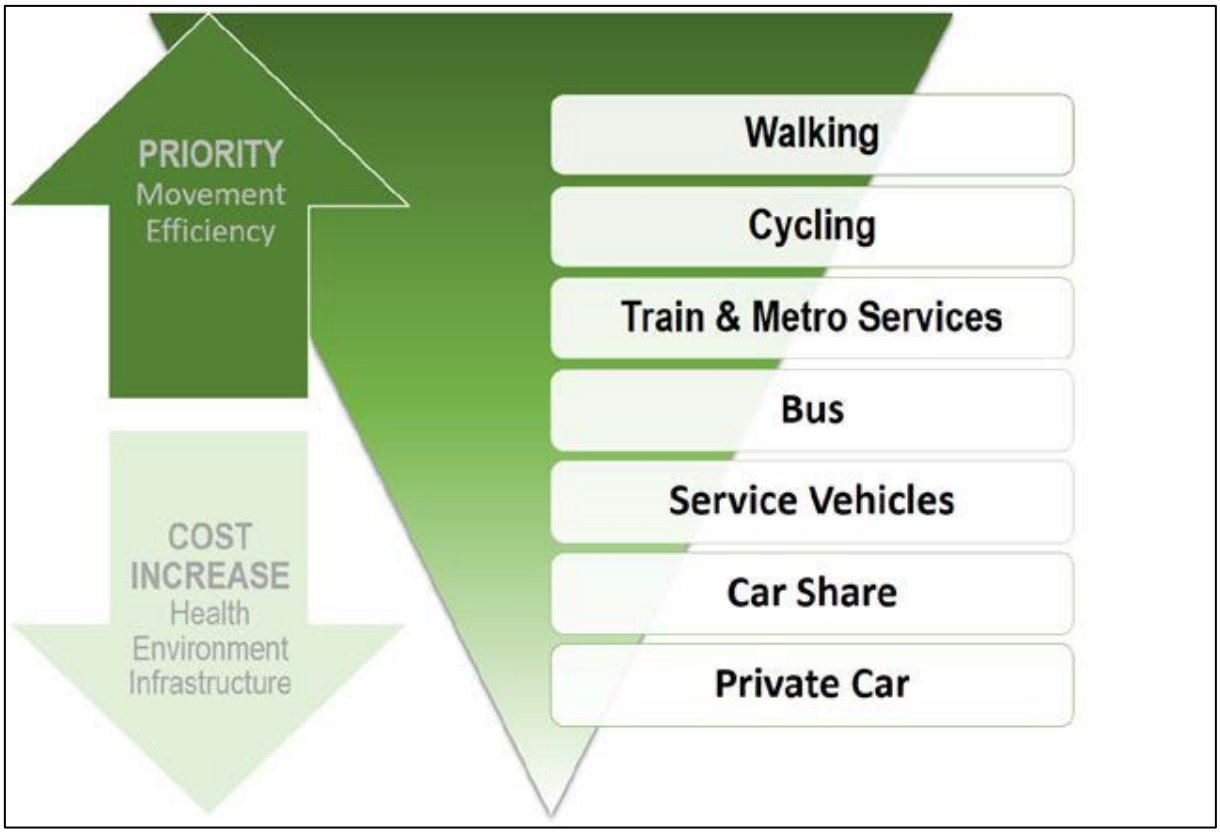

Figure 3: Movement Hierarchy

4.2 Mode Share Targets

With the above objectives in mind, the mode share targets outlined in **Table 3** are proposed.

Table 3: Mode Share Targets

Travel Mode.	Existing	Proposed	Relative Change
Walking	2%	2%	0%
Cycling	0%	5%	+5%
Train	1%	1%	0%
Bus	0%	3%	+3%
Car Passenger	5%	12%	+7%
Car Driver	91%	77%	-14%
Other/Mode Not Stated	1%	0%	-1%

The proposed mode share target has been developed by considering the likelihood of increase of each travel mode, with a specific push to encourage ride sharing between staff members. It is noted that the proposed mode increase in the number of car passengers effectively equates to an average vehicle occupancy of 1.11 persons per car which is considered achievable.

Provision of future infrastructure in the locality—such as delivery of the Southern Link Road and associated Shared Path connectivity—present opportunities for improved pedestrian and cyclist connectivity and hence mode share.

4.3 Numerical Compliance

At the time of preparing this preliminary Plan, Lot 2A does not have any specific end-user(s). As such, a rate of 1 staff member per 250 m^2 GFA—derived from existing and approved Workplace Travel Plans within the OSE— has been assumed to provide an indicative staff number for Lot 2A, resulting in approximately 51 staff members.

Based on the above, this translates to a requirement for the need for the following staff facilities:

- Bicycle parking 3 spaces (18 provided)
- Car parking 63 spaces (69 provided)

Additional facilities are also required for other user groups, such as visitors and deliveries.

5 Action Plan

The following specific actions have been identified to aid achievement of the targets outlined in Section 4.1. It is expected that future tenants of the proposed development will undertake a review of the Action Plan and implement as best they can to achieve each action item. Parties responsible for each action are also nominated below.

Table 4: Action Plan Measures

Item No.	Action / Description	Responsibility
1. General		
1.1	Establish a site-specific transport committee which is to include (but not limited to) the Travel Plan Coordinator (TPC).	TPC
1.2	Preparation and maintenance of a Sustainable Travel Plan.	TPC
1.3	Prepare and provide a 'Travel Welcome Pack' for newly employed staff.	TPC
1.4	Review of STP as a regular item on the agenda for the Tenant / Land Owner.	TPC
2. Walking and Cycling		
2.1	Improve regional cycle connectivity on surrounding roads.	Council
2.2	Promote participation in the National Ride2Work Day activity.	TPC
2.3	Provide clearly signposted cycle parking within the Site.	TPC
2.4	Maintenance of footpaths, primarily along Chelodina Street, Entolasia Close and Ottelia Road.	Council
2.5	In accordance with Item 1.4 above, monitor bicycle usage and provide additional spaces to meet demand (should that demand exceed the allocated spaces)	TPC
3. Public Transport		
3.1	Provide increased public transport services in response to increased development within the surrounding area	TfNSW / Council
3.2	Update the STP to reflect changes to any bus routes and service times	TPC
3.3	Undertake a review to promote initiatives for staff using public transport	TPC
4. Car Share		
4.1	Consider (as necessary) an allocation of preferential car parking bays for carpooling-specific spaces.	Tenants
4.2	Facilitate engagement between staff with a view to encourage ride sharing for those staff that do require the use of private vehicles.	TPC

Item No.	Action / Description	Responsibility
4.3	To encourage ride sharing between staff, business management may consider the signposting of desirable parking spaces close to building entrances for use by vehicles with multiple occupants.	Tenants

6 Governance & Support

6.1 Travel Plan Coordinator

A representative from the future tenants of Lot 2A (or other nominated entity) shall be responsible for:

- Implementation and promotion of the STP actions.
- Monitoring the effectiveness of the STP and ongoing maintenance of the Plan.
- Provide advice in relation to transport-related subjects to staff, tenancy management and visitors, as required.
- Liaise with external parties (i.e. Council, public transport and car share operators) in relation to Travel Plan matters.

This role does not necessarily require full-time position; however, it shall be clearly designated among the key responsibilities of the nominated person(s) / Estate management.

6.2 Monitoring & Review

This Plan shall be subject to ongoing review and will be updated accordingly. Regular reviews will be undertaken by the on-site coordinator, as required. As a minimum, review of the STP shall occur at the following:

- Upon first occupation of the tenancy, once a user has been identified
- Within 6-months from occupation, and
- Annually thereafter.

Key considerations regarding the review of the STP shall be:

- Updating 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. In this regard, review of the STP may be undertaken on a more frequent basis.
- Tracking progress against proposed travel mode targets.
- To identify any shortfalls and develop an updated action plan to address issues.
- To ensure travel mode targets are updated (if necessary) to ensure they remain realistic but also ambitious.

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