

## Transport Assessment

Oakdale West Industrial Estate – SSD-9794683  
Stage 3 Development Application at Lots 2A, 2C and 2D

Ref: P1518r01v6  
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## Document Control

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## Table of Contents

<b>1. EXECUTIVE SUMMARY</b>	<b>1</b>
1.1 PLANNING CONTEXT—OAKDALE WEST INDUSTRIAL ESTATE	1
1.2 TRAFFIC ASSESSMENT	3
1.3 OTHER SSD FINDINGS	4
<b>2. INTRODUCTION</b>	<b>5</b>
2.1 STUDY PURPOSE	5
2.2 REFERENCE DOCUMENTS	5
2.3 RESPONSE TO SECRETARY’S ENVIRONMENTAL ASSESSMENT REPORT	6
2.4 CONDITIONS OF CONSENT	9
<b>3. OWE APPROVAL</b>	<b>12</b>
3.1 APPROVED GENERATION RATES	12
3.2 APPROVED MOD 3 PROJECTED TRAFFIC GENERATION	12
3.3 FUTURE INTERSECTION LAYOUTS	13
<b>4. DESCRIPTION OF THE PROPOSAL</b>	<b>16</b>
4.1 SSD PLANS	16
4.2 PROPOSED SSD DESCRIPTION	17
4.3 APPROVED MOD 6 CONCEPT PLAN	18
4.4 VEHICULAR ACCESS STRATEGY	19
<b>5. PARKING PROVISIONS</b>	<b>22</b>
5.1 APPROVED PARKING RATES	22
5.2 SSD PARKING ASSESSMENT	22
5.3 ACCESSIBLE PARKING	23
5.4 BICYCLE PARKING	23
<b>6. TRAFFIC ASSESSMENT</b>	<b>25</b>
6.1 TRAFFIC GENERATION ESTIMATION	25
6.2 TRAFFIC IMPACTS	26
<b>7. PRELIMINARY CONSTRUCTION TRAFFIC MANAGEMENT</b>	<b>30</b>
7.1 HAULAGE ROUTE	30
7.2 CONSTRUCTION TRAFFIC IMPACT	30
7.3 CTMP SUMMARY	30
<b>8. DESIGN COMMENTARY</b>	<b>31</b>
8.1 RELEVANT DESIGN STANDARDS	31
8.2 DESIGN VEHICLE	31
8.3 ESTATE ROADS	31
8.4 ACCESS AND INTERNAL DESIGN	31
<b>9. SUMMARY &amp; CONCLUSIONS</b>	<b>32</b>
9.1 KEY FINDINGS	32
9.2 CONCLUSION(S)	33
<b>10. PRELIMINARY SUSTAINABLE TRAVEL PLAN</b>	<b>2</b>
10.1 PURPOSE	2
10.2 TRAVEL MODE SHARE ANALYSIS	2
10.3 STRATEGIC CONTEXT	3
10.4 SURROUNDING PUBLIC TRANSPORT SERVICES	4
10.5 OBJECTIVE AND TARGETS	6
10.6 ACTION PLAN	8
10.7 GOVERNANCE & SUPPORT	10



## Appendices

- Appendix A: MOD 3 SIDRA Modelling Results
- Appendix B: Swept Path Analysis
- Appendix C: Preliminary Sustainable Travel Plan
- Appendix D: Transport Access Guide
- Appendix E: Sample Travel Mode Questionnaire



# 1. Executive Summary

Ason Group has been engaged by Goodman Property Services (Aust) Pty Ltd (Goodman) to prepare a Transport Assessment (TA) to assess the traffic and parking implications from the proposed development of Lots 2A, 2C (2-C1 and 2C-2) and 2D of the Oakdale West Estate (OWE). This TA has been prepared in appreciation of the latest **approved** Modification 3 (MOD 3) and MOD 6 to the State Significant Development (SSD-7348) and, as such, the traffic assessment undertaken references the traffic reports associated with approved MOD 3 and MOD 6.

It is also noteworthy that the assessments of the Lots subject for this TA are related to a new SSD application (SSD-9794683), and DPIE has issued the Secretary's Environmental Assessment Report (SEARs) for both SSD-9794683 and SSD-7348 MOD 6 in November 2020 (a single SEARs). Therefore, this TA is prepared to respond to key traffic and transport related issues included in this SEARs.

For context, Lots 2A, 2C and 2D (the Site – subject for this SSD) as well as Lot 2B (recently approved under SSD-10397) form Precinct 2 of the OWE.

## 1.1 Planning Context—Oakdale West Industrial Estate

### 1.1.1 Project History

The original SSD approval for the OWE (SSD 7348) was granted on 13 September 2019 and envisaged a total GFA of some 475,269 m<sup>2</sup> GFA (original approved GFA) across the entire Estate spanning 5 precincts. Since that approval, the Estate has gone through several modifications with the latest approval being granted for MOD 8 (MOD 6 will be the reference approval for the purpose of this report).

**Table 1: Concept Plan and Modification History – SSD 7348**

Modification	Description	Traffic / Transport Related	Status
<b>Concept Plan</b>	Staged development of the Oakdale West Estate for a warehousing and distribution hub including a Concept Proposal and Stage 1 Development Application comprising estate-wide earthworks, infrastructure and services and construction of warehouse.	Yes	Approved
<b>MOD 1</b>	Modifications to the Oakdale West Estate approved concept plan and Stage 1 development, including changes to sewer servicing, building pad level of Precinct 2, bioretention basins and biodiversity offset strategy.	No	Approved
<b>MOD 2</b>	Modifications to the Oakdale West Estate approved concept plan and Stage 1 development, including master plan layout, increase in gross floor area and expansion of Building 1A, changes to internal roads, civil design and building pad levels.	Yes	Approved



<b>MOD 3</b>	Modifications to the Oakdale West Estate approved Concept Proposal and the Stage 1 development	Yes	Approved
<b>MOD 4</b>	Seeking approval for additional works within Lot 9 DP 1157476 associated with the construction of the Western North South Link Road.	No	Approved
<b>MOD 5</b>	Modification to SSD 7348 including amendments to the Concept Proposal and Stage 1 development including changes to Precinct 1A layout, Stage 1 development dangerous goods quantity, Biodiversity Offset Site, noise wall completion timing.	No	Approved
<b>MOD 6</b>	Amendments to the approved Concept Plan and Stage 1 development including changes in Precincts 2A, 2C, 2D, 2E layouts, increase in building height control for Precinct 2A, and inclusion of construction Estate Road 8 as part of Stage 1 development.	Yes	Approved
<b>MOD 7</b>	Amendments to the approved Oakdale West Estate including bulk earthworks in Precincts 3 & 4, modifications to layout of Precinct 4, removal of an Estate Road in Precinct 4, and inclusion of additional retaining walls in Precinct 3 & 4.	Yes	Approved
<b>MOD 8</b>	Modifications to approved plans for Warehouses 1A, 1B and 1C	No	Approved

#### 1.1.2 Latest relevant (to this TA) Approved Modifications 3 and 6

MOD 3 to the SSD-7348 (approved on 3 April 2020) essentially involved major changes to the built form of Precincts numbers 2 to 5 within the approved concept plan at OWE, with some moderate changes to the Gross Floor Areas (GFAs) to Precinct numbers 4 and 5. However, MOD 5 (approved on 05/11/2020) only included minor adjustments to the proposed site layout at Lot 1A with minor amendments to the overall Estate GFAs. In this regard, Ason Group has previously undertaken detailed traffic assessment and SIDRA modelling for MOD 3 with only a brief Transport Statement prepared for MOD 6; suitable for the nature of changes proposed therein. Therefore, the traffic assessments and modelling included in this TA mainly refers to the MOD 3 TIA.

For context, the following **Table 2** provides a comparison between approved GFAs from the concept approval to the latest approved MOD 6.

**Table 2: GFA Comparison**

Original Approval Approved GFA (m <sup>2</sup> )	Approved MOD 3 Total GFA (m <sup>2</sup> )	Approved MOD 6 Total GFA
475,269	595,765	599,455



The following table provides a comparison of relevant GFA metrics for each precinct under each relevant MOD, being the approved MOD 3 and MOD 6 approvals.

**Table 3: Precinct Gross Floor Area Comparison by MOD**

Precinct No.	MOD 3 Approval (GFA, m <sup>2</sup> )	MOD 6 Approved (GFA, m <sup>2</sup> )	Difference Between MOD 3 & MOD 6 (GFA, m <sup>2</sup> )
Precinct 1	122,082	125,198	+3,116
<b>Precinct 2</b>	<b>266,186</b>	<b>269,390</b>	<b>+3,204</b>
Precinct 3	57,819	56,759	(-) 1,060
Precinct 4	113,693	112,123	(-) 1,570
Precinct 5	35,640	35,640	0
Amenities Lot	345	345	0
<b>Total</b>	<b>595,765</b>	<b>599,455</b>	<b>+3,690</b>

It is evident that Precinct 2 (under the MOD 6 approval) only results in an additional 3,690 m<sup>2</sup> GFA when compared to the approved GFA under MOD 3. This is a minor increase when considered in the scheme of the entire OWE; importantly where MOD 6 results in no GFA changes comparing to the latest approval of MOD 5.

## 1.2 Traffic Assessment

Traffic associated with the proposed Lots 2A, 2C and 2D during road network AM and PM peak hours has already been assessed as part of the approved MOD 3 traffic report which included detailed modelling for the surrounding road network (**Appendix A**). For context, key intersections within the broader locality were assessed as part of the MOD 3 assessment under 2026 interim and 2036 ultimate scenarios.

It is noted that this SSD is expected to increase the daily traffic volume across OWE, however, the total AM and PM peak hour traffic volumes would stay consistent with previous approval. Noting that the infrastructure assessment and modelling are focused on peak hour assessment therefore additional modelling is not deemed necessary under this SSD. Furthermore, the daily exceedance of daily traffic volumes is discussed as part of this TA and will be managed through implementation of Green Travel Plan. Of particular importance and based on advice provided by Goodman, and confirmed by email with Busways that a bus service will be available at the estate from October 2021.



### 1.3 Other SSD Findings

A summary of the key findings of this TA are as follows:

- Estate wide vehicular traffic generation post completion of MOD 6 has been compared with the traffic generation post completion of MOD 3 and it is outlined in the following table.

**Table 4: Vehicular Trip Generation Comparison**

Building	MOD 3 Approval				MOD 6 Approval			
	GFA	Trip Generation			GFA	Trip Generation		
		AM	PM	Daily		AM	PM	Daily
Building 1A <sup>1&amp;2</sup>	107,212	79	54	2,222	107,212	79	54	2,222
Building 2B <sup>1&amp;3</sup>	206,968	823	532	3,781	206,968	823	532	3,781
Other Buildings	281,240	458	458	5,321	284,930	464	464	5,391
Amenity Building	345	-	-	-	345	-	-	-
<b>Total</b>	<b>595,765</b>	<b>1,360</b>	<b>1,044</b>	<b>11,324</b>	<b>599,455</b>	<b>1,366</b>	<b>1,050</b>	<b>11,394</b>

Note: 1) Trip generation during 'seasonal peak' as 'worst-case' scenario.

2) Ason Group, P0950r01v12 SSD MOD 2 TIA\_Oakdale West, dated 21 November 2019

3) Ason Group, P1086r01v7 SSD 7348 MOD 3 & Stage 2 DA TIA\_Oakdale West Estate, dated 15 January 2020

- Accordingly, MOD 6 (including Lots 2A, 2C and 2D) results in minor increase on traffic generation comparing to the approved MOD 3, which includes detailed modelling for the surrounding road network.
- Individual buildings (2A, 2C and 2D) have been generally designed to meet the approved parking requirements, as outlined Condition B13 of the approval.
- Lots 2A, 2C, and 2D, access crossovers, internal hardstand area service and parking facilities have been generally designed to meet the relevant Australian Standards. Of particular importance, the proposal for these Lots allow for traffic movements by 30.0 metres Super B-Doubles (design vehicle).
- A preliminary Sustainable Travel Plan (STP) have been included in this TA to provide a high-level action plan and assist in reduction of reliance on private motor vehicle usage at these Lots.



## 2. Introduction

Ason Group has been engaged by Goodman Property Services (Aust) Pty Ltd (Goodman) to prepare a Transport Assessment (TA) to assess the traffic and parking implications of Lots 2A, 2C (2C-1, 2C-2) and 2D at the OWE.

### 2.1 Study Purpose

From the outset, it is critical to state that the recent DPIE approval of MODs 3 and 6 applications sets the 'benchmark' for the subsequent applications within the OWE. Providing that these conditions have inherently been considered and validated by the key consent authorities, including the DPIE and Transport for NSW (TfNSW), this TA therefore provides an assessment of the traffic characteristics of the proposed Lots, which have then been compared to the approved characteristics of the OWE to determine any departures from the current approvals.

### 2.2 Reference Documents

In the preparation of this TIA, reference has been made to the following key transport standards and guidelines:

- RMS Guide to Traffic Generating Developments (RMS Guide) version 2.2, October 2002.
- Australian Standard 2890.1: Parking Facilities – Off-Street Car Parking (AS 2890.1), 2004.
- Australian Standard 2890.2: Parking Facilities – Off Street Commercial Vehicle Facilities (AS 2890.2), 2018.
- Australian Standard 2890.3: Parking Facilities – Bicycle Parking (AS 2890.3), 2015.
- Australian Standard 2890.6: Parking Facilities – Off Street Parking for People with Disabilities (AS 2890.6), 2009.

This TA also references assessments relating to development within the OWE; the broader Oakdale Industrial Estate in which the OWE lies; and the Broader Western Sydney Employment Area, including:

- Ason Group, Traffic Impact Assessment Oakdale West Estate State Significant Development Application – Response to Submissions, 27 November 2018 (OWE TIA RTS)
- Ason Group, Traffic Impact Assessment Oakdale West Industrial Precinct State Significant Development Application, 24 March 2017 (OWE TIA 2017).
- Ason Group, Traffic Impact Assessment Oakdale West Industrial Estate SSD MOD 2, 11 Oct 2019 (0950r01v10 SSD MOD 2 TIA).



- Ason Group, Traffic Impact Assessment Oakdale West Industrial Estate – SSD 7348 Modification 3 & SSD 10397 Stage 2 Development Application, 15 January 2020 (P1086r01v7) – (approved MOD 3 traffic report).
- Ason Group, Oakdale West Industrial Estate (SSD 7348) Modification 5 – Transport Statement, P0950r03 (approved MOD 5 traffic report).
- Ason Group, Transport Statement – *Oakdale West Industrial Estate – SSD 7348 Modification 6*, dated 6 October 2020 (the MOD 6 traffic report).
- GHD, Erskine Park Traffic Modelling – Proposed Western North South Link Road, May 2016 (WNSLR Report).
- AECOM, Broader WSEA SLRN – Options Refinement (2014), 6 May 2014 (SLRN Options Report).
- GHD, Old Wallgrove Road Extension Interim Network Testing, 28 March 2014 (OWR Extension Report).
- GHD, Broader Western Sydney Employment Area – Transport Planning Preliminary Analysis, Exhibition Draft, June 2013 (BWSEA Transport Report).
- GHD, Old Wallgrove Road Upgrade (Roberts Road - M7 Motorway) Traffic and Transport Report, 30 April 2012 (OWR Upgrade Report).
- AECOM, Western Sydney Employment Area – Southern Link Road Network Strategic Transport Assessment, 18 April 2011 (SLRN Report).
- RMS, Southern Link Road / WSEA RNS Key Stakeholder Briefing, July 2019
- RMS, Trip Generation Surveys - Business Parks and Industrial Estate Data Report, August 2012

## 2.3 Response to Secretary's Environmental Assessment Report

Key traffic and transport related issues included in this SEARs, as well as brief responses, are outlined in the following table.



**Table 5: Response to SEARs**

No.	Comment	Ason Response																														
Traffic and Transport – including																																
1	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;	<p>This TA has been prepared as a response to this comment. The Proposal is not anticipated to generate significant pedestrian and/or public transport trip during the construction or operation of the proposed Lots. However, details of daily and peak hour traffic generation of the Proposal has been reviewed (at operational phase) and outlined in section 5. As such the proposed SSD will generate the following vehicular traffic generation onto the surrounding road network, having regard for the approved trip generation rates:</p> <table><tr><th>Lot No.</th><th>GFA m<sup>2</sup></th><th>AM Peak</th><th>PM Peak</th><th>Daily</th></tr><tr><td>2A</td><td>44,015</td><td>72</td><td>72</td><td>833</td></tr><tr><td>2C-1</td><td>5,500</td><td>9</td><td>9</td><td>104</td></tr><tr><td>2C-2</td><td>5,065</td><td>8</td><td>8</td><td>96</td></tr><tr><td>2D</td><td>6,235</td><td>10</td><td>10</td><td>118</td></tr><tr><td>Total</td><td>60,702</td><td>99</td><td>99</td><td>1,151</td></tr></table>	Lot No.	GFA m <sup>2</sup>	AM Peak	PM Peak	Daily	2A	44,015	72	72	833	2C-1	5,500	9	9	104	2C-2	5,065	8	8	96	2D	6,235	10	10	118	Total	60,702	99	99	1,151
Lot No.	GFA m <sup>2</sup>	AM Peak	PM Peak	Daily																												
2A	44,015	72	72	833																												
2C-1	5,500	9	9	104																												
2C-2	5,065	8	8	96																												
2D	6,235	10	10	118																												
Total	60,702	99	99	1,151																												
		<p>In summary, the traffic associated with the proposed SSD will not have any additional impact from what has already been approved by MOD 3 and MOD 6 during road network peak hours.</p> <p>Section 6 of this TA provides a preliminary CTMP of construction impacts associated with this SSD. The Compass Drive is now in operation and will accommodate the construction traffic volumes associated with the SSD. Noting that intersection of Lenore Dr / Compass Drive is approved under original approval and re-assessed under MOD 3 approval for a greater operational traffic (then what is expected for construction of these Lots), there should not be any issues with the traffic associated with construction traffic. It is noted that a separate detailed CTMP for these Lots will be prepared separately and in response to a condition of consent as part of the Construction Certificate (CC) phase of the project.</p>																														
2	an assessment of the predicted traffic impacts on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic modelling;	<p>In accordance with the SIDRA results, undertaken as part of the MOD 3 approved traffic report, all intersections in the broader locality of the OWE can accommodate the anticipated traffic to/from the Estate including the traffic associated with this SSD. Reference should therefore be made to Section 5 of this TA which determines that the proposed SSD traffic has readily been included in the assessments undertaken as part of the MOD 3 approval.</p> <p>Furthermore, MOD 6 approval refers to a great overall GFA for the OWE from what has been approved as part of MOD 3 which could further ascertain suitability of the surrounding road network to accommodate the traffic from this SSD.</p>																														



No.	Comment	Ason Response
<b>Traffic and Transport – including</b>		
3	plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network;	<p>Detailed SSD plans have been provided separately with a reduced copy of the site plans presented in Figure 3 and Figure 4.</p> <p>A review of the proposed SSD access, hardstand area and parking facilities has been undertaken as part of this TA. reference should therefore be made to Section 8 which outlines key considerations of the SSD design elements.</p> <p>SSD parking provision in accordance with the approved conditions has been discussed in section 4. In this regard, ALL Lots under review as part of this SSD meet and exceed the requirements set out under Condition B13 of the SSD 7348 approval.</p>
4	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 as well as with reference to the latest approved Oakdale West Estate Concept Plan;	<p>Details regarding on-site design for each individual building are provided in Section 2. In summary, the proposed Lot 2A will be accessed to/from Emporium Avenue and Sepia Avenue, via separate car and truck access crossovers.</p> <p>Furthermore, Lots 2C-1 and 2C-2 and 2D will all be accessed via 2 access crossovers along Emporium Avenue (refer Figure 5).</p>
5	swept path diagrams depicting vehicles entering, exiting and manoeuvring throughout the site;	All access locations have been reviewed against relevant Australian Standards with swept path analysis undertaken for 30.0 m Super B-Doubles included in <b>Appendix B</b> of this TA.
6	details of the proposed parking provision and its compliance with the Roads and Maritime Services (RMS) guidelines and Condition B13, Schedule B of SSD-7348 development consent;	<p>A review of the proposed SSD access, hardstand area and parking facilities has been undertaken as part of this TA. reference should therefore be made to Section 8 which outlines key considerations of the SSD design elements.</p> <p>SSD parking provision in accordance with the approved conditions has been discussed in section 4. In this regard, all Lots under review as part of this SSD meet and exceed the requirements set out under Condition B13 of the SSD 7348 approval.</p>
7	details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace Travel Plan) and the provision of facilities to increase the non-car mode share for travel to and from the site;	<p>As outlined in section 5, the traffic modelling undertaken as part of the MOD 3 suggests that NO additional road upgrades will be required as a result of this SSD when compared to the approved Modifications.</p> <p>Additionally, a Preliminary Sustainable Travel Plan is provided in <b>Appendix C</b>.</p>
8	details of the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand for the development; and	A Preliminary Sustainable Travel Plan is provided in Appendix C, which details existing public/active transport or any future public/active transport infrastructure within the vicinity of the site. We note that a final STP can be provided in response to a suitable CoC following approval of the SSD.
9	measures to integrate the development with the existing/future public transport network.	An action plan is provided as part of the Preliminary Sustainable Travel Plan which details measures to integrate the development with the existing/future public transport network.



## 2.4 Conditions of Consent

With reference to the Conditions of Consents issued for SSD 7348 (MOD 3) and SSD 10397 (Stage 1 DA), relevant conditions as well as brief responses, are outlined in the following table.

Condition Number	Condition	Ason Response
B13	The Applicant shall ensure the Concept Proposal provides car parking in accordance with the following rates: (a) 1 space per 300 m <sup>2</sup> of warehouse GFA; (d) 1 space per 40 m <sup>2</sup> of office GFA; and (e) 2 spaces for disability parking for every 100 car parking spaces.	Noted. All warehouses provide sufficient on-site car parking spaces to readily satisfy this condition.
B14	The Applicant shall provide bicycle racks, and amenity and change room facilities for cyclists in accordance with Planning Guidelines for Walking and Cycling (December 2004, NSW Department of Infrastructure, Planning and Natural Resources and the Roads and Traffic Authority)	Proposed SSD readily provide onsite bicycle parking for ALL Lots. Reference should be made to Section 5.4 for further information. Furthermore, provision of bicycle sufficient parking can be a condition of consent for this SSD which can readily be provided as part of the Construction Certificate (CC) stages of this SSD.
C9	Future DAs shall be accompanied by a transport, access and parking assessment. The assessment must: (a) assess the impacts on the safety and capacity of the surrounding road network and access points during construction and operation of the relevant Stage; (b) demonstrate internal roads and car parking complies with relevant Australian Standards and the car parking rates in Condition B13; (c) detail the scope and timing of any required road upgrades to service the relevant Stage; and (d) detail measures to promote non-car travel modes, including a Sustainable Travel Plan identifying pedestrian and cyclist facilities to service the relevant Stage of the Development.	Noted. This TA addresses this comment.
D47	The Applicant must design and construct the intersections of the WNSLR with Estate Road 1 and Lockwood Road to the satisfaction of the relevant roads authority.	Noted. Compass Drive, Sepia Avenue and Lockwood Road have already been delivered.
D48	Prior to the commencement of construction of the Lenore Drive/Grady Crescent/WNSLR intersection (the intersection), the Applicant must finalise the detailed design, including a Traffic Signal Plan, for the intersection works. The detailed design must: (a) cut back the median further with a taper in Grady Crescent to accommodate the dual B-Double swept paths turning from WNSLR onto Lenore Drive; and (b) include an angled pedestrian crossing on the south-eastern corner of the intersection so that pedestrians are not confused by the pedestrian lantern on the opposite side of the intersection.	Noted. No change to the approved geometry or signal phasing arrangements is required as part of this SSD.
D49	The Applicant must enter into a WAD for works at the intersection with TfNSW (former RMS). The WAD must be executed prior to the submission of the detailed design required under condition D48 to TfNSW for approval.	These works are currently underway and hence this conditions is not directly relevant to this SSD.



Condition Number	Condition	Ason Response
D50	The Applicant must design the proposed traffic control light at the intersection in accordance with Austroads guidelines, RMS Signal Design Manual and Australian Codes of Practice. The traffic control light design must be endorsed by a suitably qualified practitioner whose qualification has been approved by TfNSW (former RMS).	Noted. No change to the approved geometry or signal phasing arrangements is required as part of this SSD.
D51	The Applicant must submit the certified copies of the traffic signal design plans to TfNSW (former RMS) for approval prior to the issue of a Construction Certificate	Noted.
D52	The Applicant must submit a request to TfNSW (former RMS) Network Operations Team to obtain relevant approvals to remove the signalised pedestrian crossing on the eastern leg of the intersection.	Noted.
D65	<p>Prior to the commencement of construction of Stage 1, the Applicant must prepare a Construction Traffic Management Plan (CTMP) to the satisfaction of the Planning Secretary. The CTMP must form part of the CEMP required by Condition D119 and must:</p> <p>(a) be prepared by a suitably qualified and experienced person(s); NSW Government 15 Oakdale West Estate Department of Planning, Industry and Environment (SSD 7348)</p> <p>(b) be prepared in consultation with Council, Mamre Anglican School, Emmaus Catholic College, Emmaus Catholic Care Village and Trinity Catholic Primary School;</p> <p>(c) detail specific measures to manage construction traffic to avoid school drop off and pick up times (Monday to Friday 8 am – 9.30 am and 2.30 pm – 4 pm) and Higher School Certificate exam periods, including any temporary infrastructure arrangements and traffic safety measures; (d) detail the measures to be implemented to ensure road safety and network efficiency during construction, including scheduling deliveries of heavy plant and equipment outside of peak periods, or during school holidays where possible;</p> <p>(e) detail heavy vehicle routes, access and parking arrangements;</p> <p>(f) include a Driver Code of Conduct to: i. minimise the impacts of construction on the local and regional road network; ii. minimise conflicts with other road users including the students, staff, visitors and residents of the neighbouring schools and aged care village; iii. minimise road traffic noise, both on Bakers Lane and from construction vehicles on Site; and iv. ensure truck drivers use specified routes and adhere to the speed restrictions on Bakers Lane;</p> <p>(g) include a program to monitor the effectiveness of these measures; and</p> <p>(h) detail procedures for early notification to residents and the community (including local schools), of any potential disruptions to routes.</p>	<p>A detailed CTMP can be prepared in response to a suitable condition of consent for this SSD which can readily be completed as part of the CC stage.</p> <p>Notwithstanding, it should be emphasised that the changes proposed as part of the SSD are largely internal and thus do not have a material impact on construction traffic impacts or management thereof.</p>
D67	The Applicant must design and construct the internal estate roads and intersections to accommodate the turning path of a B-Double, to the satisfaction of the Relevant Roads Authority.	All OWE roads have been designed to cater for 30.0m Super B-Doubles as the relevant design vehicle.



Condition Number	Condition	Ason Response
D68	Following the issue of a Subdivision Certificate, the estate roads shall be dedicated to the Relevant Roads Authority. Prior to any dedication, the Applicant shall ensure construction of the estate roads has been completed to the satisfaction of the Relevant Roads Authority and measures (such as a performance bond) are in place for any prescribed maintenance period, to the satisfaction of the Relevant Roads Authority.	Noted.
D69	The Applicant must ensure: <ul style="list-style-type: none"> <li>a) Internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) are constructed and maintained in accordance with the latest version of AS 2890.1:2004 Parking facilities Off-street car parking (Standards Australia, 2004) and AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities (Standards Australia, 2002);</li> <li>b) parking for Stage 1 is provided in accordance with the EIS and RtS for MOD 2</li> <li>c) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant Austroads guidelines</li> <li>d) Stage 1 does not result in any vehicles queuing on the public road network</li> <li>e) heavy vehicles associated with Stage 1 are not parked on local roads or footpaths in the vicinity of the Site</li> <li>f) all vehicles are wholly contained on site before being required to stop</li> <li>g) all loading and unloading of materials are carried out on Site</li> <li>h) all trucks entering or leaving the Site with loads have their loads covered and do not track dirt onto the public road network; and</li> <li>i) the proposed turning areas in the car parks are kept clear of any obstacles, including parked cars, at all times.</li> </ul>	<p>Review of the proposed SSD vehicular access, hardstand area and parking facilities against the relevant Australian Standards has been undertaken and summarised in Section 8 of this report. Swept path analysis for 30.0m Super B-Doubles (assumed design vehicle) has also been included in Appendix B for reference.</p> <p>Not relevant to this SSD.</p> <p>Swept path analysis are provided in Appendix B.</p> <p>Not relevant to this SSD (being Stage 3 DA).</p> <p>Noted. Although this condition is relevant to Stage 1, but heavy vehicles associated with this SSD shall also not park on local roads. This can be a scope for the Operational Traffic Management Plan for the SSD (if deemed necessary).</p> <p>Noted.</p> <p>Noted. Proposed SSD provides loading and unloading facilities on-site for each individual Lot.</p> <p>Noted.</p> <p>Noted.</p>



### 3. OWE Approval

The original SSD approval for the Oakdale West Industrial Estate (SSD 7348) was granted on 13 September 2019 and envisaged a total GFA of some 475,269 m<sup>2</sup> GFA across the entire Estate spanning 5 precincts. Since that approval, the Estate has gone through several modifications with MOD 6 being approved on 10/03/2021 for a sum of 599,455 m<sup>2</sup> (relevant to the traffic assessment under this SSD).

Ason Group has undertaken traffic assessment for the original approval as well as the other Modifications. However, MOD 3 approved TA included detailed traffic assessments and SIDRA modelling for all key intersections in the broader locality of the OWE. SIDRA analysis undertaken as part of the MOD 3 included assessment of seasonal peak demand for Lots 1A and 2B having regard for their operational traffic generation.

Accordingly, this TA refers to the approved MOD 3 traffic report for the traffic assessment purposes. Detailed SIDRA results from the approved MOD 3 is included again as Appendix A for reference.

#### 3.1 Approved Generation Rates

Following traffic generation rates have been adopted as part of the approved OWE Master Plan and MOD 3 studies:

- 1.892 vehicles per day per 100 m<sup>2</sup> of GFA, and
- 0.163 peak vehicles per hour per 100 m<sup>2</sup> GFA.

#### 3.2 Approved MOD 3 Projected Traffic Generation

Accordingly, the approved TIA for MOD 3 estimates the following traffic generation for the OWE:



**Table 6: MOD 3 Approved Traffic Generation**

Precinct No.	GFA m <sup>2</sup>	AM Peak	PM Peak	Daily
Precinct 1 <sup>1</sup>	122,082	94 (103) <sup>2</sup>	74 (78)	2,059 (2,503)
Precinct 2	266,186	677 (920) <sup>2</sup>	468 (629)	3,797 (4,901)
Precinct 3	57,819	94	94	1,094
Precinct 4	113,693	185	185	2,151
Precinct 5	35,640	58	58	674
Amenities	345	-	-	-
<b>Total</b>	<b>595,765</b>	<b>1,108 (1,360)</b>	<b>879 (1,044)</b>	<b>9,776 (11,324)</b>

Note: 1) Detailed first principles traffic generation assessment of Building 1A is included in MOD 2 TIA.

2) Figures in bracket ( ) refer to the peak seasonal traffic generation influenced by Buildings 1A and 2B.

Accordingly, the following maximum peak hour and daily traffic movements (inbound + outbound) have readily been approved for the entire Estate:

- AM Peak                1,360 veh/hr,
- PM Peak                1,044 veh/hr
- Daily:                 11,324 veh/day

Furthermore, the approved MOD 3 traffic report estimates the following AM, PM and Daily peak hour traffic generation for the **Precinct 2** during seasonal peak periods:

- AM Peak    920 veh/hr    (823 veh/hr related to Building 2B operation),
- PM Peak    629 veh/hr    (532 veh/hr related to Building 2B operation), and
- Daily:       4,901 veh/day    (3,784veh/day related to the Building 2B operation).

### 3.3 Future Intersection Layouts

#### 3.3.1 2026 Modelling Scenario (interim)

Indicative layouts of key intersections approved as part of the original SSD and MOD 3 approval are shown in **Figure 4**. Reference should be made to civil engineering drawings, prepared separately by AT&L, for detailed intersection and road designs.



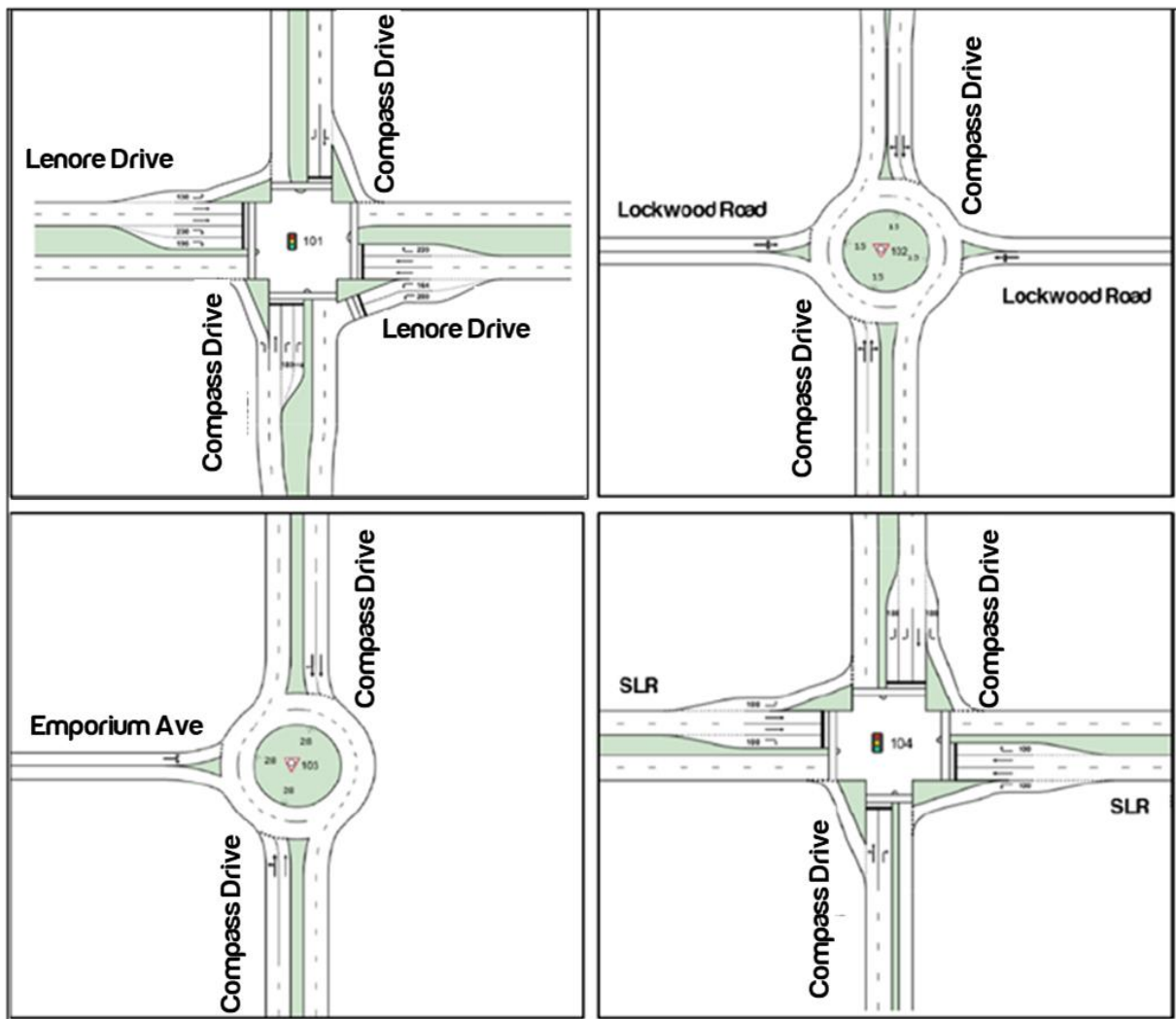


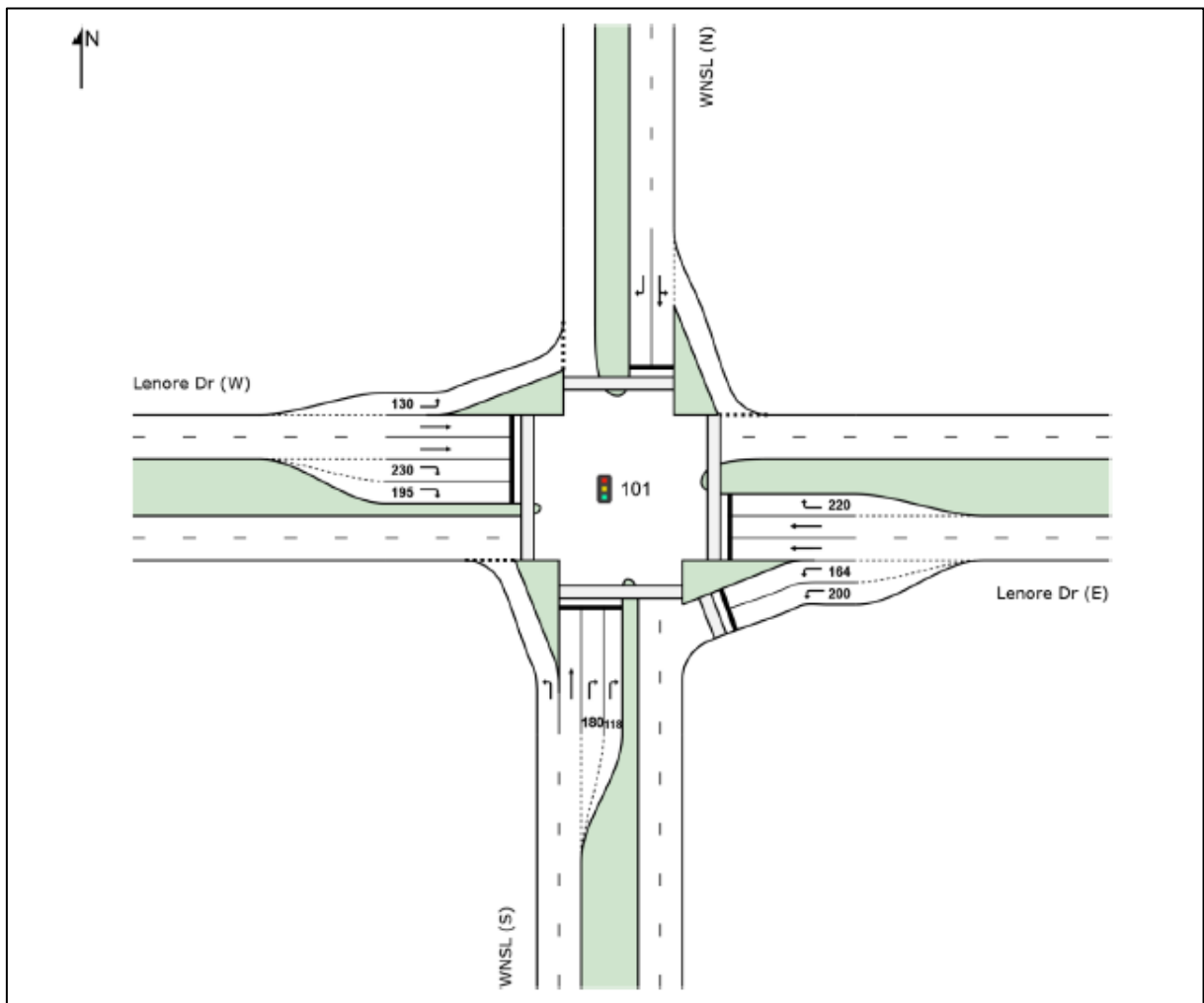
Figure 1: Approved Intersection Layouts – 2026 Modelling Scenario



### 3.3.2 2036 Modelling Scenario (Ultimate)

Furthermore, the original Concept Plan made allowances for potential – additional – upgrades to the Lenore Drive / WNSLR intersection by 2036, should this be deemed necessary by TfNSW at some point in the future. Accordingly, following intersection layout have previously been adopted for the ultimate modelling year (being 2036).

It is emphasised that additional upgrade works at this intersection are not proposed under this application and are generally attributed to additional background traffic growth to 2036. Notwithstanding, similar to the original SSD approval and MOD 3, sufficient space is expected to be provided at this intersection to accommodate the additional turning lanes necessary (as documented in the engineering drawings submitted by AT&L) should these forecast traffic volumes be realised and improvement works be required at some point in the future.



**Figure 2: Lenore Drive / WNSLR intersection (Additional Upgrades) – 2036 Modelling Scenario**



## 4. Description of the Proposal

Full details of the SSD are provided in the Environmental Impact Statement (EIS) which this TA accompanies. As mentioned before, this SSD refers to the design and built-form of Lots 2A, 2C and 2D included in Precinct 2 of the OWE. This SSD is focussed on the on lot 2A, 2C and 2S built-form and compliance matters such as parking provisions and detailed design.

### 4.1 SSD Plans

A reduced scale copy of the SSD plans are provided in below figures for context. For detailed plans, please refer to the architectural package by SBA Architects.

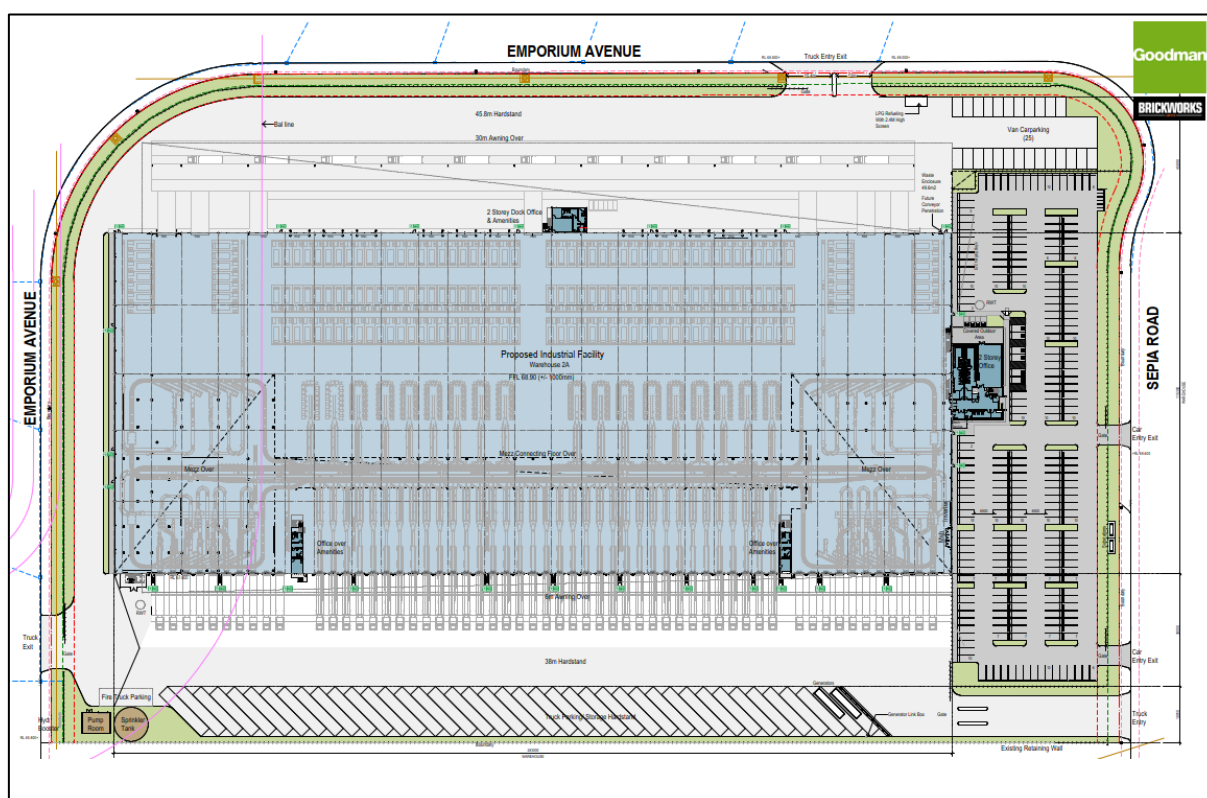


Figure 3: Proposed Lot 2A Warehouse Development



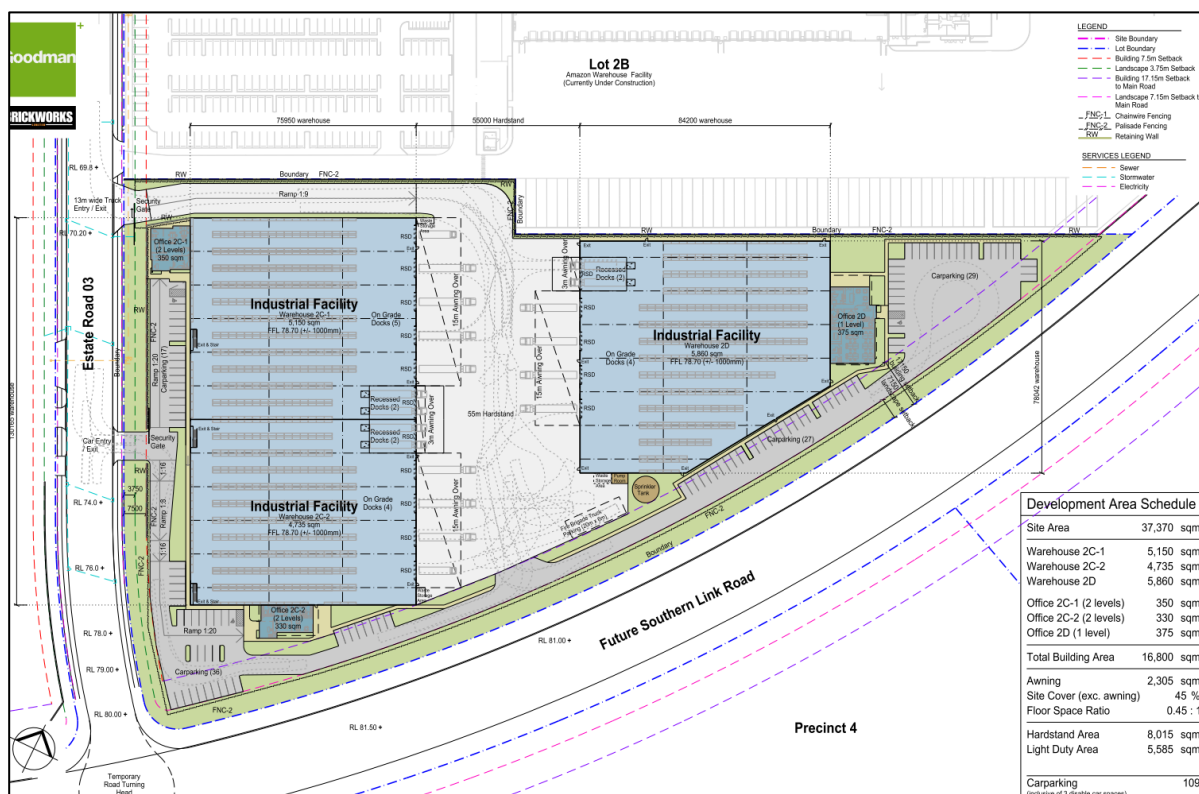


Figure 4: Proposed Lots 2C and 2D Warehouse Developments

## 4.2 Proposed SSD Description

This SSD seeks approval for the Stage 3 Development Application at OWE which broadly can be described as follows:

- Construction, operation and land-use approval of the warehouse and ancillary office facilities at Lots 2A, 2C and 2D with the detailed future on-site provisions outlined in **Table 7**.
- All proposed buildings will function as warehouse and distribution facilities with ancillary office, and
- Proposed warehouses will operate as 24/7.



**Table 7: Proposed SSD Characteristics**

Lot No.	Warehouse GFA (m <sup>2</sup> )	Office GFA (m <sup>2</sup> )	Total GFA (m <sup>2</sup> )	On-site Car Parking Provision	Loading Bay Provisions
2A	42,665 <sup>1</sup>	1,350	44,015	255 <sup>2</sup>	56
2C-1	5,150	350	5,500		7
2C-2	4,735	330	5,065	109 <sup>3+4</sup>	6
2D	5,860	375	6,235		6
Total	58,410	2,405	60,815	361	76

Notes:

- 1) Includes 8,403m<sup>2</sup> of mezzanine GFA
- 2) Includes 6 accessible spaces
- 3) Lots 2C-1 and 2C-2 will share parking. Includes 2 accessible spaces,
- 4) Lot 2D includes 1 accessible space.

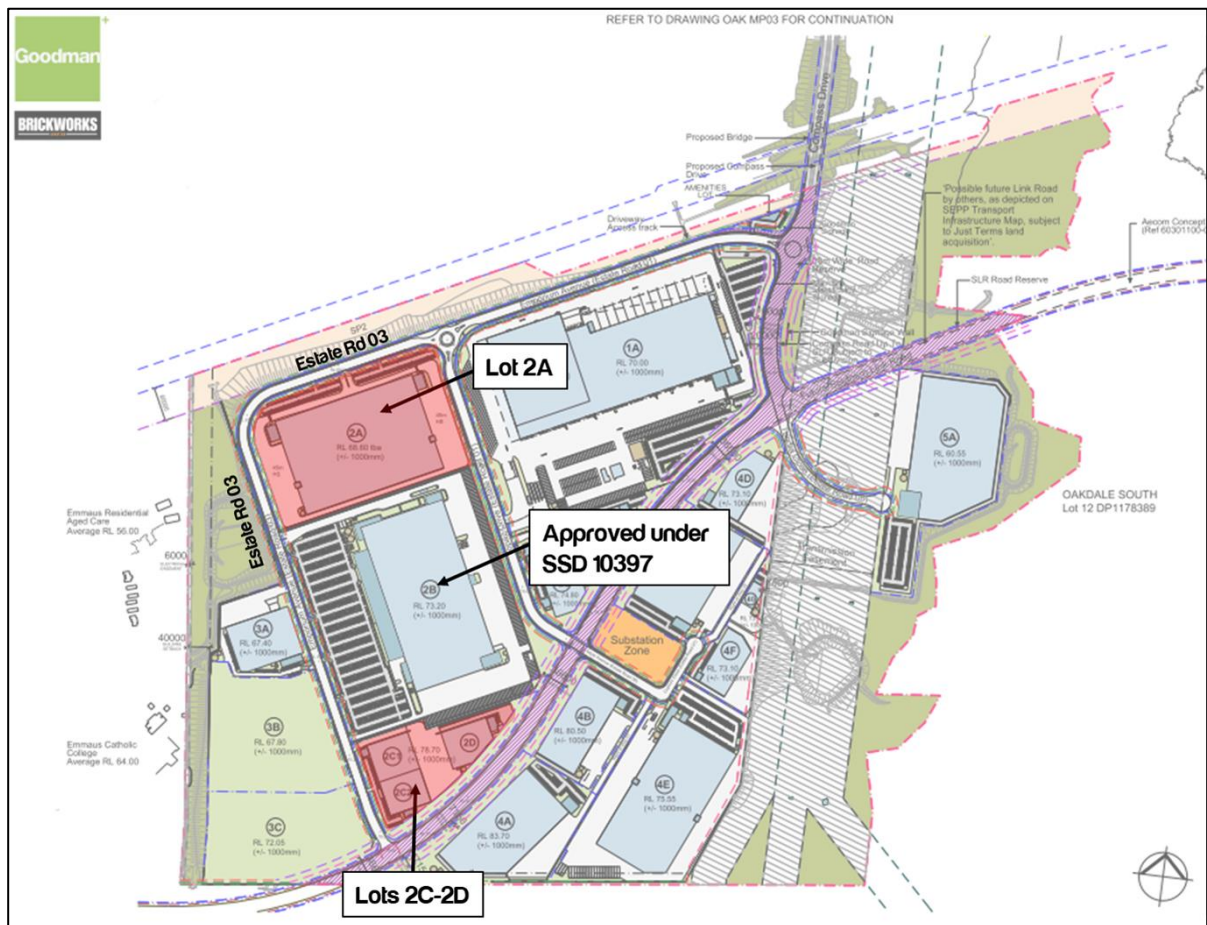
### 4.3 Approved MOD 6 Concept Plan

A reduced copy of the MOD 6 concept plan is presented in **Figure 5** to show an appreciation of the proposed Lots 2A, 2C and 2D locations within the MOD 6 plan. It is again emphasised that MOD 6 is already approved by DPIE, and the proposed development GFAs fall within this approval. Furthermore, an area schedule comparison between the approved MODs 3, 5 and proposed MOD 6 is provided in below table for context.

**Table 8: Area Comparison**

Precinct No.	MOD 3 Approval (GFA, m <sup>2</sup> )	MOD 6 Approval (GFA, m <sup>2</sup> )	Difference Between MOD 3 & MOD 6 (GFA, m <sup>2</sup> )
Precinct 1	122,082	125,198	+3,116
<b>Precinct 2</b>	<b>266,186</b>	<b>269,390</b>	<b>+3,204</b>
Precinct 3	57,819	56,759	(-)1,060
Precinct 4	113,693	112,123	(-)1,570
Precinct 5	35,640	35,640	0
Amenities Lot	345	345	0
<b>Total</b>	<b>595,765</b>	<b>599,455</b>	<b>+3,690</b>





**Figure 5: MOD 6 Concept Plan**

*Note: Lot 2B (Stage 2 DA including 206,968 m<sup>2</sup> GFA combined warehouse and office) has been assessed and approved separately under SSD-10397.*

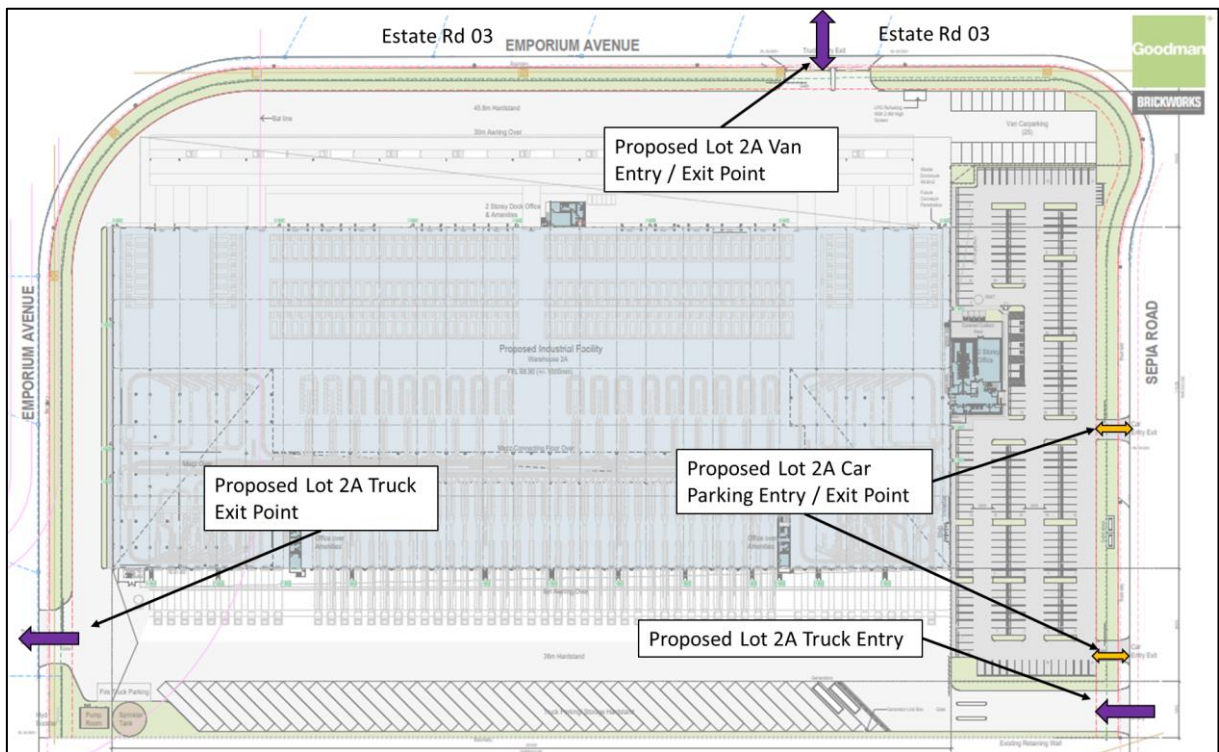
## 4.4 Vehicular Access Strategy

The vehicular access strategy for the development can be summarised as follows:

### 4.4.1 Lot 2A

Lot 2A movements will be facilitated via an access onto Emporium Avenue to northern boundary of the OWE precinct, and a truck entry is provided from Sepia Avenue on the eastern boundary and a truck exit is provided onto Emporium Avenue to the north and Sepia Avenue to the east. Two car entry/exit points will be provided directly onto Emporium Avenue and Sepia Road to facilitate access to the proposed car parking areas (refer **Figure 6**).





**Figure 6: Proposed Lot 2A Vehicular Access**

#### 4.4.2 Lots 2C and 2D

Truck access into the proposed hardstand area associated with Lots 2C and 2D will be provided via a consolidated access onto Emporium Avenue. This access will also provide vehicular connectivity to Lot 2D car parking facility. Proposed car parking facilities associated with Lots 2C-1 and 2C-2 and 2D will be provided via a single vehicular access onto Emporium Avenue. Reference should be made to **Figure 7**.

It is noteworthy that the plan swap has resulted in changes shown below for access into Lot 2D car parking facility.



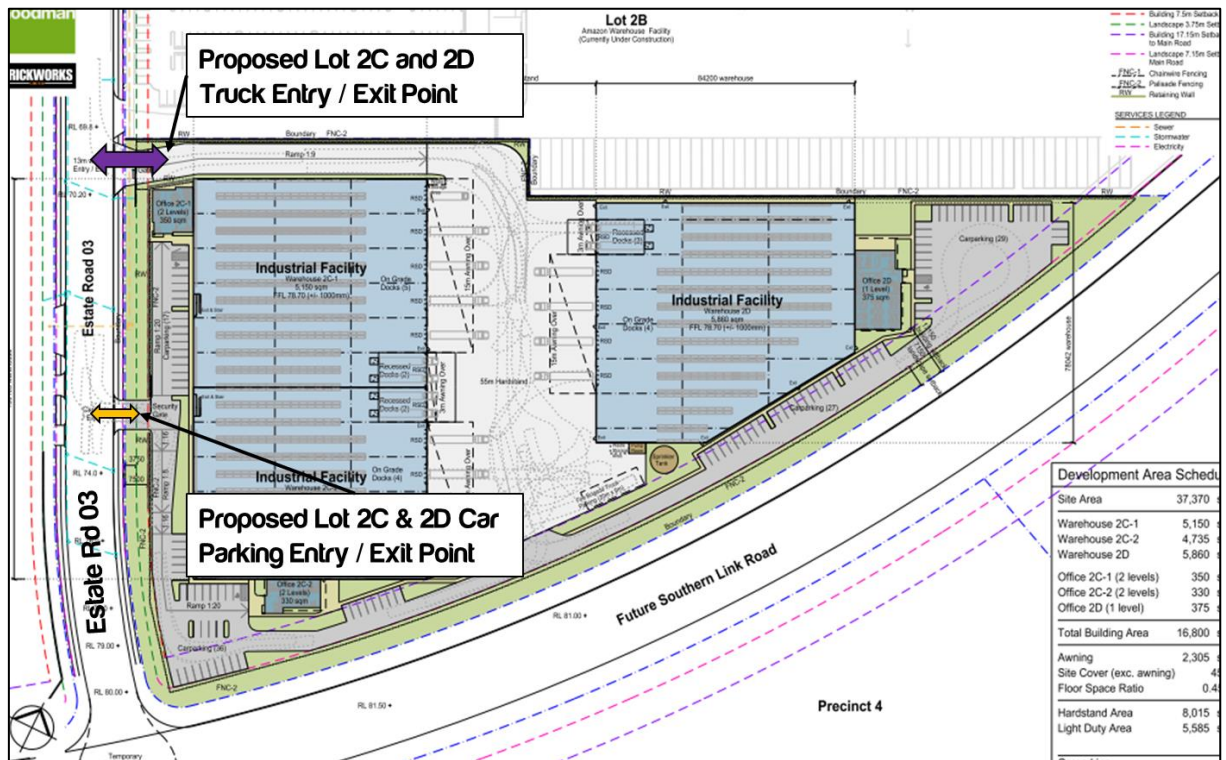


Figure 7: Proposed Lots 2C and 2D Vehicular Access

In summary, the proposed SSD will provide sufficient vehicular accessibility for all three warehouses. Design of all these access points have been reviewed against relevant Australian Standards as outlined in Section 8.



## 5. Parking Provisions

### 5.1 Approved Parking Rates

For clarity, the approved car parking rates — in accordance with Condition B13 — are outlined below.

**Table 9: Approved Parking Rates**

Land Use	Parking Rate
Warehouse	1 space per 300 m <sup>2</sup>
Office	1 space per 40 m <sup>2</sup>
Accessible Parking	2 spaces for disability parking for every 100 car parking spaces

### 5.2 SSD Parking Assessment

Applying the approved parking rates result in the following parking requirements for each building.

**Table 10: Car Parking Demand and Supply**

Lots	Warehouse GFA (m <sup>2</sup> )	Office GFA (m <sup>2</sup> )	Total GFA (m <sup>2</sup> )	Parking Requirements	Parking Provision
2A	42,665	1,350	44,015	176	255
2C-1	5,150	350	5,500	26	53 <sup>1</sup>
2C-2	4,735	330	5,065	24	
2D	5,860	375	6,235	29	56
<b>Total</b>	<b>58,410</b>	<b>2,405</b>	<b>60,815</b>	<b>255</b>	<b>361</b>

Note: 1) Lots 2C-1 and 2C-2 will share parking.

As indicated in the table above, the proposed design meets and exceeds the required on-site car parking spaces for each individual Lot.



### 5.3 Accessible Parking

Applying the accessible parking requirement rate (as outlined in Table 9) results in the following accessible parking requirements.

**Table 11: Accessible Car Parking Demand and Supply**

Lots	Parking Provision	Accessible Parking Requirement	Accessible Parking Provision
2A	255	6	6
2C-1	53	2	2
2C-2			
2D	56	2	2
<b>Total</b>	<b>361</b>	<b>10</b>	<b>10</b>

It is evident that the proposed accessible parking meets and exceeds the requirements.

### 5.4 Bicycle Parking

Condition B14 of the approval requires that the applicant shall provide bicycle racks in accordance with the *Planning Guidelines for Walking and Cycling* (December 2004, NSW Department of Infrastructure, Planning and Natural Resources and Roads and Traffic Authority). Accordingly, the following bicycle rates are applicable:

- Staff Bicycle Parking Requirement      3-5% of staff number (for each building)
- Visitor Bicycle Parking Requirement      5-10% of staff number (for each building)

It is noted that the Lots 2C-1, 2C-2 and 2D provide on-site bicycle parking and end of trip facilities as indicated in their respective office plans with the following breakdown:



**Table 12: Bicycle Parking and EOTF Provision**

Lots	Bicycle Parking	End of Trip Facilities	
		Showers	Lockers
2A	24	4	Yes (195)
2C-1	4	2	Yes
2C-2	4	2	Yes
2D	6	2	Yes
<b>Total</b>	<b>38</b>	<b>12</b>	<b>-</b>

It is evident that the proposed bicycle parking and EOTF provision meets and exceeds the requirements.



## 6. Traffic Assessment

### 6.1 Traffic Generation Estimation

This TA refers to the approved MOD 3 traffic report for the assessment of this SSD. In this regard, consideration has been given to the theoretical traffic generation of Precinct 2 (including all Lots) post completion of this SSD and comparing that to the approved OWE generation for MOD 3. This TA reviews the proposed traffic generation in accordance with two different approaches, defined below:

- **Theoretical approach** – using the approved generation rates outlined within Section 3.2 for all precincts.
- **Combined approach** – combination of first principles and generic assessments having regard for the operational information provided for specific building tenants. Specifically, a first-principles assessment for Building 2A and Building 2B (as part of SSD 10397) and adoption of the approved trip rates for all other buildings and precincts for which tenants are not yet known.

#### 6.1.1 Theoretical Traffic Generation

Applying the approved traffic generation rates (refer Section 3.2) to the proposed SSD GFA result in the following estimated traffic generation (two-way, inbound + outbound):

**Table 13: SSDA Traffic Generation**

Lots	GFA (m <sup>2</sup> )	AM Peak	PM Peak	Daily
2A	44,015	72	72	833
2C-1	5,500	9	9	104
2C-2	5,065	8	8	96
2D	6,235	10	10	118
<b>Total</b>	<b>60,815</b>	<b>99</b>	<b>99</b>	<b>1,151</b>



### 6.1.2 Combined Traffic Generation for Lot 2 (First Principles Assessment)

The immediate tenant for Building 2A has provided detailed, hourly and daily traffic movements (separated for light and heavy vehicles) in accordance with their operational needs. The other 3 tenancies (2C1-2C2 and 2D) have been treated as per above table:

**Table 14: SSDA Traffic Generation (First Principles)**

Lots	GFA (m <sup>2</sup> )	AM Peak	PM Peak	Daily
2A	44,015	8	48	1,530
2C-1	5,500	9	9	104
2C-2	5,065	8	8	96
2D	6,235	10	10	118
<b>Total</b>	<b>60,815</b>	<b>35</b>	<b>75</b>	<b>1,848</b>

Accordingly, the Proposal is likely to generate a total of 35veh/hr and 75 veh/hr during the AM and PM peaks respectively, and 1,848 veh/day when adopting a combined traffic generation analysis approach. This illustrates a reduction to the approved (MOD 6) peaks volumes of 101 veh/hr in the AM and PM peak periods.

In relation with the 2A traffic generation summary, Ason Group has reviewed the tenant specific traffic profile throughout a typical 24hour period, and it has been established that the majority of their expected vehicular trips would be outside the approved road network AM and PM peak hours (7.00am – 8.00am and 5:00pm – 6:00pm).

## 6.2 Traffic Impacts

As can be seen from the above tables, the proposed SSD will generate **LESS** vehicular trips during road network AM (-64veh/hr) and PM (-24veh/hr) peak hours for Lots 2A, 2C and 2D when compared to theoretical approved trip rates. It is noted that the previous modelling has been undertaken based on the approved trip rates outlined in Table 14 which demonstrates that the SSD traffic can be accommodated through the existing intersections with no additional impact. However, it is acknowledged that the proposed Lot 2A is likely to increase the daily traffic volumes from the approved threshold for Precinct 2. In this regard, an additional assessment has been undertaken to review the cumulative impact of the Precinct 2 traffic in the scheme of the OWE precinct (having regard for MOD 6 approval).



### 6.2.1 SSD Impact on OWE Approved Daily Traffic Volumes

To assess the impact of the SSD on the Precinct 2 approved daily traffic volumes, below cumulative traffic analysis has been undertaken based on the latest tenant-specific information provided to Ason Group:

**Table 15: Traffic Generation Based on First Principles**

Building	MOD 6 First Principles			
	GFA	Trip Generation		
		AM	PM	Daily
Building 1A <sup>1&amp;2</sup>	107,212	79	54	2,222
<b>Building 2A</b>	<b>44,015</b>	<b>8</b>	<b>48</b>	<b>1,530</b>
Building 2B <sup>1&amp;3</sup>	206,968	823	532	3,781
Building 3B-1 <sup>4</sup>	11,000	18	18	208
Building 4E <sup>5</sup>	35,560	18	37	528
Other Buildings within OWE	194,355	317	317	3,677
Amenities	345	-	-	-
<b>Total</b>	<b>599,455</b>	<b>1,263</b>	<b>1,006</b>	<b>11,946</b>

- Note:
- 1) Trip generation during 'seasonal peak' as 'worst-case' scenario.
  - 2) Ason Group, P0950r01v12 SSD MOD 2 TIA\_Oakdale West, dated 21 November 2019
  - 3) Ason Group, P1086r01v7 SSD 7348 MOD 3 & Stage 2 DA TIA\_Oakdale West Estate, dated 15 January 2020
  - 4) Ason Group, P1670r01 DA TA\_Lot 3B, Oakdale West Industrial Estate, dated 13 August 2021
  - 5) Ason Group, P1640r01v1 DA TA\_Lot 4E, Oakdale West Industrial Estate, dated 24 June 2021

The following **Precinct 2** maximum traffic projections comparison have been made against the approved MOD 6 Estate approved thresholds, and includes the first principle assessments of the other buildings within the wider OWE:



**Table 16: Comparison SSD Traffic Generation**

Precinct	MOD 6 (Approved)				OWE Traffic with SSD (First Principles)				Difference			
	GFA	Trip Generation			GFA	Trip Generation			GFA	Trip Generation		
		AM	PM	Daily		AM	PM	Daily		AM	PM	Daily
1	125,198	108	83	2,562	125,198	108	83	2,562	0	0	0	0
2	269,390	925	634	4,962	269,390	861	610	5,659	0	(-)64	(-)24	+697
3	56,759	93	93	1,074	57,204	93	93	1,082	445	+1	+1	+8
4	112,123	183	183	2,121	111,678	142	161	1,968	(-)445	(-)41	(-)22	(-)153
5	35,640	58	58	674	35,640	58	58	674	0	0	0	0
Amenity lot	345				345							
<b>Total</b>	<b>599,455</b>	<b>1,366</b>	<b>1,050</b>	<b>11,394</b>	<b>599,455</b>	<b>1,263</b>	<b>1,006</b>	<b>11,946</b>	<b>0</b>	<b>(-)104</b>	<b>(-)45</b>	<b>+552</b>

The proposed SSD will **DECREASE** the projected peak hour traffic demands by 104 veh/hr during and 45 veh/hr during the AM and PM road network peak hours, respectively. This is considered a moderate decrease in traffic and confirms that this SSD traffic is consistent with previous approval and in fact reduces the traffic pressure during road network AM and PM peak hours.

Notwithstanding, there is an overall increase in the projected daily traffic demands by 552 veh/day (approximately an increase of 4.8% of the approved daily volumes). This increase of vehicles has been identified to arrive and/or depart outside of network peaks and is considered a minor increase in traffic compared to the overall approved volume of 11,394 veh/day.

All intersections assessed within the MOD 3 were approved based on peak periods (i.e., when there is the largest demand on the road network at any time throughout the day). As such, it should be noted that the proposals peak demand is less than forecast, therefore would result in a reduction to network peak demand, improving the road network during these peak times from what has previously been assessed.

Additionally, the introduction of a new bus route is confirmed to provide additional access for workers/visitors within OWE. This new bus service is commencing from 24 October 2021 and will provide direct access to and from St Marys Train Station. This introduction to a direct connection with St Marys Train Station increases the availability for access to the Site via various active transport measures, therefore reducing the use of private vehicles. In addition, the provision of a Green Travel Plan (GTP) is expected



to further reduce demand for private vehicles within The Estate which can further offset the daily increase of traffic. In this regard, a Preliminary GTP is provided in **Appendix C** of this report.

It is also noteworthy to mention that this proposal (including this SSD GFAs) results in no changes to the recently approved GFA for the entire OWE under MOD 6. Hence it can further ascertain that the proposal's trip generation will not have any traffic impact over what has already been approved.

In summary, the projected traffic associated with this SSD will not result in requirements for any additional upgrades onto the surrounding road network during interim (2026) and ultimate (2036) from what has already been approved.



## 7. Preliminary Construction Traffic Management

A detailed CTMP for the construction of Lots 2A, 2C and 2D will be prepared subsequent to the SSD approval and at CC stage of the project.

### 7.1 Haulage Route

It is worth mentioning that this SSD mainly relates to the internal warehouse construction, therefore, the traffic associated with the construction should not be of any issue onto the surrounding road network already designed and approved for operation throughout the entire OWE. Furthermore, it is noteworthy that Compass Drive and its connection to Lenore Drive has been constructed and is operational. In this regard, construction traffic are able to access the Site from Compass Drive and will not access the Site via Bakers Lane / Aldington Road.

### 7.2 Construction Traffic Impact

Noting that the Compass Drive / Lenore Drive intersection is approved for the **operational traffic impacts under MOD 3 approval**, the SSD construction traffic volumes are expected to be lower than the operational traffic generation of the OWE, and therefore not expected to cause any impacts on the operation of the network (and signalised intersection).

### 7.3 CTMP Summary

In summary:

- Construction vehicles will access the Site via Lenore Drive / Compass Drive,
- Lenore Drive / Compass Drive has been modelled for the operational traffic of the entire OWE, therefore, noting that the Estate has not been fully developed, the Lenore Drive / Compass Drive intersection should be able to accommodate the construction traffic for this SSD – noting that the construction traffic volumes are lower than the operational traffic volumes.
- While a separate and detailed CTMP will be prepared as part of the CC stage of the project, this TA suggests that the construction traffic for the SSD will not have any material impact onto the surrounding road network.



## 8. Design Commentary

### 8.1 Relevant Design Standards

The site access, car park and loading areas for all buildings shall comply with the following relevant Australian Standards:

- AS 2890.1 for car parking areas,
- AS 2890.2 for commercial vehicle loading areas,
- AS 2890.3 for bicycle parking, and
- AS 2890.6 for accessible (disabled) parking.

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 are required under D69 (a) condition of consent.

### 8.2 Design Vehicle

All warehouses have been designed to accommodate movements of 30.0 metre Super B-Doubles as the design vehicle.

### 8.3 Estate Roads

All Estate Roads, intersections and junctions thereof have been designed to accommodate trucks up to 30.0 metre Super B-doubles. Reference should be made to the turn paths drawings prepared by AT&L, provided separately.

### 8.4 Access and Internal Design

Internal hardstand area as well as the vehicular accesses to all warehouses are capable of accommodating the design vehicles. In this regard, consideration should be given to the swept path analysis included in **Appendix B**.



## 9. Summary & Conclusions

Ason Group has been engaged by Goodman Property Services (Aust) Pty Ltd (Goodman) to prepare a Transport Assessment (TA) to assess the traffic and parking implications associated with development of Lots 2A, 2C (2-C1 and 2C-2) and 2D within the Oakdale West Estate (OWE). This TA has been prepared to support the SSD-9794683.

### 9.1 Key Findings

The key findings of this TA are as follows:

- The estimated proposed SSD traffic generation having regard for the approved traffic generation rates and first principles assessment are as follows:

Lot No.	GFA m <sup>2</sup>	AM Peak	PM Peak	Daily
2A	44,015	8	48	1,530
2C-1	5,500	9	9	97
2C-2	5,065	8	8	90
2D	6,235	10	10	111
<b>Total</b>	<b>60,815</b>	<b>34</b>	<b>74</b>	<b>1,848</b>

- Traffic associated with the proposed Lots 2A, 2C and 2D has already been assessed as part of the broader concept plan assessment. In this regard, the traffic report accompanying the approved MOD 3 included detailed modelling for the surrounding road network. It is noted that the key intersections within the broader locality were assessed as part of the MOD 3 approval under 2026 interim and 2036 ultimate scenarios.
- Review of traffic generation for each individual building suggests that the proposed SSD will result in a reduction of 104 trips during AM peak hour and 45 trips during PM peak hour. Accordingly, the peak hour impacts of this SSD are LESS than previous approval.
- The proposed GFAs for the Lots being part of this SSD do not change when compared to those approved for Precinct 2 under the MOD 6 approval. Notwithstanding, the trip generation rates for the broader OWE **reduces** during peak periods (104 and 45 veh/hr in the AM and PM peaks, respectively), although increased across the 24hr period (increase of 552 veh/day).
- All intersections assessed were done based on peak periods. As such, it should be noted that the proposal's peak demand is less than forecast within the approved MOD's, and as such results in a reduction to network peak demand - ultimately improving the road network during these peak times.



- In addition, there is also a new bus service providing transport between OWE and St Mary's. This along with a Green Travel Plan is expected to reduce the use of private vehicles, and ultimately reducing network demand.
- In summary, the projected traffic associated with this SSD will not result in requirements for any additional upgrades onto the surrounding road network during interim (2026) and ultimate (2036) from what has already been approved.
- On-site parking provisions for all Lots under this SSD meet and exceed the requirements under B13 condition of consent to the original SSD application. Therefore, the proposed SSD will not result in any adverse parking impact onto the surrounding road network.
- Construction of estate-wide infrastructure is completed. Construction traffic associated with the built-form of the subject Lots – of relevance to this SSD – will require moderate contractor and delivery numbers, such that the construction traffic generation shall remain less than the forecast operation volumes outlined above.
- Furthermore, all construction associated with the SSD will utilise the Compass Drive such that no construction traffic associated with this SSD will require the use of Bakers Lane or Aldington Road. Instead, all vehicles shall arrive via the Compass Drive / Lenore Drive signalised intersection.
- Noting that the Compass Drive / Lenore Drive intersection has been assessed for the operational traffic impacts under MOD 3 approval and the construction traffic volumes which are expected to be of a lower order when compared to the operational traffic, construction traffic will not have any unacceptable impacts on the surrounding road network.
- Detailed design of each individual building is deferred to their respective DA assessment. However, the site access, car park and loading areas for all buildings are expected to comply with the following relevant Australian Standards:
  - AS 2890.1 for car parking areas,
  - AS 2890.2 for commercial vehicle loading areas,
  - AS 2890.3 for bicycle parking, and
  - AS 2890.6 for accessible (disabled) parking.
- 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 any development approval.

## 9.2 Conclusion(s)

In summary, this SSD is supportable on traffic planning grounds and will not result in any adverse impacts on the surrounding road network or the availability of on-street parking.



## Appendix A

### MOD 3 SIDRA Modelling Results



2026 Intersection Performance

Intersection	Control	Period	SSDA 7348 Approval				Modification 3 (Non-peak Seasonal)				Modification 3 (Peak Seasonal)			
			Overall Intersection Delay - LoS	Approach	Average Queue (m)	Average Delay (sec)	Overall Intersection Delay - LoS	Approach	Average Queue (m)	Average Delay (sec)	Overall Intersection Delay - LoS	Approach	Average Queue (m)	Average Delay (sec)
WNSLR / Lenore Drive	Signal	AM	40.3 - C	S	88	54.6	45.8 - D	S	100	54.2	52.7 - D	S	110	57.7
				E	116	38.0		E	129	45.0		E	152	53.6
				N	9	62.8		N	8	62.6		N	8	62.6
		PM	31.7 - C	W	169	31.5	34.9 - C	W	225	39.4	36.2 - C	W	269	47.8
				S	105	28.2		S	109	31.0		S	116	32.6
				E	76	28.2		E	79	31.4		E	82	32.8
WNSLR / Lockwood Road	Roundabout	AM	13.1 - A	N	36	62.5	13.4 - A	N	37	66.7	13.6 - A	N	37	66.7
				W	42	50.5		W	77	50.5		W	85	50.6
				S	6	10.7		S	7	10.7		S	8	10.7
		PM	14.8 - B	E	1	13.1	14.9 - B	E	1	13.4	15.1 - B	E	1	13.6
				N	11	10.9		N	12	10.9		N	13	10.9
				W	1	11.7		W	1	12.2		W	1	12.4
WNSLR / Estate Road 1	Roundabout	AM	12.0 - A	S	16	11.3	11.8 - A	S	16	10.9	11.9 - A	S	16	11.0
				E	2	12.1		E	2	12.7		E	2	12.8
				N	6	10.7		N	8	10.7		N	9	10.7
		PM	15.1 - B	W	3	14.8	13.4 - A	W	4	14.9	14.0 - A	W	4	15.1
				S	6	7.8		S	5	8.2		S	6	8.7
				N	11	12.0		N	11	11.8		N	12	11.7
WNSLR / SLR	Signal	AM	28.4 - B	W	2	11.8	29.1 - C	W	5	11.6	29.5 - C	W	6	11.9
				S	9	6.4		S	9	7.6		S	10	8.0
				N	8	12.4		N	8	11.9		N	9	11.9
		PM	31.5 - C	W	9	15.1	31.6 - C	W	6	13.4	32.4 - C	W	8	14.0
				S	1	35.8		S	2	35.6		S	2	35.6
				E	37	32.0		E	34	30.5		E	34	29.8
SLR x Estate Rd 01	Signal	AM	28.4 - B	N	70	35.1	17.2 - B	N	69	36.4	17.3 - B	N	72	38.2
				W	97	22.8		W	112	24.0		W	117	24.2
				S	5	31.0		S	6	37.8		S	6	37.8
		PM	31.5 - C	E	107	30.8	18.4 - B	E	131	34.7	18.5 - B	E	139	36.0
				N	95	45.1		N	80	42.0		N	80	42.0
				W	98	21.1		W	49	20.6		W	52	21.2
SLR x Estate Rd 03	Signal	AM	17.2 - B	S	17	69.4	13.4 - A	S	17	69.4	16.0 - B	S	17	69.4
				E	71	11.3		E	71	11.3		E	73	11.4
				N	28	71.9		N	28	71.9		N	29	72.3
		PM	18.4 - B	W	154	16.1	16.8 - B	W	154	16.1	20.1 - B	W	160	16.3
				S	41	80.7		S	41	80.7		S	41	80.7
				E	193	15.5		E	193	15.5		E	197	15.7
Estate Rd 01 x Estate Rd 03	Signal	AM	9.3 - A	N	19	80.0	9.3 - A	N	19	80.0	9.3 - A	N	19	80.1
				W	99	12.8		W	99	12.8		W	101	12.9
				E	86	8.9		E	86	8.9		E	112	10.7
		PM	16.8 - B	N	25	44.3	8.5 - A	N	25	44.3	9.8 - A	N	38	49.5
				W	120	12.2		W	120	12.2		W	142	13.6
				E	122	9.6		E	122	9.6		E	135	13.1
Estate Rd 01 x Estate Rd 03	Signal	AM	9.3 - A	N	22	41.2	9.3 - A	N	22	41.2	9.3 - A	N	25	39.6
				W	115	24.0		W	115	24.0		W	120	27.0
				E	1	9.3		E	1	9.3		E	1	9.3
		PM	8.5 - A	S	4	3.0	8.5 - A	S	4	3.0	9.8 - A	S	4	3.0
				W	2	7.6		W	2	7.6		W	2	7.6
				S	1	8.5		S	1	8.5		S	1	9.8
Estate Rd 01 x Estate Rd 03	Signal	AM	9.8 - A	E	2	3.3	9.8 - A	E	2	3.3	9.8 - A	E	5	3.0
				W	2	7.7		W	2	7.7		W	3	7.6
				S	1	8.5		S	1	8.5		S	1	9.8
		PM	8.5 - A	E	2	3.3	9.8 - A	E	2	3.3	9.8 - A	E	5	3.0
				W	2	7.7		W	2	7.7		W	3	7.6
				S	1	8.5		S	1	8.5		S	1	9.8



2036 Intersection Performance

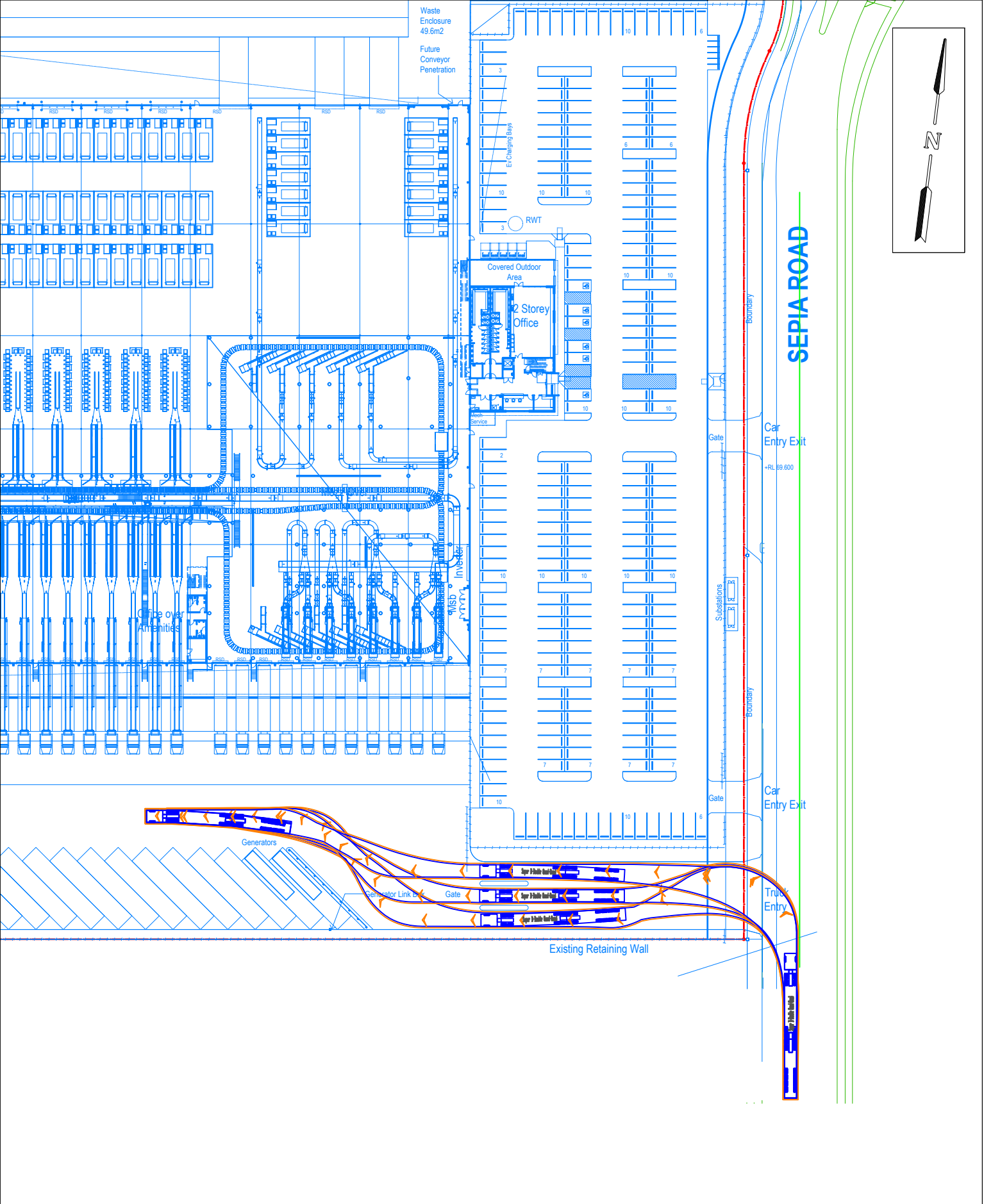
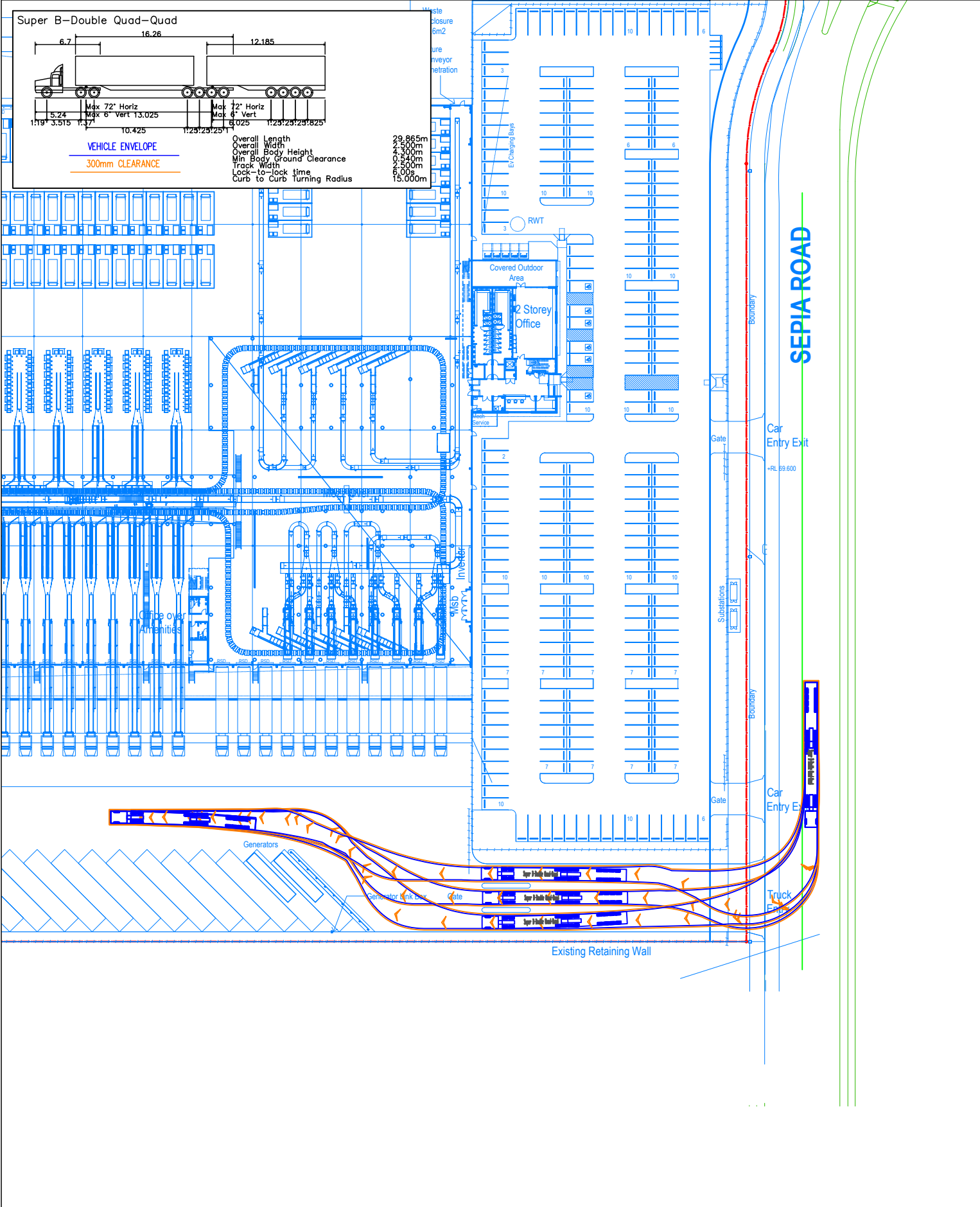
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WNSLR / Lenore Drive	Signal	AM	37.9 - C	S	79	34.3	37.9 - C	S	87	33.5	38.2 - C	S	91	33.1				
				E	125	39.9		E	126	42.3		E	130	42.4				
				N	5	29.3		N	5	28.4		N	5	28.4				
				W	100	38.7		W	110	37.4		W	117	38.3				
		PM	26.9 - C	S	107	22.7	29.6 - C	S	104	24.5	29.6 - C	S	106	24.6				
				E	57	24.8		E	70	26.6		E	74	27.3				
N	19			28.2	N	20		29.0	N	18		28.1						
W	34			52.9	W	34		55.1	W	34		52.3						
WNSLR / Lockwood Road	Roundabout	AM	17.9 - B	S	7	10.7	18.1 - B	S	9	10.8	18.7 - B	S	10	10.8				
				E	1	17.9		E	1	18.1		E	1	18.7				
				N	32	12.1		N	35	12.0		N	38	12.1				
				W	2	12.3		W	2	12.8		W	2	13.0				
		PM	15.1 - B	S	18	11.4	14.9 - B	S	17	11.0	15.1 - B	S	18	11.0				
				E	3	13.3		E	3	14.0		E	3	14.2				
N	10			10.8	N	13		10.9	N	14		10.9						
W	3			15.1	W	3		14.9	W	3		15.1						
WNSLR / Estate Road 1	Roundabout	AM	12.5 - A	S	8	8.0	12.0 - A	S	7	8.3	12.5 - A	S	7	8.8				
				N	38	12.5		N	45	11.8		N	51	11.7				
				W	3	12.2		W	5	12.0		W	7	12.5				
				S	9	6.5		S	10	7.6		S	10	8.0				
		PM	17.7 - B	N	15	12.7	13.7 - A	N	13	11.9	14.3 - A	N	15	11.9				
				W	14	17.7		W	7	13.7		W	8	14.3				
WNSLR / SLR	Signal			AM	40.3 - C	S		2	44.0	51.1 - D		S	4	51.9	53.8 - D	S	4	51.9
						E		59	42.7			E	74	41.7		E	76	41.7
		N	191			44.3	N	243	63.8		N	243	64.1					
		W	146			35.4	W	233	42.6		W	257	48.9					
		PM	40.8 - C	S	12	47.0	40.4 - C	S	10	60.6	52.3 - D	S	11	64.5				
				E	183	52.7		E	196	48.4		E	250	66.1				
N	170			54.2	N	171		55.5	N	222		76.5						
W	63			18.2	W	66		20.9	W	68		21.0						
SLR x Estate Rd 01	Signal	AM	17.8 - B	S	20	80.0	19.7 - B	S	20	81.5	19.7 - B	S	20	81.5				
				E	186	14.4		E	186	14.4		E	281	18.6				
				N	32	83.0		N	32	83.0		N	34	88.6				
				W	190	16.1		W	190	16.1		W	193	15.7				
		PM	19.4 - B	S	44	89.7	30.3 - C	S	44	89.7	30.3 - C	S	47	97.1				
				E	280	17.8		E	280	17.8		E	395	36.6				
N	19			81.2	N	19		81.2	N	19		81.2						
W	128			12.9	W	128		12.9	W	131		13.0						
SLR x Estate Rd 03	Signal	AM	23.2 - B	E	222	18.8	49.4 - D	E	423	40.4	49.4 - D	E	61	76.6				
				N	23	51.0		N	23	51.0		N	61	76.6				
				W	262	25.6		W	262	25.6		W	356	54.0				
				E	235	15.6		E	235	15.6		E	334	26.3				
		PM	26.1 - B	N	31	58.3	38.4 - C	N	31	58.3	38.4 - C	N	44	64.8				
				W	212	38.0		W	212	38.0		W	276	52.3				
Estate Rd 01 x Estate Rd 03	Signal			AM	9.3 - A	S		1	9.3	9.7 - A		S	1	9.7	9.7 - A	S	1	9.7
						E		4	3.0			E	4	3.0		E	5	3.0
		W	2			7.6	W	2	7.6		W	3	7.6					
		S	1			8.5	S	1	8.5		S	1	8.8					
		PM	8.5 - A	E	3	3.3	8.8 - A	E	3	3.3	8.8 - A	E	3	3.3				
				W	2	7.7		W	2	7.7		W	2	7.7				



## Appendix B

### Swept Path Analysis





**GENERAL NOTES**

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

Base Plan (Job No 21220, drawing OAK 2A DA010, revision N, dated 21.10.21) prepared by SBA Architects, received 25.10.21.

Emporium Avenue and Sepia Road planned for a posted speed limit of 50km/h.

Swept path assessments completed at 10 km/h and 300mm clearance.

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Ali Rasouli	01.11.2021
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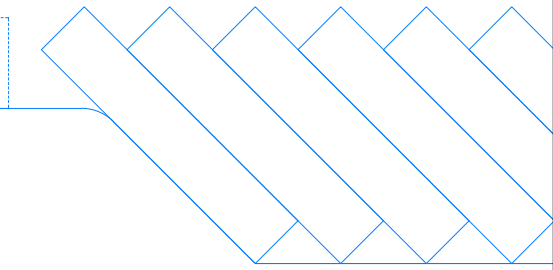
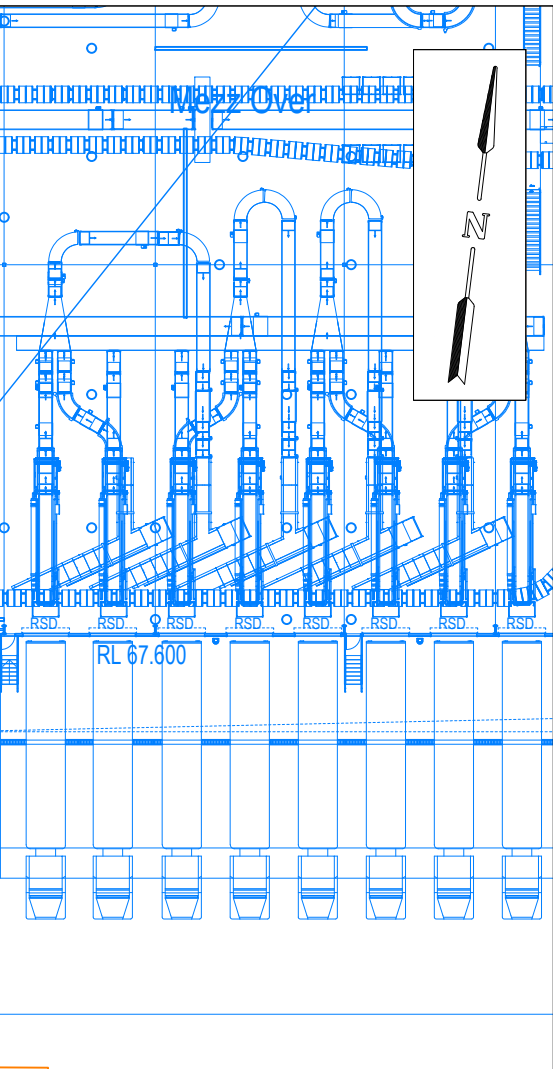
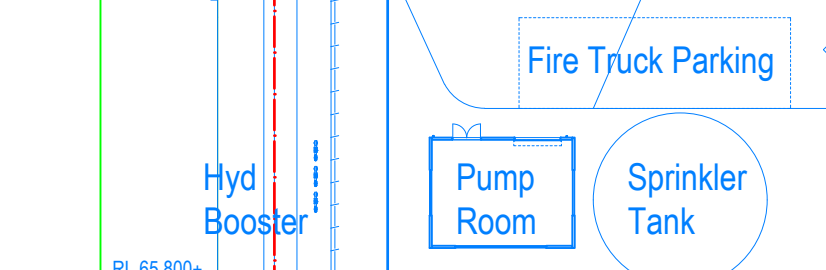
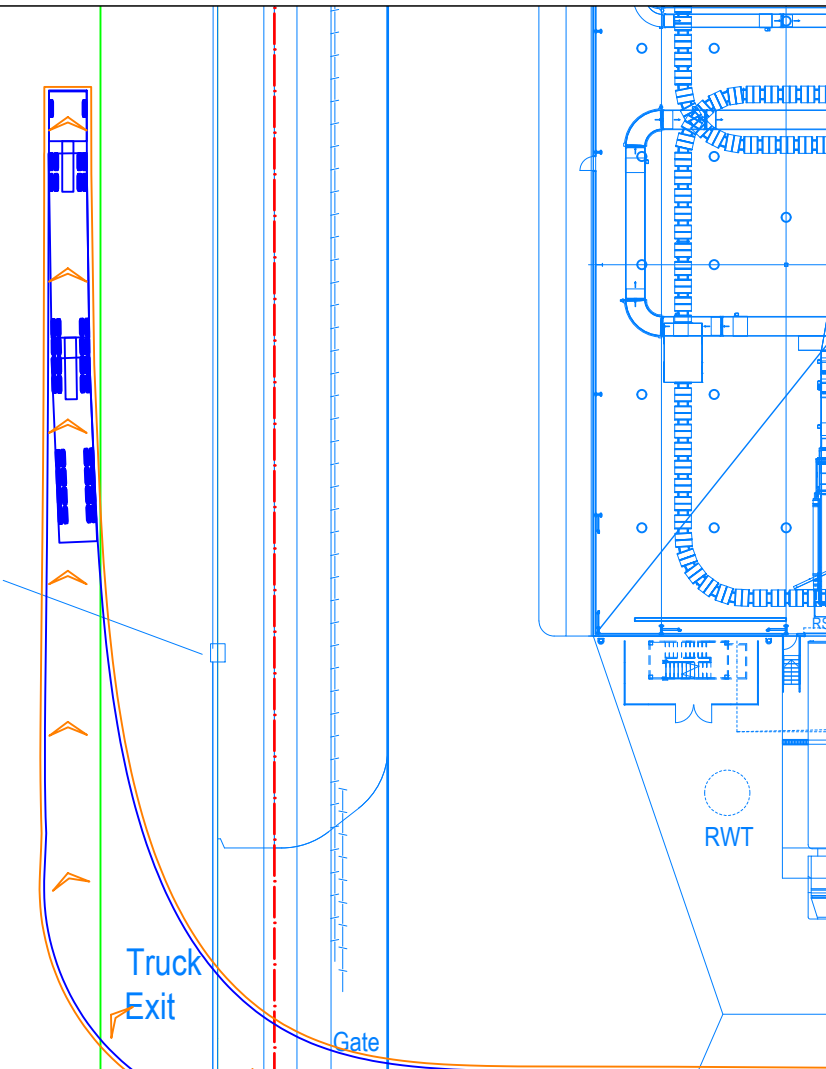
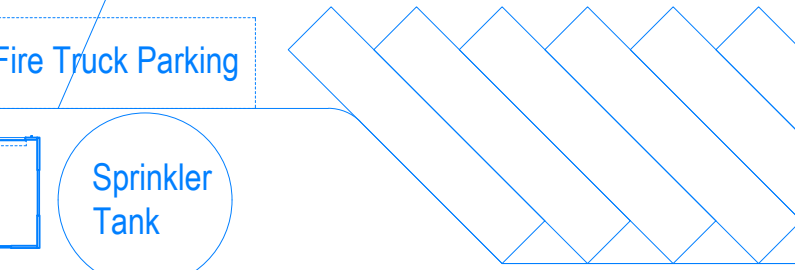
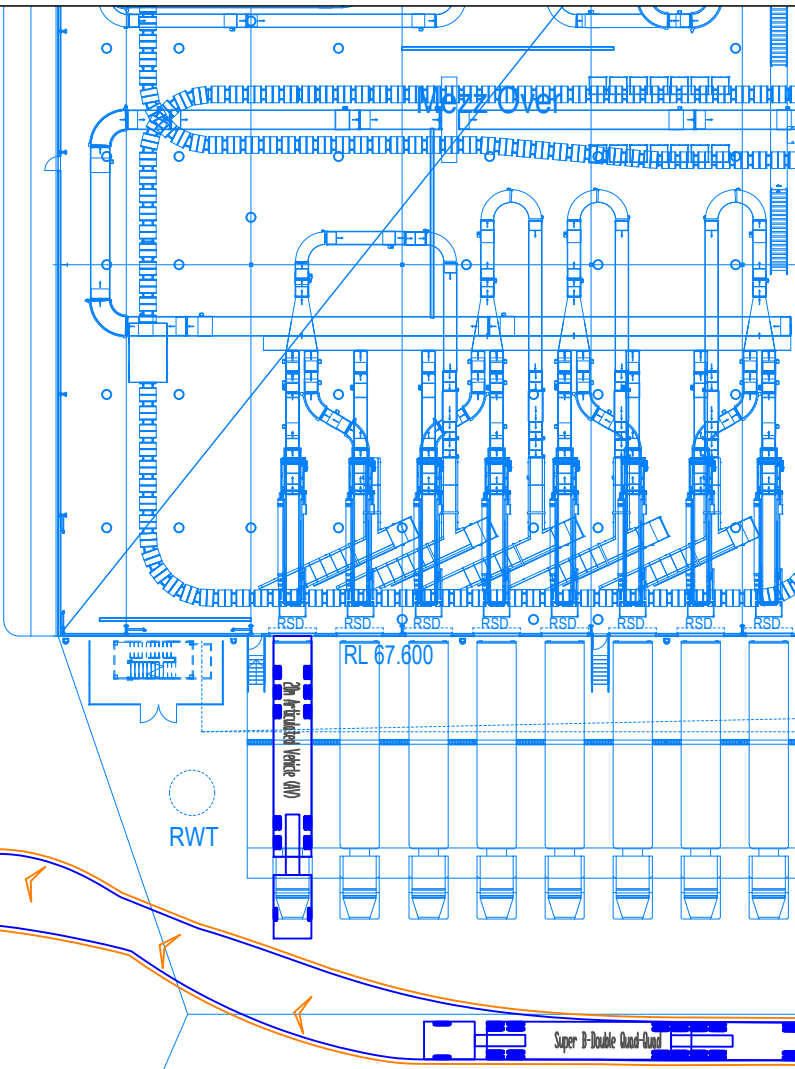
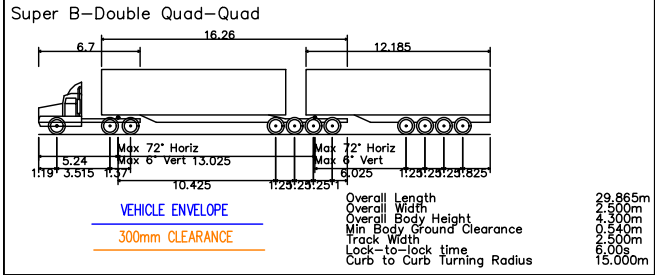
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PROJECT
1518
KEMPS CREEK, NSW

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Swept path assessments completed at 10 km/h and 300mm clearance.

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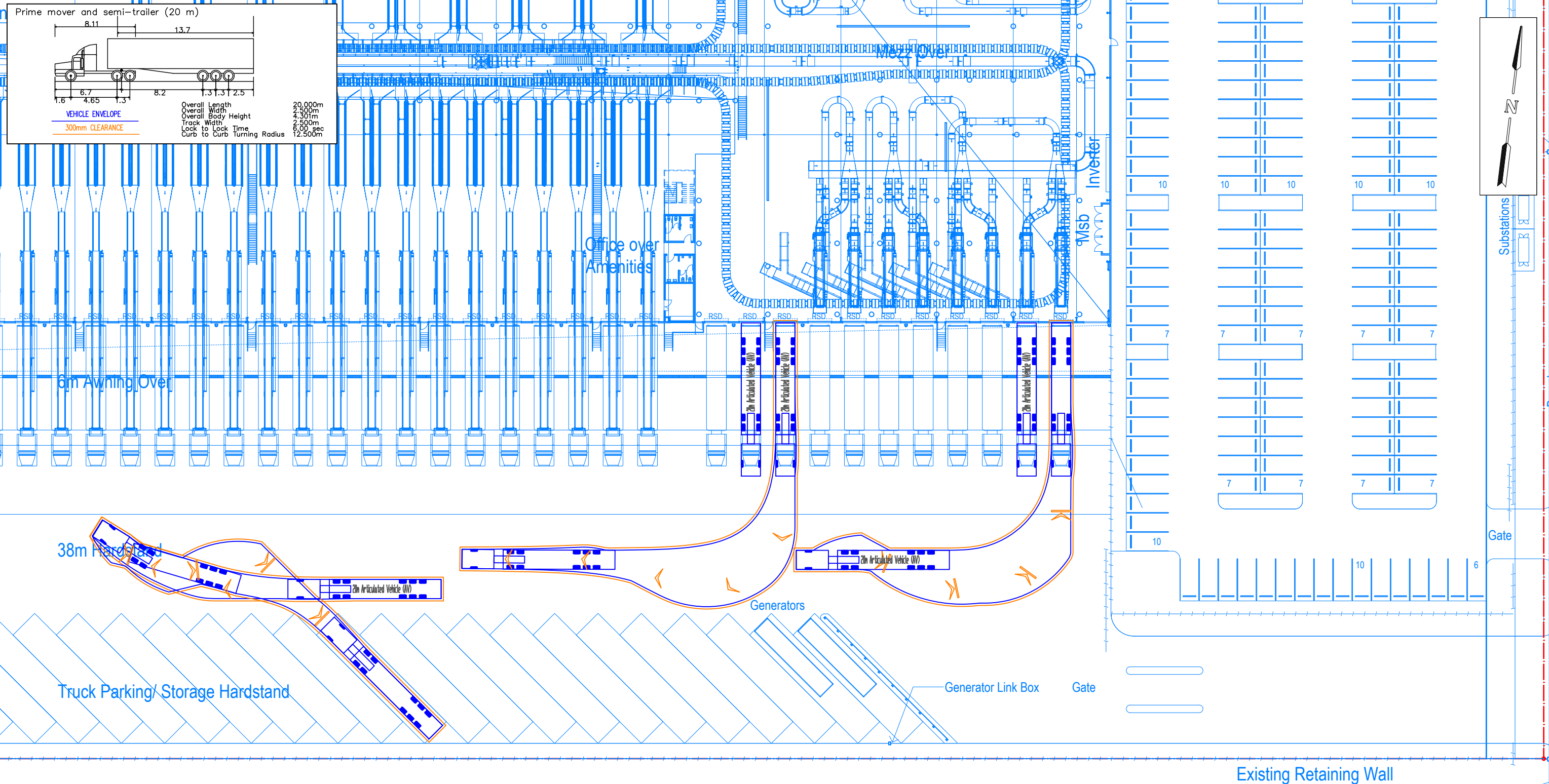
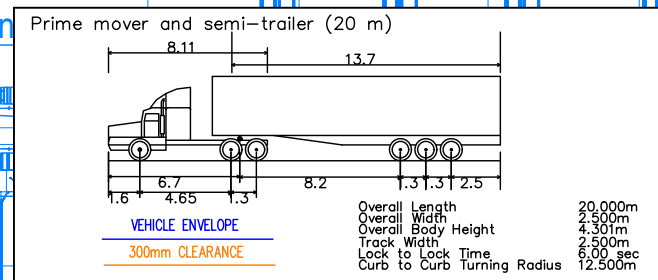
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## DOCUMENT INFORMATION

TRANSPORT ASSESSMENT

## WAREHOUSE 2A SWEEP PATH ASSESSMENT

FILE NAME

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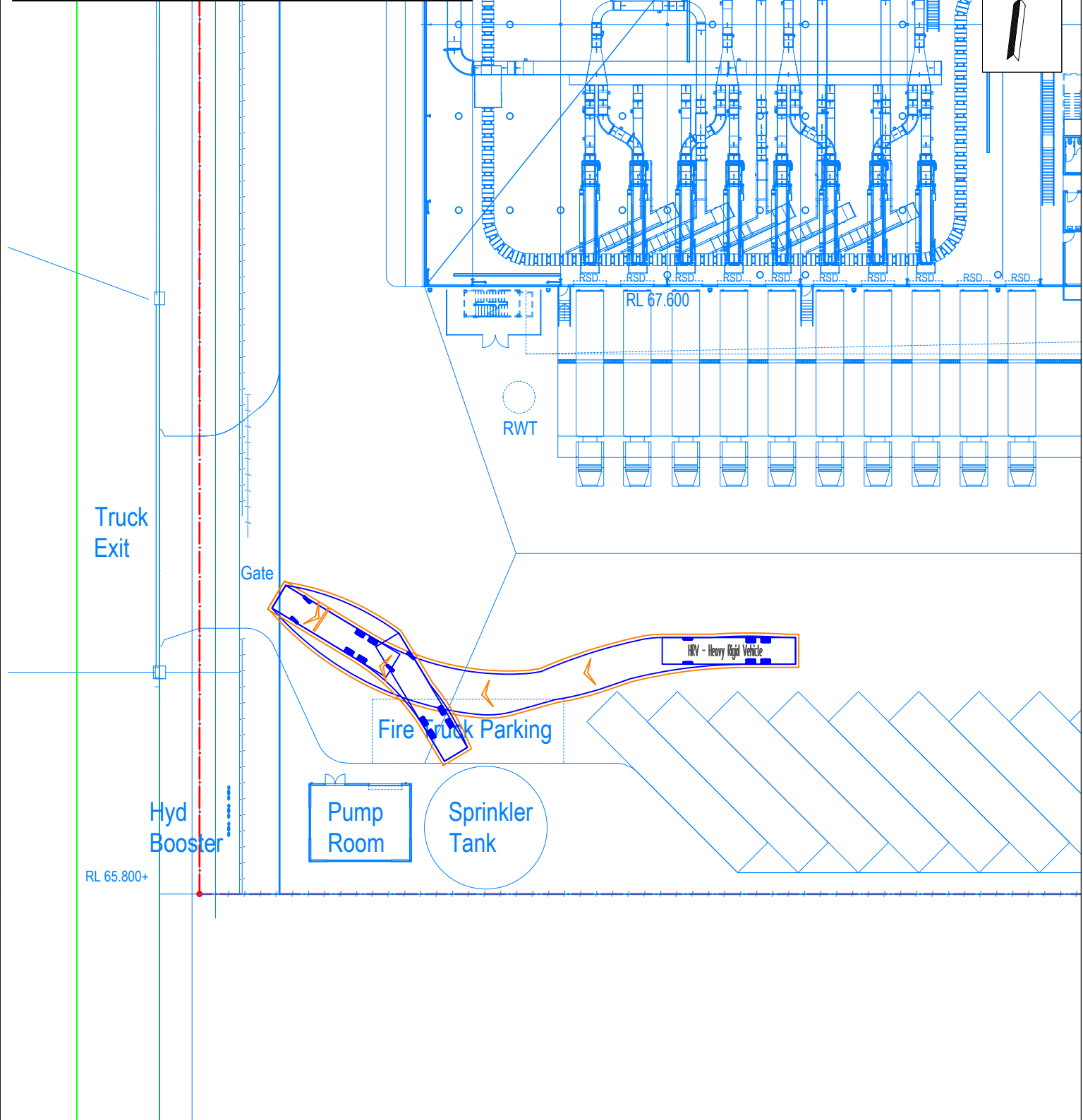
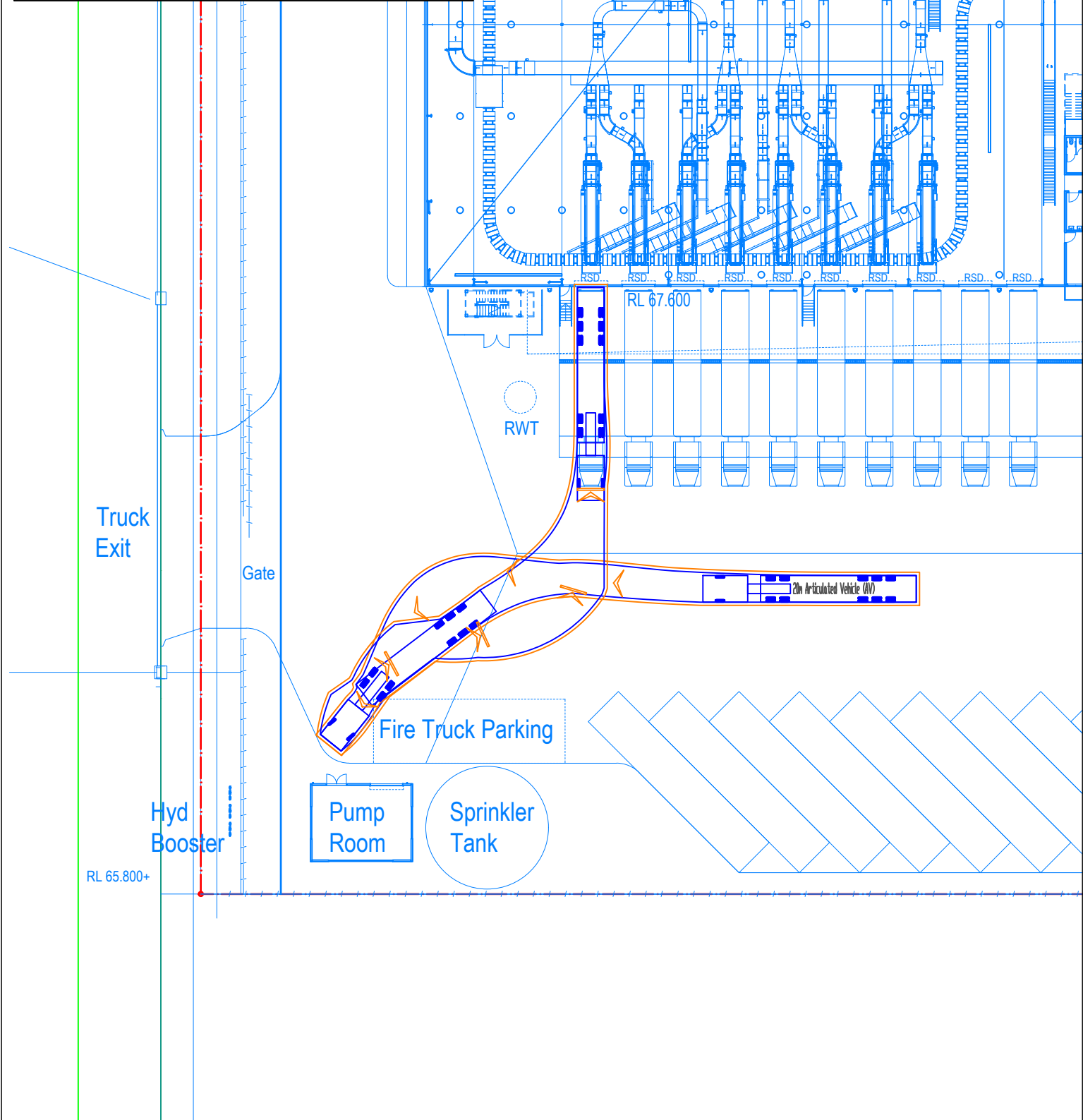
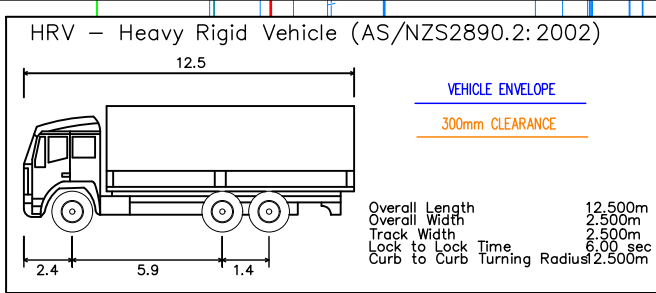
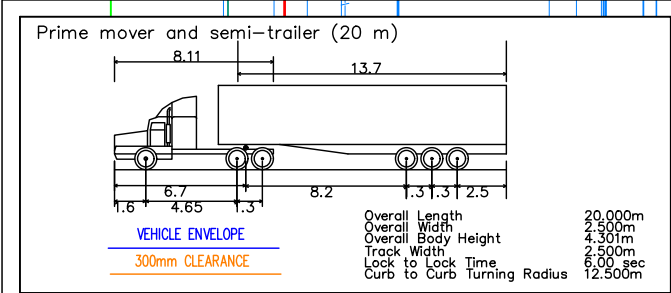
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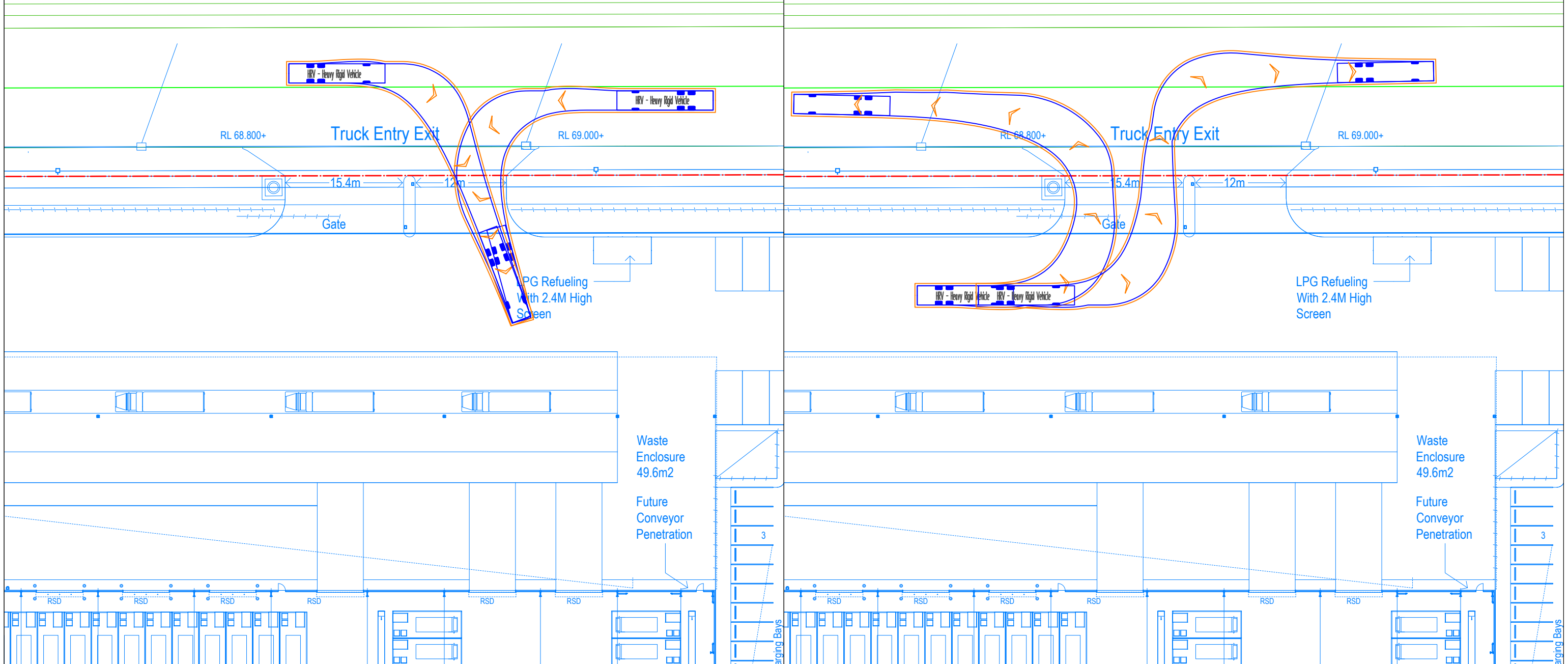
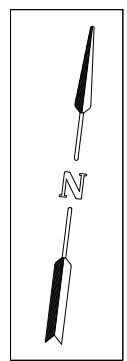
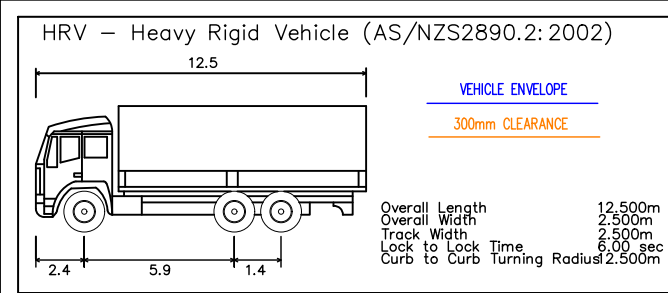
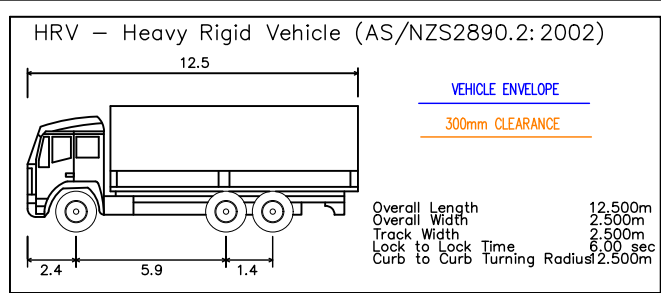
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	Eric Ye	A3	GOODMAN	TRANSPORT ASSESSMENT		
	APPROVED BY	DATE	PROJECT	WAREHOUSE 2A SWEPT PATH ASSESSMENT		
	Ali Rasouli	01.11.2021	1518			
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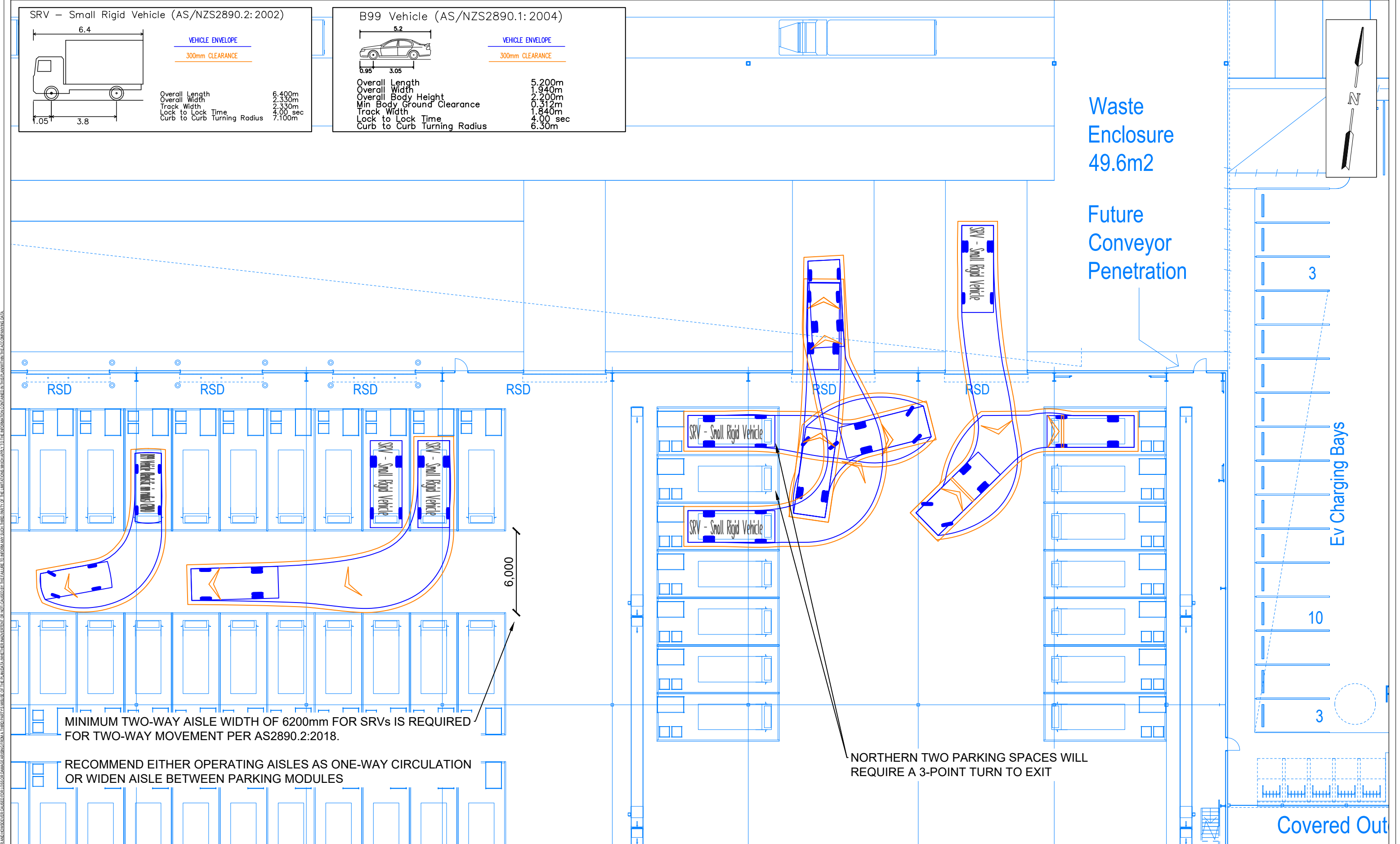


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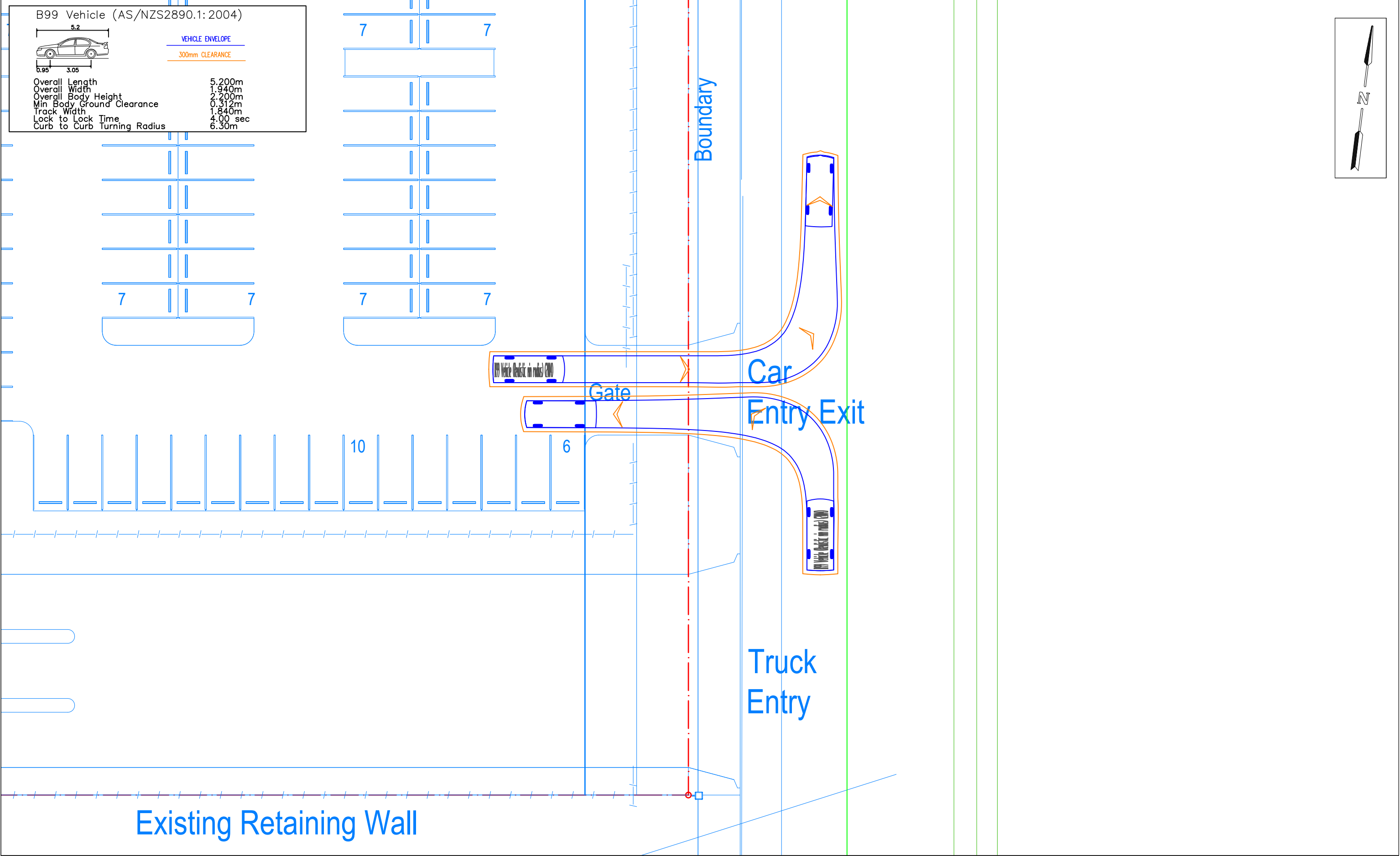




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	APPROVED BY Ali Rasouli	DATE 01.11.2021	PROJECT 1518	TRANSPORT ASSESSMENT	
	SCALE 1:250	0 2.5 5	KEMPS CREEK, NSW	WAREHOUSE 2A SWEEP PATH ASSESSMENT	SHEET AG06



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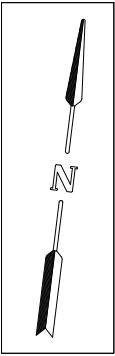
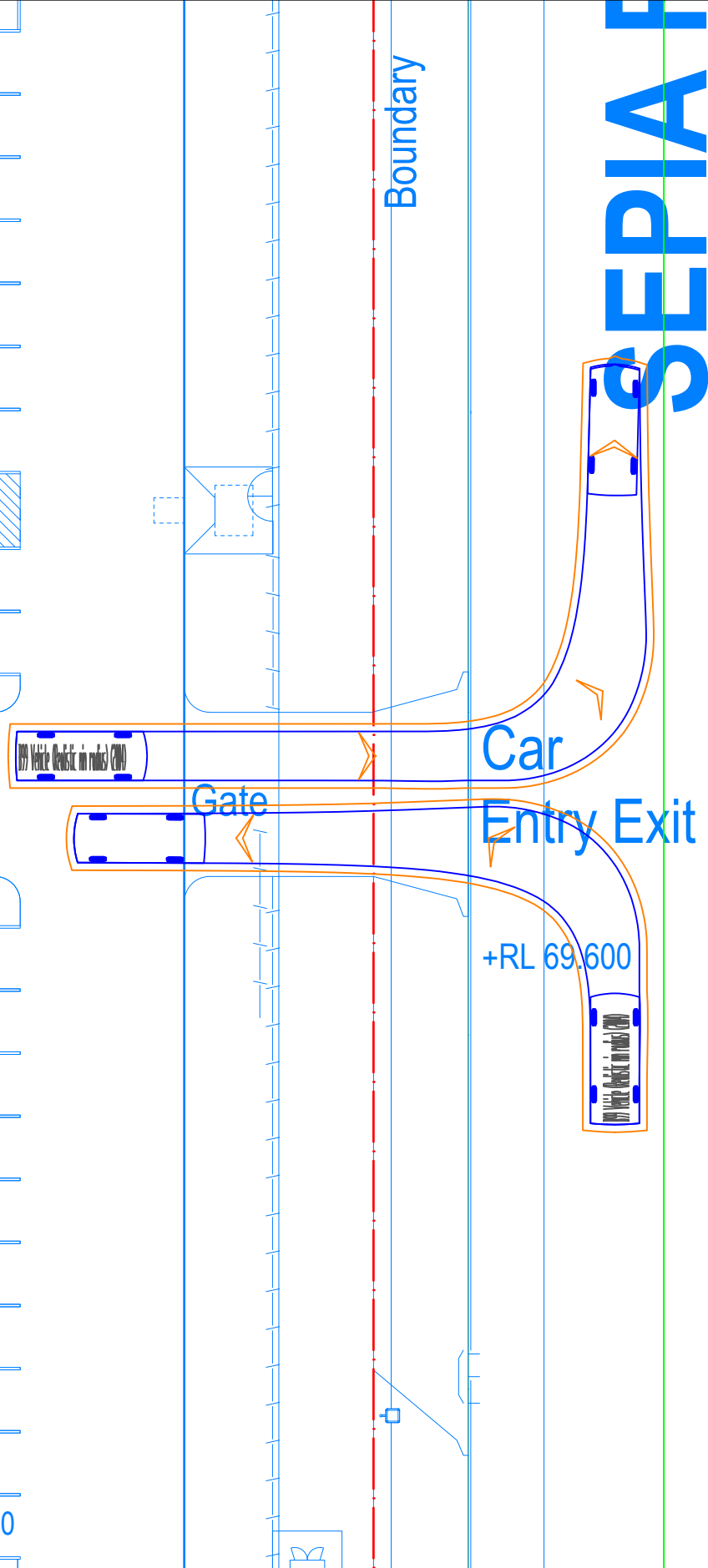
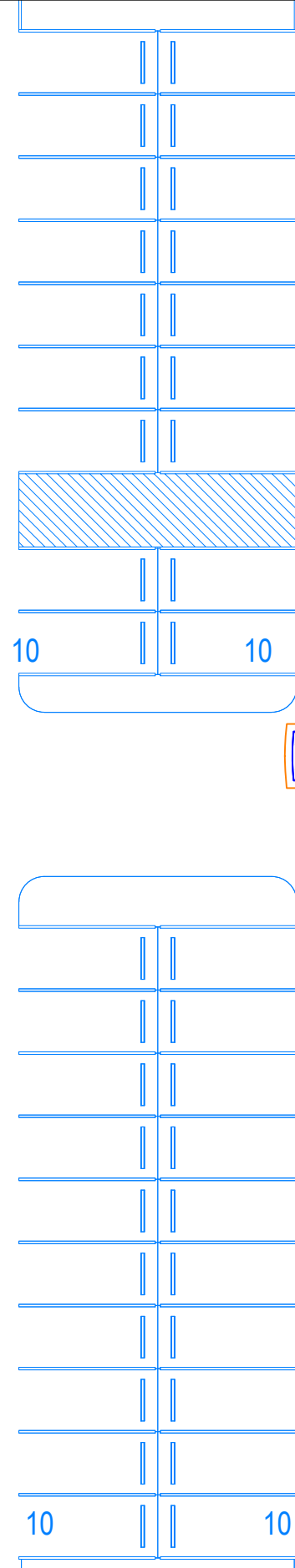
GENERAL NOTES  This drawing is provided for information purposes only and should not be used for construction. Base Plan (Job No 21220, drawing OAK 2A DA010, revision N, dated 21.10.21) prepared by SBA Architects, received 25.10.21. Emporium Avenue and Sepia Road planned for a posted speed limit of 50km/h. Swept path assessments completed at 10 km/h and 300mm clearance.	DESIGNED Eric Ye	PAPER SIZE A3	CLIENT GOODMAN	DOCUMENT INFORMATION	
	APPROVED BY Ali Rasouli	DATE 01.11.2021	PROJECT 1518	TRANSPORT ASSESSMENT	
	SCALE 1:250		KEMPS CREEK, NSW	WAREHOUSE 2A SWEEP PATH ASSESSMENT	SHEET AG07
				FILE NAME AG1518-03-v07.dwg	

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**B99 Vehicle (AS/NZS2890.1:2004)**

VEHICLE ENVELOPE	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min Body Ground Clearance	0.312m
Track Width	1.840m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	6.30m



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Base Plan (Job No 21220, drawing OAK 2A DA010, revision N, dated 21.10.21) prepared by SBA Architects, received 25.10.21.  
Emporium Avenue and Sepia Road planned for a posted speed limit of 50km/h.  
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED Eric Ye	PAPER SIZE A3
APPROVED BY Ali Rasouli	DATE 01.11.2021
SCALE 1:250	

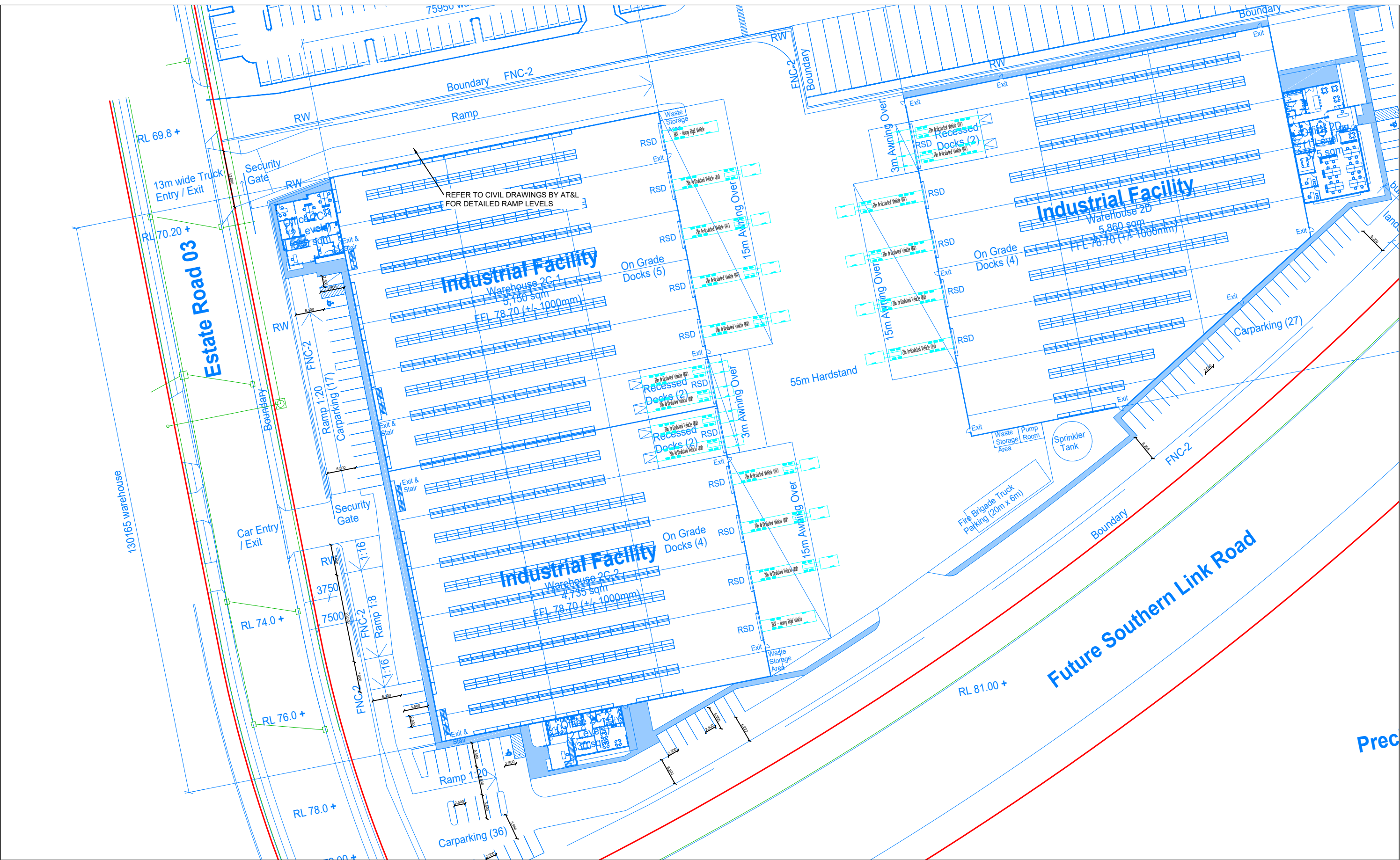
CLIENT
GOODMAN
PROJECT
1518
KEMPS CREEK, NSW

DOCUMENT INFORMATION	
TRANSPORT ASSESSMENT	
WAREHOUSE 2A SWEPT PATH ASSESSMENT	
FILE NAME	SHEET
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Client:

GOODMAN

Project:

1518

OWE - 2C, 2D & 2E

Drawing Title:

Design Review

Date:

15-Oct-21

Scale @ A3:

NTS

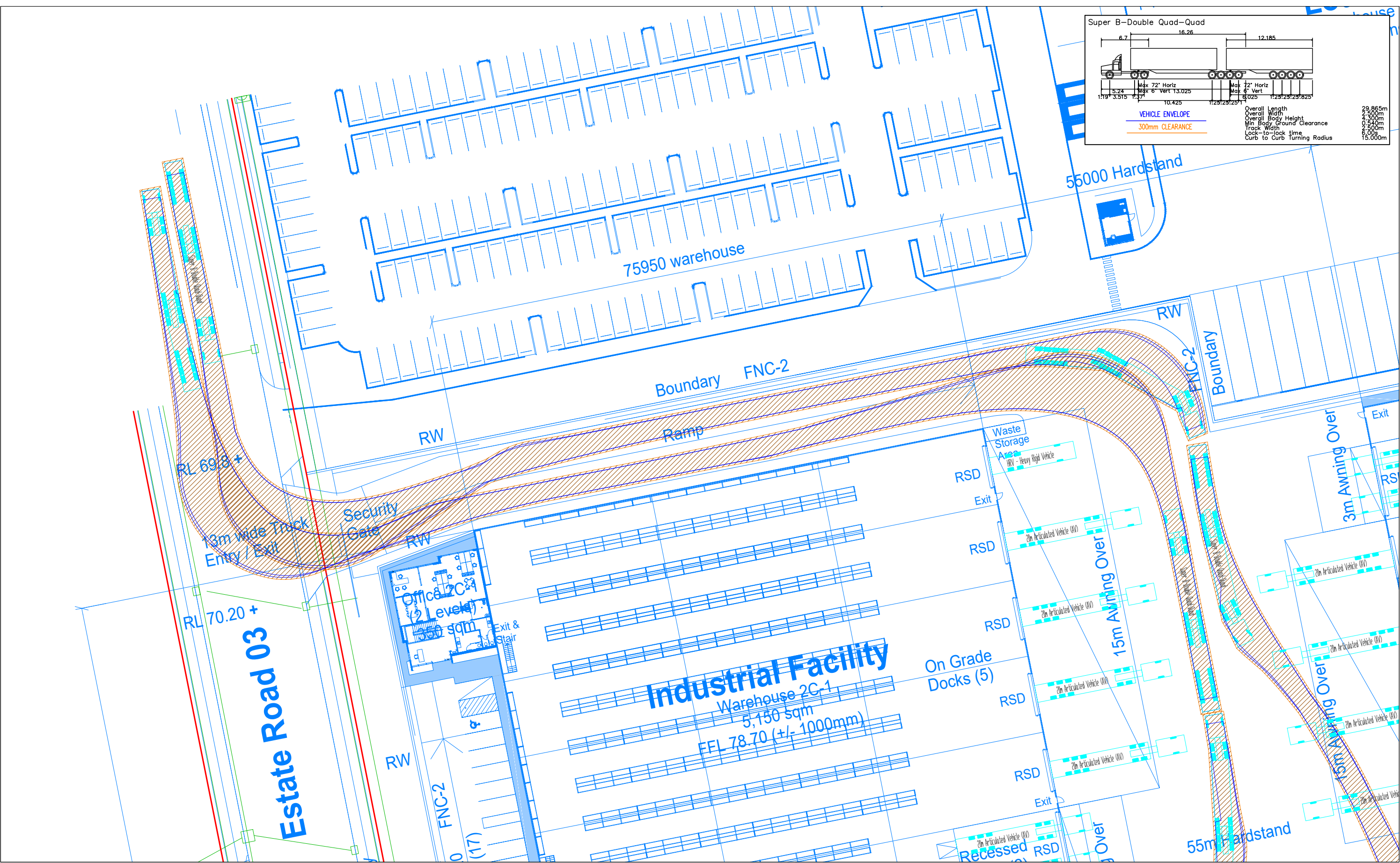
Drawing Number:

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Drawing Title:

Swept Path & Unhitching Location

30.0m Super B-Double

Date:

15-Oct-21

Scale @ A3:

NTS

Drawing Number:

AG.02

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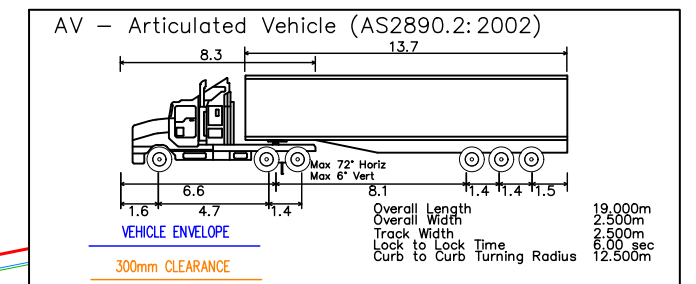
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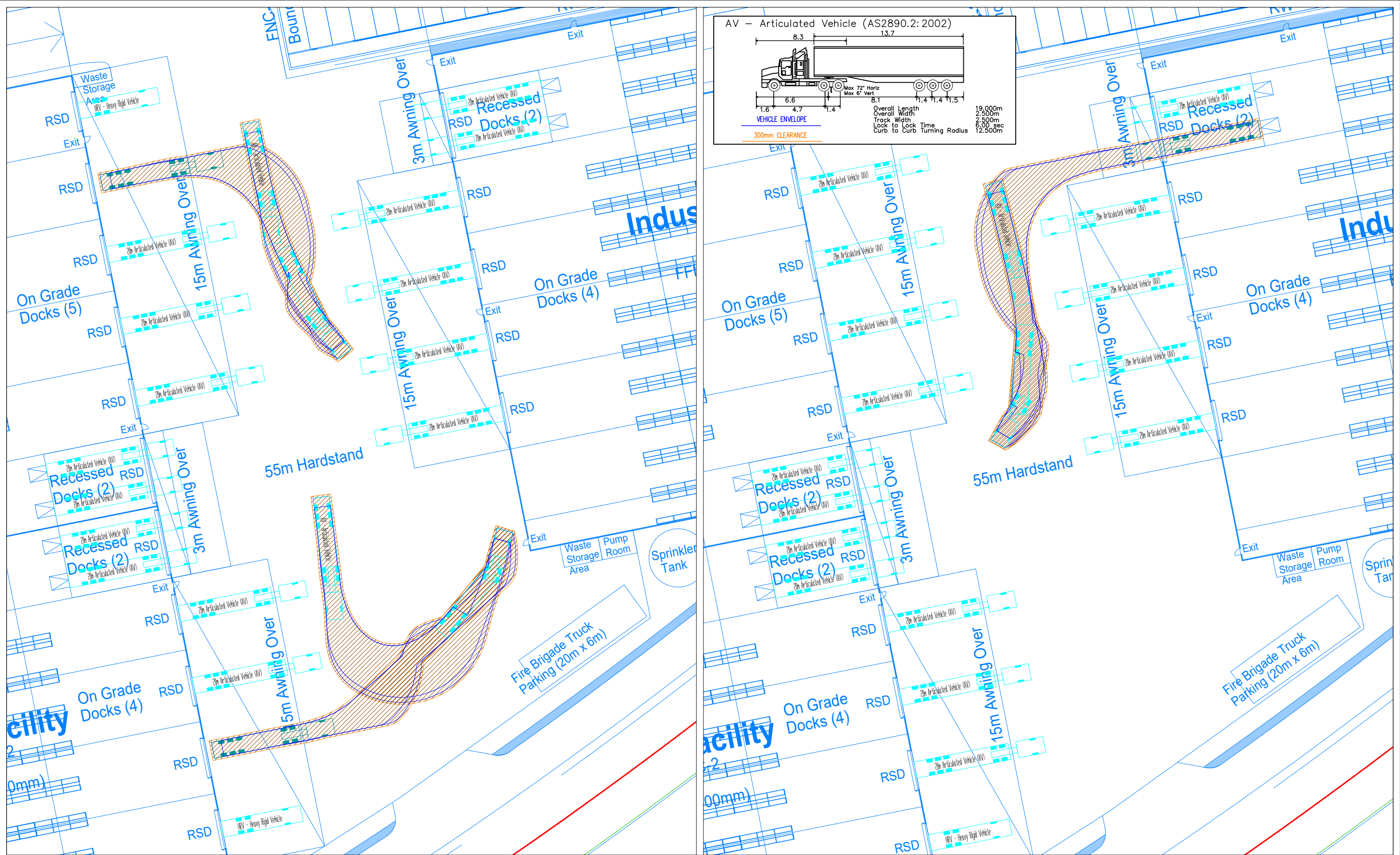






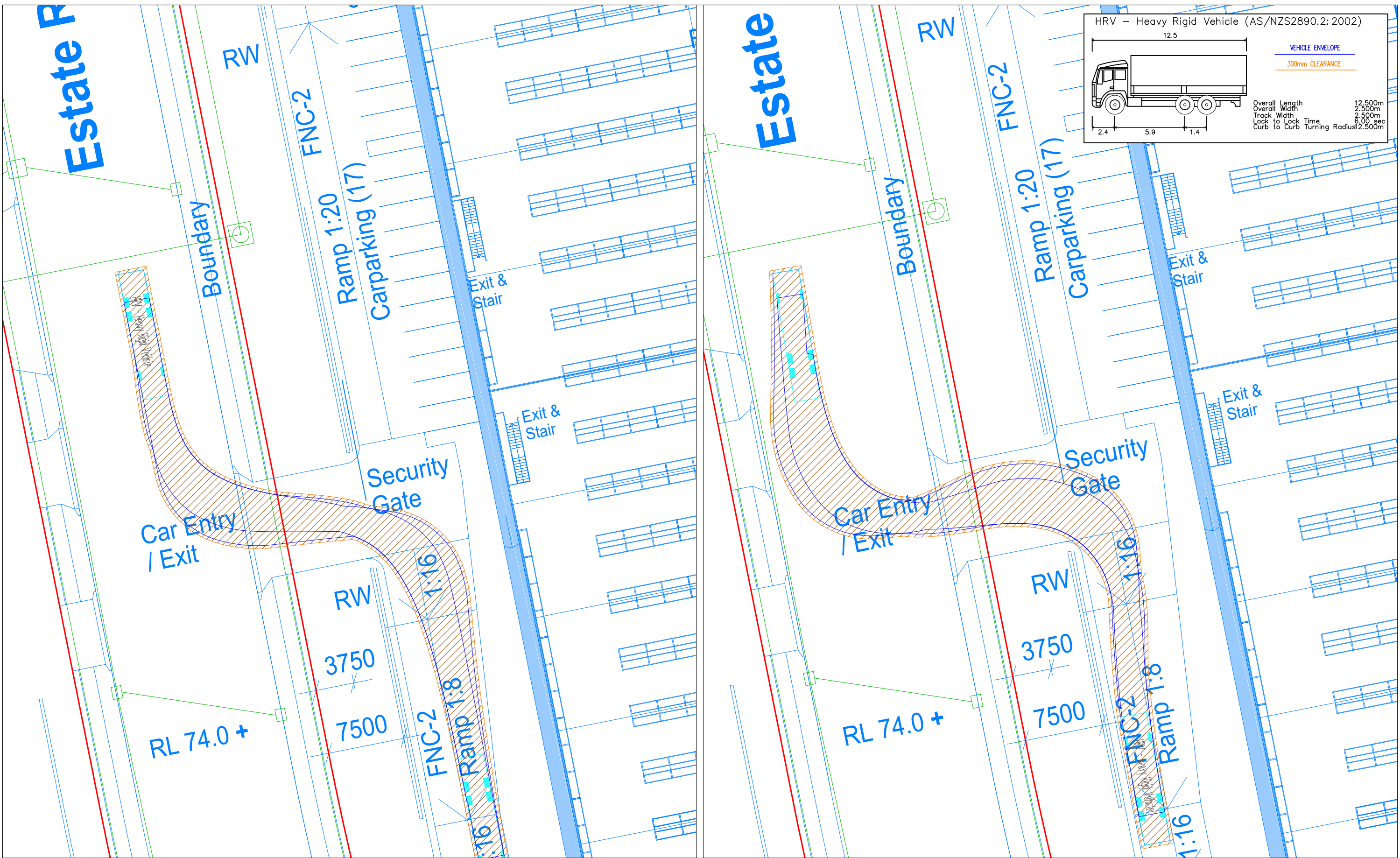






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		<b>Client:</b> GOODMAN	<b>Drawing Title:</b> Internal Movements 19.0m AV's	<b>Scale @ A3:</b> NTS	
				<b>Drawing Number:</b> AG.07	





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File name: 1518d02v8 Warehouse 2C - 2E.dwg

Client:

GOODMAN

Project:

1518

OWE - 2C, 2D & 2E

Drawing Title:

Internal Movements

12.5m Heavy Rigid Vehicles

Date:

15-Oct-21

Scale @ A3:

NTS

Drawing Number:

AG.08

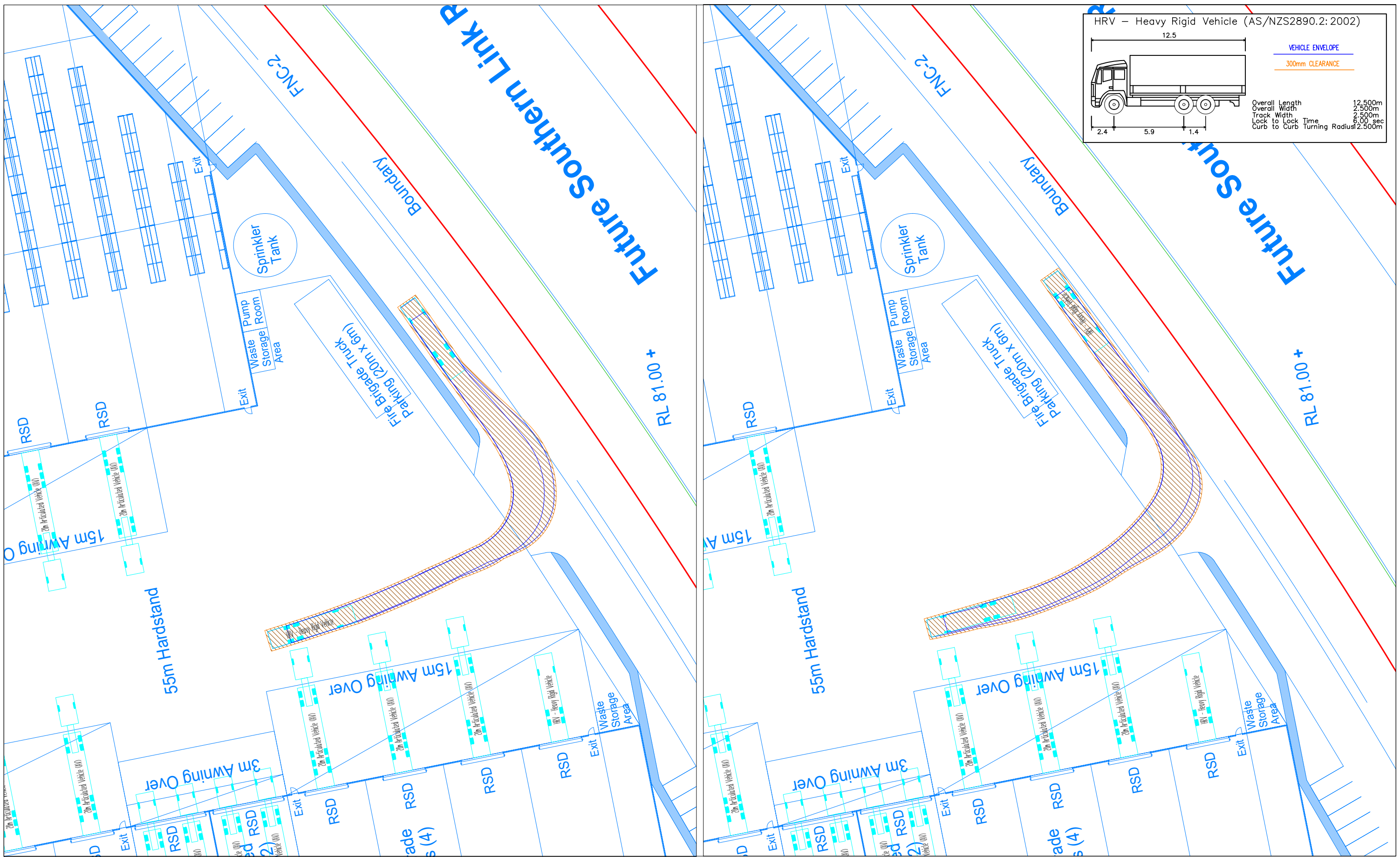
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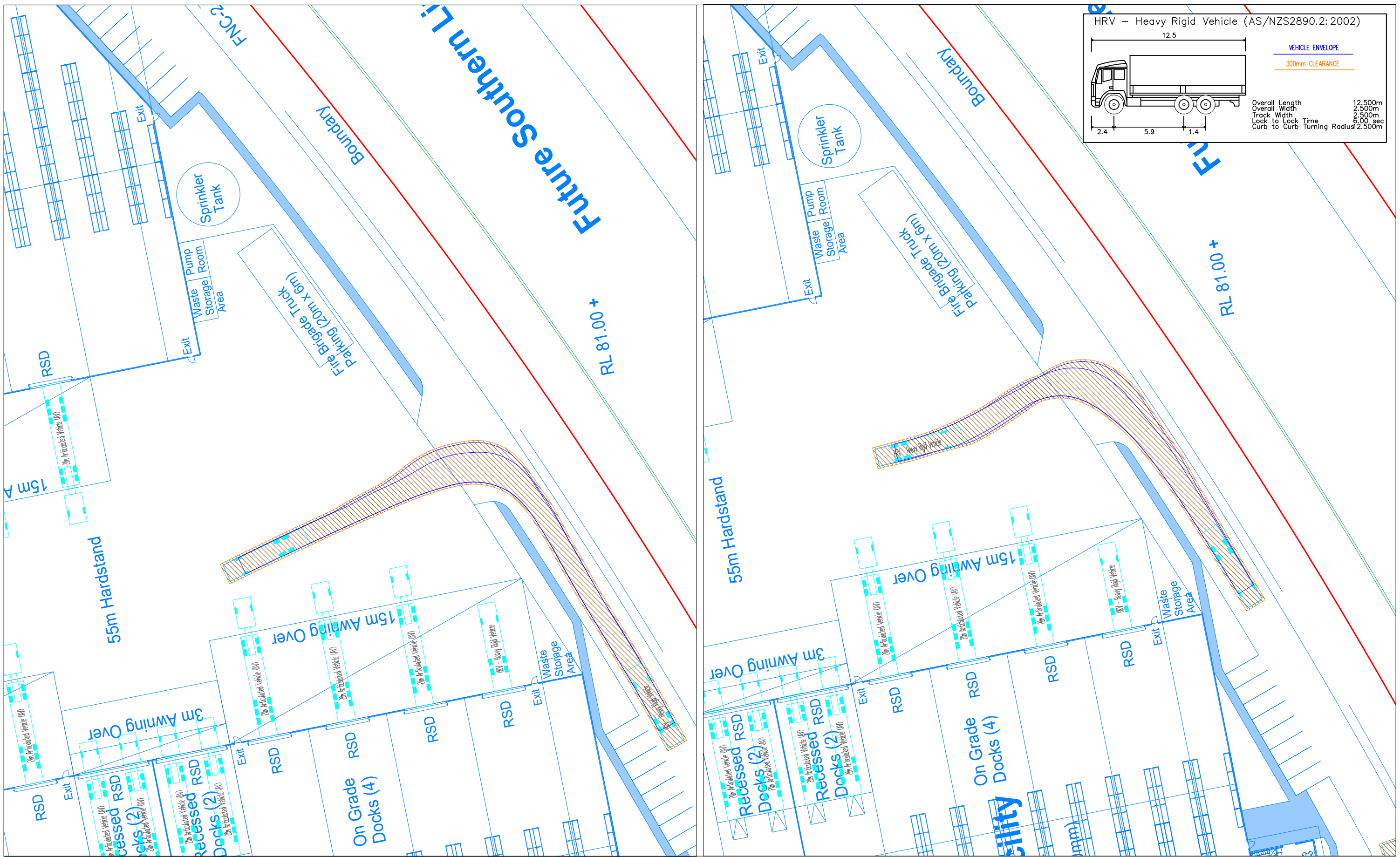






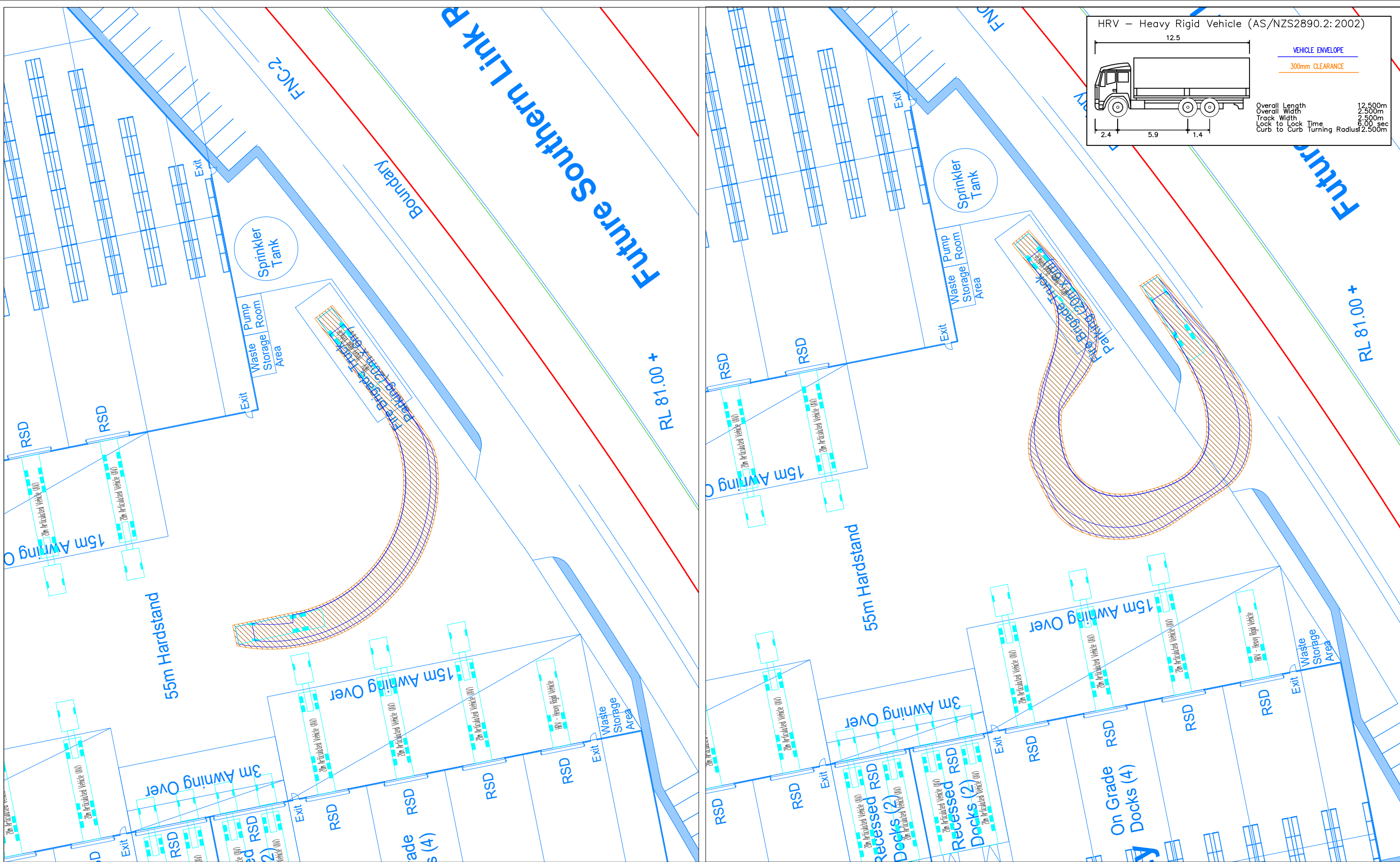
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	<p>Client:</p> <p>GOODMAN</p>	<p>Drawing Title:</p> <p>Internal Manoeuvrability</p> <p>12.5m Heavy Rigid Vehicles</p>	<p>Scale @ A3:</p> <p>NTS</p>	
			<p>Drawing Number:</p> <p>AG.10</p>	





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	<p>Client:</p> <p>GOODMAN</p>	<p>Drawing Title:</p> <p>Internal Manoeuvrability</p> <p>12.5m Heavy Rigid Vehicles</p>	<p>Scale @ A3:</p> <p>NTS</p>	
			<p>Drawing Number:</p> <p>AG.11</p>	





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Client:

GOODMAN

Project:

1518  
OWE - 2C, 2D & 2E

Drawing Title:

Access into Loading docks  
12.5m Heavy Rigid Vehicles

Date:

15-Oct-21

Scale @ A3:

NTS

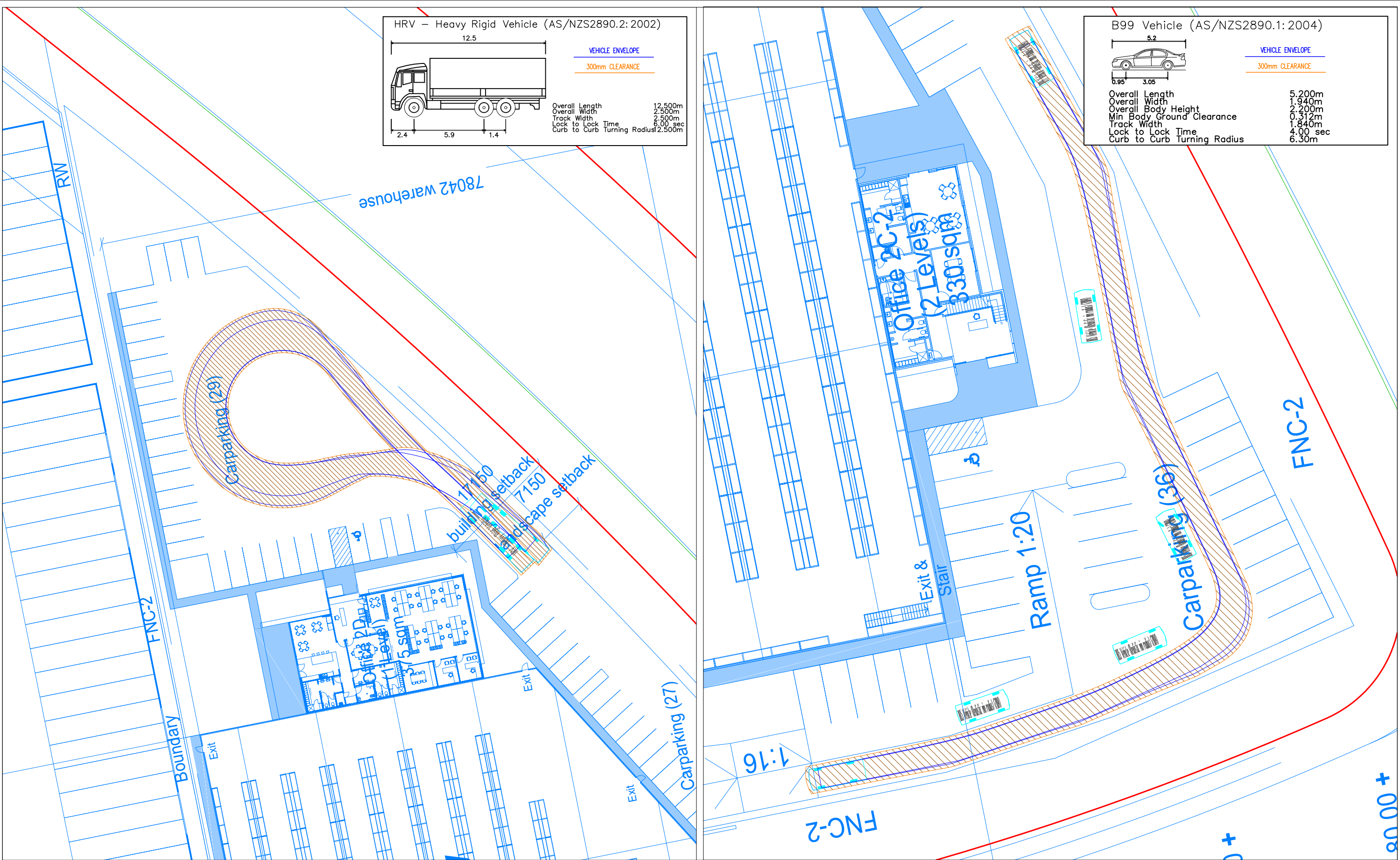
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File name: 1518d02v8 Warehouse 2C - 2E.dwg

Client:

GOODMAN

Project:

1518

OWE - 2C, 2D & 2E

Drawing Title:

Top: 12.5m Heavy Rigid Vehicles

Bottom: B99 Manoeuvrability

Date:

15-Oct-21

Scale @ A3:

NTS

Drawing Number:

AG.13

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## Appendix C

### Preliminary Sustainable Travel Plan



## 10. Preliminary Sustainable Travel Plan

### 10.1 Purpose

This plan sets out objectives and strategies to assist both the DPIE and Penrith City Council in achieving their goals to improve sustainability of work trips for the proposal. This Sustainable Travel Plan (STP) includes a review of the existing transport choices and sets targets so that the effective implementation of the STP can be assessed. These targets are intended to be realistic but ambitious enough to initiate substantive behavioural change to achieve the desired outcomes, given existing and future multi-modal transport networks.

This STP is expected to be coordinated with the site tenants or their representatives. It shall be reviewed and updated regularly as part of an ongoing review to ensure it remains relevant and reflective of current conditions.

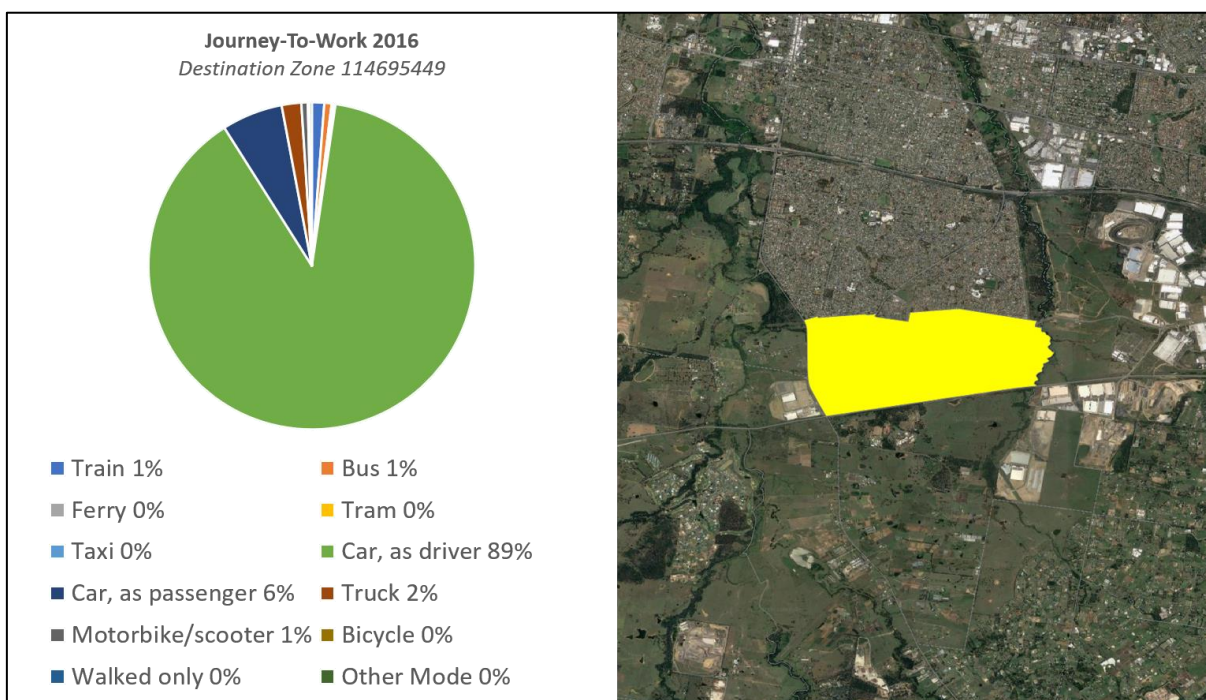
### 10.2 Travel Mode Share Analysis

It is noteworthy that the OWE is still in development, as such existing travel patterns cannot be ascertained at this time. Therefore, for the purposes of the STP, a neighbouring travel zone with existing development, DZN114695449, has been identified and assessed.

Existing travel patterns of employees within the surrounding area were surveyed in the 2016 Census and presented in the Journey to Work (JTW) dataset provided by TfNSW. The JTW information for the surrounding locality is presented in **Figure 6** below.

It is evident that the area experiences a high proportion of private vehicle trips (inclusive of vehicle driver and vehicle passenger modes) and similarly a low proportion of public and active transport modes; reflective of the current availability of non-car opportunities. Accordingly, the mode share analysis indicates a high likelihood for staff associated with the development to use private vehicles as the primary mode of transport.





**Figure 8: Journey-To-Work 2016 Profile**

## 10.3 Strategic Context

### 10.3.1 Western Sydney Employment Area

The Oakdale Precinct is located within the Western Sydney Employment Area (WSEA), part of the Western Sydney Priority Growth Area – planning for which being driven by the DPIE. A key outcome of the project involves providing land opportunity for industry and employment, including improvements in connectivity to benefit transport, logistics, warehousing and office space of the area.

### 10.3.2 North South Rail Link

The North South Rail Link is a rail access corridor supporting the urban growth and employment through the Western Sydney Priority Growth Area, providing connection between the northern growth centres, through the Badgerys Creek and southwards. The corridor study identifies St Marys Station and Schofields Road as junction points for the corridor, passing through the WSEA site and towards the Western Sydney airport. This rail link will provide additional connectivity to Erskine Park and Orchard Hills from the north and south, widening the potential catchment area of employment and improving workplace accessibility for public transport modes.



## 10.4 Surrounding Public Transport Services

### 10.4.1 Railway Services

The *Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area* (Transport for NSW, December 2013) states that rail services influence the travel mode choices of areas within 800 metres (approximately 10 minutes' walk) of a railway station. The closest railway station to the Oakdale West Precinct is Mt Druitt Station, is approximately 7km north of the site. This would imply that commuting by rail would have minimal influence on workplace travel.

It should be noted that several studies conducted for the Broader Western Sydney Employment Area (BWSEA) reference the potential development of connecting freight or passenger corridor to the Site's west, connecting the T1, T2 and T5 lines to Badgerys Creek Airport<sup>12</sup>.

### 10.4.2 Bus Services

Having regard to the standard bus travel, the *Integrated Public Transport Service Planning Guidelines* state that bus services influence the travel mode choices of sites within 400 metres (approximately 5 minutes) of a bus stop. As there are no existing bus services in the proximity of the Site, this implies that bus commuting would have minimal influence on workplace travel.

As outlined in the WSEA, a new regional road network is being developed interlinking the industrial precincts within the region to support the growth and continued development of the area. This presents the potential for an accompanying expansion in the bus service network to connects places of employment within the region.

Following the completion of the internal road network and dedication to Council (Expected to be finalised prior to December 2021), the introduction of a new bus route is confirmed to provide additional access for workers/ visitors within the OWE. This new bus service is expected to comment from 24 October and provide direct access to and St Marys Train Station.

This introduction to a direct connection with St Marys Train Station increases the availability for access to the Site via various active transport measures, therefore reducing the use of private vehicles.

---

<sup>1</sup> Western Sydney Rail Needs Scoping Study [https://www.westernsydneyairport.gov.au/files/WSRNSS\\_Outcomes\\_Report.pdf](https://www.westernsydneyairport.gov.au/files/WSRNSS_Outcomes_Report.pdf)

<sup>2</sup> Broader Western Sydney Employment Area – Structure Plan  
<https://www.planning.nsw.gov.au/media/Files/DPE/Reports/broader-western-sydney-employment-area-structure-plan-transport-planning-preliminary-analysis-report-exhib-draft-2013-06.pdf?la=en>



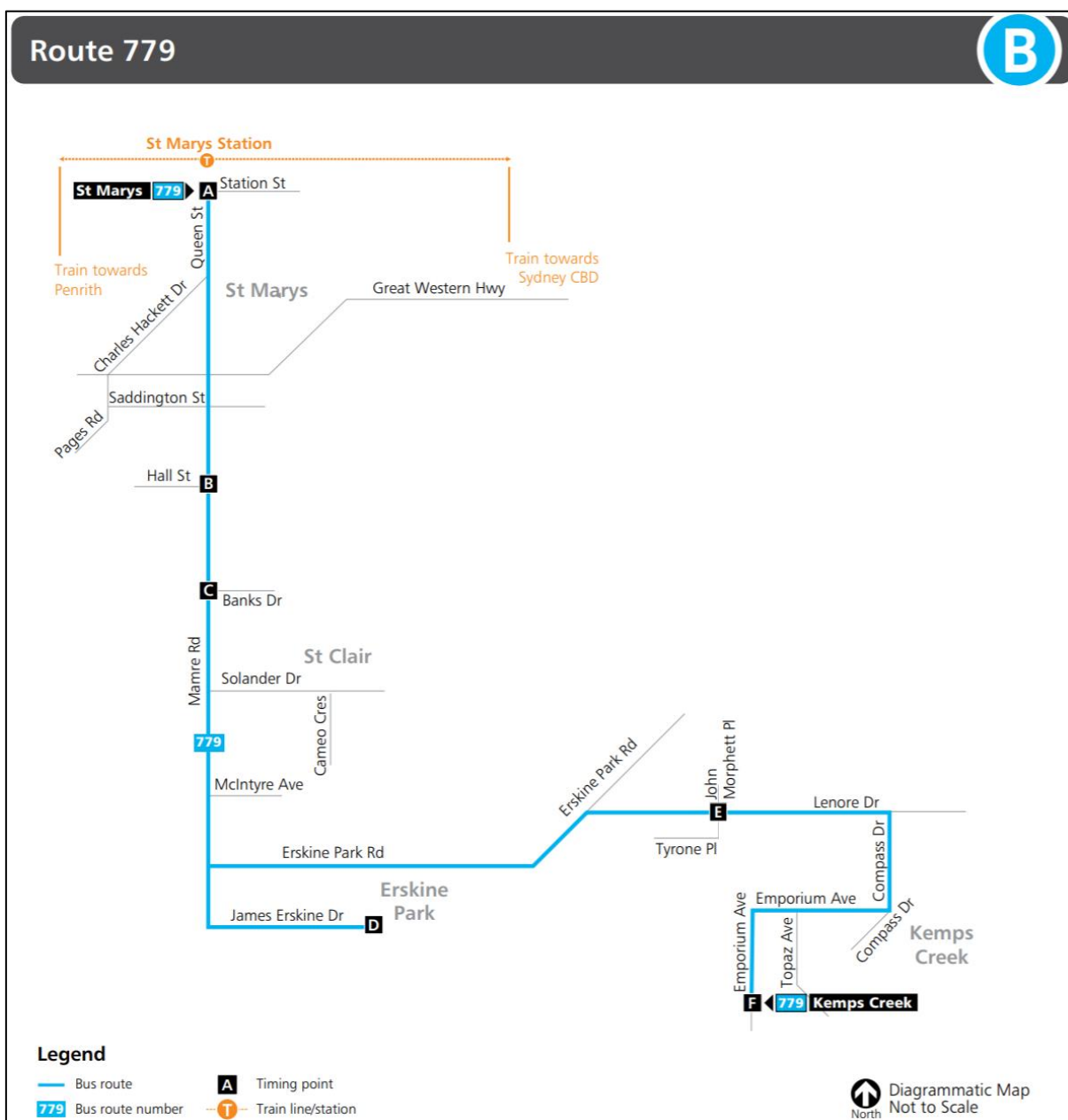


Figure 9: New Busways Bus Route

Table 17: Mode Share Targets (Primary Mode of Travel)

Bus Route No.	Route Description	Frequency
779	St Marys Train Station to OWE	AM Peak: Every 30 min PM Peak: Every 30 min Weekends: Every 60 min



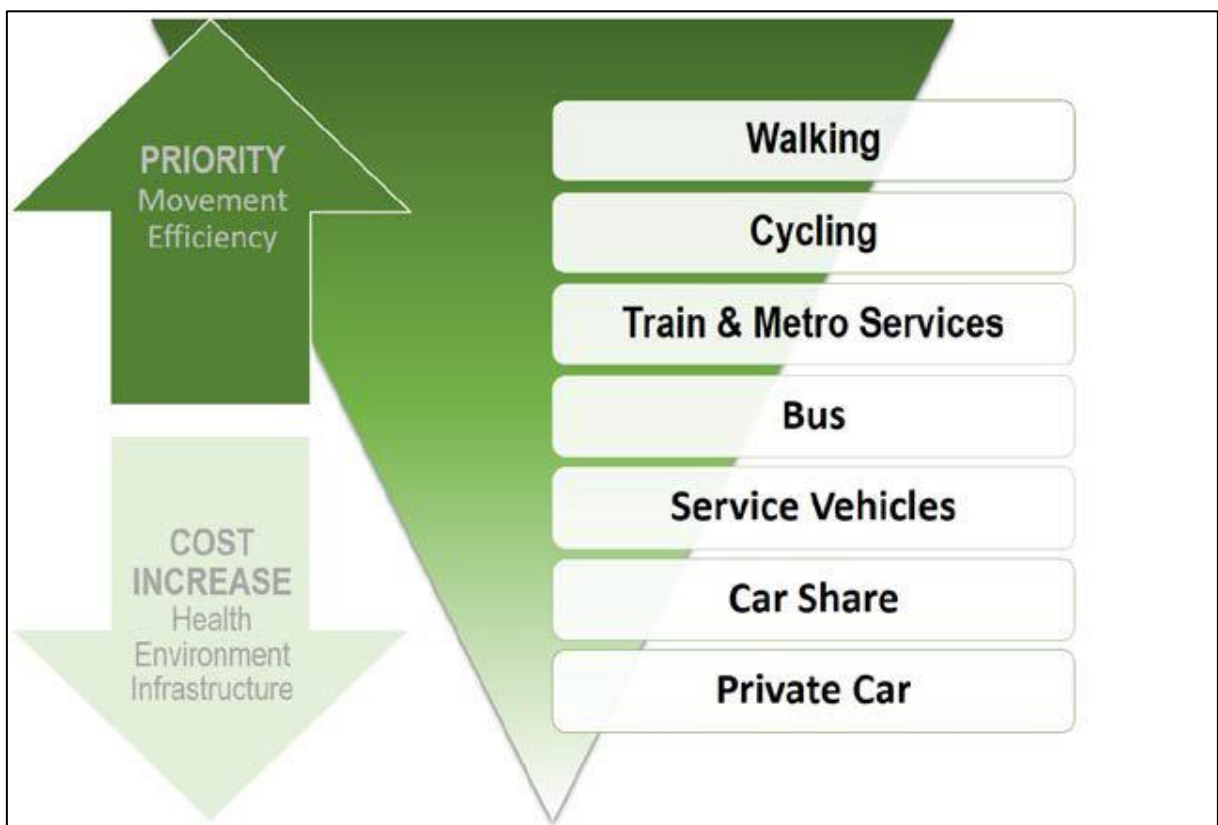
## 10.5 Objective and Targets

### 10.5.1 Objectives

The primary objectives of this STP are to:

- 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,
- 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 10 : Movement Hierarchy**

In a broad sense, this STP is intended to encourage the use of active transport thereby reducing the overall distance travelled by private vehicles.



It is noted that the above hierarchy applies to staff and visitor (i.e., car) movements. Given the nature of the development for warehouse and industrial purposes, it is acknowledged that there is limited ability to reduce the number of commercial vehicle movements without compromising site operations.

### 10.5.2 Mode Share Targets

With the above objectives in mind, the mode share targets outlined in below table are proposed, based on the JTW Profile discussed in Section 6.2.

**Table 18: Mode Share Targets (Primary Mode of Travel)**

Travel Mode.	Existing (DZN 114695449)	Proposed	Relative Change
Walking	0%	0%	0%
Cycling	0%	5%	+ 5%
Train <sup>1</sup>	1%	5% <sup>2</sup>	+ 4%
Bus <sup>1</sup>	1%	10%	+ 9%
Vehicle Passenger	6%	10%	+ 4%
Vehicle Driver	90%	68%	- 22%
Other/Mode Not Stated	2%	2%	0%

Note: 1) Key opportunity in future with provision of further regional infrastructure

2) The JTW classifies multi-modal journeys by indicating the 'primary' mode only and is considered in this proposition.

Given the limited options for modal availability in the area, it is difficult to quantify the degree of modal shift from private vehicular usage to public and active transport modes. However, in the context of development outlined in the above sections, it is evident that there is clear direction in a strategic context for the expansion of public and active transport networks to serve the western Sydney area.

In this context, the mode share targets identified above can be considered with a focus on 20% for public and active transport, and 80% on private car usage. This ratio is reflective of travel zones observed to have higher degrees of road network connectivity and limited access to rail facilities. It shall be necessary to adjust these mode share targets as future developments and planned transport infrastructure are realized, allowing for more ambitious targets to be set.

The changes made to cycling, train and bus travel modes are specifically reliant on the improvement of connectivity and additional infrastructure to facilitate them, which is anticipated to occur through several developments and initiatives associated with the broader WSEA. Similarly, the 'Vehicle Passenger' travel mode increase will primarily be met through Precinct specific initiatives.



## 10.6 Action Plan

### 10.6.1 Action Plan Measures

The following specific actions have been identified to aid achievement of the targets outlined in Section 6.5.2. It is anticipated that relevant actions in below table should be conveyed to the tenants at the time of tenancy agreement.

Identified strategies include promotion of some event or day-specific activities. In isolation, these may not dramatically alter the day-to-day travel of staff. However, there are benefits of such activities whereby participation can increase awareness of alternative modes of travel that can then form the basis of future travel choices.

**Table 19: Action Plan Measures**

Item No.	Action / Description	Responsibility
<b>1. General</b>		
1.1	Establish a centralised Travel Plan Coordinator (TPC) which is to take responsibility for the ongoing review and monitoring of this Plan. This person(s) shall also provide direction to tenants in relation to tenant-specific requirements arising from the STP.	Goodman / Strata Manager
1.2	Establish and maintain a transport coordinator to engage with the overall transport coordinator above.	Tenant
1.3	Provide 'Travel Welcome Pack' for newly employed staff, highlighting alternate modes of transport other than use of a private vehicle.	TPC / Tenant
1.4	Review of STP as a regular item on the agenda for the Tenant / Landowner meetings.	TPC
1.5	Encourage flexible work hours, where practicable. Whilst not reducing mode share, this can permit travel outside of peak periods which has other positive benefits.	Tenant
1.6	Preparation of a Transport Access Guide (TAG) – refer <b>Appendix D</b> .	TPC
<b>2. Walking and Cycling</b>		
2.1	Lobby Council / DPIE for improved cycle connections in the broader area.	TPC
2.2	Promote participation in the National <a href="#">Ride2Work</a> Day activity.	Tenant
2.3	Promote participation in <a href="#">Walk to Work Day</a> (and other) events.	Tenant
2.4	Provide and maintain clearly signposted bicycle parking within the Site.	Developer / Goodman
2.5	In accordance with the 5% cycling mode share target, sufficient secure parking spaces and 'EoT' facilities shall be provided and maintained. (NOTE: this can be staged to reflect realised demand)	Developer / Goodman
2.6	Promote active transport by providing adequate end of trip facilities	Developer / Goodman



Item No.	Action / Description	Responsibility
<b>3. Public Transport</b>		
3.1	Advocate for TfNSW to improve public transport services in response to increased development within the surrounding area.	Goodman / TPC
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 / Tenant
<b>4. Shared Vehicles</b>		
4.1	Review initiatives for staff to promote car-pooling. This may include (but not limited to) the provision of online services or forums to facilitate ease of finding carpooling scheme participants.	TPC / Tenant
4.2	Undertake research in the feasibility of providing shuttle services to and from the Site to train stations or other interchange nodes. This may require additional coordination with surrounding precincts to facilitate additional capacity potential.	TPC
4.3	In longer term, engage with Car Share operators to encourage provision of Car Share pods in proximity to the site. This transport option – for miscellaneous travel throughout the day – can then alleviate pressure for staff to drive as part of the primary mode of travel to work.	TPC

Bicycle parking spaces and End of Journey facilities are provided on-site to support the above Action Plan.

#### 10.6.2 Communications Strategy

#### 10.6.3 Welcome Packs

New staff shall be provided with a 'welcome pack' as part of the on-site induction process which includes the STP and other information in relation to sustainable transport choices. This pack shall include a copy of the Travel Access Guide (TAG) as well as general information regarding the health and social benefits of active transport. Advice on where to find further information should also be included such as links to Sydney Cycleways website (<http://www.sydneycycleways.net>).



## 10.7 Governance & Support

### 10.7.1 Travel Plan Coordinator

A person(s) shall be nominated as the Travel Plan Coordinator (TPC) and be responsible for:

- Engagement with the future tenants on-site,
- Implementation and promotion of the STP actions,
- Monitoring the effectiveness of the STP (refer to monitoring requirements outlined in **Section 6.7.3**) and ongoing maintenance of the Plan,
- Provide advice in relation to transport-related subjects to staff, tenancy management and visitors, as required, and
- 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 should be clearly designated among the key responsibilities of the building management group.

This may include financial incentives for staff to use active transport and public transport to travel to work. However, this is not a mandatory requirement and would be subject to the management discretion.

### 10.7.2 Resourcing

It is not anticipated that the maintenance of this STP will have significant ongoing cost implications and shall be reviewed on an annual basis by the TPC in order for the best outcome.

### 10.7.3 Plan Maintenance

This Plan shall be subject to ongoing review and will be updated accordingly. Regular reviews – ideally on annual basis – will be undertaken by the TPC, as required. 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, and



- To ensure travel mode targets are updated (if necessary) and to ensure they remain realistic but also ambitious.
- To revise mode share targets and develop strategies that encourage the use of public and active transport and that discourage single occupant car travel to the site, as future public and active transport improvements around the development site occur.

#### 10.7.4 Travel Mode Audit Requirements

Travel mode surveys will be undertaken to 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. This survey may be undertaken online or in-person at the discretion of the TPC. A sample of a typical travel mode questionnaire form is included in **Appendix E**.



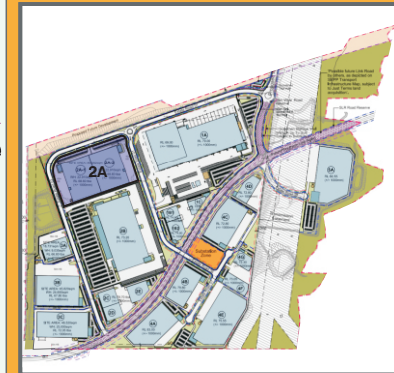
## Appendix D

Transport Access Guide (for Lots 2A, 2C and 2D)



# Travel Access Guide

Lot2A Oakdale West Estate



Horsley Park 2175

## Detail



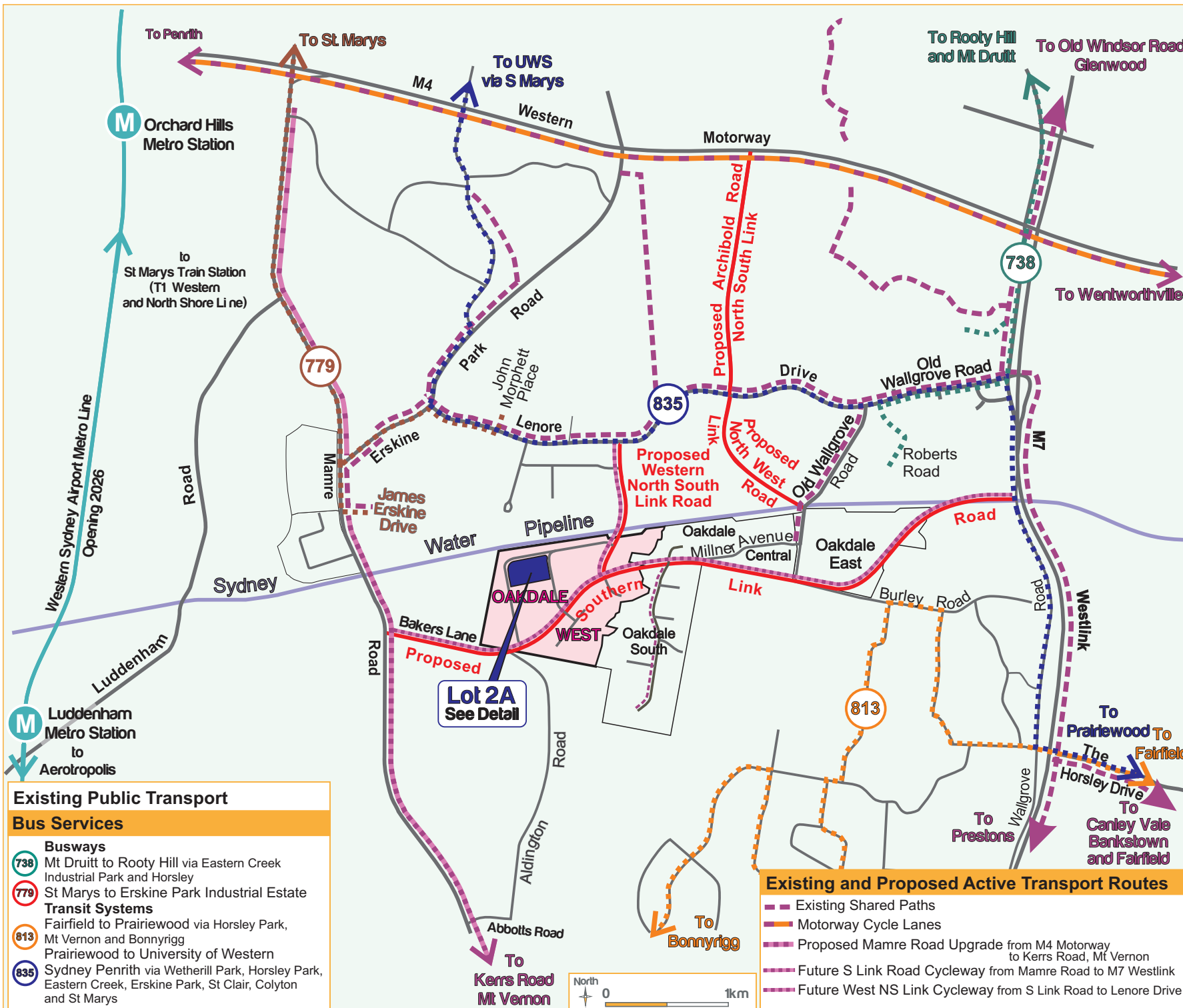
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- Road arrival / Departure
- Car Park Entry / Exit
- Truck Entry / Exit

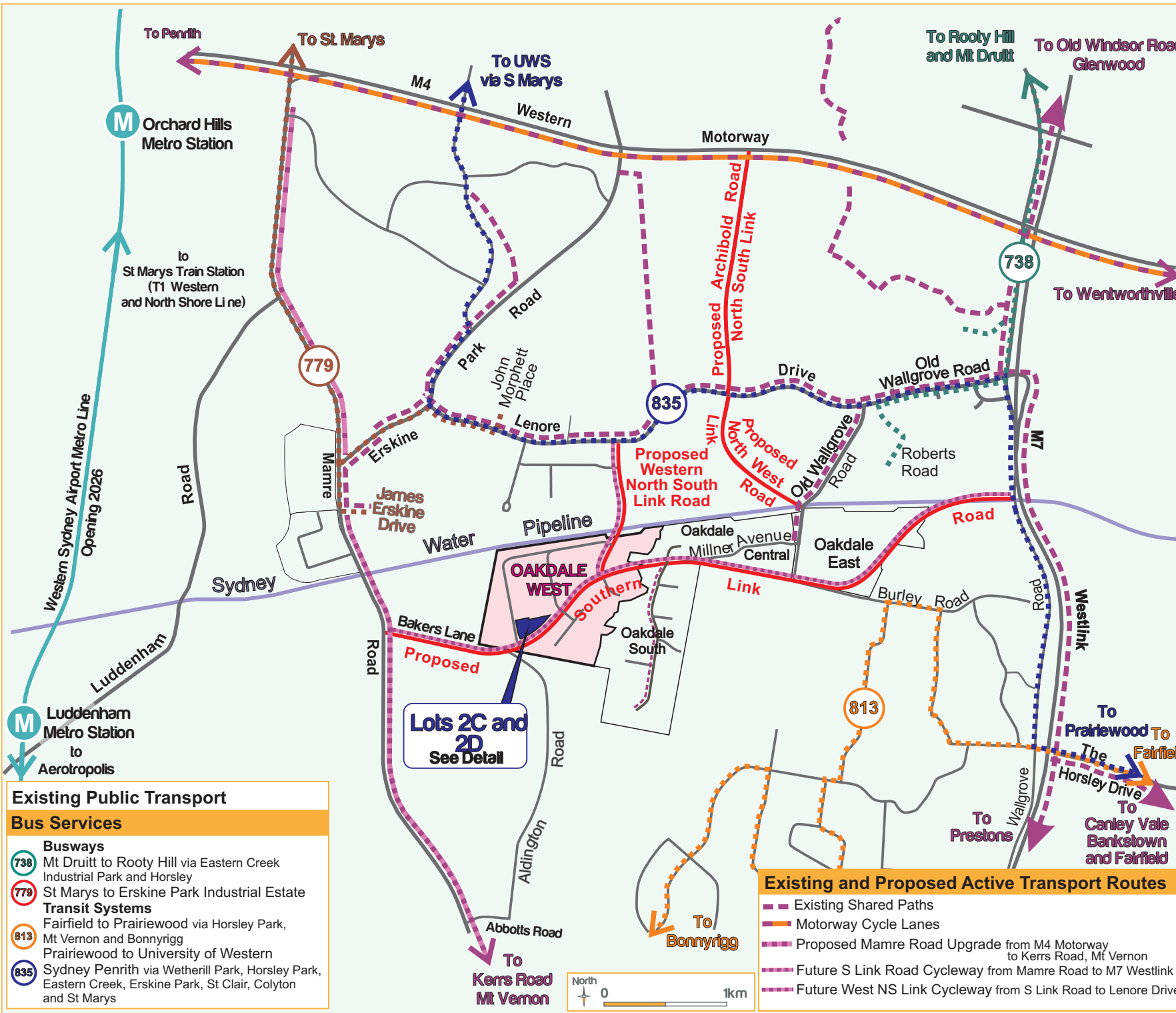
## Parking Spaces

- 208 Car Spaces

November 2020







# Travel Access Guide

Lots 2C and 2D  
Oakdale West Estate

**Horsley Park 2175**

## Detail

To  
Proposed Western  
North South Link Road

2C-1  
2C-2  
Trucks  
2D

Future Link  
to M7

To  
Mamre Road

## Access

➡➡➡ Road arrival / Departure  
↔↔↔ Car Park Entry / Exit  
↔↔↔ Truck Entry / Exit

## Parking Spaces

2C1 and 2C2 50 Car Spaces  
2D 55 Car Spaces

**Existing and Proposed Active Transport Routes**

- Existing Shared Paths
- Motorway Cycle Lanes
- Proposed Mamre Road Upgrade from M4 Motorway to Kerrs Road, Mt Vernon
- Future S Link Road Cycleway from Mamre Road to M7 Westlink
- Future West NS Link Cycleway from S Link Road to Lenore Drive

**Existing Public Transport**

### Bus Services

**Busways**

- 738 Mt Druitt to Rooty Hill via Eastern Creek Industrial Park and Horsley
- 779 St Marys to Erskine Park Industrial Estate

**Transit Systems**

- 813 Fairfield to Prairiewood via Horsley Park, Mt Vernon and Bonnyrigg
- 835 Prairiewood to University of Western Sydney Penrith via Wetherill Park, Horsley Park, Eastern Creek, Erskine Park, St Clair, Colyton and St Marys

**November 2020**



## Appendix E

### Sample Travel Mode Questionnaire



## Instructions for Surveyor(s)

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



## Travel Mode Questionnaire Survey Form

**Date:**

**Approximate Time:**

**Q1. Are you one of the following?**

- |  |  |
|--|--|
| <input type="checkbox"/> Office staff              | <input type="checkbox"/> Company driver / sub-contractor |
| <input type="checkbox"/> Courier / office delivery | <input type="checkbox"/> Warehouse ground staff          |
| <input type="checkbox"/> Casual contractor         | <input type="checkbox"/> Other (Please specify) .        |

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

- |                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> Walked only  | <input type="checkbox"/> Car share vehicle      |
| <input type="checkbox"/> Bicycle only | <input type="checkbox"/> Motorcycle / scooter   |
| <input type="checkbox"/> Train        | <input type="checkbox"/> Car (as passenger)     |
| <input type="checkbox"/> Bus          | <input type="checkbox"/> Car (as driver)        |
| <input type="checkbox"/> Taxi         | <input type="checkbox"/> Other (Please specify) |

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

- |   |  |
|---|--|
| <input type="checkbox"/> Not applicable – did not drive | <input type="checkbox"/> On-street                             |
| <input type="checkbox"/> On-site car park               | <input type="checkbox"/> In another nearby off-street car park |
| <input type="checkbox"/> On-site within truck hardstand | <input type="checkbox"/> Other (Please specify)                |

**Q4. What is your Residential Postcode?**



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