

asongroup



Construction Traffic Management Plan

Warehouse Development

238-258 Captain Cook Drive, Kurnell

2/03/2022

P0839r04



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1 Introduction

1.1 Introduction

Ason Group have been engaged by Dicker Data to prepare a Construction Traffic Management Plan (CTMP) to be included for a SSD (application number SSD-8662-Mod-1) for the construction of the Stage 2 warehouse development (the Proposal) at 238-258 Captain Cook Drive, Kurnell (the Site).

This CTMP details the measures and strategies to be undertaken during construction to minimise the effects of work on the surrounding road network, and to ensure the safety and efficiency of the community, all workers, and all road users.

A Construction Environmental Management Plan (CEMP) has been prepared by Dicker Data.

1.2 Project Representatives & Stakeholders

This report has been prepared by a consultant who holds a SafeWork NSW Work Health & Safety Traffic Control Work card, accredited for the 'Prepare a Work Zone Traffic Management Plan'. Details of the accredited consultant is provided below:

- Dora Choi Ticket No. TCT0021456
- Wendy Zheng Ticket No. TCT1015144
- James Laidler Ticket No. 0052158569

This Construction Traffic Management Plan has been prepared to meet the requirements outlined in Appendix A, Appendix E, and Section E.2 of the Transport for NSW Traffic Control at Work Sites Technical Manual (Issue No. 6, 2020).

Through the preparation of this CTMP, the project representatives and stakeholders consulted in the development of the traffic management strategy are listed below:

TABLE 1: PROJECT REPRESENTATIVES AND STAKEHOLDERS

Name	Organisation	Role
Brad Begley	Dicker Data	Property Manager
Dora Choi	Ason Group	Principal Lead: Traffic Management & Operations
Alan Tan	Ason Group	Traffic Engineer

1.3 Project Details

The project involves construction of the Stage 2 warehouse building, additional car parking spaces and landscaping improvement works at 238-258 Captain Cook Drive, Kurnell. The breakdown for the proposed works is as follows:

- Construction of the Stage 2 Warehouse, comprising of 16,585 m² of warehouse GFA;

- Construction of 128 additional car parking spaces;
 - Including amendments to the existing gravel overflow parking area in the eastern vegetation zone to create a permanent hardstand parking area, and
 - Increase car parking spaces from 390 to 518
- Construction of new internal road to the additional car parking area.

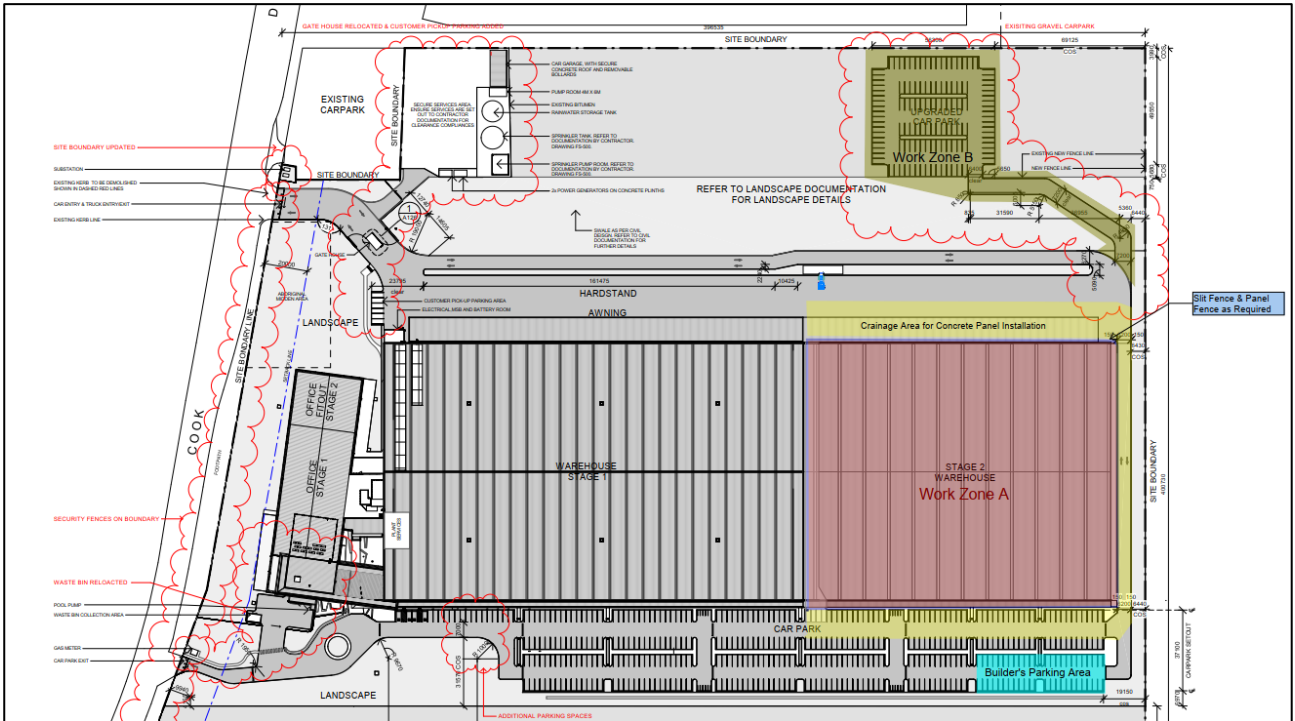


Figure 1: Site Overview

1.3.1 Proposed Construction Activity / Works

The proposed construction activities for Stage 2 Warehouse and car park will be undertaken concurrently with the existing operation of the Site. Construction of the Stage 2 Warehouse is set for completion in November 2022.

TABLE 2: STAGING AND DURATION OF WORKS		
Stage	Duration	Description
2	6 months	<p>The construction will commence in May 2022 with a duration of 6 months.</p> <p>Construction activity will take place on:</p> <p>Monday to Friday – 7am to 6pm</p> <p>Saturday – 8am to 1pm</p>

1.3.2 Site Location

The Site is located on 238-258 Captain Cook Drive, Kurnell, and is legally known as Lot 2 in DP1088703 and Lot 1 in DP225973. It is located approximately 7 kilometres (km) south of Sydney Kingsford Smith Airport, 20 km south of the Sydney CBD, 7.5 km north-east of Cronulla, and 1.5 km south-west of the township of Kurnell.

The Site has an area of 169,030 m² and is bordered by Captain Cook Drive to the north; industrial development to the east; and vegetation to the south and west.

The Site is zoned as IN1 General Industrial under Sutherland Shire Local Environment Plan 2015 (LEP 2015) and lies within an area dominated by industrial and warehouse development.

The location of the Site is presented in **Figure 2** below.



Figure 2: Site Location and Surrounding Roads

1.4 Authority Requirements

The proposed development received a Development Consent for Application No. SSD-8662 from Minister for Planning and Public Spaces (NSW Government – Department of Planning, Industry and Environment) on 12 April 2019.

Condition B1 of the SSD-8662 required the preparation and submission of a Construction Traffic Management Plan (CTMP) prior to commencement of construction. The condition specified the following:

“B1. Prior to the commencement of construction, the Applicant must prepare a Construction Traffic Management Plan (CTMP) for the development to the satisfaction of the Planning Secretary. The CTMP must form part of the CEMP required by condition C2 and must:

- a. be prepared by a suitably qualified and experienced person(s);*
- b. be prepared in consultation with Council and RMS;*
- c. detail the measures that are to be implemented to ensure road safety and network efficiency during construction;*
- d. detail measures that are to be implemented to protect the vegetation of the Towra Point Nature Reserve during roadworks;*
- e. detail heavy vehicle routes, access and parking arrangements;*
- f. include a Driver Code of Conduct to:*
 - i. minimise the impacts of earthworks and construction on the local and regional road network;*
 - ii. minimise conflicts with other road users;*
 - iii. minimise road traffic noise; and*
 - iv. ensure truck drivers use specified routes;*
- g. include a program to monitor the effectiveness of these measures; and*
- h. if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.”*

B2. The Applicant must:

- a. not commence construction until the CTMP required by condition B1 is approved by the Planning Secretary; and*
- b. implement the most recent version of the CTMP approved by the Planning Secretary for the duration of the construction.”*

This CTMP forms part of the CEMP and outlines the proposed construction traffic management arrangements associated with the construction phases for the development.

TABLE 3: RESPONSE TO SSD-8662 CONDITION B1

Condition No.	Condition	Response
B1 a)	Be prepared by a suitably qualified and experienced person(s);	Refer to Section 1.2 and Appendix E for qualifications
B1 b)	Be prepared in consultation with Council and RMS	Refer to Section 1.61.2
B1 c)	Detail the measures that are to be implemented to ensure road safety and network efficiency during construction	Refer to Section 3

B1 d)	Detail measures that are to be implemented to protect the vegetation of the Towra Point Nature Reserve during roadworks	No roadworks has been proposed as part of this CTMP. Refer to Section 2.9
B1 e)	Detail heavy vehicle routes, access and parking arrangements	Refer to Section 2.3, 2.7 and 3.6
B1 f)	include a Driver Code of Conduct to: <ul style="list-style-type: none"> (i) minimise the impacts of earthworks and construction on the local and regional road network; (ii) minimise conflicts with other road users; (iii) minimise road traffic noise; and (iv) ensure truck drivers use specified routes; 	Refer to Appendix A
B1 g)	include a program to monitor the effectiveness of these measures; and	Refer to Section 4
B1 h)	if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.	Refer to Section 1.6

1.5 Site Related Data

1.5.1 Road Details

The key roads surrounding the Site are provided in **Figure 2** and summarized in **Table 4** below:

TABLE 4: LOCAL ROAD NETWORK

Road Name	Section	Speed Limit (km/h)	Parking	Traffic Volumes & Peak Times	Urban / Rural
Captain Cook Dr	680 m south of Sir Joseph Banks Dr to 970 m south of Sir Joseph Banks Dr	60	No	No data available	Urban
Sir Joseph Banks Dr	Captain Cook Dr to Chisholm Rd	60	Untimed parking	No data available	Urban
Elouera Rd	Captain Cook Dr to Links Rd	50	No	No data available	Urban

1.5.2 Crash History

A review of RMS crash database has been undertaken to establish the crash history on Captain Cook Drive in the vicinity of the Site. The crash history for the 5-year period between 2016 and 2020 (inclusive) is outlined below in **Figure 3** and **Table 5**.

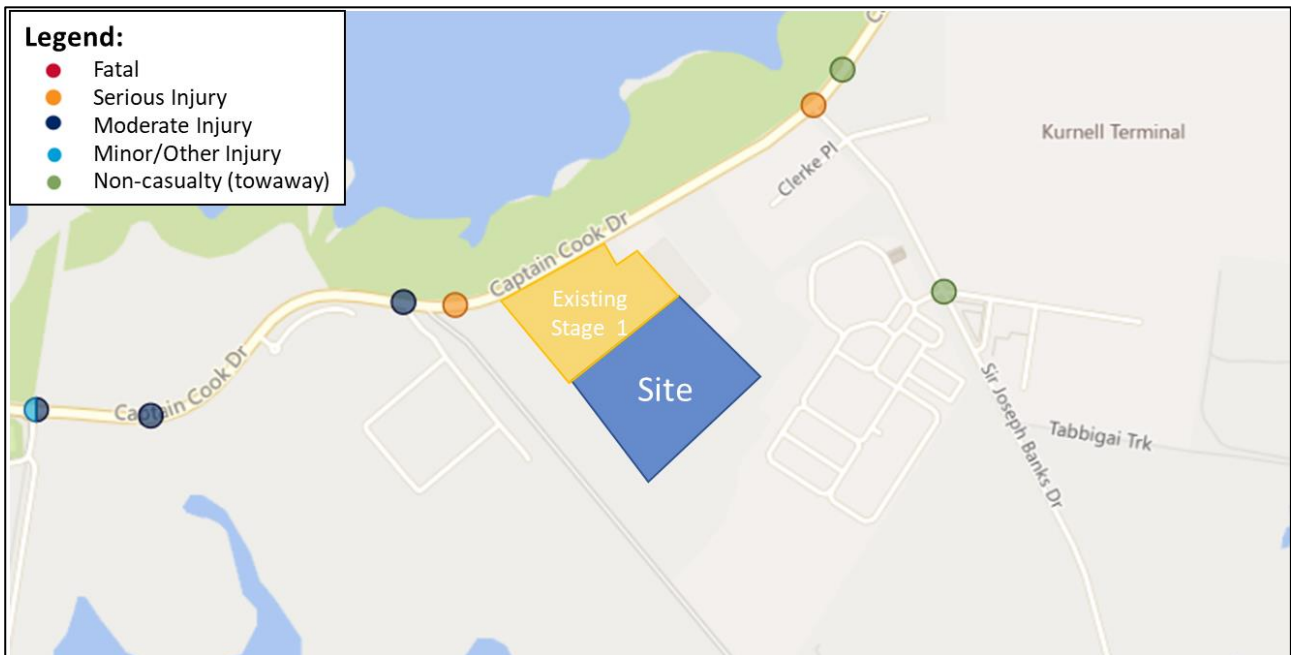


Figure 3: 2016 to 2020 Crash History Surrounding the Site

Of those crashes, the ones that occurred on Captain Cook Dr near the Site are highlighted below.

TABLE 5: CRASH HISTORY			
Year	Location	RUM Code ¹	Injury/Death
2016	Captain Cook Dr, West of Site	21 – Right Through	1 x Injury
	Captain Cook Dr and Sir Joseph Bank Dr Intersection	21 – Right Through	1 x Injury
2018	Captain Cook Dr, West of Site	85 – Off Carriageway Right on Left Bend into Object / Parked Vehicle	1 x Injury
2020	Captain Cook Dr, West of Site	32 – Right Rear	1 x Injury
	Captain Cook Dr, East of Site	72 – Off Road to Right	nil

Note: 1) Source: RMS Crash Statistics Website

A review of the above indicates that there were no fatalities within the reporting period, nor were there any crashes as a result of the driveway to/from the Site.

1.5.3 Vulnerable Road Users

Vulnerable road users (VRU) are road users not in a car, bus or truck. In the event of a crash, VRUs have little to no protection from crash forces, therefore, need to be addressed within this CTMP.

TABLE 6: PUBLIC AND ACTIVE TRANSPORT

Road Name	Pedestrian	Cycling	Public Transport
Captain Cook Dr	Yes 400m along site frontage, South to Captain Cook Dr: Footpath Width = 2.4m; 80m along site frontage, North to Captain Cook Drive: Footpath Width = 1.5m	Yes Cyclist in shoulder lane	Yes Bus Stops along Site frontage – Bus route 987
Sir Joseph Banks Dr	No	No	No
Elouera Rd	Yes Footpath width = 2.0m	Yes Bike-friendly road	Yes Bus stops for routes 969, 985, 987

1.6 Stakeholder Engagement

Dicker Data will liaise with relevant stakeholders regarding construction schedules and trucks routes and will raise any potential conflict with stakeholder at the earliest time.

In the event that any disruptions to roadways / footpath occur as a result of construction works, the procedure outlined below is to be followed:

- If any future disruptions to roadways / footpaths are required, Council / TfNSW is to be notified first and depending on the extent of the disruption the contractor is to notify affected property occupiers using letter drops and Variable Message Sign (VMS)
- If any unforeseen disruptions to roadways / footpaths occur, Council / TfNSW is to be notified first and depending on the extent of the disruption the contractor is to notify affected property occupiers via traffic controllers and Variable Message Sign (VMS)
- In the event that heavy vehicle damage to Council / TfNSW assets / infrastructure, contractors will notify Sutherland Shire Council's Traffic & Transport team and / or Assets Branch.

2 Proposed Works and Staging

2.1 Overview of Works

The proposed construction work of Stage 2 development is shown in **Table 7**. It is estimated that the total duration of the construction works will be approximately 6 months from the commencement date. The following summarises key aspects of the construction stages:

TABLE 7: STAGE 2 CONSTRUCTION WORK SUMMARY

Criteria	Response
Description of Key Activities	<ul style="list-style-type: none"> • Construction of the temporary accesses and enabling works • Construction of warehouse and other structures within the Site • Construction of hardstand, car park and landscaping works • Internal fit-out of warehouse
Max. Vehicle Size	20.0m Articulated Vehicles (Special Permits may be required for floating in plant)
Vehicle Movement Frequency	Approximately 8 light vehicle movements / day + Approximately 10 heavy vehicle movements / day
Truck Access Requirements	All vehicles shall access via Captain Cook Drive
Vehicle access / egress in a forward direction (Y / N)	Y
Out of Hours Deliveries (Y/N)	Y – upon written approval by the Planning Secretary
Contractor Parking	Y – Onsite parking available for contractors
Pedestrian Control	Wire mesh site boundary fencing
Public Transport Services Affected	Nil
Road Occupancy Requirements (if yes, provide further details)	N
Lane or Footpath Closures (if yes, provide further details)	N
Traffic Control Plan	Refer below.

2.2 Construction Hours

Construction hours shall be in accordance with the SSD requirements. Development Consent (SSD-8662) condition B2, B52 and B53 specify the following:

“B2. The Applicant must:

- a. not commence construction until the CTMP required by condition B1 is approved by the Planning Secretary; and
- b. implement the most recent version of the CTMP approved by the Planning Secretary for the duration of the construction

B52. The Applicant must comply with the hours detailed in Table 1 (reproduced as **Table 8** below), unless otherwise agreed in writing by the Planning Secretary.

TABLE 8: HOURS OF WORK		
Activity	Day	Time
Earthworks and construction	Monday – Friday	7 am to 6 pm
	Saturday	8 am to 1 pm

B53. Works outside of the hours identified in condition B52 may be undertaken in the following circumstances:

- a. works that are inaudible at the nearest sensitive receivers;
- b. for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or
- c. where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.”

It is anticipated that construction works will not be conducted outside of the hours outlined above.

2.3 Truck Routes

It is proposed that construction vehicles would enter and exit the Site via the routes shown in **Figure 4**. A copy of the truck route would be provided to all drivers prior to travel to the site. In accordance with the Vehicle Movement Plan (VMP) to be distributed by the lead contractor during prior to construction, all vehicles (both light and heavy) shall enter and leave the site in a forward direction.

The routes shown are to be utilised by all construction vehicles travelling to and from the site and represents the shortest route between the local and regional road network - hence minimising the impacts of the construction process.

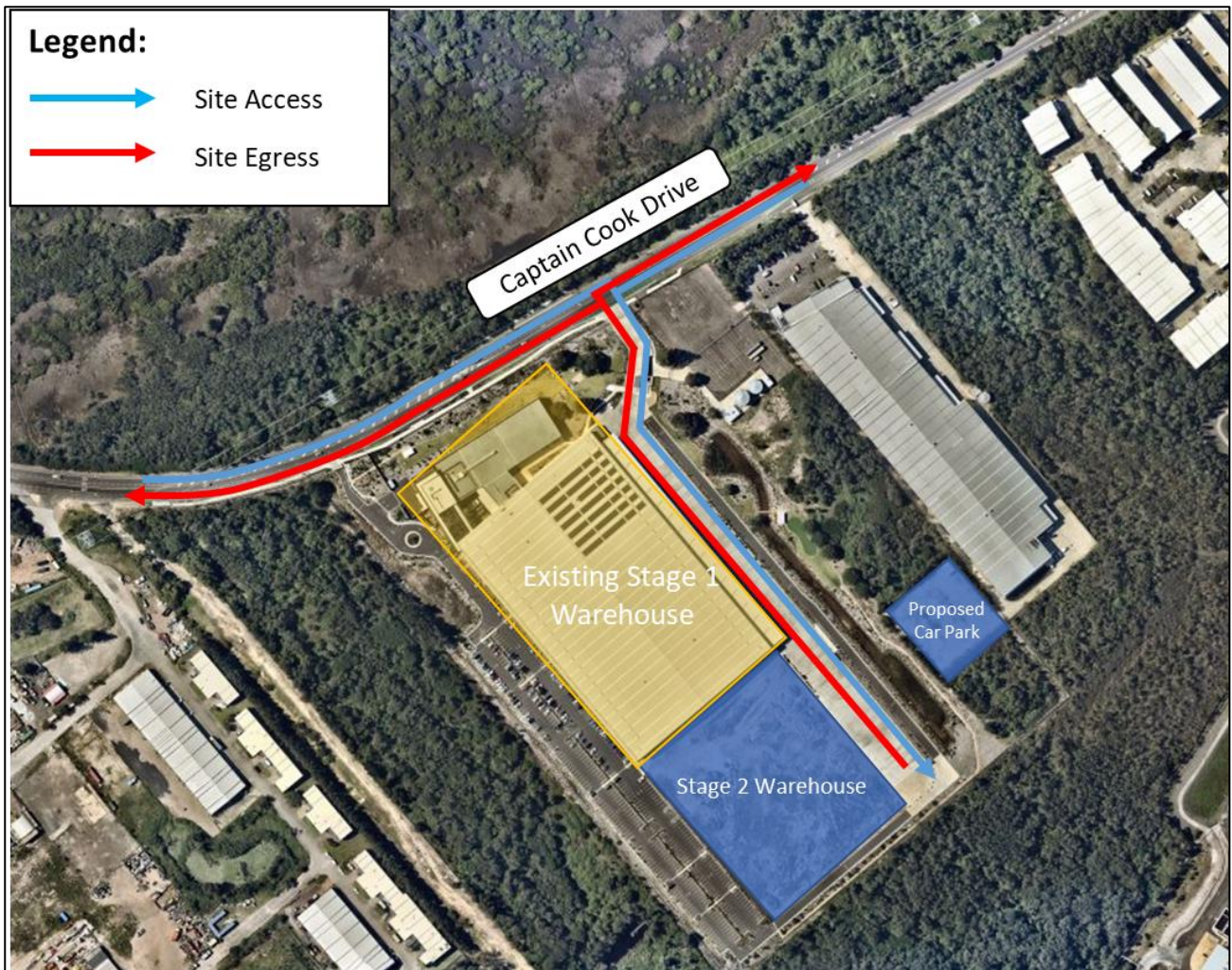


Figure 4: Construction Vehicle Route Map

The accessible routes for the 26m B-Double derived from TfNSW Restricted Access Vehicles (RAV) Map are shown in **Figure 5**. All construction vehicles will be able to enter and exit the Site using TfNSW approved truck routes.

Any oversized or over-mass vehicles travelling to the Site will be required to obtain a permit from the Roads and Maritime Services (RMS) and / or the National Heavy Vehicle Register (NHVR). Notwithstanding, this CTMP relates to general construction which does not seek the use of oversize vehicles.

The swept paths (attached in **Appendix B**) demonstrate all critical turns within the site. All construction vehicles will drive forward in and out of the Site onto Captain Cook Drive via the existing main access.

No trucks are to be queued on local roads. Mobile phones, two-way radios or application-based solutions should be used to coordinate truck arrivals.



Figure 5: TfNSW Restricted Access Vehicle Map for 26m B-Double

No trucks are to be queued on local roads. Mobile phones, two-way radios or application-based solutions should be used to coordinate truck arrivals.

2.4 Temporary Traffic Management Method

As all construction works will be carried out within the Site boundary, there will be no traffic management required on Captain Cook Drive. Traffic management shall be undertaken in accordance with the methodology outlined within the Traffic Guidance Scheme, **Appendix C**. Traffic and non-vehicle related roads users within the site boundary are expected to be directed around the worksite in order to physically separate the road user from any hazards within the worksite.

2.5 Risk Assessment

A risk assessment is aimed to identify the hazards and risks associated with the works. The purpose of this risk assessment is to determine the controls required for the protection of the road workers and road users.

A Risk assessment has been completed and is attached in **Appendix D**.

2.6 Site Contact

Refer to the Construction Environmental Plan (prepared by Dicker Data) for further details.

2.7 Site Access

All access to the Site by construction personnel will be via existing driveways from Captain Cook Drive located on the north-eastern corner of the site, with the largest vehicle accessing the Site expected to be a 20m Articulated Vehicles (AV). Swept paths of this vehicle are provided in **Appendix B** which demonstrates that the 20m AV can arrive and depart the Site without crossing the centreline of Captain Cook Drive.

While vehicles are entering and the Site, pedestrian and cycle movements across the driveway will be managed through signage and traffic controllers (or workers). Construction personnel will also be able to access the Site by foot via a secure access gate at the driveway on Captain Cook Drive.

All amenities will be provided on-site.

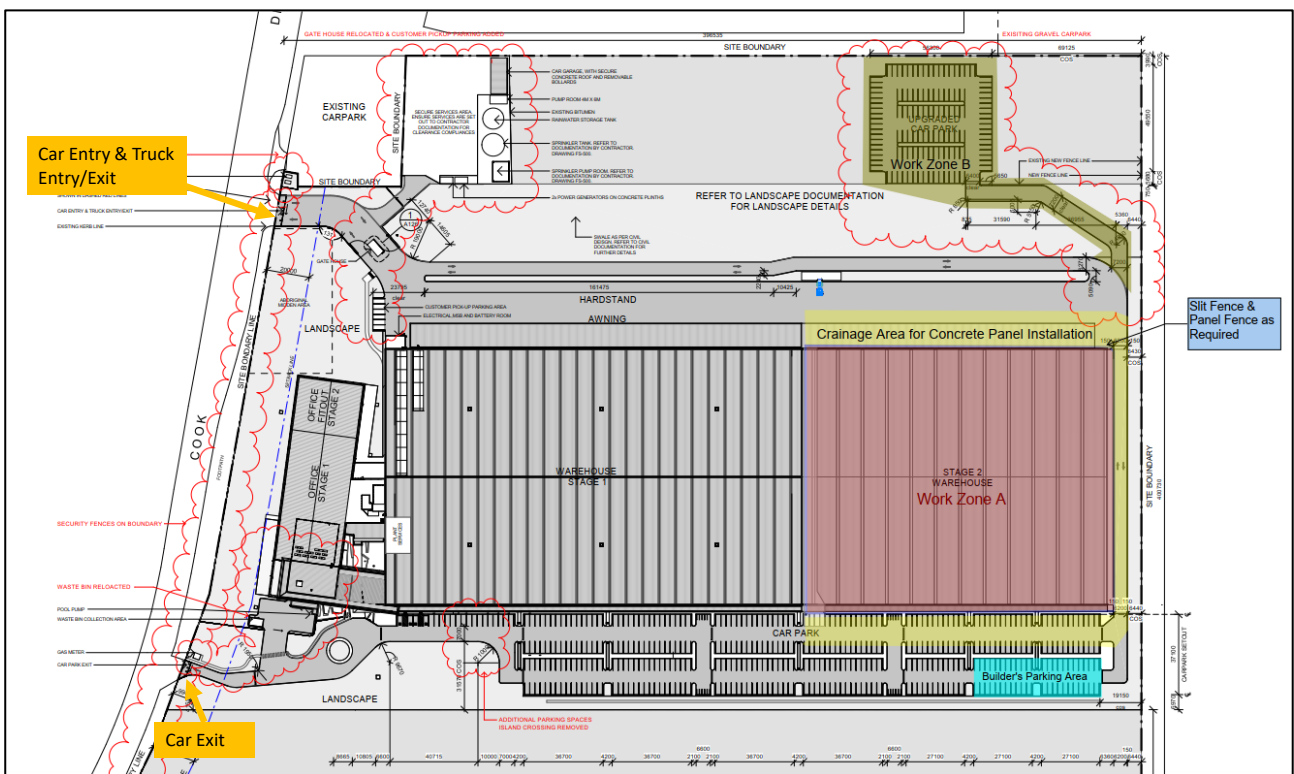


Figure 6: Site Access (Source: Dicker Data)

2.8 Works Zone

No Works Zones along Captain Cook Drive are proposed. All Civil and Construction Works will take place within the work site.

In the event that the implementation of any temporary traffic control measures on public road/road related area the contractor will obtain a Road Occupancy Permit (ROP) from Sutherland Shire Council. If excavation and/or road opening works on a public road is required, the contractor will obtain a Road Opening Permit.

2.9 Roadworks

As requested in Condition B1 (d), “detail measures are to be implemented to protect the vegetation of the Towra Point Nature Reserve during roadworks”. No roadworks along Captain Cook Dr is proposed, all Civil and Construction Works will take place within the work site.

3 Traffic Management

3.1 Existing Traffic Volumes

The approved DA for the Site included the operational volumes for the Stage 1 and Stage 2 development. As such, the traffic report (Ason Group Ref: 0466r01v1) supporting the DA submission, outlined the following relevant figures with regards to future operational traffic volumes associated with the Site:

- AM Peak: 149 movements per hour (movements, in & out combined)
- PM Peak: 152 movements per hour (movements, in & out combined)
- Daily Total: 1,018 movements per day (movements, in & out combined)

For the purpose of this report, 1 truck is equal to 1 inbound movement plus 1 outbound movement which equals to a total of 2 movements.

3.2 Traffic Volumes

3.2.1 Light Vehicle Generation

It is anticipated that a maximum of 8 light vehicles may be on-site at any one time during the main construction stage if the subcontractor parking area to the south becomes available. Parking is available for construction staff on site to the south of the work area.

3.2.2 Heavy Vehicle Generation

Based on the construction methodology, duration of works and the type of truck being used, it is estimated that the construction of the core structure and façade is to generate a maximum of 10 construction heavy vehicle arrivals per day.

3.3 Traffic Impacts

As noted above, the approved traffic generation for the Site is 149 veh/hr and 152 veh/hr in the AM and PM peaks respectively. Noting that the worst-case combined light and heavy vehicle traffic generation is 18 trips per day, there shall be no material impact to the wider road network as a result of the construction works.

3.4 Vehicle Management

In accordance with TfNSW requirements, all vehicles transporting loose materials will have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site. All drivers are to be familiar with the Driver Code of Conduct before attending the Site. A copy of the Code is included in **Appendix A**.

All subcontractors must be inducted by the lead contractor to ensure that the procedures are met for all vehicles entering and exiting the construction site. The lead contractors will monitor the roads leading to and from the site and take all necessary steps to rectify any road deposits caused by site vehicles.

Vehicle movements to, from and within the site shall do so in a manner, which does not create unreasonable or unnecessary noise or vibration. No tracked vehicles will be permitted or required on any paved roads. Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

At no stage shall queueing occur on the public road network. It is expected that a schedule for deliveries of materials and goods will be established prior to that day, with Traffic Controllers maintain radio contact with construction vehicles at all times. This schedule shall be prepared by utilising construction traffic management software (such as Mooven or other similar products).

3.5 Emergency Vehicles

During Stage 2 construction works the eastern circulation roadway will be occupied during piling works. The existing fire trail (located to the east of the Stage 1 warehouse) will remain accessible to emergency vehicles until the eastern circulation roadway is open.

This is shown in the Traffic Guidance Scheme (TGS) is provided in **Appendix C**.

3.6 Contractor Parking

As detailed in **Figure 6**, a designated car parking area for contractors will be available on-site at all times.

Contractors that do utilise private vehicles to arrive to Site are to park on-site. It is anticipated that the Site can readily accommodate a worst-case peak parking demand (assuming 100% private vehicle usage).

Notwithstanding, Contractors will also be encouraged to carpool or utilise public or active transport services to reduce parking demand and traffic generation.

3.7 Pedestrian and Cyclist Management

A pedestrian footpath and a separate bicycle path are provided along the southern side of Captain Cook Drive. During construction, pedestrian and cyclist movements will be maintained along the Captain Cook Drive frontage of the site. Specifically, there will be no anticipated footpath or bicycle path closure along Captain Cook Drive.

As stated, pedestrians and cyclists crossing the Site driveway will be temporarily halted by an accredited Traffic Controller or worker while construction vehicles are entering or departing the Site. Once the construction vehicles are clear, the Traffic Controller / worker can allow the pedestrians and cyclists to continue along their journey. In general, the Contractor shall make clear to Traffic Controllers that pedestrians have right of way as far as reasonable (mostly associated with exit vehicle movements).

3.8 Fencing Requirements

Fencing shall be provided along the entire boundary of the Stage 2 warehouse construction site and will be maintained for the duration of the construction program. The fencing is to create an exclusion area away from the existing operational warehouse and to restrict any unauthorised access to the Site.

3.9 Traffic Control

A site-specific TGS is provided in **Appendix C**. An accredited Traffic Controller is required to be on-site to supervise the implementation of the TGS.

3.10 Authorised Traffic Controller

There is a requirement for an authorised traffic controllers to be present throughout the project. The responsibilities include:

- Implementation of the Traffic Control Plan.
- Pedestrian and cyclist management, to ensure that adverse conflicts between vehicle movements and pedestrians do not occur.
- Supervision of all vehicle movements across pedestrian footpaths at all times, and
- Supervision of all loading and unloading of construction materials during the deliveries in the construction phase of the project.

Refer to **Appendix C** for the TGS for details of the proposed work zone, location of traffic controllers and associated traffic management measures.

3.11 Driver Code of Conduct

All drivers shall adhere to the Driver Code of Conduct, outlined in **Appendix A**.

3.12 Worker Induction

All workers and subcontractors engaged on-site would be required to complete a site induction. The induction should include permitted access routes to and from the construction site for all vehicles, as well as standard environmental, work, health and safety (WHS), driver protocols and emergency procedures.

Any workers required to undertake works or traffic control within the public domain would be suitably trained and covered by adequate and appropriate insurances.

4 Monitoring and Review

4.1 Monitoring Program

This CTMP shall be subject to ongoing review and will be updated accordingly. Regular reviews will be undertaken by the on-site coordinator. Review of the CTMP shall occur monthly. All and any reviews undertaken should be documented, however key considerations regarding the review of the CTMP shall be:

- Tracking deliveries against the volumes outlined within report. Deliveries will be tracked against approved volumes and will keep a vehicle log - including Rego & time of entry - for the purpose of assessing the effectiveness of these monitoring programs.
- To identify any shortfalls and develop an updated action plan to address issues that may arise during construction (Parking and access issues)
- To ensure TGS's are updated (if necessary) by "Prepare a Work Zone Traffic Management Plan" card holders to ensure they remain consistent with the set-up on-site.
- Regular checks to ensure all loads are entering and leaving site covered as outlined within this CTMP.

The development of a program to monitor the effectiveness of this CTMP shall be established by the Contractor. This process is expected to form part of the monitoring plan required to be included as part of the overarching Construction Environmental Management Plan (CEMP), of which this CTMP forms a part.

The roadway (including footpath) must be kept in a serviceable condition for the duration of construction. At the direction of Council, undertake remedial treatments such as patching at no cost to Council.

4.2 Work Site Inspections, Recording and Reporting

Recording and reporting of the monitoring programs shall be done in accordance with Section E.3, E.4 and E.5 of the TCAWs Manual. As such, the structure, schedule, and frequency of these activities have been considered and identified.

To inspect, review and audit the temporary traffic management (TTM) arrangements implemented on site, the following actions are to be undertaken by suitably qualified personnel in accordance with TCAWS 6.0 requirements during all phases of construction, being:

TABLE 9: EXAMPLE REVIEW OF ACTIVITIES

Activity			Frequency or Details
Shift Inspections	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Weekly Inspections	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
TMP Review	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Road Safety Audit	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Other	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Comments			

Given that the length of construction and that no regular works have been proposed outside of the site, monthly TTM inspections is considered to be sufficient.

4.3 Contingency Plan

A contingency plan shall be established by the Contractor and is to be included in the overarching CEMP. Notwithstanding, **Table 10** outlines an indicative plan to be undertaken by the builder in the event that the monitoring program identifies the management plan is not effective in managing the construction impacts.

TABLE 10: CONTINGENCY PLAN

Risk		Condition Green	Condition Amber	Condition Red
Construction Movements	Trigger	Construction traffic volume is in accordance with permissible and programmed volume and time constraints	Construction traffic volumes exceeds programmed volume but is within permissible volume constraints	Construction traffic volumes exceeds permissible volume and time constraints
	Response	No response required	Review and investigate construction activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> Review CTMP and update where necessary Provide additional training. 	As with Condition Amber, plus; <ul style="list-style-type: none"> If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. Stop all transportation into and out of the site.
	Trigger	No construction vehicle movement during peak periods	Construction vehicle movement close to peak periods	Construction vehicle movement during peak periods
	Response	No response required Continue monitoring program	Review and investigate construction activities, and where appropriate, implement additional remediation measures such as: <ul style="list-style-type: none"> Provide additional training (including toolbox talks and further notification of Driver Code of Conduct) 	As with Condition Amber, plus; <ul style="list-style-type: none"> If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. Stop all transportation into and out of the site. Review CTMP and update where necessary.

Queuing	Trigger	No queuing identified	Queuing identified within site	Queuing identified on the public road
	Response	No response required Continue monitoring program	Review the delivery schedule prepared by the builder. If drivers are not following the correct schedule, then they should be provided with additional training and an extra copy of the Driver Code of Conduct	As with Condition Amber, plus <ul style="list-style-type: none"> Review and investigate construction activities. If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. Temporary halting of activities and resuming when conditions have improved. Stop all transportation into and out of the site. Review CTMP and update where necessary, provide additional training.
Noise	Trigger	Noise levels do not exceed imposed noise constraints	Noise levels in minor excess of imposed noise constraints	Noise levels greatly in excess of imposed noise constraints
	Response	No response required	Undertake all feasible and reasonable mitigation and management measures to minimise noise impacts.	As with Condition Amber If noise levels cannot be kept below applicable limits, then a different construction method or equipment must be utilised.
Traffic Guidance Scheme	Trigger	No observable issues	Minor inconsistencies with TGS to onsite operations	Near miss or incident occurring regardless of / as a result of the TGS being implemented
	Response	No response required	Traffic Controller to amend TGS on site and to keep a log of all changes	Stop work until an investigation has been undertaken into the incident. There are to be changes made to the TGS to ensure that the safety of all workers, students and civilians are catered for.

Dust	Trigger	No observable dust	Minor quantities of dust in the air and tracking on to the road	Large quantities of dust in the air and tracking on to the road
	Response	No response required	<p>Review and investigate construction activities and respective control measures, where appropriate. Implement additional remedial measures, such as:</p> <ul style="list-style-type: none"> • Deployment of additional water sprays • Relocation or modification of dust-generating sources • Check condition of vibrating grids to ensure they are functioning correctly. • Temporary halting of activities and resuming when conditions have improved 	<p>As with Condition Amber.</p> <ul style="list-style-type: none"> • If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. • Implement relevant responses and undertake immediate review to avoid such occurrence in future.

Appendix A. Driver Code of Conduct

Drivers Code of Conduct

Safe Driving Policy for 238-258 Captain Cook Drive, Kurnell.

Objectives of the Drivers Code of conduct

- To minimise the impact of earthworks on the local and regional road network;
- To minimise conflict with other road users;
- To minimise road traffic noise; and
- To ensure truck drivers use specified heavy vehicles routes between the Site and the sub-regional road network.

Code of Conduct

All vehicle operators accessing the site must:

- Take reasonable care for his or her own personal health and safety;
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons;
- Notify their employer if they are not fit for duty prior to commencing their shift;
- Obey all applicable road rules and laws at all times;
- In the event an emergency vehicle behind your vehicle, pull over and allow the emergency vehicle to pass immediately;
- Obey the applicable driving hours in accordance with legislation and take all reasonable steps to manage their fatigue and not drive with high levels of drowsiness;
- Obey all on-site signposted speed limits and comply with directions of traffic control supervisors in relation to movements in and around temporary or fixed work areas;
- Ensure all loads are safely contained / restrained, as necessary;
- Drive over devices – located at the site's access – to vibrate off and wash off any loose material attached to heavy vehicles;
- Operate their vehicles in a safe and professional manner, with consideration for all other road users;
- Hold a current Australian State or Territory issued driver's licence;
- Notify their employer or operator immediately should the status or conditions of their driver's license change in any way;
- Comply with other applicable workplace policies, including a zero tolerance of driving while under the influence of alcohol and/or illicit drugs;
- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device;
- Advise management of any situations of which you know, or think, may present a threat to workplace health and safety;
- Drive according to prevailing conditions (such as during inclement weather) and reduce speed, if necessary; and

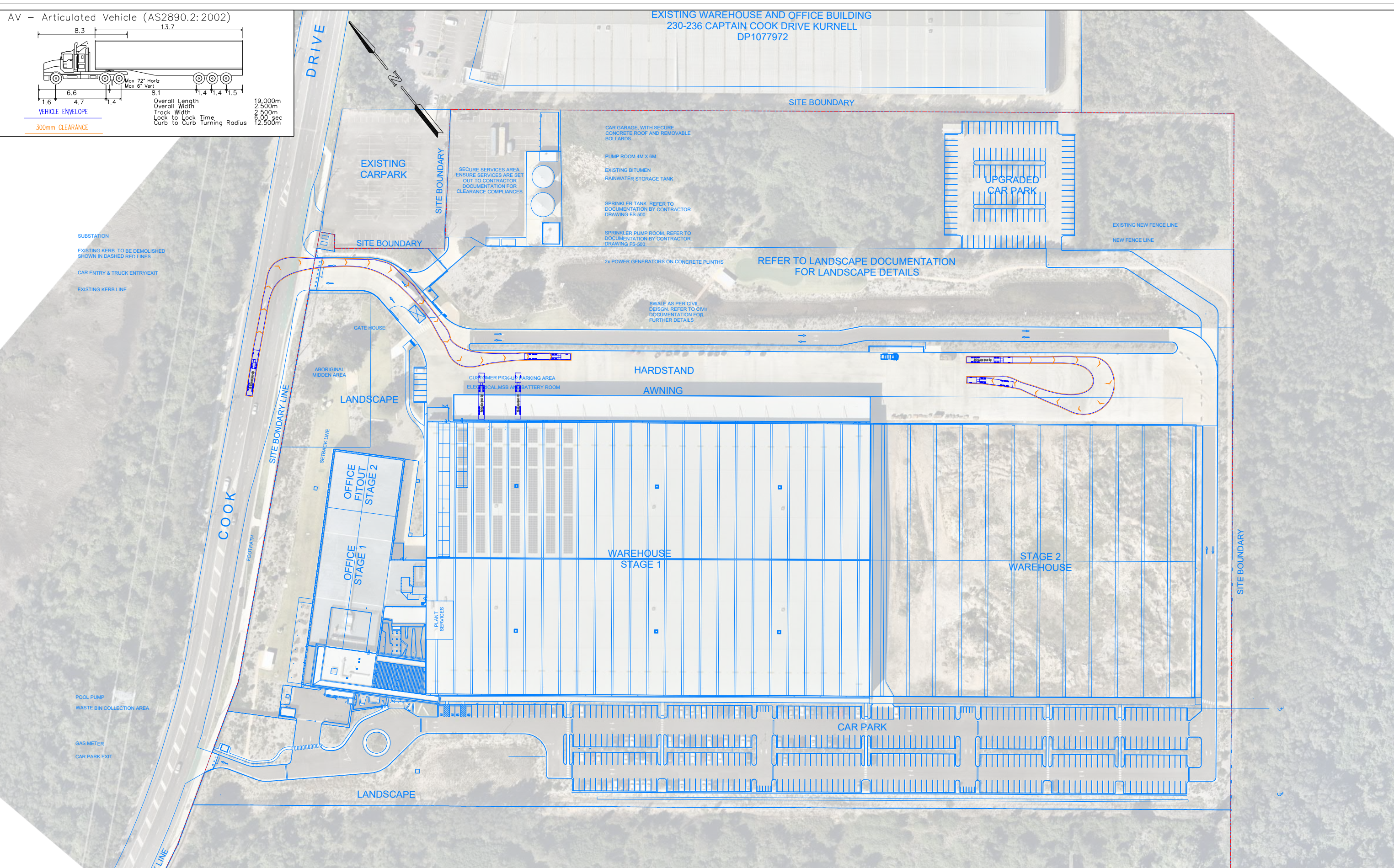
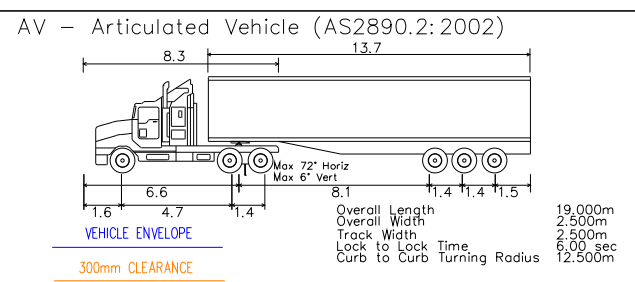
- Have necessary identification documentation at hand and ready to present to security staff on entry and departure from the Site, as necessary, to avoid unnecessary delays to other vehicles.

Crash or incident Procedure

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

Appendix B. Swept Path Assessment

AV - Articulated Vehicle (AS2890.2:2002)
 19,000m Overall Length
 2,500m Overall Width
 2,500m Track Width
 6:00 sec Lock to Lock Time
 12,500m Curb to Curb Turning Radius
 300mm CLEARANCE
 Max 72° Horiz
 Max 6° Vert
 1.6 4.7 1.4 8.1 1.4 1.4 1.5
 8.3 13.7
 SUBSTATION
 EXISTING KERB TO BE DEMOLISHED SHOWN IN DASHED RED LINES
 CAR ENTRY & TRUCK ENTRY/EXIT
 EXISTING KERB LINE
 POOL PUMP
 WASTE BIN COLLECTION AREA
 GAS METER
 CAR PARK EXIT
 LANDSCAPE
 ABORIGINAL MIDDEN AREA
 CUSTOMER PICKUP PARKING AREA
 ELECTRICAL MSB AND BATTERY ROOM
 PLANT SERVICES
 LANDSCAPE
 SWALE AS PER CIVIL DESIGN. REFER TO CIVIL DOCUMENTATION FOR FURTHER DETAILS.
 2x POWER GENERATORS ON CONCRETE PLINTHS
 REFER TO LANDSCAPE DOCUMENTATION FOR LANDSCAPE DETAILS
 SPRINKLER TANK. REFER TO DOCUMENTATION BY CONTRACTOR DRAWING FS-500.
 SPRINKLER PUMP ROOM. REFER TO DOCUMENTATION BY CONTRACTOR DRAWING FS-500.
 EXISTING BITUMEN
 RAINWATER STORAGE TANK
 PUMP ROOM 4M X 6M
 CAR GARAGE, WITH SECURE CONCRETE ROOF AND REMOVABLE BOLLARDS
 EXISTING WAREHOUSE AND OFFICE BUILDING
 230-236 CAPTAIN COOK DRIVE KURNELL
 DP1077972
 EXISTING NEW FENCE LINE
 NEW FENCE LINE
 EXISTING CARPARK
 SECURE SERVICES AREA. ENSURE SERVICES ARE SET OUT TO CONTRACTOR DOCUMENTATION FOR CLEARANCE COMPLIANCES
 UPGRADED CAR PARK
 HARDSTAND
 AWNING
 WAREHOUSE STAGE 1
 STAGE 2 WAREHOUSE
 CAR PARK
 COOK DRIVE
 FOOTPATH
 SETBACK LINE
 SITE BOUNDARY LINE
 SITE BOUNDARY
 SITE BOUNDARY
 SITE BOUNDARY
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 Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED Alan Tan	PAPER SIZE A3
APPROVED BY D. Choi	DATE 10.02.2022
SCALE 1:1500	NTS

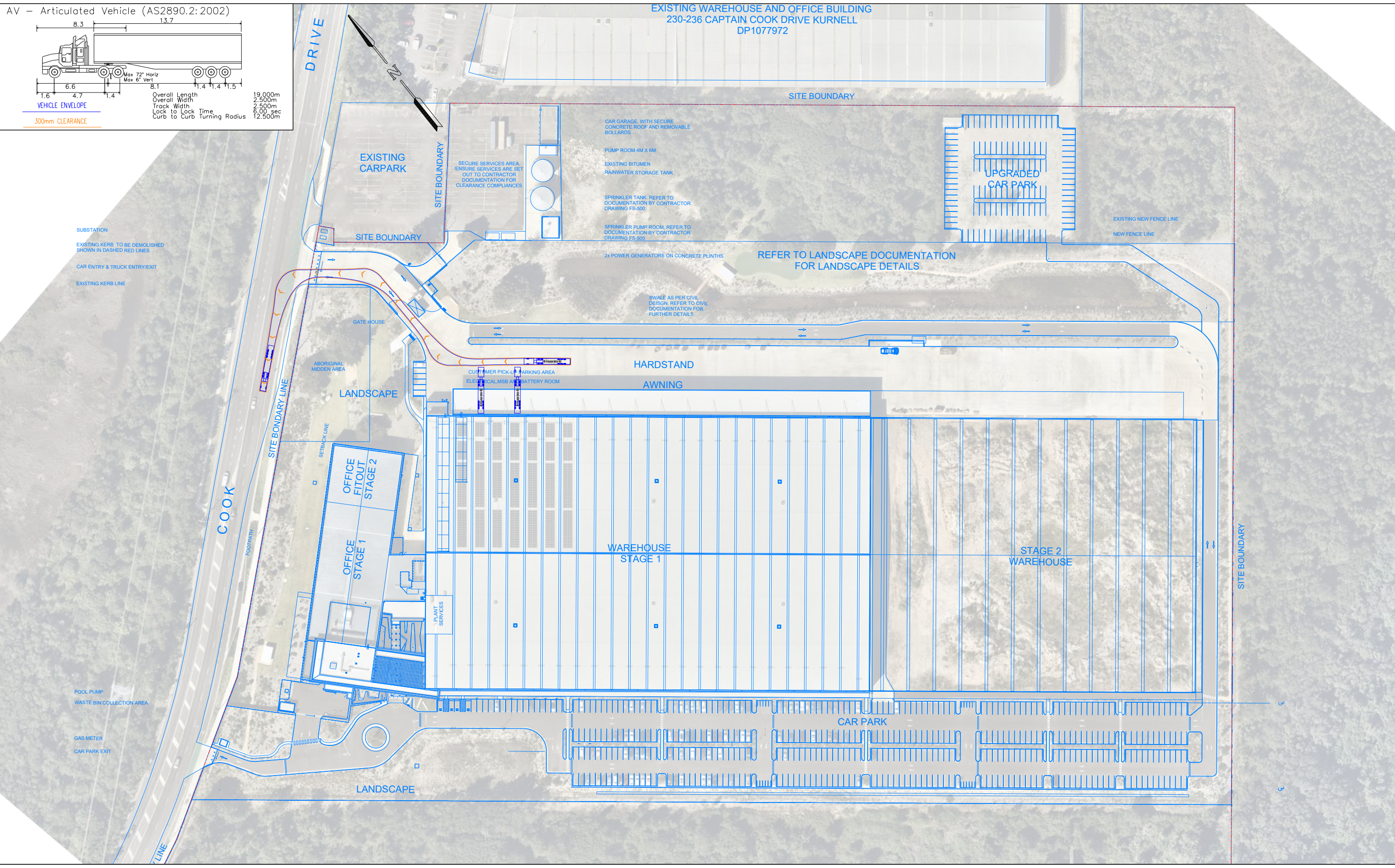
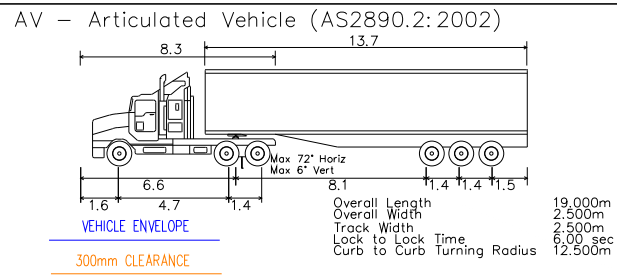
CLIENT Dicker Data
PROJECT 0839
238-258 Captain Cook Dr, Kurnell

DOCUMENT INFORMATION	
Swept Path Assessment	
FILE NAME AG0839-08v01.dwg	SHEET AG01

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AS/NZS 1170:2011 - AS2890.2:2002 - AV - Articulated Vehicle (AS2890.2:2002) - This drawing is provided for information purposes only and should not be used for construction. Base Plan (file name: DA001B_DWG[F] - SITE PLAN STAGE 2) prepared by WMK Architecture, received 04 Feb 2022. Aerial photograph (taken 21 Dec 2021) obtained from Nearmaps. Swept path assessments completed at 10 km/h and 300mm clearance. AS/NZS 1170:2011 - AS2890.2:2002 - AV - Articulated Vehicle (AS2890.2:2002) - This drawing is provided for information purposes only and should not be used for construction. Base Plan (file name: DA001B_DWG[F] - SITE PLAN STAGE 2) prepared by WMK Architecture, received 04 Feb 2022. Aerial photograph (taken 21 Dec 2021) obtained from Nearmaps. Swept path assessments completed at 10 km/h and 300mm clearance.



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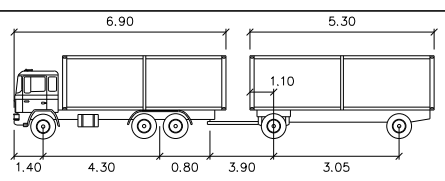
Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED Alan Tan	PAPER SIZE A3	CLIENT Dicker Data
APPROVED BY D. Choi	DATE 10.02.2022	PROJECT 0839
SCALE 1:1500	NTS	238-258 Captain Cook Dr, Kurnell

DOCUMENT INFORMATION	
Swept Path Assessment	
FILE NAME AG0839-08v01.dwg	SHEET AG02
Suite 17.02, Level 17, 1 Castlereagh St Sydney NSW 2000 info@asongroup.com.au	



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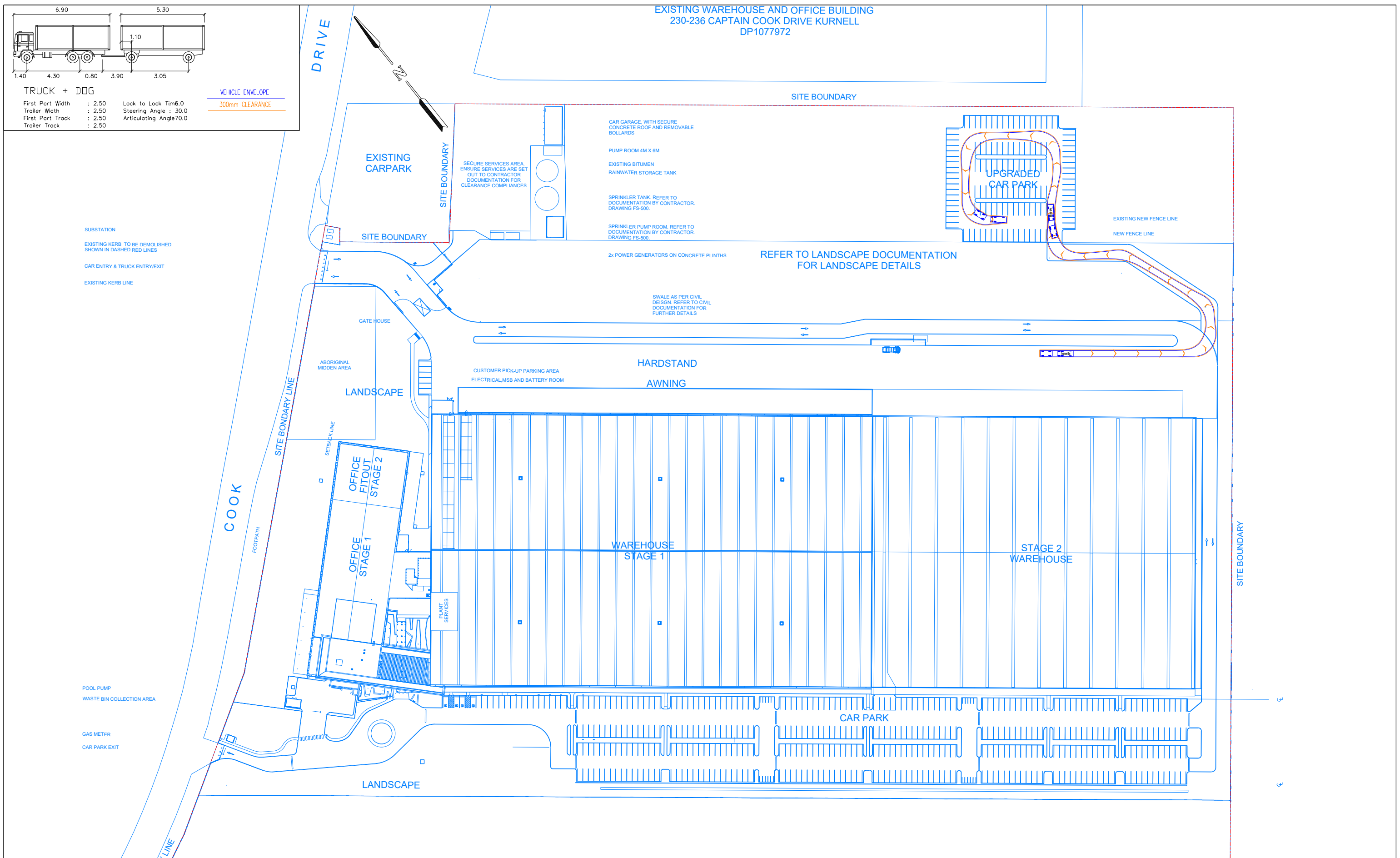


TRUCK + DOG

First Part Width	: 2.50	Lock to Lock Tim	6.0
Trailer Width	: 2.50	Steering Angle	: 30.0
First Part Track	: 2.50	Articulating Angle	70.0
Trailer Track	: 2.50		

VEHICLE ENVELOPE
300mm CLEARANCE

- SUBSTATION
- EXISTING KERB TO BE DEMOLISHED SHOWN IN DASHED RED LINES
- CAR ENTRY & TRUCK ENTRY/EXIT
- EXISTING KERB LINE
- POOL PUMP
- WASTE BIN COLLECTION AREA
- GAS METER
- CAR PARK EXIT



GENERAL NOTES

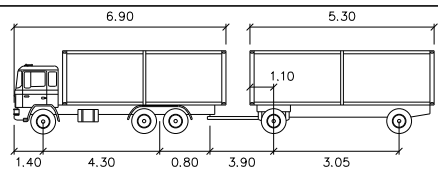
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 Swept path assessments completed at 10 km/h and 300mm clearance.

DESIGNED Alan Tan	PAPER SIZE A3	CLIENT Dicker Data
APPROVED BY D. Choi	DATE 10.02.2022	PROJECT 0839
SCALE 1:1500	NTS	238-258 Captain Cook Dr, Kurnell

DOCUMENT INFORMATION	
Swept Path Assessment	
FILE NAME AG0839-08v01.dwg	SHEET AG03

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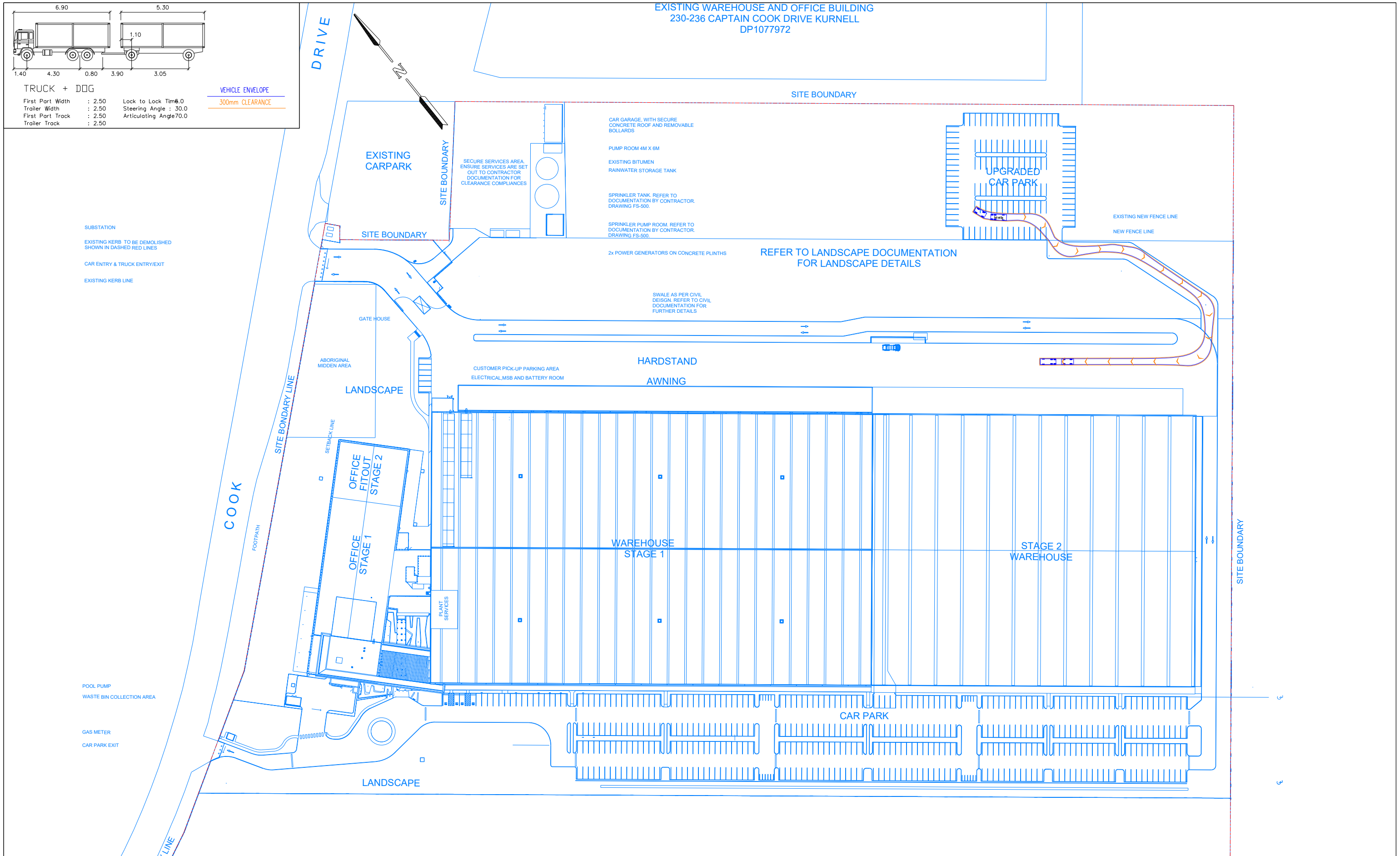
TRUCK + DOG

First Part Width	: 2.50	Lock to Lock Tim	6.0
Trailer Width	: 2.50	Steering Angle	: 30.0
First Part Track	: 2.50	Articulating Angle	70.0
Trailer Track	: 2.50		

VEHICLE ENVELOPE

300mm CLEARANCE

EXISTING WAREHOUSE AND OFFICE BUILDING
230-236 CAPTAIN COOK DRIVE KURNELL
DP1077972



- SUBSTATION
- EXISTING KERB TO BE DEMOLISHED SHOWN IN DASHED RED LINES
- CAR ENTRY & TRUCK ENTRY/EXIT
- EXISTING KERB LINE

- POOL PUMP
- WASTE BIN COLLECTION AREA
- GAS METER
- CAR PARK EXIT

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APPROVED BY D. Choi	DATE 10.02.2022	PROJECT 0839
SCALE 1:1500	NTS	238-258 Captain Cook Dr, Kurnell

DOCUMENT INFORMATION	
Swept Path Assessment	
FILE NAME AG0839-08v01.dwg	SHEET AG04

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Appendix C. Traffic Guidance Scheme

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LEGEND

- WORK AREA
- SIGN AND POST



TGS GENERAL NOTES

- CAPTAIN COOK DRIVE HAS A POSTED SPEED LIMIT OF 60KM/H
- NOT ALL DIMENSIONS SHOWN ARE TO SCALE
- LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY
- ALL SIGNS ARE TO BE MINIMUM SIZE A
- ALL SIGNS ARE TO BE CLASS 1 RETROREFLECTIVE
- ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH TFNSW'S TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL ISSUE 6 (RELEASED 2020) AND AUSTRALIAN STANDARDS AS1742.3:2019 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS
- THIS TRAFFIC CONTROL PLAN MUST BE SET UP BY A PERSON HOLDING AN "IMPLEMENT TRAFFIC MANAGEMENT PLAN" TICKET AND TFNSW'S TRAFFIC CONTROL AT WORK SITES CHECKLIST SHALL BE COMPLETED PRIOR TO IMPLEMENTATION
- THE ACCREDITED PERSONNEL SHALL IMPLEMENT THE APPROVED TCP BEFORE ANY PHYSICAL WORK COMMENCES AND ENSURE A COPY OF THE TCP IS KEPT ON-SITE. THE ACCREDITED PERSONNEL SHALL ALSO DRIVE THROUGH THE SITE BEFORE WORKS BEGIN TO ENSURE THAT THE TCP HAS BEEN IMPLEMENTED CORRECTLY AND THAT IT WILL WARN, INSTRUCT AND GUIDE ROAD USERS AS DESIGNED. ANY VARIATIONS TO THE PLAN MUST BE MARKED ON THE PLAN AND INITIALED BY THE ACCREDITED PERSONNEL
- IT IS THE RESPONSIBILITY OF THE AN ACCREDITED PERSONNEL WITH A 'PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN' TO ENSURE THE FOLLOWING:
 - * THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURE THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
 - * VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
 - * AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHALL BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
- ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN
- IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS
- TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS ARE TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE.
- ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED
- ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2019
- ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2019. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS
- IF REQUIRED, A TGS MUST BE SELECTED, DEVELOPED AND IMPLEMENTED BY A SUITABILITY QUALIFIED PERSON (PWZTMP AND ITCP QUALIFICATIONS)

GENERAL NOTES	
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Aerial photograph (taken 21 Dec 2021) obtained from Nearthmaps.	
Captain Cook Drive has a posted speed limit of 60km/h.	

DESIGNED Alan Tan	PAPER SIZE A3
APPROVED BY D. Choi	DATE 02.03.2022
SCALE 1:1000	

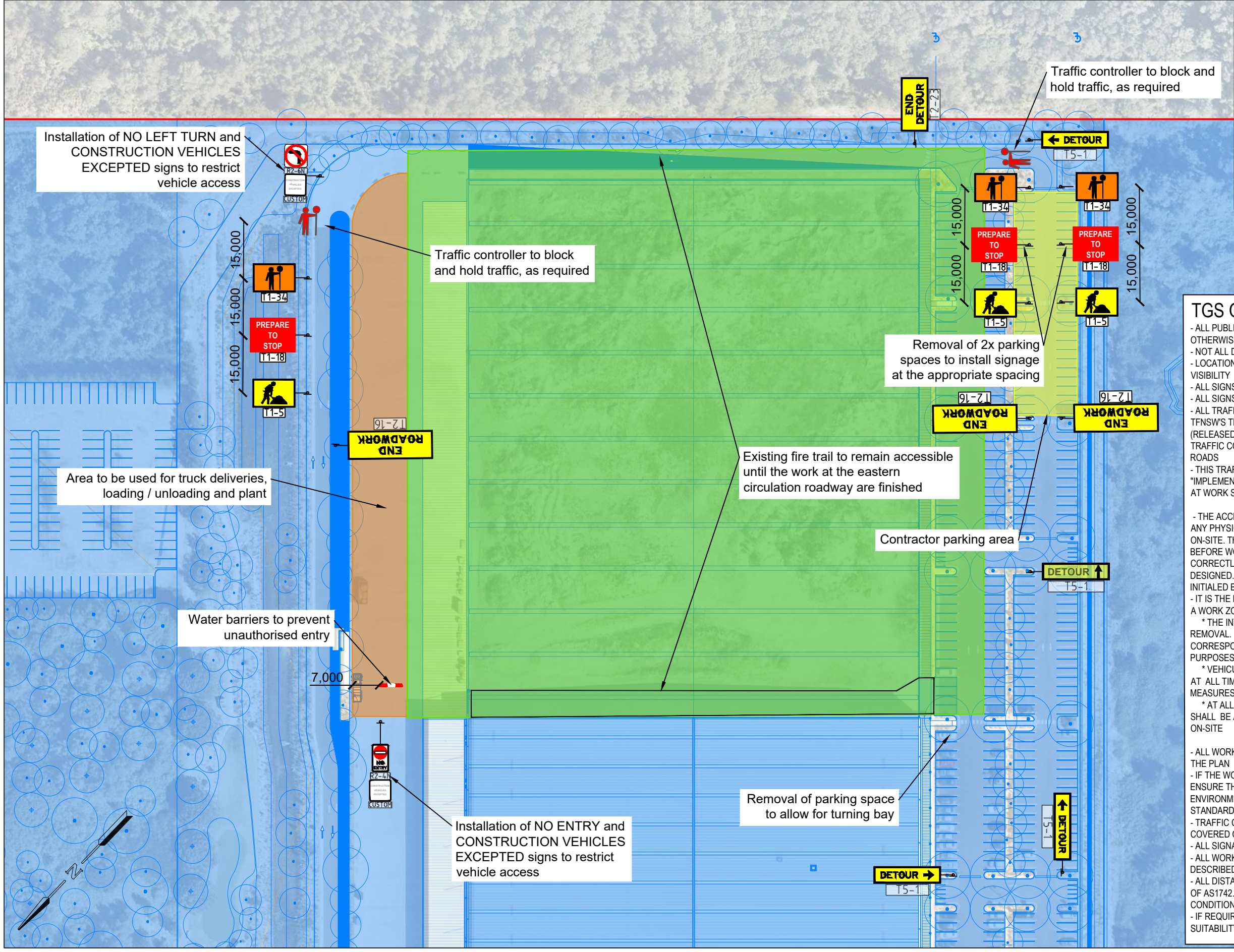
CLIENT Dicker Data	PROJECT 0839
238 Captain Cook Dr, Kurnell	

DOCUMENT INFORMATION	
Traffic Guidance Scheme	
FILE NAME AG0839-01v01.dwg	SHEET AG01

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LEGEND

- WORK AREA
- CONTRACTOR PARKING
- DELIVERY / PLANT AREA
- WATER BARRIER
- SIGN AND POST

TGS GENERAL NOTES

- ALL PUBLIC ROADS WILL HAVE A SPEED LIMIT OF 50KM/H UNLESS IDENTIFIED OTHERWISE
- NOT ALL DIMENSIONS SHOWN ARE TO SCALE
- LOCATION OF SIGNS ARE TO BE CONFIRMED ON-SITE TO ENSURE APPROPRIATE VISIBILITY
- ALL SIGNS ARE TO BE MINIMUM SIZE A
- ALL SIGNS ARE TO BE CLASS 1 RETROREFLECTIVE
- ALL TRAFFIC CONTROL PLANS ARE TO BE IMPLEMENTED IN ACCORDANCE WITH TFNSW'S TRAFFIC CONTROL AT WORK SITES TECHNICAL MANUAL ISSUE 6 (RELEASED 2020) AND AUSTRALIAN STANDARDS AS1742.3:2019 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, PART 3: TRAFFIC CONTROL DEVICES FOR WORKS ON ROADS
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GENERAL NOTES

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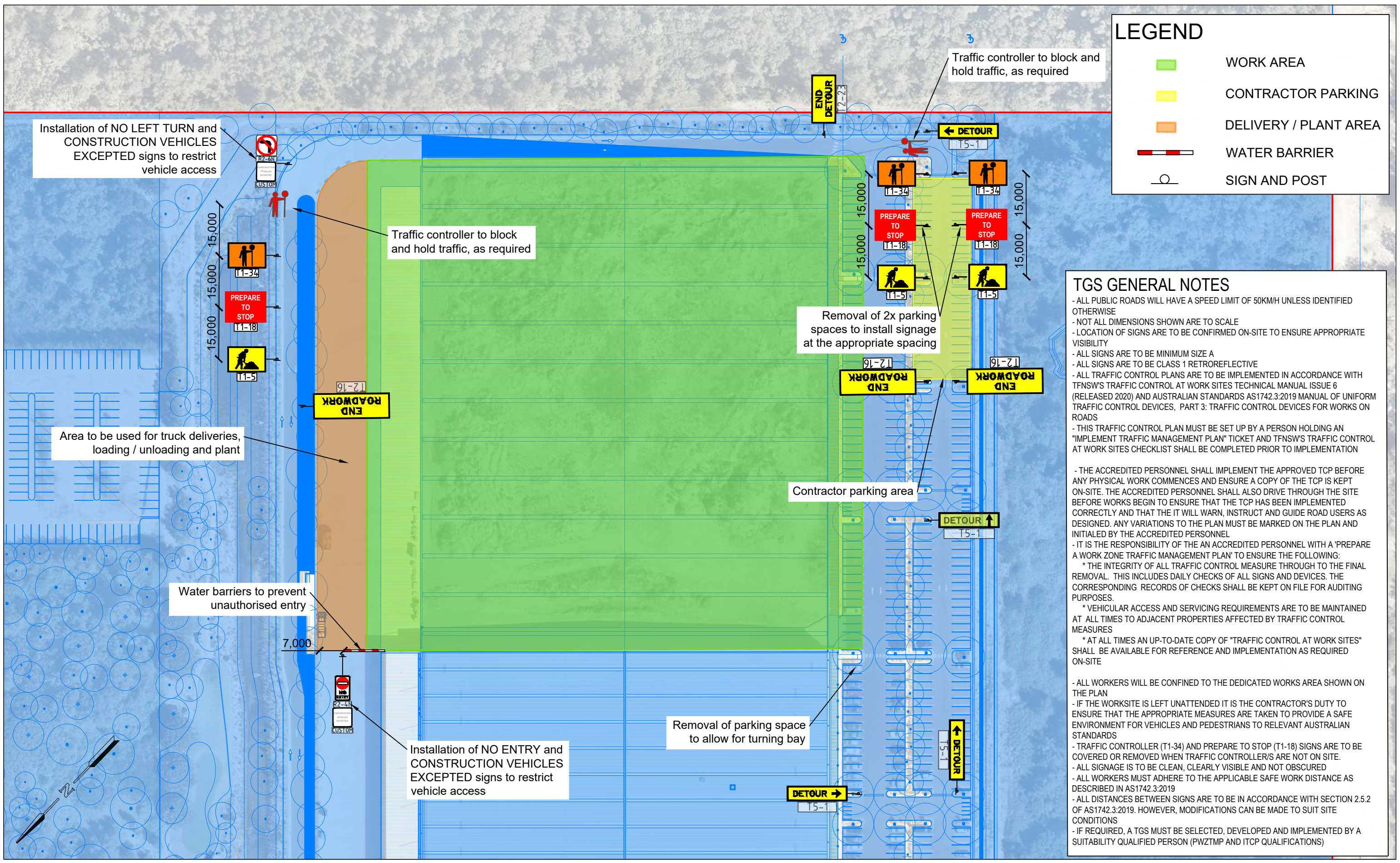
Captain Cook Drive has a posted speed limit of 60km/h.

DESIGNED Alan Tan	PAPER SIZE A3	CLIENT Dicker Data
APPROVED BY D. Choi	DATE 02.03.2022	PROJECT 0839
SCALE 1:1000		

DOCUMENT INFORMATION
Traffic Guidance Scheme
Concrete Panel Installation
FILE NAME AG0839-01v01.dwg
SHEET AG02

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Sydney NSW 2000
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LEGEND

- WORK AREA
- CONTRACTOR PARKING
- DELIVERY / PLANT AREA
- WATER BARRIER
- SIGN AND POST

TGS GENERAL NOTES

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- IT IS THE RESPONSIBILITY OF THE AN ACCREDITED PERSONNEL WITH A 'PREPARE A WORK ZONE TRAFFIC MANAGEMENT PLAN' TO ENSURE THE FOLLOWING:
 - * THE INTEGRITY OF ALL TRAFFIC CONTROL MEASURE THROUGH TO THE FINAL REMOVAL. THIS INCLUDES DAILY CHECKS OF ALL SIGNS AND DEVICES. THE CORRESPONDING RECORDS OF CHECKS SHALL BE KEPT ON FILE FOR AUDITING PURPOSES.
 - * VEHICULAR ACCESS AND SERVICING REQUIREMENTS ARE TO BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES AFFECTED BY TRAFFIC CONTROL MEASURES
 - * AT ALL TIMES AN UP-TO-DATE COPY OF "TRAFFIC CONTROL AT WORK SITES" SHALL BE AVAILABLE FOR REFERENCE AND IMPLEMENTATION AS REQUIRED ON-SITE
- ALL WORKERS WILL BE CONFINED TO THE DEDICATED WORKS AREA SHOWN ON THE PLAN
- IF THE WORKSITE IS LEFT UNATTENDED IT IS THE CONTRACTOR'S DUTY TO ENSURE THAT THE APPROPRIATE MEASURES ARE TAKEN TO PROVIDE A SAFE ENVIRONMENT FOR VEHICLES AND PEDESTRIANS TO RELEVANT AUSTRALIAN STANDARDS
- TRAFFIC CONTROLLER (T1-34) AND PREPARE TO STOP (T1-18) SIGNS ARE TO BE COVERED OR REMOVED WHEN TRAFFIC CONTROLLER/S ARE NOT ON SITE.
- ALL SIGNAGE IS TO BE CLEAN, CLEARLY VISIBLE AND NOT OBSCURED
- ALL WORKERS MUST ADHERE TO THE APPLICABLE SAFE WORK DISTANCE AS DESCRIBED IN AS1742.3:2019
- ALL DISTANCES BETWEEN SIGNS ARE TO BE IN ACCORDANCE WITH SECTION 2.5.2 OF AS1742.3:2019. HOWEVER, MODIFICATIONS CAN BE MADE TO SUIT SITE CONDITIONS
- IF REQUIRED, A TGS MUST BE SELECTED, DEVELOPED AND IMPLEMENTED BY A SUITABILITY QUALIFIED PERSON (PWZTMP AND ITCP QUALIFICATIONS)

GENERAL NOTES

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

Base Plan (file name: DA001B_DWG[F] - SITE PLAN STAGE 2) prepared by WMK Architecture, received 04 Feb 2022.

Aerial photograph (taken 21 Dec 2021) obtained from Nearthmaps.

Captain Cook Drive has a posted speed limit of 60km/h.

DESIGNED Alan Tan	PAPER SIZE A3
APPROVED BY D. Choi	DATE 02.03.2022
SCALE 1:1000	0 10 20

CLIENT Dicker Data
PROJECT 0839
238 Captain Cook Dr, Kurnell

DOCUMENT INFORMATION	
Traffic Guidance Scheme	
Fitout Works	
FILE NAME AG0839-01v01.dwg	SHEET AG03

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Appendix D. Risk Assessment

Proposed Warehouse Development – 238-258 Captain Cook Drive, Kurnell

Risk Assessment and Communication Tool

Project Number	0839		
Project Name	Proposed Warehouse Development		
Site Location	238-258 Captain Cook Drive, Kurnell		
Date of Assessment	3 th February 2022		
Revision	Issue I		
Name	Company	Title	
Document Control			
Date Issued	Revision	Issued By	Checked By
03/02/2022	Draft		

Risk Matrix		Consequence				
		Minor	Major	Severe	Critical	Catastrophic
		A	B	C	D	E
Very Unlikely	1	Low	Low	Medium	Medium	Medium
Unlikely	2	Low	Low	Medium	Medium	High
Possible	3	Low	Medium	High	High	High
Likely	4	Medium	Medium	High	High	Extreme
Almost Certain	5	Medium	High	High	Extreme	Extreme

Description	
A - Minor	Could result in injury or illness not resulting in a lost work day or minimal environmental damage not required to be notified under jurisdiction requirements.
B - Major	Could result in injury or illness resulting in one or more lost work day(s) or environmental damage can be mitigated and is not required to be notified under jurisdiction
C - Severe	requirements where restoration activities can be accomplished.
D - Critical	Could result in permanent partial disability, injuries or illness that may result in
E - Catastrophic	hospitalisation of persons or environmental damage can be mitigated and is required to be notified under jurisdiction requirements.

Likelihood Descriptor	Design Likelihood
1 - Very unlikely	Industry experience suggests design failure is very unlikely. It can be assumed failure
2 - Unlikely	Industry experience suggests design failure is unlikely to occur in the life of design.
3 - Possible	Industry experience suggests design failure is possible some time during the life of the
4 - Likely	Industry experience suggests design failure is likely to occur during the life of the product.
5 - Almost certain	Industry experience suggests design failure is almost certain to occur during the life of the

Risk Assessment and Communication Tool

Example

ID. Ref	Risk and/ or Hazard	Risk Description	Location	Existing Control	Initial Risk Rating			Design Response to risk and /or hazard	Status of Risk	Assignment of risk or hazard	Residual risk rating		
					C	L	RR				C	L	RR
1	Unauthorized Access to the Site	Site prevents unauthorised access	Entire Site	Nil	C	3	High	Exclusion barriers will be provided as part of the main works. The design provides a defined separation between construction and work areas.	Design Solution	Main Contractor	B	2	Low
2	Interaction between pedestrians and vehicles	Vehicles and pedestrians to be separates as best possible	Entire Site & Access Roads	Nil	D	3	High	Dedicated footpath, pedestrian crossings and additional signage shall be provided to separate vehicles and pedestrians as best possible.	Design Solution	Main Contractor	B	2	Low
3	Potential vehicle conflict points	Vehicles can crash with each other while manoeuvring through the site	Entire Site & Access Roads	Nil	B	3	Medium	Roadways are capable of two-way flow. Nonetheless, Traffic Controllers shall limit movements within disrupted areas to limit any safety issues. Low speeds throughout the site also reduce potential for crashes	Design Solution	Main Contractor	B	1	Low

4	Fatigue	Injury caused by fatigue	Entire Site	Nil	C	3	High	Toolbox meetings and regular breaks (in line with WHS practices) to minimise fatigue	Design Solution	Main Contractor	B	1	Low
5	Fall risks	Injury due to falls (in general)	Entire Site	Nil	E	3	High	Ensuring level changes across the site to be minimised as best possible, with additional black & yellow hazard tape/markings being installed where appropriate. Installation of handrails where level changes / ramps grades are significant.	Design Solution	Main Contractor	C	2	Medium
6	Misdirected access in to neighbouring site	Vehicle in unsafe locations	Entire Site	Nil	C	3	High	Ensuring appropriate directional signage has been provided to ensure vehicles do not access the wrong construction site, which could create potential safety breaches and hazards for all parties	Design Solution	Main Contractor	B	2	Low
7	Conflicting Traffic Management	Coordinating Traffic Controllers could create misleading and wrong advice	Entire Site	Nil	C	3	High	Toolbox meetings, regular liaison with all construction teams and review of signage plans on site in order to minimise contradicting signage.	Design Solution	Main Contractor	C	2	Medium

Appendix E. Author CV

Dora has 20 years of professional experience across the fields of urban planning, and traffic and transport engineering. With specialities in concept and schematic traffic design, road safety engineering, construction traffic management planning and major event traffic and transport operations planning, Dora focus on achieving practical, customer centred solutions commensurate with the project type, purpose and level of user experience established in collaboration with clients, delivery partners and project teams.

Dora's expertise in land use development planning and design has specific focus on car park design, traffic

management system design, and loading facilities design and design of traffic systems based on the operational requirements as well as future adaptability of spaces. Dora has been involved in a broad range of traffic and transport projects providing high quality service and end to end project advice to a range of public and private sector clients.

Dora has worked on a broad range of inter-disciplinary design teams where she collaborated with clients and consultants of various disciplines in achieving forward thinking outcomes that considers both current and future needs of end users.

QUALIFICATIONS & EDUCATION

- Post Graduate Diploma in Transport and Traffic (Monash)
- Post Graduate Diploma Planning & Design (Melbourne)
- Bachelor of Science (Auckland)
- Current Ason Group (Principal Lead: Traffic Management & Operations)
- 2018 – 2020 GTA Consultants (Associate Director)
- 2008 – 2018 Ratio Consultants (Senior Associate)
- 2013 – 2014 G20 Taskforce, Department of the Prime Minister and Cabinet (Assistant Director – Transport)
- 2007 – 2008 City of Melbourne (Senior Traffic Engineer)
- 2006 – 2007 City of Port Phillip (Transport Engineering Officer)
- 2005 – 2006 City of Port Phillip (Melbourne 2006 Commonwealth Games Operations Planner)
- 2000 – 2005 City of Port Phillip (Various Roles)

PROFESSIONAL BACKGROUND

KEY SKILLS

- Transport Management and Operations Planning
- Transport Design
- Event Traffic and Transport Management Operations Planning and Delivery
- Stakeholder management

KEY PROJECTS

Warrick Lane Precinct, Blacktown NSW Blacktown City Council

The Warrick Lane Precinct (The Precinct) is located within the Blacktown City Centre, 500 metres east of Blacktown

Railway Station. The 2.8-hectare site has been identified for redevelopment as part of the of the Blacktown City Centre Transformation. The objective of the transformation is to provide employment, housing, social, cultural,

Principal Lead – Traffic Management & Operations

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recreation and transport infrastructure within a framework of sustainability and design excellence.

Dora was engaged by Blacktown City Council to provide traffic and transport advice on the transformation project, and managed the delivery of a range of transport engineering output including schematic and detailed design input to the Project, Transport Impact Assessment in multiple phases, DA stage and Detailed Stage Construction Traffic and Pedestrian Management Plan preparation and worked closely with the broader project team.

Blacktown Health Precinct, Blacktown NSW Blacktown City Council

Blacktown Health Precinct is located to the east of the Blacktown City Centre. The Health Precinct has been identified as a transformation project of the Blacktown City Council to support the forecasted growth in population planned for Blacktown. The objective of the transformation is to provide employment and social infrastructure within a framework of sustainability and design excellence.

Dora was engaged by Blacktown City Council to provide traffic and transport advice on the transformation project, and managed the delivery of a range of transport engineering output including masterplan, strategic transport analytics and design input to the Project.

Woolworths National Loading Facilities Transport Management Safety Review | Woolworths

Dora was the National Technical Leader for the development and delivery of a loading facilities transport management safety review program for the Supermarkets branch of Woolworths which involved the development and delivery of a transport management inspection, review and reporting program involving over 1000 stores. Dora worked closely with the Health and Safety section of Woolworths and was a key member of the delivery team of the study.

Woolworths Drive Program Design Standards Development and Test Fit | Woolworths

Dora was the National Technical Design Lead for the review and provision of technical design advice to inform the development of standard layout and the design guideline of drive through facilities for Woolworth Supermarket assets.

Dora has completed a series of test fits across a number of stores located in NSW, SA, WA and NT reviewing and providing design options to retrofit drive through facilities.

Woolworths Minchinbury Distribution Centre (NSW) | Woolworths

Dora was the Project Director and Transport Engineering Lead for the redesign of loading, circulation and parking facilities within the existing Woolworths Minchinbury Distribution Centre and associated Development Application Transport Assessment and Modification application.

Woolworths Fresh Refrigerated Distribution Centre (VIC) | Fabcot

Dora was the Transport Engineering Lead from feasibility phase of the project, to completion of Planning Permit application and associated Concept to Schematic Design phases of the Woolworths Fresh Project in Truganina, Victoria. The project involved the development of a fourth leg to a roundabout, B-Double queuing areas, vehicle circulation, as well as parking facilities and design of a channelised right turn facility along Foundation Road.

Woolworths Melbourne South Regional Distribution Centre (VIC) | Fabcot

Dora was the Transport Engineering Lead for the project and has provided transport engineering input from the development of the Principal's Project Requirement, assisting the Project Architect in the development of a reference design, assistance in provision of transport engineering advice to inform site selection, subsequent Concept and Schematic Design work, and Transport Impact Assessment for the Planning Application.

Victoria Police Centre (2016 – 2020) and City West Police Complex (2011 – 2015), Melbourne | Cbus Property

The recently completed Victoria Police Centre and the City West Police Complex located at the corner of Spencer Street and La Trobe Street, Melbourne forms a custom-designed, integrated precinct.

Dora was the Transport Engineering Lead for the project since 2011 and has worked collaboratively with both the Project Principal, representatives of Victoria Police and the Project Design Team to develop custom designed solutions

Principal Lead – Traffic Management & Operations

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to traffic and transport facilities associated with the development. Dora prepared Transport Assessment reports, technical memorandums, and heavily involved in consultation with authorities and stakeholder consultation.

Secure Facilities, Melbourne | Reserve Bank of Australia

Dora was the Traffic Management Lead for the Secure Facilities developed by the Reserve Bank of Australia in Craigieburn, Melbourne.

Dora was engaged to develop traffic management arrangements, functional requirements and specifications embedded into the architectural, civil and security arrangements of the project.

Other Select Projects:

Education

Alex Avenue Public School | NSW Department of Education

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of contingency parking and site access design, responses to Response to Submissions, development of School Transport Plan, and liaison with Council.

Estella Public School | NSW Department of Education

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of responses to Response to Submissions, development of site access design, School Transport Plan, and liaison with key stakeholders.

Barramurra Public School | NSW Department of Education

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of responses to Response to Submissions, development of site access design, School Transport Plan, and liaison with key stakeholders.

Hastings Secondary College (Port Macquarie Campus) | NSW Department of Education

Dora was the Transport Engineering Lead for the project, and assisted in the preparation of contingency parking and site access design, responses to Response to Submissions,

development of Preliminary School Transport Plan, and liaison with Council.

Murrumbateman Public School | NSW Department of Education

Dora is the Transport Engineering Lead for the project, and assisted in the preparation of responses to Response to Submissions, development of site access design, School Transport Plan, and liaison with key stakeholders.

Googong Public School | NSW Department of Education

Dora is the Transport Engineering Lead for the project, and assisted in the preparation of responses to Response to Submissions, development of site access design, School Transport Plan, and liaison with key stakeholders.

North Sydney Public School | NSW Department of Education

Dora is the Transport Engineering Lead for the project, and assisted in the preparation of contingency parking and site access design, responses to Response to Submissions, development of School Transport Plan, and liaison with Council.

Mixed Use

Langston Place, Epping (NSW) | Cbus Property

88 Walker Street, North Sydney | Billbergia

1 Dension Street, North Sydney | Multiplex and The Winten Property Group

435 Collins Street, Melbourne (VIC) | Cbus Property

140 – 150 Queen Street, Melbourne (VIC) | Cbus Property

Community

Tom Wills Community Oval | Sydney Olympic Park Authority

James has a Bachelor of Civil Engineering and has been working in traffic engineering in the transport planning and transport construction industries for over eight years.

During this time, James has been involved in numerous projects for both private organisations and government agencies, including CPB Samsung John Holland Joint Venture (WestConnex M4 Extension project) and The Hills Shire Council.

James has demonstrated his ability across numerous areas of traffic engineering, transport construction, and transport planning and has been involved in many significant studies.

Past projects have ranged in size from detailed design advice in relation to intersection upgrades, the preparation of reviews and due diligence advice, to the preparation of Construction and Operational Traffic Management Plans, Traffic Control

Plans, and Traffic Impact Assessments for a large forward planning municipality infrastructure upgrade strategy for Council. While at The Hills Shire Council, James worked closely with Endeavour Energy for streetlighting feasibility and assessment studies and worked on the implementation of the Western Sydney Energy Efficient Streetlighting Program. James has undertaken internal road safety inspections post major road works, and has experience dealing with the Transport Management Centre to obtain Road Occupancy Licenses.

James has been trained in and worked with transport planning models and control plans, and this experience allows him to give specialist advice on transport planning and construction issues. These models and programs include AutoCAD Vehicle Tracking, SIDRA and Rapid plan.

QUALIFICATIONS & EDUCATION

- BE Civil Engineering (University of Technology, Sydney)
- Diploma in Engineering Practice (University of Technology, Sydney)
- RMS Prepare a Work Zone Traffic Management Plan Card (Combined orange and red card)
- WorkCover Occupational Health and Safety Construction Induction Card.
- Conduct Road Safety Audits

KEY SKILLS

- Construction Traffic Management Plans
- Operational Traffic Management Plans
- Traffic Impact Assessments
- Master Planning & Feasibility Studies
- Sustainable Transport Planning (Green Travel Plans & Transport Access Guides)

KEY PROJECTS & EXPERIENCE

Residential, Commercial & Mixed-Use Developments

- *Round Corner Dural – The Master Plan*
Traffic Impact Assessment providing recommendations to improve traffic management measures resulting from the revitalisation and renewal of the Round Corner Town Centre.
- *Bondi Junction RSL redevelopment*
Traffic Impact Assessment to provide guidance on the design of the internal parking scheme and loading dock design for the redevelopment of the Bondi Junction RSL. The TIA also identified and provided mitigating strategies to minimise impacts to the road network as a result of the redevelopment.

PROFESSIONAL BACKGROUND

- 2017 – Current: Ason Group
Traffic Engineer
- 2016 – 2017: CPB Samsung John Holland Joint Venture (WestConnex M4 East)
Traffic Engineer
- 2012 – 2016 The Hills Shire Council
Trainee, Graduate, and Acting Traffic Engineer

- Transportation Modelling Analysis (SIDRA)
- Australian Standards (AS2890 & AS 1158) Compliance
- Traffic Control Plans (Rapid Plan)
- Streetlighting assessment and feasibility studies.
- Road Safety Assessments

Transport Construction.

- *Closure of Concord Road Westbound on-ramp to the M4*
Transport Management Plan with accompanying Traffic Control Plans to support the permanent closure of the Westbound M4 on-ramp at Concord Road to facilitate the construction of the Upgrade to the M4.
- *Long term closure of Powell St, North Strathfield.*
Transport Management Plans with accompanying Traffic Control Plans to accommodate mass services relocation for the construction of WestConnex M4 East tunnels.
- *Oakdale South Masterplan S96.*
Development of a Construction Traffic Management Plan to support the use of out-of-hours construction vehicles.

Alan has a Bachelor of Civil Engineering and has been working in traffic engineering in the transport planning and transport construction industries for 5 years.

During this time, Alan has been involved in numerous projects for both private organisations and government agencies, including Charles Sturt University (CSU), Road and Maritime Services (RMS), Transport for New South Wales (TfNSW) and a variety of different Councils.

Alan has demonstrated his ability across numerous areas of traffic engineering, transport construction, and transport planning and has been involved in many significant studies.

Past projects have ranged in size from detailed design advice in relation to the preparation of reviews and due diligence

advice, to the preparation of Construction Traffic Management Plans (CTMP), Traffic Control Plans (TCP), and Traffic Impact Assessment (TIA) for Councils. Alan has also worked on various Transport Planning projects such as Local Area Traffic Management (LATM) studies, Council-wide Bike Plans and Pedestrian Access and Mobility Plans (PAMP).

Alan has been trained in and worked with numerous transport planning models and this experience allows him to provide strategic and specialist advice on transport planning issues. These models and programs include AutoCAD, Autotrack, and SIDRA

QUALIFICATIONS & EDUCATION

- BE in Civil Engineering (University of New South Wales, Sydney)
- Member of AITPM

PROFESSIONAL BACKGROUND

- 2018 – Current: Ason Group
Traffic Engineer
- 2014 – 2018: TEF Consulting
Traffic Engineer and Transport Planner

KEY SKILLS

- Traffic Impact Assessments
- Master Planning & Feasibility Studies
- Transport Planning projects (Bike Plans and Pedestrian Access and Mobility Plans)
- Transportation Modelling Analysis (SIDRA)
- Australian Standards (AS2890) Compliance
- Construction Traffic Management Plans

KEY PROJECTS & EXPERIENCE

Residential, Commercial & Mixed-Use Developments

- *Pelican Road, Schofields*
Traffic Impact Assessment for analysis of traffic and impacts on the surrounding road network as a result of the proposed commercial and 300+ residential units. Also, to provide guidance with respect to car parking provision and design and loading dock design.

Educational Developments

- *CSU Port Macquarie Masterplan*
Traffic and parking impacts assessment on public and private roads due to the increase in student numbers from a large-scale University development on greenfield land with particular interest to potential car parking impacts on the Council car parks and potential overflow.

Transport Planning

- *Hornsby Bike Plan*
Large scale Council bike plan produced to examine existing bicycle facilities, cycling attractors/generators, and areas of poor safety records. Public input is taken into account and new bicycle links are proposed to create

a cohesive bicycle network. Costing and design advice were also provided to Hornsby Shire Council.

- *Chester Hill HPAA*
Local Area Traffic Management (LATM) study detailing accident hotspots, speeding issues and volume capacity non-compliance in the study area. Methods in which to improve these issues were documented and presented to Council and stakeholders for discussion.

Traffic Studies

- *Birrong Station – Traffic and Parking Study*
Traffic and Parking study was conducted to review existing traffic and parking conditions and methods to better traffic flow, increase car parking provision and improve commuter and vehicular safety. Design advice was provided to ensure compliance with AS2890.
- *RMS Child Care Centre Validation Report*
Data analysis and validation report to supplement the existing RMS Guide to Traffic Generating Developments child care centre data. Surveys were organised, and statistical analysis was undertaken to compare historic survey information with updated data.