
125 Nancy Ellis Leebold Drive, Bankstown

Operational Traffic Management Plan

Prepared for: Urbis Pty Ltd

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Revision

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For and on behalf of

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Acknowledgment of Country

In the spirit of reconciliation, Stantec acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present, and extend that respect to all Aboriginal and Torres Strait Islander peoples.

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1. Introduction

1.1 Background

It is understood that a Development Application (DA) is to be lodged with Bankstown Airport Limited (BAL) for modification works to the existing site at 125 Nancy Ellis Leebold Drive, Bankstown Aerodrome and obtain approvals for the site to be used as a distribution centre. The site is currently managed by ESR and has historically been utilised by Toll Logistics.

The modification works will involve improvements to the building itself, removal of existing fences, closing of the existing fire brigade access point and modifications to the existing car park.

Stantec has been commissioned to prepare an Operational Traffic Management Plan (OTMP) to support the proposed DA. Stantec has also prepared a Transport Impact Assessment for the DA, which should be read in conjunction with this OTMP.

The location of the subject site and the surrounding road network is shown in Figure 1.

Figure 1: Subject site and its environs



Base image source: Nearmap

1.2 Purpose of this Report

This report outlines the identified traffic risks associated with the operations of the distribution centre and the recommended management measures:

- Designated access routes for heavy vehicles (semi-trailer) and light vehicles (delivery vehicles and worker vehicles) to and from the site.
- Traffic control measures for vehicles accessing and leaving the loading/ unloading areas
- Traffic control measures for conflict areas
- Interaction between vehicular and pedestrian traffic
- Implementation of the OTMP and continuous review and monitoring of the effectiveness of the OTMP.



This OTMP recognises that changes in operational requirements may occur over time, such as altered traffic conditions or changes to the site layout, and the management measures presented in this report may need to be altered to cater for the changing circumstances.

It is recommended that this OTMP be reviewed annually.

1.3 References

In preparing this report, reference has been made to the following:

- an inspection of the site and its surrounds.
- Bankstown Airport Development Guidelines 2019.
- Pre-DA minutes (prepared by Urbis, dated September 2023).
- Australian/ New Zealand Standard, Parking Facilities (AS 2890).
- traffic surveys undertaken by Matrix as referenced in the context of this report.
- plans for the proposed development prepared by SBA Architects.
- other documents and data as referenced in this report.



2. Site Description

2.1 Proposed Development & Site Layout

The site will include approximately 7,172m² GFA of warehouse space and 2,185m² GFA of ancillary office spaces on the eastern side of the site which will utilise much of the existing building on site. The ancillary office space includes a new truckers lounge space on the western side of the site, adjacent to the inbound loading docks.

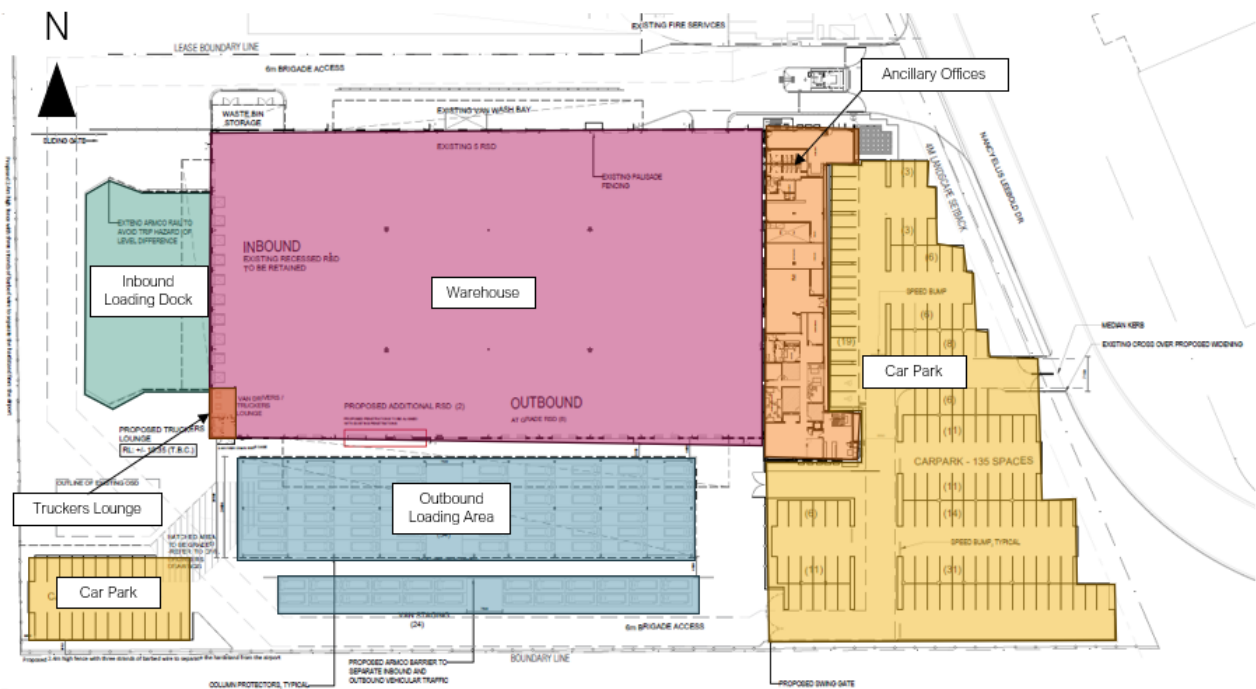
The site will include an inbound area on the western side of the site which will be able to accommodate up to 10 articulated vehicles (AV) simultaneously and an outbound area on the southern side of the site which will be able to accommodate up to 78 delivery vehicles at any given time.

The main existing car park will be modified to accommodate a central aisle to provide access between Nancy Ellis Leebold Drive and the outbound loading area. A new car park will be provided on the south-western corner of the site and will accommodate 23 car parking spaces.

The intention is for the proposed development to be in operation by late 2024.

The site layout can be seen in Figure 2.

Figure 2: Site Plan



Source: SBA Architects (October 2024)

2.2 Vehicle Access

Vehicle entry and exit to the site will be via two driveways along Nancy Ellis Leebold Drive.

Heavy vehicles (inbound delivery) will be limited 20 metre articulated vehicles (AVs) whilst the delivery vehicles (outbound delivery) will be limited to cars and delivery vehicles, such as the Mercedes Benz Sprinter Panel Van (or similar) as a typical maximum size.

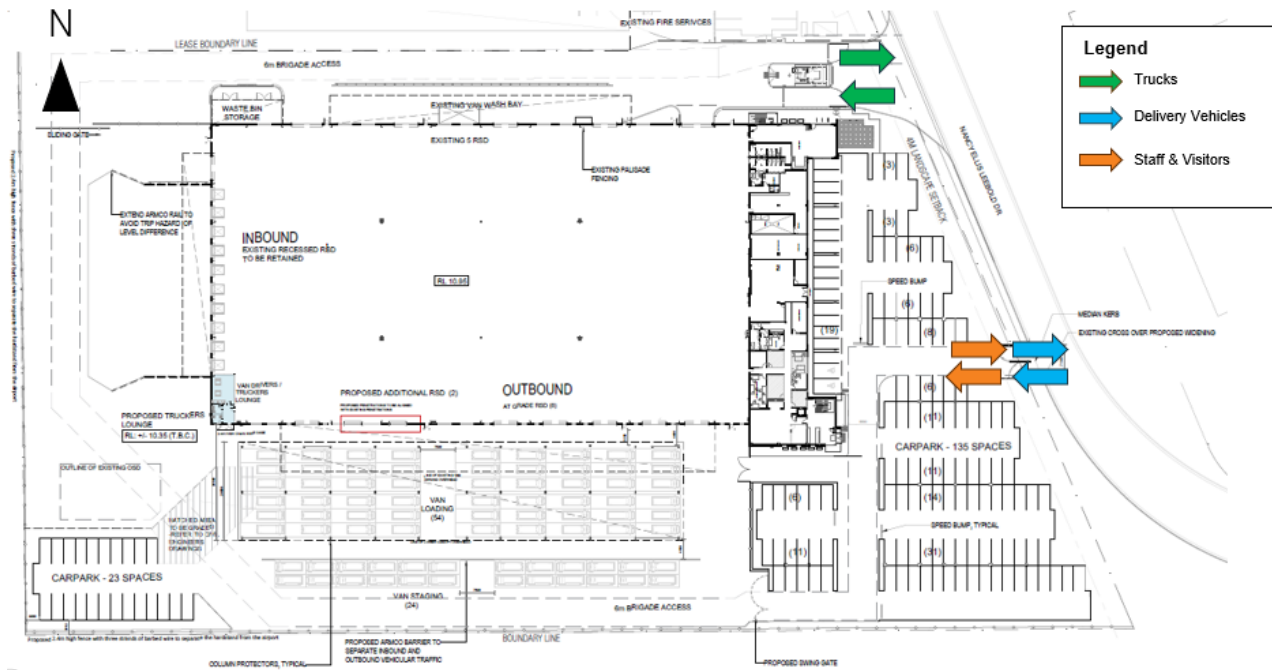
Heavy vehicles will enter and exit the site via the existing northern shared driveway to ensure that heavy vehicle movements do not conflict with delivery and staff/ visitor vehicle movements.

Delivery vehicles and staff (associates)/ visitors will enter and exit the site via the existing southern driveway, which will be widened for ease of entry/ exit movements.

The proposed vehicle access arrangement is shown in Figure 3.



Figure 3: Vehicle access arrangement



Source: SBA Architects (October 2024)

2.3 Car Parking

In total, the proposed development will provide 158 on-site car parking spaces, inclusive of two existing accessible spaces.

No on-site parking spaces are required or provided for the delivery vehicles, which will arrive for their allocated collection time.

2.4 Loading & Unloading Areas

The loading and unloading areas within the site will be separated into an inbound and outbound area. The inbound area will be located on the western side of the site, at the rear of the building, and will utilise the existing loading dock area which can accommodate up to 10 AVs simultaneously. This area will facilitate the unloading of bulk goods from the trucks and into the warehouse.

The outbound area will be located to the south of the site which will accommodate the loading of packages and items into the delivery vehicles. This area will be further separated into two areas: the 'delivery vehicles loading' area and the 'delivery vehicles staging' area. Delivery vehicles will arrive and wait in the 'delivery vehicle staging' area before being directed into the 'delivery vehicle loading' area. The 'delivery vehicle staging area' will be able to accommodate up to 24 delivery vehicles, whilst the 'delivery vehicle loading' area will be able to accommodate up to 54 delivery vehicles. In total, the outbound area will be able to accommodate up to 78 delivery vehicles at any given time.

3. Operation Description

3.1 Operational Hours

The distribution centre is proposed to operate 24-hours a day, with key periods of vehicle movements summarised in Table 1.

Table 1: Key periods of vehicle movements

Time	Activity
10:00pm	10:00pm – 11:00pm: Night roster associates arrive (average 70 staff) 11:00pm – 6:00am: Inbound trucks arrive and departure (approx. 50 trucks)
11:00pm	
12:00pm	
0:00am	
1:00am	
2:00am	
3:00am	
4:00am	
5:00am	
6:00am	
7:00am	7:00am – 8:00am: Night roster associates leave (average 70 staff) 7:00am – 8:00am: Day roster associates arrive (average 30 staff) 7:30am – 9:30am: Delivery truck departure (approx. 11 trucks) 7:30am – 10:30am: Delivery vehicles arrival/ departure (up to 35 vehicles in and 35 vehicles out every 20 minutes during the road network peak hour) 9:00am – 12:00am: Inbound truck arrival and departure (approx. 15 trucks)
8:00am	
9:00am	
10:00am	
11:00am	
12:00pm	
2:00pm	2:00pm – 5:00pm: Delivery vehicle arrival/ departure (approx. 17 vehicles in and 17 vehicles out every 20 minutes during the road network peak hour)
3:00pm	
4:00pm	
5:00pm	5:30pm – 6:00pm: Day roster associates leave (average 30 staff)
6:00pm	

3.2 Staff Roster Times

The operation of the distribution centre will involve two working rosters for a 24-hour operation, seven days per week. These workers would be responsible for unloading stock from the AVs and dispatching small parcels to the delivery vehicles during the day:

- Day roster: 7:00am-6:00pm
- Night roster: 10:00pm-8:00am



3.3 Vehicle Trip Generation

Based on the vehicle movements summarised in Table 1, the distribution centre is expected to generate approximately 316 vehicles in the morning road network peak and 102 vehicles in the afternoon road network peak periods. This is based on the following assumptions:

- All staff (associates) will travel to and from the site via private vehicles.
- Vehicle occupancy of staff vehicles is one (1) person per vehicle.
- Delivery vehicles will arrive as part of a 'wave plan', where drivers require an allocated slot and a valid electronic booking to attend site, with the maximum available booking capacity being 35 every 20 minutes during the AM road network peak hour (electronically controlled).
- Parcels will be typically loaded into the delivery vehicles within 15 to 20 minutes for each vehicle. This is based on similar distribution centres operated by the same tenant.



4. Operational Traffic Management Plan

4.1 Risk Identification

The following risks have been identified:

- Conflict between delivery vehicles and staff vehicle access through the main car park.
- Conflict between the delivery vehicle loading and staging areas.
- Conflict between trucks, delivery vehicles and staff vehicles (particularly the new car park area in the south western corner of the site).
- Conflict with trucks accessing the adjacent site along the shared northern driveway.
- Pedestrian safety external and internal to the building.

The following sections outline the recommended measures to manage the identified risks above.

4.2 Approach/ Departure Routes

All vehicles will approach and depart the site via Nancy Ellis Leebold Drive, by turning left or right at the signalised intersection between Milperra Road and Nancy Ellis Leebold Drive.

Trucks will utilise the arterial road network to approach and depart the site, whilst minimising the use of local roads.

4.3 Vehicle Access and Circulation

Access and circulation between the different vehicle types will be separated as much as possible to minimise conflict. This will be achieved by a combination between separate access/ circulation arrangements, linemarking and signage, and staged time periods.

- **Delivery vehicles:** delivery vehicles will only be entering and exiting the site during dispatch periods which will be between 7:30am to 10:30am and 2:00pm to 5:00pm. All delivery vehicles will enter and exit via the existing southern driveway and through the main car park (with a wide aisle provided for independent two-way vehicle movements, prior to a one-way circulation loop).
- **Trucks:** truck access and movement will predominantly be outside of road network peak and dispatch periods to minimise conflict with dispatch activities. All trucks will enter and exit the site via the existing northern shared driveway which will allow separation between truck movements and dispatch activities and staff/ visitor movements.
- **Staff and visitor vehicles:** staff (associates) will be entering and exiting the site based on the roster periods summarised in Section 3.1 and will generally be outside of the dispatch periods (staff will need to be on-site before the dispatch periods and will leave after the end of the dispatch periods). All staff and visitor vehicles will be entering and exiting the site via the existing driveway into the car park at the Nancy Ellis Leebold Drive frontage.

The vehicle access and circulation arrangements are shown in Figure 4 and Figure 5.



Figure 4: Access and circulation during dispatch periods

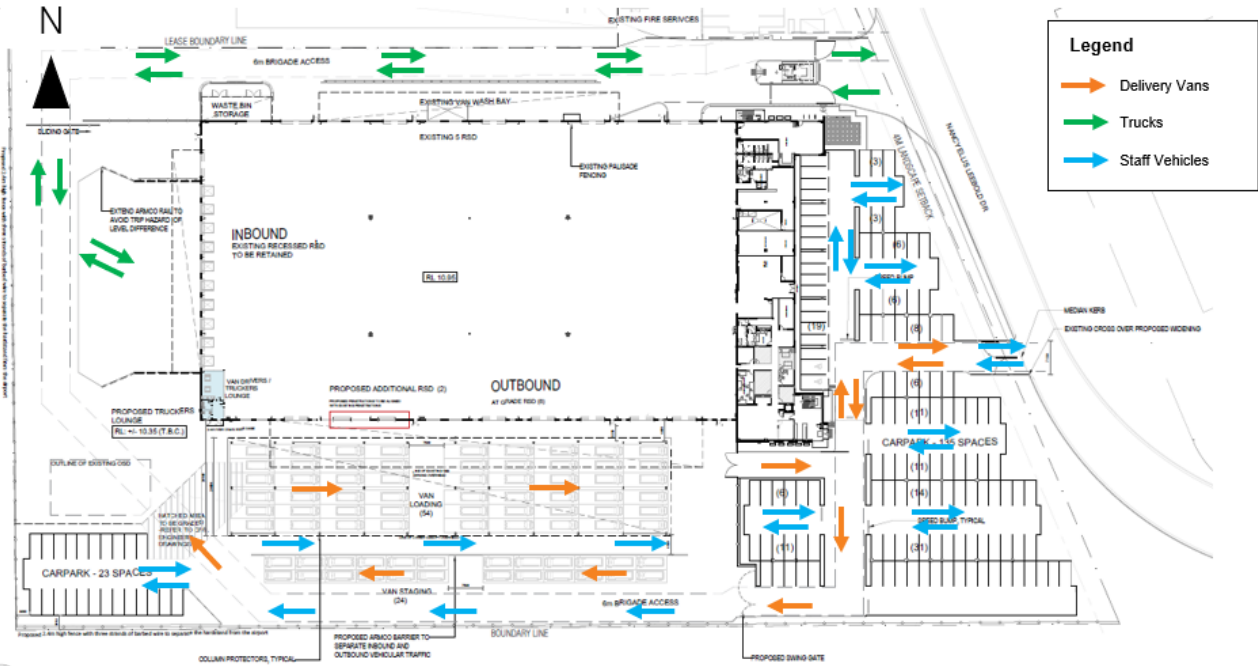
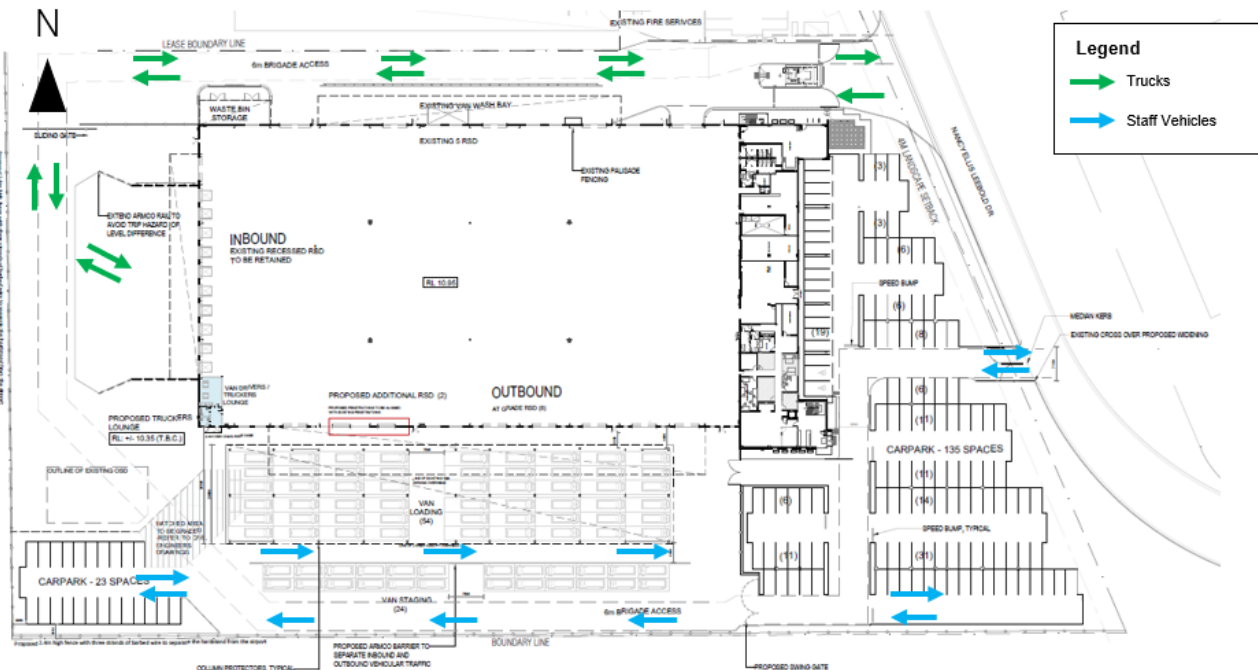


Figure 5: Access and circulation outside of dispatch periods



4.4 Delivery Vehicle Loading & Staging/ Queuing Area

Yard Marshalls will be stationed at the Delivery Vehicle Loading & Staging Area to ensure safe and efficient movement of delivery vehicles. Yard Marshalls will be responsible for the following:

- Ensuring that all the visual signage, cones and barriers are installed.
- All the necessary equipment is in working conditions.
- All loading areas are clear from empty carts and pedestrians before allowing any vehicles to move.
- Controlling the entry flow into the Staging/ Queuing area.
- Ensuring that vehicles are not exceeding the speed limit when entering the area.
- Directing delivery vehicles through the staging area to the loading area. The Yard Marshalls will use an LED wand to direct traffic as well as hand signals.

- Controlling the loading and dispatch process.
- All delivery vehicles will enter the Loading & Staging/ Queuing areas under the strict control of the Yard Marshalls.
- Reverse manoeuvres will be prohibited in the area unless under the strict supervision/ request of the Yard Marshalls.

4.5 Loading Dock Area

The loading dock area will be able to accommodate up to 10 AVs simultaneously. All trucks will be required to reverse into their allocated loading bay and exit in a forward direction. Yard Marshalls will be stationed at the loading dock (when trucks present) to manage the movement of trucks and unloading activities.

A booking system is to be implemented to control arrival and departure of vehicles, minimise queuing and ensure efficient and safe movement of trucks within the loading dock and along the shared driveway.

The booking system will be managed by the Loading Dock Manager. All trucks entering the site will be required to be pre-booked in the system, with consideration to the time required to unload the vehicles.

All truck drivers will be made aware of the booking system and that the Loading Dock Manager will need to be informed of any planned changes to the booking at least 24 hours before the arranged time. Any changes will need to be approved by the Loading Dock Manager. All truck drivers will need to notify the Loading Dock Manager at least 30 minutes prior to arriving on site.

4.6 On-site Parking Management

Only the on-site staff members will generate parking demand. Truck and delivery vehicle drivers will not generate additional on-site parking demand.

As aforementioned, there will be no on-site parking spaces provided for the delivery vehicles.

On average, there will be approximately 70 staff during the night roster and 30 staff during the day roster. Assuming that all staff arrive and depart the site via private vehicles and a vehicle occupancy of one person per vehicle, the average parking demand will be between 60 to 100 vehicles.

It is also noted that these estimates are considered conservative as there is likely to be some level of carpooling and/or alternate travel arrangements (e.g. pick-up/ drop-off).

Visitors will be directed to park at the front of the building and are only expected during typical business hours (when there will be surplus on-site car parking).

4.7 Pedestrian Management

The main pedestrian access into the site is through the main building entrance facing the main car park.

There will be some pedestrian entry from the rear of the building for staff who are parked in the new car park located in the south-western corner of the site or truck drivers using the trucker's lounge. The area to the rear of the site will largely be clear open space with good sight lines and sight distance to oncoming vehicles. Appropriate warning signage, wayfinding and line marking is recommended to be installed to improve pedestrian safety.

Unauthorised pedestrian entry into the Loading Dock and Delivery Loading & Staging/ Queuing areas will be prohibited. Any pedestrians within these areas (including Yard Marshalls) shall be wearing the appropriate Personal Protective Equipment (PPE).

Within the warehouse, pedestrians will be restricted to the designated pedestrian paths which will be line marked. This is to minimise conflict with mobile plant and equipment such as pallet movers and forklifts. All pedestrians within the warehouse will also be required to wear the appropriate PPE.

All visitors will be required to enter the site via the main building entrance and sign in. They will then be supervised by a staff member during the visit.

4.8 Protocols for Noise Emission Minimisation

As above, truck drivers are to be instructed not to use horns and compression braking in the vicinity of the site and any local streets. This is aimed to reduce any noise complaints from residents and surrounding developments.



4.9 Work Health and Safety

Safety requirements for the loading docks include the following:

- In the event of an accident occurring on site, the WHS Manager is to be notified immediately
- In the event of an emergency, the WHS Manager will work with the workers and delivery drivers for adequate responses
- All persons must wear high-visibility vests/clothing and enclosed footwear (no thongs, sandals or open-toed shoes)
- No person is to work while under the influence of drug or alcohol
- Goods are to be labelled and loaded/unloaded properly
- All drivers must drive at a speed no greater than 10km/h within the site

Additional work health and safety measures are to be in place consistent with the tenant's WHS protocols.



5. Implementation of OTMP

All staff and drivers should be made aware of understand the OTMP. As part of the staff/ driver orientation/ site induction, a copy of the site handbook should be provided which will include, but not limited to, the following:

- Protocols for Noise Emission Minimisation
- Work Health and Safety procedures
- Obligations of worker and delivery drivers
- Vehicle access arrangements
- Parking allocation and management
- Dock specific protocols
- Vehicle booking system

It is recommended that this OTMP be reviewed prior to site operation and then annually to ensure the management measures are effective and also reflect the changing workplace. All staff and drivers should be informed of any changes to the OTMP.



