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Traffic Management Standard

Document Control:

Document owner	General Manager Infrastructure
Document approver	General Manager Infrastructure
Date of issue	08/10/2021
Date of last review	16/09/2024
Reason for change	Formatted to new brand

Contents

1. Purpose

Moving vehicles and mobile plant and equipment can be a significant hazard to workers at the Waitematā Seaport. With large numbers of personnel (operating 24 x 7) and constant movement of mobile plant and equipment, trucks, and light vehicles, traffic management is identified as a key hazard for the **Port of Auckland Ltd** (POAL).

The standard considers:

- Types of transport and pedestrian movements
- When trucks are arriving and departing, being loaded and unloaded, reversing, queuing and parking
- Trains arriving and departing. Being loaded and unloading, and shunting
- Working being carried out, or planned to be carried, nearby of other PCBUs
- Controlling workers (including contractors) and visitors movements onsite, and
- The condition of road & wharf surfaces and rail tracks

2. POAL Waitematā Seaport Overview

The Waitematā Seaport, comprised of 77 hectares of port operations, is split between four operational business units.

The Fergusson Container Terminal (FCT) is around 30 hectares in size, has eight quay cranes and handles nearly 30 ships per month, managing 900,000 twenty-foot equivalent unit (TEU) each year. While the port moves approximately 100,000 containers by rail, the truck grid is a significant part of our operations. FCT includes an empty container yard and the rail grid.

Multi-Cargo (MC) facilities encompass six wharves that handle a variety of breakbulk cargo, steel, timber, dry and liquid bulk, containers, and vehicles. Port of Auckland manages MC berthage and wharf space, with cargo-handling services provided by third-party stevedoring companies who are engaged directly by the shipping lines. With multiple PCBUs operating across MC and the dynamic changing layout and activities, traffic management is a primary control for several our critical risks.

POAL's Engineering team services POAL plant and equipment from several workshops and warehouses.

POAL also operates cruise facilities at Queens Wharf and Princes Wharf which handle up to a high number of cruise ships per season.

3. Scope

This standard applies to all vehicle and mobile plant and equipment activities at the Waitematā Seaport, within the red fence.

4. Definitions and Abbreviations used in this Standard

Driver Safety Zone/Designated Safety Zone (DSZ) - A defined area for a driver to:

- Exit the vehicle safely
- Secure or release loads safely.

Light vehicle - light vehicles are defined under the Land Transport Act 1998. According to this legislation, light vehicles are motor vehicles that have a gross laden weight (GLW) of 3,500 kilograms or less. This weight includes the vehicle's maximum carrying capacity, including the weight of passengers and any cargo.

Operational Roadway - restricted roadways primarily used by heavy plant, equipment, trucks and the POAL transport van. Signage will indicate entry into an operational roadway/area to alert port users to the higher risks and therefore a greater level of controls. Consider using the transport van, where appropriate.

Common User Roadway - mainly used by road vehicles to access an operational area and to transit across the port.

Controlled Operating Area –this term refers to areas under the direct control of a specific PCBU, such as a tenant, a contractor, a fumigator, or a stevedoring operator.

Operational Area – refers to an area where work activities usually occur (it includes controlled operating areas).

POAL Primary Business Unit – The POAL business unit that has the most influence or control of an area.

Controlling PCBU – a party that POAL has designated control of an area to, such as TPO or a tenant.

CTOP – Container Terminal Operations

FCT - Fergusson Container Terminal

MC - Multi-Cargo

TPO - Third-Party Operator such as MC stevedores

POAL - Port of Auckland Ltd

PPE - Personal protective equipment

Red Fence – within the **Customs-Controlled Area** (CCA)

Must - Requirement that has to be complied with.

Should - Recommended best practice.

5. Responsibilities

This section describes the overall traffic management responsibilities.

The Executive, through POAL's H&S Steering Committee, is responsible for:

- Approval of this traffic management standard
- Approving any changes to the traffic management standard
- Providing guidance on the acceptable level of risk.

The Chief Executive Officer is responsible for:

- Delegating authority and resources to managers to enable them to effectively manage traffic in their area of operations as per the standard.

The General Manager of Infrastructure is responsible for:

- Sponsoring initiatives that will eliminate/reduce key traffic risks, including safety in design & ongoing maintenance activities.
- Ensuring the traffic improvement initiatives requiring changes to common areas and common user roadway layouts, pavement markings and physical changes are actioned in a timely fashion and align with this standard
- Keeping traffic management physical controls in good condition in common areas and on common user roadways
- Supporting the Manager Traffic Management.

The POAL Manager Traffic Management is responsible for:

- Providing support to Operational Managers in performing risk assessments on high-risk intersections or interactions or high-volume roadways
- Supporting review of TMP, SOPs or similar documents from TPOs, tenants or contractors on site against this standard
- Implementing traffic improvement initiatives and/or controls that will eliminate/reduce key traffic risks
- Attending Traffic Management Committee meetings and assist with the preparation of area specific Traffic Management Plans
- Supporting Operational Managers and tenants to investigate near misses and incidents.

The POAL Operational Managers (or their delegates) are responsible for:

- Co-ordinating PCBU's with the day-to-day traffic management of their operational areas
- Ensuring overall compliance with the TMPs and this standard including mobile plant and equipment standards and driver operator competency
- Keeping operational areas and operational roadway traffic management physical controls in good condition
- Establishing and running area specific traffic management committees
- Instigating risk assessments for key traffic risk areas in their operational space
- Influencing attitudes and behaviour to improve traffic risk management
- Monitoring traffic in their operational area
- Ensuring TMPs of TPOs or contractors operating in the area have been reviewed by POAL against this standard
- Ensuring traffic incidents, including near misses, from their operational area are recorded in PortSafe, investigated and actions taken to reduce risk of future incidents
- Demonstrating overall compliance with the traffic management standard.

The POAL HSW team is responsible for:

- Reviewing and maintaining the traffic management standard
- Supporting assurance activity to ensure compliance with the traffic management standard.

Tenants are responsible for:

- Identifying potential traffic hazards and risks in the tenant occupied area, completing traffic risk assessments, implementing, and monitoring controls, and maintaining a TMP for their controlled operating area
- Working with POAL and other PCBUs with overlapping duties to eliminate or minimise the traffic risks and hazards
- Informing POAL of any traffic incidents and near-misses

- Ensuring traffic incidents, including near misses, from their operational space are investigated and actions taken to reduce risk of future incidents
- Demonstrating overall compliance with the traffic management standard.

The Third-Party Operators are responsible for:

- Participating in risk assessments in key traffic risk areas where they are PCBUs
- Providing a TMP for a change to operations that may impact site traffic flow and for all bulk **receive and deliver** (R&D) shipments by commodity
- Managing the traffic within their controlled operating area
- Demarcating DSZs for loading and unloading in their controlled operating area
- Informing POAL of any traffic incidents, including near misses
- Ensuring traffic incidents, including near misses, from their operational space are investigated and actions taken to reduce risk of future incidents
- Influencing attitudes and behaviours to improve traffic risk management
- Demonstrating overall compliance with the traffic management standard.

POAL personnel are responsible for:

- Adhering with the site traffic management standard
- Recording traffic incidents, including near misses, in PortSafe
- Ensuring the visitors and contractors they are responsible for also adhere with the site traffic management standard
- Undertaking training and inductions.

Port users and POAL contractors are responsible for:

- Adhering with the site traffic management standard
- Adhering with specific rules and requirements as communicated in induction material
- Informing POAL of any traffic incidents, including near misses
- Collaborating, co-operating, and communicating with POAL to improve traffic management
- Undertaking training and inductions.

The POAL Learning and Development Teams are responsible for:

- Ensuring training material includes up to date with relevant traffic hazards, risks, and controls
- Ensuring driver competency training records are up to date.

6. Traffic Management Committees

The following area specific traffic management committees must meet at a minimum every six months. They may be held within a H&S meeting or PCBU key stakeholder forum.

- Fergusson Container Terminal Operations
    - Representatives from CTOPs workers (stevedores, operational performance coaches), CTOPs management, Manager Traffic Management, , MT yard, Container Co, Rail, POAL Gate Operations, POAL HSW and POAL Port Infrastructure and Engineering.
- Multi-Cargo
    - Representatives from the POAL MC operational team, Security, Manager Traffic Management, POAL HSW team, each **Third-Party Operator** (TPO) and tenant, and representative from the trucking community.
- Engineering

    - Representatives from Engineering workers, management and POAL HSW team.
- Port Infrastructure
    - Representatives from the Port Infrastructure Business Unit including the Manager Traffic Managementto review the car parks and other areas that Infrastructure are responsible for. Additional representatives to be included as required.
- Each committee will:
    - Ensure that meetings are minuted and provide a copy of the minutes to the H&S Steering Committee.
    - Review reported traffic related incidents, near-misses, and hazards to identify if traffic control improvements are required.
    - Make recommendations to the H&S Steering committee on any changes to this Traffic Management Standard or the area specific Traffic Management Plans.
    - Ensure that their area specific Traffic Management Plans are in place and regularly reviewed
    - Ensure risk assessments are undertaken.
    - Provide input into the Traffic Management Improvement Plan.
    - Ensure traffic controls (line markings, signage etc.) are in good condition.
    - Provide a six-monthly traffic management report to the H&S Steering Committee.
    - Receive data to demonstrate overall compliance.

7. Communication

- POAL business units must review this Traffic Management Standard to ensure that they comply, and their documentation includes or addresses the relevant controls.
- The site induction processes must cover the key elements of traffic management.
- Access card holders POAL site induction, primary PCBU and other site-specific controlling PCBU learnings must be current for the relevant operational area.

8. Types of Vehicles

The table below lists the types of vehicles covered by this standard.

Heavy Vehicle	Light Vehicle	Mobile Plant and Equipment
Trucks – containerised cargo	Cars	Straddle Carriers
Trucks other (carrying non-containerised cargo such as heavy plant, curtain siders, bulk freight haulage, and service vehicles such as sweepers and rubbish trucks)	Vans/Utes	Forklifts, reach stackers, hoists
Car transporters	Motorcycles (not inside the red fence except as cargo)	Heavy machinery (loaders, excavators)
Buses		Elevated work platforms
		Gantry cranes
		Mobile cranes
		Trains

9. Area specific Traffic Management Plans (TMPs)

Area specific traffic management plans detail how traffic will be managed in a named area through key traffic risk controls and layout diagrams.

TMP	Primary Audience	Business Unit Owner

Fergusson Container Terminal	External port users - Truck drivers	CTOPS – Gate Operations Manager
Fergusson Container Terminal Operational Areas	Internal operational personnel and contractors (IRS, Container Co.)	CTOPS – Operations Manager
Multi-Cargo Wharves	Third-party operators and other MC port users	Multi-Cargo Manager
Engineering Warehouse, Stores and Surrounding areas	Engineering personnel and contractors	Engineering Manager

A TMP should provide details about:

- the desired flow of types of transport and pedestrian movements including stop and give way rules. For example, setting up one-way traffic areas for times when visibility may be restricted, such as when operating empty container handlers or reach stackers
- how often and when types of transport and pedestrians are expected to interact
- traffic controls for each expected interaction including:
- illustrations of the layout of barriers, walkways, signs, and
- general arrangements to warn and guide traffic around, past, or through a worksite or temporary hazard
- exclusion zones. Signs, markings and delineations should be consistent with public road markings to reduce the risk of confusion for operators or drivers
- driver safety zones for vehicles while waiting for cargo to loaded or unloaded
- whether there are any shared roadways, main haul roads and potential high-risk areas where congestion is more likely
- roles and responsibilities of workers managing traffic, including in an emergency

When there are changes in traffic movements, TMPs should be updated and these changes communicated to workers.

10. Controlling POAL BU and Primary TPO of a Controlled Operating Area

Controlling POAL Business Unit

The port is split into the following operational areas which are managed by the business unit that has the most influence and control over an area.

Operational Areas	Controlling Business Unit
Fergusson Container Terminal including the empty yard, truck park and rail grid	CTOPS
Multi-Cargo Wharves	MC
Common carparks, offices, and landscaped areas outside the red fence	Port Infrastructure
Engineering	Engineering
Cruise	Cruise/Marine
Leased Areas	Port Infrastructure - Property

Primary TPO of a Controlled Operating Area

- The Primary TPO is the PCBU that has overall influence, control and responsibility of a specified area that has been assign to it by POAL.
- The Primary TPO of a controlled operating area is responsible for overall traffic management and compliance within the areas, under its control, including compliance with

the TMS and relevant TMP, including the loading standards and the provision and maintenance of safe systems of work, safe plant and equipment, and safe vehicles.

Leased Areas

- Tenants within the red fence must provide POAL a TMP as part of the H&S assurance and must collaborate, co-operate, and communicate with POAL's Property team on traffic risk improvement initiatives that require POAL support to implement or where their traffic management might have an impact on other PCBUs.
- Leased area pavement will be marked with blue paint to demarcate the leased area (where fences and barriers do not exist) as per the Pavement Marking Standards.
- The POAL Traffic Management team, S&W team and the Property Manager must review the tenant's TMP and provide feedback as to its adequacy.

11. Temporary or Complex Traffic Situations

The area specific TMPs sets out the requirements that apply to the standard port operations.

Activity specific TMPs are to be prepared for:

- Construction sites
- Bulk operations with associated high traffic volumes
- Cruise operations
- Special events
- Complex or non-standard handling of cargo in an area not anticipated in the TMPs
- Activities not covered by a standard TMP.

An activity specific TMP must include:

- The roles and responsibilities of workers managing traffic or working in and near vehicles
- Rules for when and how drivers are to signal, give way or stop for pedestrians or other vehicles or plant
- The expected frequency of interaction between vehicles, plant, and pedestrians
- Layout diagrams with controls to protect person from traffic risks, such as barriers, speed bumps, speed limits, walkways, signs, and general arrangements to warn and guide traffic around, or through a work site
- Access route to the site
- How workers will be familiarised with the TMP.

Where a bulk transport operator is managing the flow of trucks, they must provide a TMP, a minimum of 48 hours prior to the ship's arrival for POAL's review, as POAL may need to co-ordinate a staging area and communicate the TMP with other PCBUs whose work may be impacted. The TMP might include:

- Truck queuing zones
- Traffic flow and routes (mandatory)
- Closing an operational roadway on MC during a discharge, to isolate mobile plant and equipment and allow them to cross a marked roadway
- Demarcation of a controlled operating area (mandatory)
- Signage (mandatory)
- DSZ area (mandatory)
- Staging area
- Site contact for traffic management (mandatory)
- Layout diagrams (mandatory).

All activity specific TMPs will determine if a Traffic Controller/Marshall is required to:

- Provide manual traffic control - Stop/Go
- Act as a spotter
- Direct traffic.

- Activity specific TMPs must be reviewed by the POAL primary PCBU business unit who may also seek a review from the POAL HSW advisor.

TMPs prepared by the Operational Team and Traffic Management team need to be communicated with the Business Unit where the TMP applies to minimize the risks associated with conflicting activities. Copies shall be provided to the Manager Traffic Management.

12. Incidents and Emergencies

12.1. Incidents

All incidents must be reported to a POAL via PortSafe **https://portsafe-public.poal.co.nz** or to a POAL representative as soon as possible and before leaving the port.

Traffic related incidents or near-misses at Waitematā seaport must be logged into PortSafe as it is a crucial part of incident investigation, determining how and why they occurred, and take corrective action to prevent a similar incident occurring.

Traffic related events must be tabled at the six-monthly traffic committee meetings.

12.2. Controlling Traffic During an Emergency

Operations are instructed to cease during an emergency event. The incident controller is responsible for allocating staff to manage traffic if required.

Refer to the Emergency Radio Communications document and the POAL Emergency Procedure.

13. Traffic Management Principles

13.1. Safe Work Site Design Principles

This section describes POAL's key principles for safe work site design.

13.1.1. Hierarchy of Controls

The hierarchy of controls for minimising or eliminating the critical traffic risks are:

- **Elimination Controls –** such as no pedestrians in certain areas
- **Substitution Controls** - such as the transport van
- **Isolation Controls** such as road layout/fences/ pedestrian tunnel or barriers
- **Engineering Controls -** such as audible reversing alarms
- **Administrative** controls - to change the way people work such as procedures, road rules, signage, pavement markings, training
- **Personal Protective Equipment (PPE) -** such as hi-viz clothing.

13.1.2. Safety in Design

POAL projects and changes to operational layouts and/or the port infrastructure must follow the POAL Safety in Design processes to ensure roadways and other vehicle or plant operating areas are safe by the design, rather than solely relying on drivers, pedestrians or workers' actions.

13.1.3. Major Works

The following major works are proposed to reduce eliminate or minimise specific key traffic risks:

- Re-design of the Sunderland Street entrance to separate trucks from light vehicle traffic and improve traffic flow of trucks into the FCT truck grid.
- Investigate if feasible to provide an Operational Roadway to the rail office.

13.1.4. Segregation of pedestrians and vehicles, and mobile plant and equipment

- Marked pedestrian walkways protected by fences, barriers or system-controlled gates are the primary controls.
- Pedestrian crossings on the common user roadway should comply with the crossing sight distances (CSD) and approach sight distances (ASD) as defined in the Waka Kotahi Pedestrian Planning and Design Guide.
- Where pedestrian and vehicles cannot be separated, there must be a safe work or **Standard Operating Procedure** (SOP) to govern the administrative method of keeping pedestrians safe.
- The perimeter of the port is fence, alarmed and monitored to prevent unauthorised access.

13.1.5. Planned vehicle routes

- Common user and operational roadways are marked as per the Pavement Marking Standard and defined in area specific TMP. Roadmaking's are based on Waka Kotahi **Traffic control devices manual** (TCD manual) as far as possible.
- Signage must be used to indicate entry into an operational roadway/area to alert port users to the higher risks and therefore a greater level of controls.
- The Waka Kotahi Speed Management Standard is used along with a risk assessment to determine speed limits.
- Temporary vehicle routes must be physically demarcated, sign posted and communicated to PCBUs along with layout diagrams. This includes routes to ship gangways at MC.
- Designated turning areas should be marked to avoid reversing and to separate turning trucks and light vehicles from pedestrians and other work site activities.

13.1.6. Clear vehicle routes

- Mobile plant and equipment, light vehicle and truck parking areas must be clearly marked.
- Equipment must be consolidated and stored in marked areas or temporarily staged in the PCBUs controlled area.
- Vehicles and cargo must not be parked or stored:
    - Over walkways or hatched areas
    - Protruding into common or operational roadways
    - In such a way that impacts other PCBUs or is unstable.
- Containers:
    - must not be stored parallel to the common user roadway without a buffer zone
    - must not be stored in such a way as they can only be accessed from the common user roadway
    - Comply with the Container Stacking at Multi-Cargo Wharves guideline, so as not to create hazards for traffic or pedestrians.
- A risk review is required to set the maximum tiered heights within 2.6 m of a roadway, intersections, wharf edge, walkway, work area or single storey building.
- Rubbish and dunnage created by operations must be cleared from their controlled operational areas as soon as practicable after the completion of operations.

13.1.7. Road surfaces

- Port Infrastructure must agree with MC and FCT Operations a 12-month pavement refurbishment repair plan.
- Operations must provide access to areas for pavement repairs in a timely manner.

13.1.8. Signage

- Clear simple signage using standard icons must be installed. Approval from the POAL Infrastructure Manager is required before adding or changing fixed traffic signage.

Figure 1 - Example Signage

- Standard road signage must be used where applicable, as per the Waka Kotahi **Traffic control devices manual** (TCD manual).
- A Signage Standard will be developed.

13.1.9. Lighting

- Lighting must be adequate for the task and reviewed as part of the traffic management risk assessments.

13.1.10. Concrete Barriers

- All permanent concrete barriers should be embedded into the ground so that they can't accidently be shunted into the path of other traffic or workers.

13.1.11. Proximity to Water

- The periodic risk reviews should include a review of risks associated with vehicle and / or pedestrian incursion into the water.
- There must be a safe work or Standard Operating Procedure (SOP) to govern the administrative method of preventing pedestrians or vehicles from incursion into the water.

13.1.12. Geometric Design

- Container slots must be offset from the Common User Roadway edge as to not restrict visibility to comply with the Austroad Guides to Road Design visibility standards.
- Stacks must comply with the maximum tiered height guidelines in the container stacking standard.
- The turning radius and swept path of a vehicle must be calculated and taken into consideration.

13.2. Safe Work Site Activity Traffic Management Principles

This section describes POAL's key principles for safe work site activity.

13.2.1. Principles by Road Type

	Common User Roadway (CUR)	Operational Roadway
Purpose	General traffic (light vehicles, trucks) transiting across the port or to access an operational area	Operational traffic (trucks, heavy plant, mobile equipment)
Speed Limit km/hr	30	As per signage displayed in area (e.g. 10km/hr, 15km/hr or 20km/hr)
Secured Loads	Loads must always be secured	Trucks can operate with twist locks disengaged or loads unstrapped where the load is stable for the conditions
Mobile Plant and Equipment	**Crossing:** Must cross at marked dedicated crossing points at a right angle Must come to a complete stop before entering the roadway Shall not overhang a load on the common user roadway while waiting to enter **Operating:** Shall not load/unload containers or other cargo, on/to/from the CUR. This includes loading/ unloading trucks and container stacks **Transiting:** May only transit the CUR when no alternative is available Shall keep wholly with in their lane Shall not under any circumstances transit the CUR with a suspended load that overhangs the oncoming lane (except with a POAL approved TMP, which shall include marked pilot vehicles)	Can operate on the roadway but must **Give Way** to other traffic

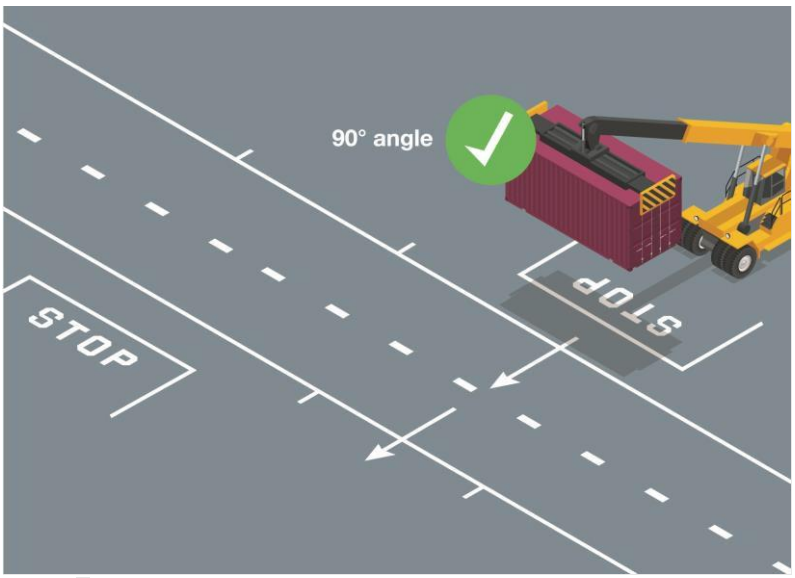

Figure 2 - Must cross at marked dedicated crossing points at a right angle.

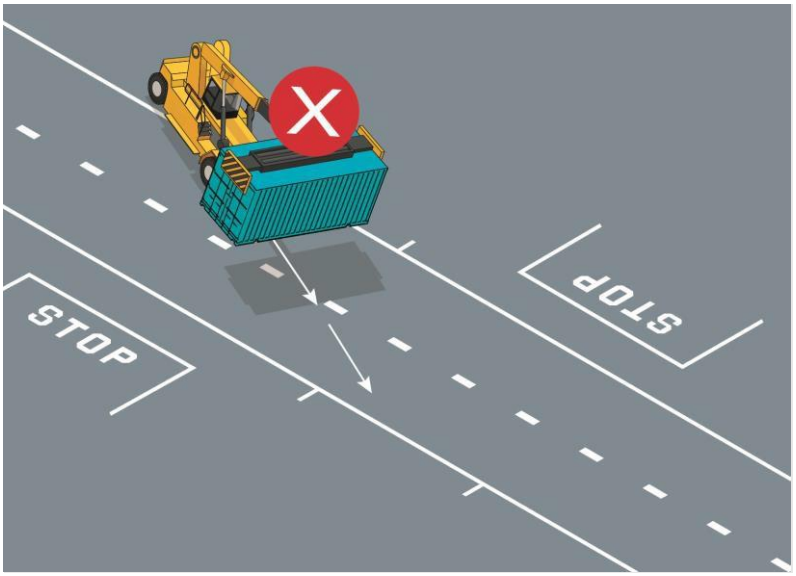

Figure 3 - Shall not cross the common user roadway on an angle or outside the dedicated crossing points.

Figure 4 - Loads must not overhang the roadway.

13.2.2. Speed

- Drive to the conditions, with caution and within the sign posted speed limits.
- Speed limits

13.2.3. Loading and unloading

- Loads must be secured before moving to/from operational areas, and before driving on a common user roadway.
- Permanent DSZs should be demarcated for securing/covering/releasing loads in the operational area.

Figure 5 - DSZ on FCT Truck Grid

- A temporary DSZ to be provided for securing/releasing loads in the operational area where no permanent DSZ exists.

Figure 6 – Example of a permanent DSZ.

Figure 7 - Example of a temporary DSZ setup by PCBU.

13.2.4. Suspended loads

- Loads must be carried in such a way, so the operator has clear visibility
- Loads must never be lifted over the top of personnel, barriers or protrude into work areas.
- Vehicles must not drive under suspended loads.

Figure 8 - A load is not to pass over the top of any vehicle.

Figure 9 - A load must not protrude over barrier or into other work areas.

13.2.5. Key Principles of Safe Activity

- All PUBUs are required to consider how their activities may affect other site operators and are required to work together to ensure traffic hazards are minimised where they cannot be eliminated.
- Any changes to operations that may have an impact on other operators or site traffic flow must first be approved by POAL.
- Vehicles must go directly to the designated area of business and leave by designated routes.
- Queued trucks must not protrude onto or queue on the roadway.
- Operational areas are restricted to those directly involved in the operation.
- Vehicles must stay on the designated roadways unless they have specific authority to enter an operational area.
- Observe a 10-metre exclusion zone around outdoor operating mobile plant and equipment, unless it is stationary, and the operator has given positive communication (eye contact, hand signals or radio communication) to pass or drive forward to be loaded/unloaded.

13.2.6. Gangway Access

- Security van route to access the gangways must be followed as defined in the Vessel Gangway Access on Multi- Cargo Wharves.
- The stevedore must delineate a safe gangway access route from the Operational Roadway to the gangway.

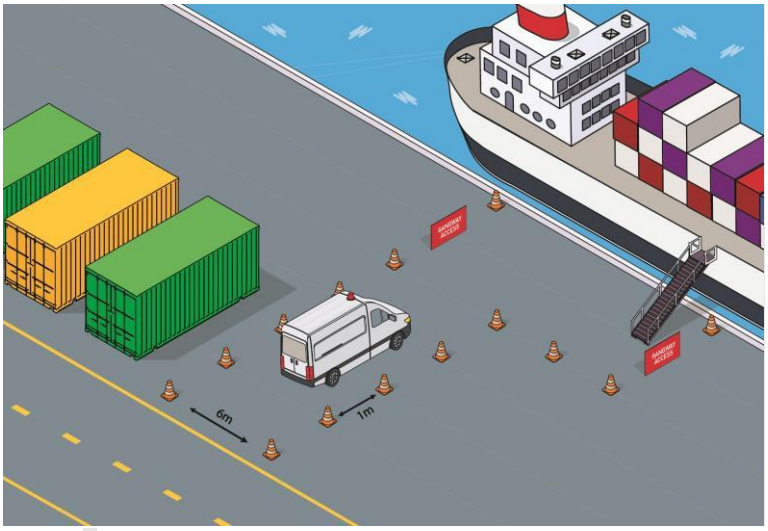

Figure 10 - Delineated Gangway Access

13.2.7. Cruise Traffic Management

- A traffic management plan must be documented by Marine and agreed to by relevant parties (security, agent, TPO and traffic management provider) for each vessel's visit. It should consider:
    - Security
    - Separating pedestrians from vehicles
    - Queuing

13.3. Safe Vehicles Traffic Management Principles

This section describes POAL's key principles for safe vehicles and mobile plant and equipment on the port.

13.3.1. Vehicle Specification

- Safety features must be prioritised in the procurement process for vehicles and mobile plant and equipment, including crush safety, visibility, and transport mode features to limit speed.
- To improve safety and minimise traffic risks, all mobile plant and equipment should have safety systems implemented as per industry best practice, such as:
    - Rollover control systems
    - Tire pressure management system
    - Fire alarm and fire suppression system
    - Exclusion zone lighting
    - Squark audible reversing alarm
    - Speed limiting and monitoring systems
    - Proximity warning device
    - Reversing camera
    - Reflective safety strips
    - Tipping alarms must be functioning in all straddles
    - Emergency stops must be functioning on all straddles, electric fork hoists, cherry pickers and reach stackers.
- Flashing vehicle beacons are required on light vehicles on the port and must be always on. Beacons must be clearly visible and meet the following standards - SAE J595 MAR2014 and J845 JUN2013, except for escorted vehicles who must operate hazard warning lights.

13.3.2. Loading capacity and load limits

- All TPO's and POAL must ensure mobile plant and equipment do not exceed the wharf loading limits. Refer to *Appendix B - Wharf Loading Limits* – General.
- All lifting equipment and trucks must operate within safe working load limits as per the signage on each wharf, and within sheds and buildings (also available on the POAL website).
- The weight of the cargo must not exceed the wharf load limit.
- A Crane Application must be obtained for mobile crane operations to ensure that the outriggers do not overload wharf structures or pavements.
- Mobile plant and equipment shall not exit the perimeter gates of the port including not entering the POAL carparks as:
    - The axle load may damage the road structure and services within the road
    - Straddles, hoists, top loaders and reach stackers are not registered or licence for public roads.

13.3.3. Vehicle maintenance

- All light vehicles operated within the operational areas must be properly registered and have a valid license in accordance with the Land Transport Act 1998.
- All road vehicles or mobile plant and equipment must have a current **warrant of fitness** (WoF) or **Certificate of Fitness** (CoF), except for vehicles and equipment cargo.
- Mobile plant and equipment must be in safe operating condition and have a current Certificate of Inspection (COI) where applicable.
- Repairs and maintenance should not be performed in an operational area unless the mobile plant or vehicle cannot be moved. Where breakdowns must be repaired in an operational area, the temporary repair area must be clearly demarcated and if possible, a block or a system restricted area be put in place.
- All plant and equipment must be locked out prior to access for repair or maintenance to prevent unintended start-up or motion.

- Operators are responsible for reporting any vehicle defects or malfunctions immediately to the appropriate authority.

13.4. Safe People Traffic Management Principles

This section describes POAL's key traffic management principles for keeping people safe.

13.4.1. Pedestrians

- Pedestrian movement, outside of an operational area, is restricted to designated walkways.
- Access to and from operational areas is by vehicle (where no designated pedestrian walkway exists). A transport van is provided for staff and visitors to get around the port.
- Non-operational personnel and visitors must be escorted and authorised to enter a PCBU controlled or operational area.

13.4.2. Competent drivers

- Drivers must hold the correct and valid licence or endorsement for the class of vehicle they are driving/operating.
- Mobile plant and equipment operators must be trained, assessed, and certified as competent for the equipment they are operating.
- POAL and all controlling PCBUs must record driving or mobile plant and equipment operator training certification and competency assessments and make available for inspection upon request.
- To be qualified to drive through the rail or empty yard the driver must have completed the instructor-led radio communications and hand signals course and passed driver competency assessments run in-house by CTOPs.
- The Vehicle Use Agreement must be signed by POAL personnel who are authorised to drive a POAL road vehicle.
- The POAL Vehicle Use Policy must be complied with for safe use and operation of a POAL vehicle.
- POAL has a zero tolerance Drug and Alcohol Policy. Any port user may be subject to post-incident, reasonable cause or random drug and alcohol testing.

13.4.3. Driver/Operator Safety

- Operators of cargo handling equipment are not permitted to use a portable electronic device (except for two-way radio). Drivers of registered road vehicles may use mobile phones, but only as permitted by law and as per the POAL Use of Portable Electronic Device Policy.
- To keep drivers' safe seatbelts must be worn (including in mobile plant and equipment).
- POAL has identified fatigue (in this 24 x 7 operation) increases the risks of incidents in a workplace, particularly when operating mobile plant and equipment or driving vehicles. Refer to the POAL Fatigue Risk Management System document for details of the controls in place.
    - POAL has an expectation that TPOs and other port users have a fatigue management system in place.

13.4.4. Personal protective equipment (PPE).

- High visibility (hi-viz) clothing/vest that complies with the AS/NZ Standard 4602 and safety footwear that complies with AS/NZS 2210 are mandatory (except in PPE free designated areas, such as the transport van and office). Wear other PPE as appropriate for the activity. Refer to the POAL Personal Protective Equipment Policy for more details.

13.4.5. Communication

- The daily FCT pre-shift toolbox must highlight any construction sites or road layout changes.
- The MC GIS map must be current and name the controlling PCBU and the cargo storage area assigned to a vessel.

13.4.6. Passengers and Visitors

- Visitors must be escorted at all times.
- Passengers are not permitted on machinery such as forklifts/loaders unless the machines are fitted with a secondary seat or the passenger is harnessed with a fixed lanyard.
- No unauthorised passengers (those without an access card or do not qualify as a visitor) including friends, family members, children or animals are allowed inside the **Customs-Controlled Area** (CCA).
- Trainee drivers or co-workers as passengers are the exception and must be registered as a visitor (if they don't hold an access card). They must always remain with the inducted driver.

13.4.7. Straddles

This section describes traffic management controls relating to POAL's straddles on the container terminal.

- Straddles are separated from pedestrians and vehicles via a perimeter fence and system-controlled gates.
- Truck drivers must stay in the driver safety zone during the loading and unloading of containers on the FCT truck grid.

13.4.8. Radio Communications

- POAL operations at FCT run a digital VHF radio system to communicate. Refer to the POAL Radio Control Guidelines for more details. The map below defines the radio channel areas operated by POAL.
- Third-party stevedores use a radio system to communicate internally of their organisation.
- Investigation is required for a common radio system to be used at MC to enable multiple PCBUs to be coordinated, and to be issued to maintenance contractors when accessing MC.

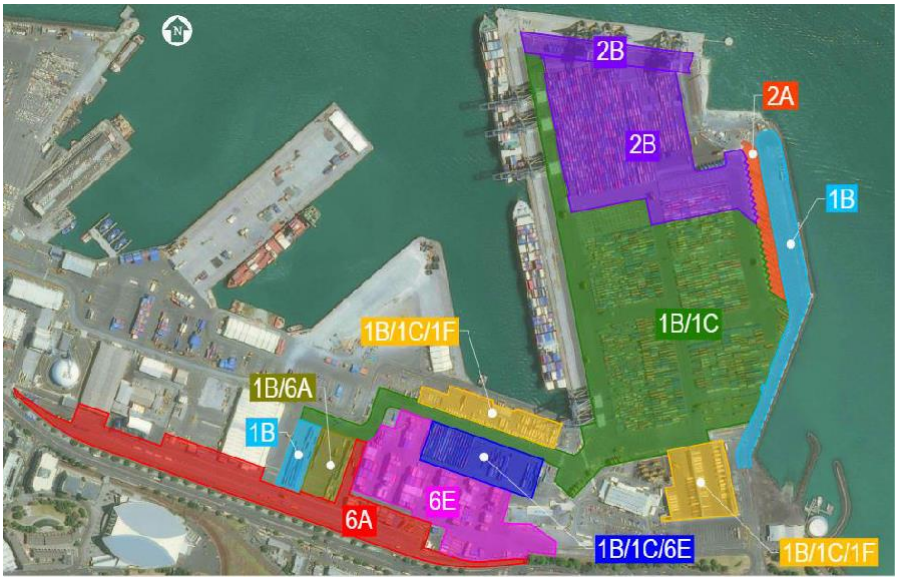

Figure 1 - Radio Channel Area

Appendix A - Waitematā Seaport Traffic Site Maps

The Waitematā seaport has been sectioned into the following site maps for traffic management risk assessments and improvement plans. Refer to the Traffic Management Improvement Plan for details.

MAP	NAME	DESCRIPTION	TRAFFIC TYPES
1	MC West	Bledisloe Marsden Captain Cook Car handling facility Common user roadway MC truck grid and office Tinley gates	Imported vehicles Stevedore transport Trucks (bulk, break bulk, container, car transporter) Mobile plant and equipment (Forklifts/hoists/reach stackers) Pedestrians walking to/from MC office and to engineering Truck drivers on foot securing/releasing loads POAL light vehicles Bunking tankers Visitors to vessels under escort Security van Pedestrians walking to MC or Engineering from Tinley St Straddles moving containers to rail and MC exchange
2	MC East	Freyberg Jellicoe Common user roadway Sheds MC and rail exchange MC fumigation and reefer areas	
3	Engineering and rail through to MT yard	Engineering buildings and surrounds Rail grid MT yard	Straddles transiting to engineering Rail and MT yard forklifts/ reach stackers/ empty stackers Security van Staff transiting to rail office by van Container Co. contractors Tankers delivering fuel Engineering light vehicles transiting from engineering to calibration / A-Strad refuelling area Kiwi rail staff on foot and stevedores securing and releasing loads on foot

MAP	NAME	DESCRIPTION	TRAFFIC TYPES
4	Fergusson Container Terminal	Fergusson Service roadway Container terminal Truck grid to AB gates	Straddles POAL and contractors' light vehicles Container trucks Truck drivers and teleoperators on foot in truck grid
5	Sunderland Street (outside red fence)	Fergusson truck park Head office car park Sunderland street entrance	Container trucks in truck park and entering/exiting AB gates Staff and visitor vehicles, motorcycles, and bicycles Light vehicles accessing MT yard (incl. Container Co. workers) Container trucks entering/exiting MT yard

Figure 2 - Outline of the five site maps at the Waitematā Seaport.

Appendix B - Wharf Loading Limits – General

Structure	UDL (t/m^2)	Single Axle anywhere on wharf (tonnes)
Princes Wharf	0.85	20.3
Queens Wharf	1.53	18.3
Captain Cook Wharf	1.0	18.3
Queens to Marsden Breastwork	2.2	20.3
Kings Low Landing	0.25	0
Bledisloe B3 Wharf	5.6	76
Bledisloe B2 Wharf	3.5	76
Bledisloe B1 Wharf	3.5	40
B1 Ro-Ro Ramp East (concrete structure)	3.5	76
Jellicoe Wharf	4.5	87
Freyberg Wharf	3.0	76
Fergusson Wharf FX, FY, FZ	5.6	51
Fergusson FN and FN/FZ Connection	5.5	100
Tug Berth (main deck)	2	10

Appendix C - Wharf Loading Limits – Mobile Cranes

Structure	UDL (t/m^2)	Outrigger Load centrally on wharf beams or girders* (tonnes)	Outrigger Load centrally on wharf piles* (tonnes)	Edge Distance (Crane outrigger not to be placed in this zone)	Comments
Princes Wharf	0.85	15	30	840mm quay side	
Queens Wharf	1.53		50	840mm quay side	Loading only applicable for 30m apron around wharf. Central roadway not rated.
Captain Cook Wharf	1.0		50	840mm quay side	
Queens to Marsden Breastwork	2.2			840mm quay side	
Kings Low Landing	0.25	0	0		
Bledisloe B3 Wharf	5.6	100	150	1500mm quay side 1500mm land side	
Bledisloe B2 Wharf	3.5	95	95	2400mm quay side 2300mm land side	
Bledisloe B1 Wharf	3.5			910mm quay side Closed to fork hoist traffic north of gridline 46 (6m from northern edge of wharf)	
B1 Ro-Ro Ramp East (concrete structure)	3.5				
Jellicoe Wharf	4.5		90	1900mm quay side 1500mm northern end	
Freyberg Wharf	3.0		80 (only on seaward side, 18.2m from edge of wharf)	1900mm quay side 1900mm land side	

Structure	UDL (t/m^2)	Outrigger Load centrally on wharf beams or girders* (tonnes)	Outrigger Load centrally on wharf piles* (tonnes)	Edge Distance (Crane outrigger not to be placed in this zone)	Comments
Fergusson Wharf FX, FY, FZ	5.6	100	150	Stage one and two: 1200mm quay side 1500mm land side Stage three: 1500mm quay side 1600mm land side 1200mm northern end	
Fergusson FN and FN/FZ Connection	5.5	75	150		
Tug Berth (main deck)	2	50	60		No UDL or outrigger loads permitted on the access slab.0.5t/m^2 UDL allowable on wharf fingers

Appendix D - Traffic Risk Review Checklist

The following hierarchy of controls must be considered for traffic risk review:

- Segregation
- Separation
- Engineering
- Administrative

Driver Safety Zone (DSZ) consider:	
Permanently marked areas	DSZ signage
Demarcated zones	DSZ training
Safe Site consider:	
Is one-way traffic flow possible?	Are there any infrastructure plans for the area?
Are the right-of-way rules obvious and observed? If not, why not?	How are queues managed?
Can we add mirrors on blind spots?	Is signage appropriate?
Consider a redesign of the work area	Are road markings clear? Exist? Adequate?
If the location is near water – review the risks of vehicle or pedestrian incursion into the water?	
Safe Activity	
Is speed an issue?	
Do trucks, mobile plant and equipment need to reverse due to layout?	
Can we minimise crossing roadways and traffic paths?	
Can we restrict access?	
How does the activity affect others?	
Do we need a buffer zone? Is the buffer zone adequate?	
Do safe working loads apply?	
Can we move the loading zone away from the common user roadway?	
High kerbs	
Crash barriers, embedded barriers	
Exclusion zones	
Access and Egress	
Are all entrance and exit points clearly sign posted?	
Do gates or barriers at entrance and exit areas have reflective signage for visibility at night?	
Are speed limit signs reflective to allow visibility during night-time operations?	
Pedestrian walkways/crossings	
Do pedestrians enter vehicle travel paths from external/ internal footpaths, buildings, blind corners?	
Consider a designated crossing point.	
Do pedestrian's cross vehicle travel paths without the aid of clearly marked pedestrian crossings and walkways?	
Are shared vehicle and pedestrian travel paths/zones un-signed?	
Are the walkways/crossings well marked?	

Consider a warning system – on-road flashing lights/vehicle approaching sign or flashing light.
Does the location need control measures such as steel hoop bollards to stop pedestrians from walking out into traffic areas without stopping and checking first?
Could a pause gate be installed as a control measure to stop pedestrians accidently stepping out into traffic areas from areas with restricted visibility
Environmental
Is there adequate lighting in areas where pedestrians and traffic interact?
Is there adequate visibility in vehicle operating areas?
Is there adequate lighting for pedestrian movement?
Parking
Are parking areas clearly defined and segregated for light vehicles and mobile plant?
Are controls in place at parking areas to prevent light vehicles and mobile plant and equipment rolling away in the event of brake failure? e.g., tyre stops
Are all parking areas on level ground and surfaces free from slip and trip hazards?
Are there designated parking areas that separate light vehicles and mobile plant and equipment around offices, and maintenance areas?
Blind spots - Do operators of mobile plant and equipment and vehicles experience blind spots when…?
Driving forward
Reversing
Insufficient light (night/early morning)
Excessive light (sunrise/sunset)
Warning Systems: What systems alert vehicle operators and pedestrians to the risk?
Is vehicle traffic speed uncontrolled (controls include restriction, signage)?
Are vehicle audible warning devices absent or inoperable?
Are vehicle visual warnings devices absent or inoperable?
Do the port users know the rules?
How best to communicate/train user?
What behaviour do we need to change?
Are there any Technological Safety Controls to consider? Consider electronic driver feedback signs to reinforce and remind drivers of the reduced speed limits.

CONSULTATION		
Name	Role	Date
Douglas Blankson	BECA	August 2021
Brendan McLean Vanguard Group	Traffic and Pedestrian Solutions - Engineering workshop and stores	June 2021